



**Department of
Environmental
Conservation**

Division of Environmental Remediation

Semi-Annual Remedial System Optimization Report – 2020

January 2020 – June 2020

Vestal Water Supply Site

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

March 2021

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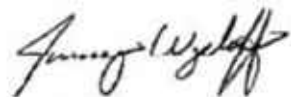
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1 Introduction

The New York State Department of Environmental Conservation (NYSDEC) issued a Work Assignment (# D004443-4) to Arcadis CE, Inc. (Arcadis) for 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.

This Semiannual Report has been prepared to summarize the January 2020 through June 2020 field activities. The first 2020 semiannual sampling event PDB deployment took place on March 16, 2020 and PDB samples were collected on April 6, 2020.

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 and post treatment (Well 1-3) sampling of the Town of Vestal water supply wells 1-2A and 1-3 and semiannual groundwater sampling.

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 March 2019 sampling event (Table 1-1) was approved by the NYSDEC on January 26, 2017 as part of 2016 RSO recommendations and has been applicable through March 2017 to March 2019. The 2017 revisions included three additional monitoring wells, 4009-7, 4009-8, and 4009-26. These wells were added to the sample list to evaluate whether the ERT source area is the cause of elevated benzene concentrations noted in the data for the past several years. The most recent sample list revision as detailed in Section 1, was approved on March 26, 2019 and was implemented for the first time on September 26, 2019. Monitoring wells 4009-10, 4009-11A, 4009-13A, and 4009-30A, all screened in the shallow groundwater zone, were removed from the sampling list.

Groundwater samples were collected using passive diffusion bags (PDBs) in accordance with the RSO Work Plan. All samples were submitted for analysis of TCL VOCs by USEPA Method 8260 to Eurofins- TestAmerica- Buffalo following chain-of-custody sample handling procedures.

2.1.1 Water Level Data

On March 16, 2020 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 2020 Groundwater Sampling

Groundwater samples were collected using PDBs that were deployed on March 16, 2020 in the wells identified on Table 1-1.

2.1.2.1 April 2020 Groundwater Sampling Results

Groundwater results from the April 2020 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.

Shallow Groundwater Zone Monitoring Wells

As mentioned in Section 2.1, four shallow monitoring wells were removed from the sampling list. Three shallow groundwater zone monitoring wells were sampled in April 2020. Cis-1,2-DCE was the only VOC detected at concentrations greater than the respective Class GA Standard in two of the three groundwater samples. 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:

- **cis-1,2-DCE** was detected at concentrations greater than its Class GA Standard (5 µg/L) in the groundwater sampled from 4009-7 (14 µg/L) and 4009-9 (5.60 µg/L).
- No VOCs were detected in the shallow groundwater zone monitoring well 4009-16A.

As shown on 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 eight sampling events. VOC concentrations in groundwater samples from wells 4009-7 and 4009-9 have generally been consistent the past eight sampling events, showing slight fluctuations (Figure 2-2).

Intermediate Groundwater Zone Monitoring Wells

Six intermediate groundwater zone monitoring wells were sampled in April 2020. 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**: 54 µg/L (4009-27S) to 1,500 µg/L (4009-8),
- **1,1-DCE**: 5.50 µg/L (4009-27S) to 100 µg/L (4009-29S),
- **Cis-1,2-DCE**: 19 µg/L (4009-27S) to 510 µg/L (4009-8), and
- **TCE**: 17 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 57 µg/L (4009-8) to 81 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 14 µg/L (4009-26) to 88 µg/L (4009-29S).

As shown on Figure 2-3, the majority of the detected analytes in samples from monitoring well 4009-27S remaining generally stable, while concentrations in 4009-29I are also generally consistent with the range of results reported in the last eight events, with some fluctuations. VOC groundwater concentrations in the wells immediately downgradient monitoring of the source area (4009-8, 4009-26, and 4009-29S) continue to fluctuate; however, recent monitoring results are showing an increasing trend 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 (Figure 2-3).

Deep Groundwater Zone Monitoring Wells

Fourteen monitoring wells screened in the deep groundwater zone were sampled in April and one well was sampled (4009-22) in May 2020. All fifteen deep wells monitor the area north of Route 17. Ten 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 ten monitoring wells, benzene was the only VOC exceeding a standard in five 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 1.10 µg/L (4009-14) to 42 µg/L (4009-16).
- **1,1,1-TCA** detected at a concentration greater than the Class GA Standard (5 µg/L) in four deep wells with groundwater concentrations ranging from 17 µg/L (4009-29D) to 280 µg/L (Dup-1 collected from 4009-12).
- **1,1-DCA, 1,1-DCE, and cis-1,2-DCE** were detected at concentrations greater than the Class GA Standard (5 µg/L) in three deep wells with groundwater concentrations ranging from:
 - 1,1-DCA: 29 µg/L (Well 1-1) to 49 µg/L (4009-11)
 - 1,1-DCE: 8.4 µg/L (4009-12-Dup 1) to 20 µg/L (Well 1-1)
 - Cis-1,2-DCE: 22 µg/L (4009-12) to 87 µg/L (Well 1-1).
- **TCE** was detected at a concentration greater than the Class GA Standard (5 µg/L) in four deep wells with groundwater concentrations ranging from 5.30 µg/L (4009-29D) to 64 µg/L (Well 1-1).
- **VC** was detected at a concentration greater than the Class GA Standard (2 µg/L) in three deep wells with groundwater concentrations ranging from 11 µg/L (4009-29D) to 89 µg/L (4009-12 Dup-1).
- Groundwater samples from six of the fifteen deep groundwater zone monitoring wells were either non-detect or had low-level detections less than their respective Class GA Standards including: 4009-13, 4009-18, 4009-19, 4009-22, 4009-27D, and 4009-28.

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 eight events. The majority of the detected analytes in groundwater samples from monitoring wells 4009-11, 4009-12, 4009-29D, and Well 1-1 are generally consistent with the range of results reported in the last eight events showing some fluctuations.

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. However, intermediate zone monitoring wells immediately downgradient of the source area (wells 4009-8, 4009-26, and 4009-29S) have shown an overall increasing trend in VOC groundwater concentrations over the last two years (Figures 2-4 through 2-6 respectively). During the April 2020 sampling event, benzene was detected in the groundwater sample collected at 4009-16 at a concentration greater than previous results, total VOC concentrations were also slightly higher than the most recent data at monitoring wells 4009-11, 4009-12, and 4009-26 and a decrease in total VOCs was noted in 4009-29D. Total VOCs detected in the remaining groundwater samples collected during the April 2020 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 2020 at concentrations that exceeded the Class GA Standard of 1.0 µg/L. Exceedances were observed in groundwater samples collected from monitoring wells 4009-14 (1.10 µg/L), 4009-15 (9.00 µg/L), 4009-16 (42 µg/L), 4009-21 (7.70 µg/L), and 4009-30 (1.60 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 four events, benzene concentrations have been either non-detect or less than the Class GA Standard in the groundwater samples collected from 4009-11 and 4009-12. During the April 2020 sampling event, the highest benzene concentration was noted in 4009-16 (42 µg/L). 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 2020 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, 2019, and 2020 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, and 4009-19. 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 (42 µg/L), 4009-30 (1.60 µg/L), and 4009-21 (7.70 µg/L).

2.1.3 Town of Vestal Municipal Well Sampling

Monthly analytical data are provided by the Town of Vestal Water Superintendent for Well 1-2A and 1-3. Samples were collected on January 28, February 25, March 23, April 28, May 29, and June 26, 2020. Pre-treatment groundwater samples were also collected by Arcadis from the Town of Vestal water supply wells 1-2A and 1-3 and post-treatment samples from Well 1-3 on January 13, February 6, March 16, April 6, May 15, and June 8, 2020. 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 has continued to collect a post-treatment sample from Well 1-3 since May 2018. With the exception of a low estimated concentration of chloromethane from Well 1-2A in February 2020, VOCs were not detected in the monthly samples for this reporting period (January through June 2020) collected by Arcadis from Well 1-2A, Well 1-3, and Well-1-3 post-treatment. 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, 1-3) and post-treatment of Well 1-3. A summary of the monthly analytical data is provided in Table 2-3. Laboratory analytical reporting forms are provided in Appendix A.

3 Project Status

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 COC detections in these samples during this time frame. The data will be presented in the first 2021 Semi-annual report.

The Work Assignment (WA) D009804-10 to continue Site Management activities was approved on November 18, 2020. In January 2021, Arcadis collected pre-treatment groundwater samples at the Town of Vestal water supply wells 1-2A and 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. The first 2021 semi-annual groundwater event is scheduled for April 2021. The revised 2019 sample list will remain in place during this next event. This event will include the annual sampling for perfluorinated-alkyl substances (PFAS) and 1,4-dioxane in addition to the TCL VOCs using low flow methods following the latest NYSDEC PFAS protocols. Wells 1-2 and 1-3 will also be analyzed for PFAS and 1,4-dioxane, but the analysis method will remain the same.

Tables

Table 1-1
Summary of the Groundwater Monitoring Locations
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)

Well I.D.	2020 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	x

Table 2-1
Summary of the Groundwater Elevation Data
Semi-Annual Remedial System Optimization Report - January - June 2020
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 the Groundwater Elevation Data
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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		
			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
4009-8	824.52		18.91	NP	805.61	21.80	NP	802.72	15.77	NP	808.75
4009-9	825.05		19.41	NP	805.64	22.90	NP	802.15	16.70	NP	808.35
4009-10	831.31		25.96	NP	805.35	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
4009-11A	830.80		14.43	NP	816.37	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
4009-13	816.28		11.58	NP	804.70	14.43	NP	801.85	8.73	NP	807.55
4009-13A	816.17		11.08	NP	805.09	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
4009-15	826.54		22.24	NP	804.30	25.01	NP	801.53	19.19	NP	807.35
4009-16	826.72		22.29	NP	804.43	25.20	NP	801.52	19.47	NP	807.25
4009-16A	826.84		22.05	NP	804.79	25.13	NP	801.71	19.57	NP	807.27
4009-18	834.78		30.21	NP	804.57	33.42	NP	801.36	27.78	NP	807.00
4009-19	824.94		20.42	NP	804.52	23.83	NP	801.11	17.85	NP	807.09
4009-21	825.02	**	20.64	NP	804.38	25.03	NP	799.99	18.19	NP	806.83
4009-22	817.40		8.70	NP	808.70	10.39	NP	807.01	8.81	NP	808.59
4009-26	824.31		18.64	NP	805.67	21.52	NP	802.79	15.43	NP	808.88
4009-27S	826.19		21.22	NP	804.97	24.29	NP	801.90	18.14	NP	808.05
4009-27I	826.03		21.14	NP	804.89	24.12	NP	801.91	18.11	NP	807.92
4009-27D	825.87		20.98	NP	804.89	23.95	NP	801.92	17.98	NP	807.89
4009-28	821.59		17.16	NP	804.43	20.12	NP	801.47	14.19	NP	807.40
4009-29S	825.77		20.97	NP	804.80	23.99	NP	801.78	17.94	NP	807.83
4009-29I	825.68		21.10	NP	804.58	24.15	NP	801.53	18.23	NP	807.45
4009-29D	825.67		21.08	NP	804.59	24.14	NP	801.53	18.11	NP	807.56
4009-30	827.50	**	23.05	NP	804.45	26.21	NP	801.29	20.51	NP	806.99
4009-30A	826.69	**	22.12	NP	804.57	NM	NM	NM	NM	NM	NM

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 wi

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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	4009-7 3/30/2018 Shallow	4009-7 6/14/2018 Shallow	4009-7 9/27/2018 Shallow	4009-7 12/19/2018 Shallow	4009-7 3/25/2019 Shallow	4009-7 10/10/2019 Shallow	4009-7 4/6/2020 Shallow	4009-8 3/30/2018 Intermediate	4009-8 6/14/2018 Intermediate	4009-8 9/27/2018 Intermediate	4009-8 12/19/2018 Intermediate	4009-8 3/25/2019 Intermediate	4009-8 10/10/2019 Intermediate
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	1988	1414	5500	3236	5414	5262

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA	4009-8	4009-9	4009-9	4009-9	4009-9	4009-9	4009-9	4009-9	4009-9	4009-10	4009-10	4009-10	4009-10	4009-10	4009-11
	Standard /	4/6/2020	3/30/2018	6/14/2018	9/27/2018	12/19/2018	3/25/2019	10/10/2019	4/6/2020	3/30/2018	6/14/2018	9/27/2018	12/19/2018	3/25/2019	3/30/2018	
	Guidance Value ug/L	Intermediate ug/L	Shallow ug/L	Shallow ug/L	Shallow ug/L	Shallow ug/L	Shallow ug/L	Shallow ug/L	Shallow ug/L	Shallow ug/L	Shallow ug/L	Shallow ug/L	Shallow ug/L	Shallow ug/L	Deep ug/L	
1,1,1-Trichloroethane	5	1500	1.0 U	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	88
1,1,2,2-Tetrachloroethane	5	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	24
1,1-Dichloroethene	5	95	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.2
1,2,3-Trimethylbenzene		50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	1.0 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	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*	500 U	10 U	5.0 U	3.6 J	5.2 J	10 U	10 U	3.7 J	10 U	5.0 U	3.1 J	4.8 J	3.5 J	10 U	10 U
Benzene	1	50 U	1.0 U	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	1.0 U	1.0 U
Bromodichloromethane	50*	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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		50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3
Chloroform	7	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.43 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloromethane		50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	510	2.6	8.2	13	1.6	5.6	21	5.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	23
cis-1,3-Dichloropropene	0.4**	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	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	2.5 U
2-Butanone (MEK)	50	500 U	10 U	5.0 U	10 U	10 U	10 U	10 U	1.0 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (MIBK)		250 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	5.0 U
Methyl Cyclohexane		50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	0.32 J	0.73 J	1.0 U	0.5 J	1.0 U	0.68 J	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.6
Trichlorofluoromethane	5	50 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	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	17
Xylenes, Total		100 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	2.0 U
Total VOCs		2552.0	2.60	8.77	17.33	6.80	6.09	21.0	10.41	0.00	0.31	3.61	5.41	4.10	162	
Total VOCs (w/o Acteone or Methlyene Chloride)		2552.0	2.60	8.77	13.73	1.60	6.09	21.0	6.71	0.00	0.31	0.51	0.61	0.60	162	

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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	4009-11 6/14/2018 Deep	4009-11 9/27/2018 Deep	4009-11 12/19/2018 Deep	4009-11 3/25/2019 Deep	4009-11 10/10/2019 Deep	4009-11 4/6/2020 Deep	4009-11A 3/30/2018 Shallow	4009-11A 6/14/2018 Shallow	4009-11A 9/27/2018 Shallow	4009-11A 12/19/2018 Shallow	4009-11A 3/25/2019 Shallow	4009-12 3/30/2018 Deep	4009-12 6/14/2018 Deep
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	68	1.0 U	170	71	51	160	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	45	1.0 U
1,1,2,2-Tetrachloroethane	5	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		1.2	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	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	21	7.0	49	30	15	49	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13	6.2
1,1-Dichloroethene	5	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	5.0	0.54 J
1,2,3-Trimethylbenzene		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	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	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	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	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	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	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	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	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	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	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	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*	5.0 U	10 U	10 U	8.4 J	10 U	6.3 J	10 U	5.0 U	5.0 J	5.9 J	3.4 J	10 U	5.0 U
Benzene	1	1.0 U	8.9	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	2.5	1.7
Bromodichloromethane	50*	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	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	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	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	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	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	1.2	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	0.88 J	1.0 U
Chloroform	7	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	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	20	1.3	48	19	16	52	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	15	2.0
cis-1,3-Dichloropropene	0.4**	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	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	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	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	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	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		5.0 U	2.5 U	2.5 U	5.0 U	2.5 U	5.0 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U
2-Butanone (MEK)	50	5.0 U	10 U	10 U	20 U'	10 U	20 U	10 U'	5.0 U	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	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	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	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	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	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	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	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	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	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	1.1	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	14	1.6
Trichlorofluoromethane	5	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	19	1.7	38	18	11	40	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	38	2.6
Xylenes, Total		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		138	19.4	330	155	101	338.9	0.00	0.00	5.00	5.90	3.40	133	14.6
Total VOCs (w/o Acteone or Methylene Chloride)		138	19.4	330	147	101	332.6	0.00	0.00	0.00	0.00	0.00	133	14.6

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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	4009-12 9/27/2018 Deep	4009-12 12/19/2018 Deep	4009-12 3/25/2019 Deep	4009-12 10/10/2019 Deep	DUP-1 10/10/2019 Deep	4009-12 4/6/2020 Deep	DUP-1 4/6/2020 Deep	4009-13 3/30/2018 Deep	4009-13 6/14/2018 Deep	4009-13 9/27/2018 Deep	4009-13 12/19/2018 Deep	4009-13 3/25/2019 Deep	4009-13 10/10/2019 Deep
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	95	80	280	1.0 U	1.0 U	230	280 D	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	4.0 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	0.76 J	4.8	1.0 U	1.0 U	4.0 U	3.5	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	0.3 J	1.0 U	1.0 U	4.0 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	11	12	50	0.64 J	0.73 J	46	49	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	6.9	3.9	15	1.0 U	1.0 U	9.6	8.4	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	4.0 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	4.0 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	4.0 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	4.0 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	4.0 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	4.0 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	4.0 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	4.0 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	4.0 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	4.0 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	4.0 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	20 U	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	50*	4.4 J	5.2 J	3.0 J	3.6 J	10 U	40 U	10 U	10 U	5.0 U	3.0 J	5.2 J	10 U	3.9 J
Benzene	1	0.73 J	1.0 U	0.4 J	1.0 U	1.0 U	4.0 U	0.49 J	1.0 U	1.0 U	0.44 J	0.76 J	0.57 J	0.47 J
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 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	4.0 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	4.0 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	1.0 U	4.0 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	4.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Chloroethane	5	0.68 J	0.32 J	5.0	1.0 U	1.0 U	3.8 J	6.6	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	4.0 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	4.0 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	25	14	55	1.0 U	1.0 U	22	23	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	4.0 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	4.0 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	4.0 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	4.0 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	4.0 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	4.0 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	2.5 U	10 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	10 U	10 U'	10 U	10 UT	40 U	10 U	10 U'	5.0 U	10 U	10 U	10 U'	10 UT
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	20 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	4.0 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	4.0 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	4.0 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	4.0 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	1.0 U	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UT
Toluene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.0 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	4.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Trichloroethene	5	25	13	51	1.0 U	1.0 U	23	23	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	4.0 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	26	34	81	1.0 U	1.0 U	80	89	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	8.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Total VOCs		195	163	546	4.24	0.73	414.4	483.0	0.00	0.00	3.44	5.96	0.57	4.37
Total VOCs (w/o Acteone or Methylene Chloride)		190	158	543	0.64	0.73	414.4	483.0	0.00	0.00	0.44	0.76	0.57	0.47

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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	4009-13 4/6/2020 Deep	4009-13A 3/30/2018 Shallow	4009-13A 6/14/2018 Shallow	4009-13A 9/27/2018 Shallow	4009-13A 12/19/2018 Shallow	4009-13A 3/25/2019 Shallow	4009-14 3/30/2018 Deep	4009-14 6/14/2018 Deep	4009-14 9/27/2018 Deep	4009-14 12/19/2018 Deep	4009-14 3/25/2019 Deep	4009-14 10/10/2019 Deep	4009-14 4/6/2020 Deep	4009-15 3/30/2018 Deep
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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*	10 U	10 U	5.0 U	3.6 J	4.2 J	10 U	10 U	5.0 U	3.8 J	4.8 J	10 U	10 U	10 U	4.4 J
Benzene	1	0.42 J	1.0 U	0.90 J	1.0 U	1.0 U	1.0 U	13	11	1.6	1.5	1.7	1.3	1.1	9.3
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	1.0 U	1.0 U	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	5.0 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-Butanone (MEK)	50	10 U	10 U'	5.0 U	10 U	10 U	10 U'	10 U	5.0 U	10 U	10 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 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 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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		0.42	0.00	0.90	3.60	4.20	0.00	13.0	11.0	5.40	6.30	1.70	1.30	1.1	13.7
Total VOCs (w/o Acteone or Methlyene Chloride)		0.42	0.00	0.90	0.00	0.00	0.00	13.0	11.0	1.60	1.50	1.70	1.30	1.1	9.30

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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	4009-15 6/14/2018 Deep	4009-15 9/27/2018 Deep	4009-15 12/19/2018 Deep	4009-15 3/25/2019 Deep	4009-15 10/10/2019 Deep	4009-15 4/6/2020 Deep	4009-16 3/30/2018*** Deep	4009-16 6/14/2018 Deep	4009-16 9/27/2018 Deep	4009-16 12/19/2018 Deep	4009-16 3/25/2019 Deep	4009-16 10/10/2019 Deep	4009-16 4/6/2020 Deep	4009-16A 3/30/2018 Shallow
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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*	5.0 U	7.3 J	5.6 J	6.9 J	4.9 J	8.3 J	10 U	5.0 U	3.1 J	10 U	3.0 J	10 U	4.7 J	10 U
Benzene	1	9.0	7.3	8.7	8.8	9.2	9.0	1.1	5.7	1.5	7.3	2.1	4.2	42	1.0 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	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	1.0 U	1.0 U	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 UT	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
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 UT	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
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		5.0 U	2.5 U	2.5 U	2.5 U	2.5 UT	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 UT	2.5 U	2.5 U
2-Butanone (MEK)	50	5.0 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	10 U
4-Methyl-2-pentanone (MIBK)		5.0 U'	5.0 U	5.0 U	5.0 U	5.0 UT	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 UT	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 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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		9.00	14.6	14.3	15.7	14.1	17.3	1.10	5.70	4.60	7.30	5.10	4.20	46.70	0.00
Total VOCs (w/o Acteone or Methlyene Chloride)		9.00	7.30	8.70	8.80	9.20	9	1.10	5.70	1.50	7.30	2.10	4.20	42.00	0.00

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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	4009-16A 6/14/2018 Shallow	4009-16A 9/27/2018 Shallow	4009-16A 12/19/2018 Shallow	4009-16A 3/25/2019 Shallow	4009-16A 10/10/2019 Shallow	4009-16A 4/6/2020 Shallow	4009-18 3/30/2018 Deep	4009-18 6/14/2018 Deep	4009-18 9/27/2018 Deep	4009-18 12/19/2018 Deep	4009-18 3/25/2019 Deep	4009-18 10/10/2019 Deep	4009-18 4/6/2020 Deep	4009-19 3/30/2018 Deep
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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	0.88 J	0.57 J	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	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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*	5.0 U	3.3 J	10 U	3.0 J	8.3 J	10 U	10 U	5.0 U	5.0 U	10 U	8.5 U	3.3 J	10.0 U	10 U
Benzene	1	0.56 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	2.7 U	1.0 U	1.0 U	1.0 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	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	1.0 U	1.0 U	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	0.44 J	0.4 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
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		5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5.0 U	1.0 U	2.5 U	2.5 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 UT	10 U	5.0 U	10 U	10 U	10 U'	10 UT	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 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	2.5 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 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	1.0 UT	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		0.56	3.30	0.44	3.36	8.30	0.00	0.88	0.57	0.00	0.00	0.00	3.30	0.00	0.00
Total VOCs (w/o Acteone or Methylene Chloride)		0.56	0.00	0.44	0.36	0.00	0.00	0.88	0.57	0.00	0.00	0.00	0.00	0.00	0.00

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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	4009-19 6/14/2018 Deep	4009-19 9/27/2018 Deep	4009-19 12/19/2018 Deep	4009-19 3/25/2019 Deep	4009-19 10/10/2019 Deep	4009-19 4/6/2020 Deep	4009-21 3/30/2018 Deep	4009-21 6/14/2018 Deep	4009-21 9/27/2018 Deep	4009-21 12/19/2018 Deep	4009-21 3/25/2019 Deep	4009-21 10/10/2019 Deep	4009-21 4/6/2020 Deep
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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
1,1,2,2-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
1,1,2-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
1,1,2-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
1,1-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
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
1,2,3-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
1,2,4-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
1,2,4-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
1,2-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
1,2-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
1,2-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
1,2-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
1,2-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
1,3,5-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
1,3-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
1,4-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-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
Acetone	50*	5.0 U	10 U	10 U	10 U	10 U	4.4 J	10 U	10 U	5.0 U'	10 U	10 U	10 U	5.3 J
Benzene	1	1.0 U	1.5	0.50 J	1.0 U	1.0 U	1.0 U	17	11	5.3	11	7.3	3.7	7.7
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
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
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
Carbon disulfide		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	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
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
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
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
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
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
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
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
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
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
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
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
Methyl Acetate		5.0 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
2-Butanone (MEK)	50	5.0 U	10 U	10 U	10 U	10 U'	10 UT	10 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 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
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
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
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
Tetrachloroethene	5	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	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
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
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
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
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
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
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
Total VOCs		0.26	1.50	0.50	0.00	4.40	0.00	17.0	11.0	5.30	11.0	7.30	9.00	7.70
Total VOCs (w/o Acteone or Methylene Chloride)		0.26	1.50	0.50	0.00	0.00	0.00	17.0	11.0	5.30	11.0	7.30	3.70	7.70

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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	4009-22 3/30/2018 Deep	4009-22 6/14/2018 Deep	4009-22 9/27/2018 Deep	4009-22 12/19/2018 Deep	4009-22 3/25/2019 Deep	4009-22 10/10/2019 Deep	4009-22 5/15/2020 Deep	4009-26 3/30/2018 Intermediate	4009-26 6/14/2018 Intermediate	4009-26 9/27/2018 Intermediate	4009-26 12/19/2018 Intermediate	4009-26 3/25/2019 Intermediate	4009-26 10/10/2019 Intermediate
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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	290	280	350	530	2300	350
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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	8.8	8.4	11	12	22	14
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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	35	32	42	45	79	20
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	8.5	8.7	17	16	66	16
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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
2-Hexanone	50*	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 U	1.5 J	10 U	5.0 U'	25 U	25 U	50 U	50 U
Acetone	50*	10 U	5.0 U	3.4 J	10 U	3.5 J	3.2 J	10 U	20 U	5.0 U	50 U	50 U	100 U	100 U
Benzene	1	1.2	0.96 J	1.2	0.96 J	1.1	1.2	0.97 J	2.0 U	0.53 J	5.0 U	5.0 U	10 U	10 U
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Carbon disulfide		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.91 J	2.3	2.0 J	5.0 U	5.1 J	10 U
Chloroform	7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Chloromethane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UT	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	120	110	170	190	360	100
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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 UT	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 UT
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Methyl Acetate		2.5 U	5.0 U	2.5 U	2.5 U	2.5 U	2.5 UT	2.5 U	5.0 U	5.0 U	13 U	13 U	25 U	25 UT
2-Butanone (MEK)	50	10 U	5.0 U	10 U	10 U	10 U'	10 U	10 U'	20 U'	5.0 U	50 U	50 U	10 U'	100 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U	5.0 UT	5.0 U	10 U	5.0 U'	25 U	25 U	50 U	50 UT
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Styrene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.3 J'	1.2	5.0 U	1.8 J	10 U	10 U
Toluene	5	0.72 J	0.55 J	0.65 J	1.0 U	0.66 J	0.67 J	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	2.0 U	0.74 J	5.0 U	5.0 U	10 U	10 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	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	88	65	140	120	400	140
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	5.0 U	5.0 U	10 U	10 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	9.9	8.1	13	13	15	10 U
Xylenes, Total		2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	10 U	10 U	20 U	20 U
Total VOCs		1.92	1.51	5.25	0.96	5.26	5.07	2.47	562	517	745	928	3247	640
Total VOCs (w/o Acteone or Methlyene Chloride)		1.92	1.51	1.85	0.96	1.76	1.87	2.47	562	517	745	928	3247	640

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA Standard I Guidance Value	4009-26 4/6/2020 Intermediate	4009-27S 3/30/2018 Intermediate	4009-27S 6/14/2018 Intermediate	4009-27S 9/27/2018 Intermediate	4009-27S 12/19/2018 Intermediate	4009-27S 3/25/2019 Intermediate	4009-27S 10/10/2019 Intermediate	4009-27S 4/6/2020 Intermediate	4009-27I 3/30/2018 Intermediate	4009-27I 6/14/2018 Intermediate	4009-27I 9/27/2018 Intermediate	4009-27I 12/19/2018 Intermediate	4009-27I 3/25/2019 Intermediate
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	880	52	43	47	43	52	60	54	1.0 U	0.61 J	1.0 U	1.0 U	1.0 U
1,1,2,2-Tetrachloroethane	5	10 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	1.0 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		21	2.4	2.6	1.5 J	2.3	2.8	2.6	2.2	1.0 U	0.42 J	1.0 U	1.0 U	0.44 J
1,1,2-Trichloroethane	1	10 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	1.0 U	1.0 U
1,1-Dichloroethane	5	69	2.2	1.9	2.2	1.9	2.1	2.4	2.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	5	50	4.4	4.1	4.5	4.2	4.1	4.8	5.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-Trimethylbenzene		10 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	1.0 U	1.0 U
1,2,4-Trichlorobenzene	5	10 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	1.0 U	1.0 U
1,2,4-Trimethylbenzne	5	10 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	1.0 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	10 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	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	10 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	1.0 U	1.0 U
1,2-Dichlorobenzene	3	10 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	1.0 U	1.0 U
1,2-Dichloroethane	0.6	10 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	1.0 U	1.0 U
1,2-Dichloropropane	1	10 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	1.0 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	10 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	1.0 U	1.0 U
1,3-Dichlorobenzene	3	10 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	1.0 U	1.0 U
1,4-Dichlorobenzene	3	10 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	1.0 U	1.0 U
2-Hexanone	50*	50 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	5.0 U	5.0 U
Acetone	50*	100 U	20 U	5.0 U	20 U	6.3 J	3.0 J	10 U	10 U	10 U	5.0 U	4.6 J	10 U	10 U
Benzene	1	10 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	1.0 U	1.0 U
Bromodichloromethane	50*	10 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	1.0 U	1.0 U
Bromoform	50*	10 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	1.0 U	1.0 U
Bromomethane	5	10 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	1.0 U	1.0 U
Carbon disulfide		10 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	1.0 U	1.0 U
Carbon tetrachloride	5	10 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	1.0 U	1.0 U
Chlorobenzene	5	10 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	1.0 U	1.0 U
Chloroethane	5	10 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	1.0 U	1.0 U
Chloroform	7	10 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	1.0 U	1.0 U
Chloromethane		10 U	2.0 U	1.0 U	2.0 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
cis-1,2-Dichloroethene	5	300	21	18	21	18	19	21	19	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
cis-1,3-Dichloropropene	0.4**	10 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	1.0 U	1.0 U
Cyclohexane		10 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	1.0 U	1.0 U
Dibromochloromethane	50	10 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'	1.0 U	1.0 U
Dichlorodifluoromethane	5	10 U	2.0 U	1.0 U	2.0 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
Ethylbenzene	5	10 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	1.0 U	1.0 U
Isopropylbenzne (Cumene)	5	10 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	1.0 U	1.0 U
Methyl Acetate		25 U	5.0 U	5.0 U	5.0 U	2.5 U	2.5 U	2.5 UT	2.5 U	2.5 U	5.0 U	2.5 U	2.5 U	2.5 U
2-Butanone (MEK)	50	100 U	20 U	5.0 U	20 U	10 U	10 U'	10 U	10 U	10 U	5.0 U	10 U	10 U	10 U'
4-Methyl-2-pentanone (MIBK)		50 U	10 U	5.0 U'	10 U	5.0 U	5.0 U	5.0 UT	5.0 U	5.0 U	5.0 U'	5.0 U	5.0 U	5.0 U
Methyl Cyclohexane		10 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	1.0 U	1.0 U
Methylene Chloride	5	10 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	1.0 U	1.0 U
Styrene	5	10 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	1.0 U	1.0 U
Methyl Tert Butyl Ether	10	10 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	1.0 U	1.0 U
Tetrachloroethene	5	10 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	1.0 U	1.0 U
Toluene	5	10 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	1.0 U	1.0 U
trans-1,2-Dichloroethene	5	10 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	1.0 U	1.0 U
trans-1,3-Dichloropropene	0.4**	10 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	1.0 U	1.0 U
Trichloroethene	5	230	26	20	25	21	20	20	17	1.6	1.4	1.7	2.2	1.9
Trichlorofluoromethane	5	10 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	1.0 U	1.0 U
Vinyl chloride	2	14	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	1.0 U	1.0 U
Xylenes, Total		20 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	2.0 U	2.0 U
Total VOCs		1564	108	89.6	101	96.7	103	111	100	1.60	2.43	6.30	2.20	2.34
Total VOCs (w/o Acteone or Methylene Chloride)		1564	108	89.6	101	90.4	100	111	100	1.60	2.43	1.70	2.20	2.34

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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	4009-27I 10/10/2019 Intermediate	4009-27I 4/6/2020 Intermediate	4009-27D 3/30/2018 Deep	4009-27D 6/14/2018 Deep	4009-27D 9/27/2018 Deep	4009-27D 12/19/2018 Deep	4009-27D 3/25/2019 Deep	4009-27D 10/10/2019 Deep	4009-27D 4/6/2020 Deep	4009-28 3/30/2018 Deep	4009-28 6/14/2018 Deep	4009-28 9/27/2018 Deep	4009-28 12/19/2018 Deep
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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	2.9	2.5	3.2	2.5
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
1,1,2-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
1,1,2-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
1,1-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
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
1,2,3-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
1,2,4-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
1,2,4-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
1,2-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
1,2-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
1,2-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
1,2-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
1,2-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
1,3,5-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
1,3-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
1,4-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-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
Acetone	50*	3.5 J	10.0 U	10 U	5.0 U	3.6 J	5.0 J	10 U	3.7 J	10.0 U	10 U	5.0 U	3.6 J	10 U
Benzene	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	0.61 J	1.0 U	1.0 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
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
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
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
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
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
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
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
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
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	0.41 J	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
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
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
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
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
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
Methyl Acetate		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	5.0 U	2.5 U	2.5 U
2-Butanone (MEK)	50	10 UT	10 U	10 U	5.0 U	10 U	10 U	10 U	10 U	10 UT	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 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
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
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
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
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 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
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
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
Trichloroethene	5	0.80 J	2.5	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
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
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
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
Total VOCs		4.30	2.50	0.00	0.00	3.60	5.00	0.00	3.70	0.00	2.90	3.52	6.80	2.50
Total VOCs (w/o Acteone or Methylene Chloride)		0.80	2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.90	3.52	3.20	2.50

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone Units	NYSDEC GA	4009-28	4009-28	4009-28	4009-29S	4009-29S	4009-29S	4009-29S	4009-29S	4009-29S	4009-29S	4009-29I	4009-29I	4009-29I
	Standard /	3/25/2019	10/10/2019	4/6/2020	3/30/2018	6/14/2018	9/27/2018	12/19/2018	3/25/2019	10/10/2019	4/6/2020	3/30/2018	6/14/2018	9/27/2018
	Guidance Value ug/L	Deep ug/L	Deep ug/L	Deep ug/L	Intermediate ug/L	Intermediate ug/L	Intermediate ug/L	Intermediate ug/L	Intermediate ug/L	Intermediate ug/L	Intermediate ug/L	Intermediate ug/L	Intermediate ug/L	Intermediate ug/L
1,1,1-Trichloroethane	5	3.4	1.0 U	2.7	650	420	960	1000	1600	1700	1300	1200	620	990
1,1,2,2-Tetrachloroethane	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	1.0 U	5.8 J	4.3	5.0 J	10 U	11 J	20 U	12 J	20 U	7.5	20 U
1,1,2-Trichloroethane	1	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,1-Dichloroethane	5	1.0 U	1.0 U	1.0 U	97	58	90	95	110	100	81	93	50	84
1,1-Dichloroethene	5	1.0 U	1.0 U	1.0 U	51	37	74	85	100	110	100	95	50	82
1,2,3-Trimethylbenzene		1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,2,4-Trichlorobenzene	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,2,4-Trimethylbenzne	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,2-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,2-Dichloroethane	0.6	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,2-Dichloropropane	1	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,3,5-Trimethylbenzene (Mesitylene)	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,3-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
1,4-Dichlorobenzene	3	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
2-Hexanone	50*	5.0 U	5.0 U	5.0 U	50 U	10 U'	50 U	50 U	100 U	100 U	100 U	100 U	10 U'	100 U
Acetone	50*	10 U	10 U	10 U	100 U	10 U	100 U	100 U	200 U	200 U	200 U	200 U	10 U	200 U
Benzene	1	1.0 U	2.4	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Bromodichloromethane	50*	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Bromoform	50*	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Bromomethane	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Carbon disulfide		1.0 U	0.26 J	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Carbon tetrachloride	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Chlorobenzene	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	0.91 J	20 U
Chloroethane	5	1.0 U	1.0 U	1.0 U	10 U	2.0	10 U	10 U	20 U	20 U	20 U	20 U	2.2	20 U
Chloroform	7	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Chloromethane		1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 UT	20 U	20 U	2.0 U	20 U
cis-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	350	260	470	430	590	550	480	400	250	380
cis-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Cyclohexane		1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Dibromochloromethane	50	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U'	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Dichlorodifluoromethane	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 UT	20 U	20 U	2.0 U	20 U
Ethylbenzene	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Isopropylbenzne (Cumene)	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Methyl Acetate		2.5 U	2.5 U	2.5 U	25 U	10 U	25 U	25 U	50 U	50 UT	50 U	50 U	10 U	50 U
2-Butanone (MEK)	50	10 U'	10 UT	10 U	100 U	10 U	100 U	100 U	200 U'	200 U	200 U	200 U	10 U	200 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	5.0 U	50 U	10 U'	50 U	50 U	100 U	100 UT	100 U	100 U	10 U'	100 U
Methyl Cyclohexane		1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Methylene Chloride	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Styrene	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Methyl Tert Butyl Ether	10	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Tetrachloroethene	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	1.1 J	20 U
Toluene	5	1.0 U	1.1	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
trans-1,2-Dichloroethene	5	1.0 U	1.0 U	1.0 U	10 U	0.78 J	10 U	10 U	20 U	20 U	20 U	20 U	0.95 J	20 U
trans-1,3-Dichloropropene	0.4**	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U	20 U
Trichloroethene	5	1.0 U	1.0 U	1.0 U	48	19	150	220	210	380	250	420	200	400
Trichlorofluoromethane	5	1.0 U	1.0 U	1.0 U	10 U	2.0 U	10 U	10 U	20 U	20 U	20 U	20 U	2.0 U'	20 U
Vinyl chloride	2	1.0 U	1.0 U	1.0 U	120	74	100	120	130	140	88	92	63	79
Xylenes, Total		2.0 U	2.0 U	2.0 U	20 U	4.0 U	20 U	20 U	40 U	40 U	40 U	40 U	4.0 U	40 U
Total VOCs		3.40	3.76	2.70	1322	875	1849	1950	2751	2980	2311	2300	1246	2015
Total VOCs (w/o Acteone or Methlyene Chloride)		3.40	3.76	2.70	1322	875	1849	1950	2751	2980	2311	2300	1246	2015

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID Sampling Date Groundwater Monitoring Zone	NYSDEC GA Standard / Guidance Value	4009-29I 12/19/2018 Intermediate	4009-29I 3/25/2019 Intermediate	DUP-2 3/25/2019 Intermediate	4009-29I 10/10/2019 Intermediate	DUP-2 10/10/2019 Intermediate	4009-29I 4/6/2020 Intermediate	DUP-2 4/6/2020 Intermediate	4009-29D 3/30/2018 Deep	4009-29D 6/14/2018 Deep	4009-29D 9/27/2018 Deep	4009-29D 12/19/2018 Deep	4009-29D 3/25/2019 Deep	4009-29D 10/10/2019 Deep
Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	950	850	930	1200	1100	810	810	280	41	150	56	100	210
1,1,2,2-Tetrachloroethane	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		20 U	20 U	10 J	20 U	9.6 J	20 U	20 U	3.5	0.67 J	5.0 U	1.0 U	1.0 U	4.0 U
1,1,2-Trichloroethane	1	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,1-Dichloroethane	5	72	70	73	91	82	65	69	38	11	29	14	15	18
1,1-Dichloroethene	5	79	65	69	86	68	70	66	42	5.3	13	3.7	5.0	32
1,2,3-Trimethylbenzene		20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,2,4-Trichlorobenzene	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,2,4-Trimethylbenzne	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,2-Dibromo-3-Chloropropane	0.04	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,2-Dichlorobenzene	3	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,2-Dichloroethane	0.6	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,2-Dichloropropane	1	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,3-Dichlorobenzene	3	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
1,4-Dichlorobenzene	3	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
2-Hexanone	50*	100 U	100 U	100 U	100 U	100 U	100 U	100 U	5.0 U	5.0 U'	25 U	5.0 U	5.0 U	20 U
Acetone	50*	200 U	200 U	200 U	200 U	200 U	200 U	200 U	10 U	5.0 U	50 U	3.9 J	10 U	40 U
Benzene	1	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Bromodichloromethane	50*	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Bromoform	50*	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Bromomethane	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Carbon disulfide		20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Carbon tetrachloride	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Chlorobenzene	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Chloroethane	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	2.7	3.0	3.6 J	2.9	3.0	4.2
Chloroform	7	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Chloromethane		20 U	20 U	20 U	20 U	20 UT	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
cis-1,2-Dichloroethene	5	350	290	310	320	320	290	310	180	26	77	20	29	93
cis-1,3-Dichloropropene	0.4**	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Cyclohexane		20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Dibromochloromethane	50	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Dichlorodifluoromethane	5	20 U	20 U	20 U	20 U	20 UT	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Ethylbenzene	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Isopropylbenzne (Cumene)	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Methyl Acetate		50 U	50 U	50 U	50 U	50 UT	50 U	50 U	2.5 U	5.0 U	13 U	2.5 U	2.5 U	10.0 U
2-Butanone (MEK)	50	200 U	200 U'	200 U'	200 UT	200 U	200 U	200 U	10 U'	5.0 U	50 U	10 U	10 U'	40.0 U
4-Methyl-2-pentanone (MIBK)		100 U	100 U	100 U	100 U	100 UT	100 U	100 U	5.0 U	5.0 U'	25 U	5.0 U	5.0 U	20.0 U
Methyl Cyclohexane		20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Methylene Chloride	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Styrene	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Methyl Tert Butyl Ether	10	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Tetrachloroethene	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U'	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Toluene	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
trans-1,2-Dichloroethene	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	0.9 J	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
trans-1,3-Dichloropropene	0.4**	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Trichloroethene	5	330	340	350	340	340	230	230	120	10	16	12	12	100
Trichlorofluoromethane	5	20 U	20 U	20 U	20 U	20 U	20 U	20 U	1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	4.0 U
Vinyl chloride	2	68	57	61	81	77	53	62	72	17	35	15	22	42
Xylenes, Total		40 U	40 U	40 U	40 U	40 U	40 U	40 U	2.0 U	2.0 U	10 U	2.0 U	2.0 U	8.0 U
Total VOCs		1849	1672	1793	2118	1997	1518	1547	739	114	324	128	186	499
Total VOCs (w/o Acteone or Methlyene Chloride)		1849	1672	1793	2118	1997	1518	1547	739	114	324	124	186	499

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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	4009-29D 4/6/2020 Deep	4009-30 3/30/2018 Deep	4009-30 6/14/2018 Deep	4009-30 9/27/2018 Deep	4009-30 12/19/2018 Deep	4009-30 3/25/2019 Deep	4009-30 10/10/2019 Deep	4009-30 4/6/2020 Deep	4009-30A 3/30/2018 Shallow	4009-30A 6/14/2018 Shallow	4009-30A 9/27/2018 Shallow	4009-30A 12/19/2018 Shallow	4009-30A 3/25/2019 Shallow
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	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
1,1,2,2-Tetrachloroethane	5	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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		4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	3.7 J	0.71 J	0.61 J	1.0 U	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
1,1-Dichloroethene	5	1.6 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
1,2,3-Trimethylbenzene		4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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*	20 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*	40 U	10.0 U	5.0 U	3.5 J	10 U	10 U	10 U	10 U	10 U	5.0 U	3.1 J	10 U	10 U
Benzene	1	4.0 U	5.3	4.1	33	0.87 J	1.2	4.5	1.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
Bromodichloromethane	50*	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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*	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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		4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	3.3 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
Chloroform	7	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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		4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	3.8 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
cis-1,3-Dichloropropene	0.4**	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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		4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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		10.0 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	5.0 U	2.5 U	2.5 U	2.5 U
2-Butanone (MEK)	50	40.0 U	10.0 U'	5.0 U	10 U	10 U	10 U'	10 UT	10 U	10 U'	5.0 U	10 U	10 U	10 U'
4-Methyl-2-pentanone (MIBK)		20.0 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		4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U'	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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**	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	5.3	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
Trichlorofluoromethane	5	4.0 U	1.0 U	1.0 U	1.0 U	1.0 U	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	11	1.0 U	1.0 U	1.0 U	1.0 U	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		8.0 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		45.7	6.01	4.71	36.5	1.97	2.18	5.23	2.35	0.00	0.00	3.10	0.00	0.00
Total VOCs (w/o Acteone or Methlyene Chloride)		45.7	6.01	4.71	33.0	1.97	2.18	5.23	2.35	0.00	0.00	0.00	0.00	0.00

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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	Well 1-1 3/30/2018 Deep	Well 1-1 6/14/2018 Deep	Well 1-1 9/27/2018 Deep	Well 1-1 12/19/2018 Deep	Well 1-1 3/25/2019 Deep	Well 1-1 10/10/2019 Deep	Well 1-1 4/6/2020 Deep
	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	230	170	220	220	360	250	230
1,1,2,2-Tetrachloroethane	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		4.0 U	4.2	4.0 U	3.2 J	4.0 U	3.7 J	5.0 U
1,1,2-Trichloroethane	1	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,1-Dichloroethane	5	21	17	20	25	36	21	29
1,1-Dichloroethene	5	16	14	18	18	25	18	20
1,2,3-Trimethylbenzene		4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,2,4-Trichlorobenzene	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,2,4-Trimethylbenzne	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,2-Dibromo-3-Chloropropane	0.04	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,2-Dichlorobenzene	3	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,2-Dichloroethane	0.6	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,2-Dichloropropane	1	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,3-Dichlorobenzene	3	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
1,4-Dichlorobenzene	3	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
2-Hexanone	50*	20 U	5.0 U'	20 U	20 U	20 U	25 U	25 U
Acetone	50*	40 U	5.0 U	40 U	40 U	40 U	50 U	50 U
Benzene	1	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Bromodichloromethane	50*	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Bromoform	50*	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Bromomethane	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Carbon disulfide		4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Carbon tetrachloride	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Chlorobenzene	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Chloroethane	5	4.0 U	0.46 J	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Chloroform	7	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Chloromethane		4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 UT	5.0 U
cis-1,2-Dichloroethene	5	69	56	68	78	100	73	87
cis-1,3-Dichloropropene	0.4**	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Cyclohexane		4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Dibromochloromethane	50	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Dichlorodifluoromethane	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 UT	5.0 U
Ethylbenzene	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Isopropylbenzne (Cumene)	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Methyl Acetate		10 U	5.0 U	10 U	10 U	10 U	13 UT	13 U
2-Butanone (MEK)	50	40 U'	5.0 U	40 U	40 U	40 U'	50 U	50 U
4-Methyl-2-pentanone (MIBK)		20 U	5.0 U'	20 U	20 U	20 U	25 UT	25 U
Methyl Cyclohexane		4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Methylene Chloride	5	4.0 U	1.0 U	1.8 J	4.0 U	4.0 U	5.0 U	5.0 U
Styrene	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Methyl Tert Butyl Ether	10	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Tetrachloroethene	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Toluene	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	5	4.0 U	0.35 J	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	0.4**	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Trichloroethene	5	73	53	67	67	89	71	64
Trichlorofluoromethane	5	4.0 U	1.0 U	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Vinyl chloride	2	4.0 U	0.29 J	4.0 U	4.0 U	4.0 U	5.0 U	5.0 U
Xylenes, Total		8.0 U	2.0 U	8.0 U	8.0 U	8.0 U	10 U	10 U
Total VOCs		409	315	395	411	610	437	430
Total VOCs (w/o Acteone or Methlyene Chloride)		409	315	393	411	610	437	430

Table 2-2
Summary of the Groundwater Results
Semi-Annual Remedial System Optimization Report - January - June 2020
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
 - 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 limitsMatrix 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
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID	NYSDEC GA Standard / Guidance Value	Well 1-2A Influent 6/14/2018	Well 1-2A Influent 6/19/2018	Well 1-2A Influent 7/6/2018	Well 1-2A Influent 7/17/2018	Well 1-2A Influent 8/8/2018	Well 1-2A Influent 8/27/2018	Well 1-2A Influent 9/13/2018	Well 1-2A Influent 9/24/2018	Well 1-2A Influent 10/22/2018	Well 1-2A Influent 10/30/2018	Well 1-2A Influent 11/12/2018	Well 1-2A Influent 11/30/2018	Well 1-2A Influent 12/17/2018	Well 1-2A Influent 12/19/2018
Sampling Date Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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
1,1,2,2-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
1,1,2-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
1,1,2-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
1,1-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
1,1-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
1,2,3-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
1,2,4-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
1,2,4-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
1,2-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
1,2-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
1,2-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
1,2-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
1,2-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
1,3,5-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
1,3-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
1,4-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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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	1.8 BT	1.0 U	0.5 U	0.5 U	1.0 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
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
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
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
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
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
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
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
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
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
Total VOCs		0	0	0	0	3.1	0	0	0	0	5.3	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID	NYSDEC GA Standard / Guidance Value	Well 1-2A Influent 1/7/2019	Well 1-2A Influent 1/28/2019	Well 1-2A Influent 2/11/2019	Well 1-2A Influent 2/22/2019	Well 1-2A Influent 3/11/2019	Well 1-2A Influent 3/26/2019	Well 1-2A Influent 4/11/2019	Well 1-2A Influent 4/22/2019	Well 1-2A Influent 5/6/2019	Well 1-2A Influent 5/31/2019	Well 1-2A Influent 6/7/2019	Well 1-2A Influent 6/19/2019	Well 1-2A Influent 7/12/2019	Well 1-2A Influent 7/22/2019	Well 1-2A Influent 8/12/2019
Sampling Date Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
Acetone	50*	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	3.8 J	NA	10 U	NA	10 U
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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	0.44 J	0.5 U	1.0 U	0.5 U	1.0 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
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
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
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
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
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
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
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
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
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
Total VOCs		0	0	0	0	0	0	0	0	0	0	4.24	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID	NYSDEC GA Standard / Guidance Value	Well 1-2A Influent 8/26/2019	Well 1-2A Influent 9/26/2019	Well 1-2A Influent 9/30/2019	Well 1-2A Influent 10/10/2019	Well 1-2A Influent 10/28/2019	Well 1-2A Influent 11/22/2019	Well 1-2A Influent 11/25/2019	Well 1-2A Influent 12/13/2019	Well 1-2A Influent 12/20/2019	Well 1-2A Influent 1/13/2020	Well 1-2A Influent 1/28/2020	Well 1-2A Influent 2/6/2020	Well 1-2A Influent 2/25/2020	Well 1-2A Influent 3/16/2020	Well 1-2A Influent 3/23/2020
Sampling Date Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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 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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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		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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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		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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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	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	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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	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	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*	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)		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*	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	10 U	NA	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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Bromodichloromethane	50*	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Bromoform	50*	NA	1.0 U	NA	1.0 U	0.78	1.0 U	0.99	1.0 U	0.81	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Bromomethane	5	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Carbon disulfide		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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	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	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
Chloromethane		NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	0.36 J	0.5 U	1.0 U	0.5 U
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	1.0 U	0.5 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	1.0 U	0.5 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	1.0 U	NA	1.0 U	NA
Dibromochloromethane	50	NA	1.0 U	NA	1.0 U	0.66	1.0 U	0.61	1.0 U	0.54	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U
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	1.0 U	0.5 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	1.0 U	0.5 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	1.0 U	0.5 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	2.5 U	NA	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	1.0 U	NA	1.0 U	NA
Methylene Chloride	5	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	2.0 B	0.5 U	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 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	1.0 U	0.5 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	1.0 U	0.5 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	1.0 U	0.5 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	1.0 U	0.5 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	1.0 U	0.5 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	1.0 U	0.5 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	1.0 U	0.5 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	1.0 U	0.5 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	0.5 U	1.0 U	0.5 U	1.0 U	0.5 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	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	1.44	2.0	1.6	0	1.35	0	0	0.36	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID	NYSDEC GA Standard / Guidance Value	Well 1-2A Influent 4/6/2020	Well 1-2A Influent 4/28/2020	Well 1-2A Influent 5/15/2020	Well 1-2A Influent 5/29/2020	Well 1-2A Influent 6/8/2020	Well 1-2A RAW 6/26/2020	Well 1-3 Influent 6/14/2018	Well 1-3 (post) Effluent 6/14/2018	Well 1-3 Influent 6/19/2018	Well 1-3 Influent 7/6/2018	Well 1-3 (post) Effluent 7/6/2018	Well 1-3 Influent 7/17/2018	Well 1-3 Influent 8/8/2018	Well 1-3 (post) Effluent 8/8/2018
Sampling Date Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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	1.0 U	0.5 U	1.0 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	1.0 U	0.5 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
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	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 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	1.0 U	0.5 U	1.0 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	1.0 U	0.5 U	1.0 U
1,2,3-Trimethylbenzene		1.0 U	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
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	1.0 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	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
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	1.0 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	1.0 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	1.0 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	1.0 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	1.0 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	1.0 U
2-Butanone (MEK)	50	10 U	NA	10 U	NA	10 U	0.5 U	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U
2-Hexanone	50*	5.0 U	NA	5.0 U	NA	5.0 U	0.5 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U
4-Methyl-2-pentanone (MIBK)		5.0 U	NA	5.0 U	NA	5.0 U	0.5 U	5.0 U	5.0 U	NA	5.0 U	5.0 U	NA	5.0 U	5.0 U
Acetone	50*	10 U	NA	10 U	NA	10 U	0.5 U	10 U	10 U	NA	3.3 J	10 U	NA	10.0 U	10 U
Benzene	1	1.0 U	0.5 U	1.0 U	0.5 U	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
Bromodichloromethane	50*	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromoform	50*	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Bromomethane	5	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Carbon disulfide		1.0 U	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Carbon tetrachloride	5	1.0 U	0.5 U	1.0 U	0.5 U	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
Chlorobenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	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
Chloroethane	5	1.0 U	0.5 U	1.0 U	0.5 U	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
Chloroform	7	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Chloromethane		1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 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	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 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	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U
Cyclohexane		1.0 U	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Dibromochloromethane	50	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Dichlorodifluoromethane	5	1.0 U	0.5 U	1.0 U	0.5 U	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
Ethylbenzene	5	1.0 U	0.5 U	1.0 U	0.5 U	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
Isopropylbenzne (Cumene)	5	1.0 U	0.5 U	1.0 U	0.5 U	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
Methyl Acetate		2.5 U	NA	2.5 U	NA	2.5 U	0.5 U	2.5 U	2.5 U	NA	2.5 U	2.5 U	NA	2.5 U	2.5 U
Methyl Cyclohexane		1.0 U	NA	1.0 U	NA	1.0 U	0.5 U	1.0 U	1.0 U	NA	1.0 U	1.0 U	NA	1.0 U	1.0 U
Methylene Chloride	5	1.0 U	0.5 U	1.0 U	0.5 U	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
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	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U
Styrene	5	1.0 U	0.5 U	1.0 U	0.5 U	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
Tetrachloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	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
Toluene	5	1.0 U	0.5 U	1.0 U	0.5 U	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
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	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 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	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U
Trichloroethene	5	1.0 U	0.5 U	1.0 U	0.5 U	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
Trichlorofluoromethane	5	1.0 U	0.5 U	1.0 U	0.5 U	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
Vinyl chloride	2	1.0 U	0.5 U	1.0 U	0.5 U	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
Xylenes, Total		2.0 U	0.5 U	2.0 U	0.5 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
Total VOCs		0	0	0	0	0	0	0	0	0	3.3	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID	NYSDEC GA Standard / Guidance Value	Well 1-3 Influent 8/27/2018	Well 1-3 Influent 9/13/2018	Well 1-3 (post) Effluent 9/13/2018	Well 1-3 Influent 9/24/2018	Well 1-3 Influent 10/22/2018	Well 1-3 Influent 10/30/2018	Well 1-3 (post) Effluent 10/30/2018	Well 1-3 Influent 11/12/2018	Well 1-3 (post) Effluent 11/12/2018	Well 1-3 Influent 11/30/2018	Well 1-3 Influent 12/17/2018	Well 1-3 Influent 12/19/2018	Well 1-3 (post) Effluent 12/19/2018
Sampling Date Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	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	1.0 U
1,1,2,2-Tetrachloroethane	5	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	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		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	1.0 U
1,1,2-Trichloroethane	1	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	1.0 U
1,1-Dichloroethane	5	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	1.0 U
1,1-Dichloroethene	5	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	1.0 U
1,2,3-Trimethylbenzene		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	1.0 U
1,2,4-Trichlorobenzene	5	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	1.0 U
1,2,4-Trimethylbenzne	5	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	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	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	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	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	1.0 U
1,2-Dichlorobenzene	3	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	1.0 U
1,2-Dichloroethane	0.6	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	1.0 U
1,2-Dichloropropane	1	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	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	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	1.0 U
1,3-Dichlorobenzene	3	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	1.0 U
1,4-Dichlorobenzene	3	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	1.0 U
2-Butanone (MEK)	50	NA	10 U	10 U	NA	NA	10 U	10 U	10 U	10 U	NA	NA	10 U	10 U
2-Hexanone	50*	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	5.0 U
4-Methyl-2-pentanone (MIBK)		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	5.0 U
Acetone	50*	NA	10.0 U	10 U	NA	NA	10 U	3.5 J	10.0 U	10 U	NA	NA	10.0 U	10 U
Benzene	1	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	1.0 U
Bromodichloromethane	50*	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	1.0 U
Bromoform	50*	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	1.0 U
Bromomethane	5	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	1.0 U
Carbon disulfide		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	1.0 U
Carbon tetrachloride	5	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	1.0 U
Chlorobenzene	5	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	1.0 U
Chloroethane	5	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	1.0 U
Chloroform	7	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	1.0 U
Chloromethane		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	1.0 U
cis-1,2-Dichloroethene	5	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	1.0 U
cis-1,3-Dichloropropene	0.4**	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	1.0 U
Cyclohexane		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	1.0 U
Dibromochloromethane	50	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	1.0 U
Dichlorodifluoromethane	5	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	1.0 U
Ethylbenzene	5	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	1.0 U
Isopropylbenzne (Cumene)	5	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	1.0 U
Methyl Acetate		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	2.5 U
Methyl Cyclohexane		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	1.0 U
Methylene Chloride	5	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	1.0 U
Methyl Tert Butyl Ether	10	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	1.0 U
Styrene	5	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	1.0 U
Tetrachloroethene	5	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	1.0 U
Toluene	5	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	1.0 U
trans-1,2-Dichloroethene	5	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	1.0 U
trans-1,3-Dichloropropene	0.4**	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	1.0 U
Trichloroethene	5	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	1.0 U
Trichlorofluoromethane	5	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	1.0 U
Vinyl chloride	2	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	1.0 U
Xylenes, Total		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	2.0 U
Total VOCs		0	0	0	0	0	2.7	6.0	0	0	0	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID	NYSDEC GA Standard / Guidance Value	Well 1-3 Influent 1/7/2019	Well 1-3 (post) Effluent 1/7/2019	Well 1-3 Influent 1/28/2019	Well 1-3 Influent 2/11/2019	Well 1-3 (post) Effluent 2/11/2019	Well 1-3 Influent 2/22/2019	Well 1-3 Influent 3/11/2019	Well 1-3 (post) Effluent 3/11/2019	Well 1-3 Influent 3/26/2019	Well 1-3 Influent 4/11/2019	Well 1-3 (post) Effluent 4/11/2019	Well 1-3 Influent 4/22/2019	Well 1-3 Influent 5/6/2019
Sampling Date Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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	1.0 U	1.0 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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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*	10.0 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	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	1.0 U	1.0 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	1.0 U	1.0 U	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	1.0 U	1.0 U	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	1.0 U	1.0 U	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	1.0 U	1.0 U	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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 U	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	1.0 U	1.0 U	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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 U	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	1.0 U	1.0 U	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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 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	2.5 U	2.5 U	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	1.0 U	1.0 U	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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 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	1.0 U	1.0 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	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

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID	NYSDEC GA Standard / Guidance Value	Well 1-3 (post) Effluent 5/6/2019	Well 1-3 Influent 5/31/2019	Well 1-3 Influent 6/7/2019	Well 1-3 (post) Effluent 6/7/2019	Well 1-3 Influent 6/19/2019	Well 1-3 Influent 7/12/2019	Well 1-3 (post) Effluent 7/12/2019	Well 1-3 Influent 7/22/2019	Well 1-3 Influent 8/12/2019	Well 1-3 (post) Effluent 8/12/2019	Well 1-3 Influent 8/26/2019	Well 1-3 Influent 9/26/2019	Well 1-3 (post) Effluent 9/26/2019
Sampling Date Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
Acetone	50*	10 U	NA	4.9 J	4.9 J	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
Total VOCs		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
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID	NYSDEC GA Standard / Guidance Value	Well 1-3 Influent 9/30/2019	Well 1-3 (post) Effluent 10/10/2019	Well 1-3 Influent 10/10/2019	Well 1-3 Influent 10/28/2019	Well 1-3 (post) Effluent 11/22/2019	Well 1-3 Influent 11/22/2019	Well 1-3 Influent 11/25/2019	Well 1-3 (post) Effluent 12/13/2019	Well 1-3 Influent 12/13/2019	Well 1-3 Influent 12/20/2019	Well 1-3 (post) Effluent 1/13/2020	Well 1-3 Influent 1/13/2020	Well 1-3 Influent 1/28/2020
Sampling Date Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	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	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		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	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	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	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		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	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	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	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	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	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	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	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	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	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	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	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA
2-Hexanone	50*	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)		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*	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA	10 U	10 U	NA
Benzene	1	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*	NA	1.0 U	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
Bromoform	50*	NA	1.0 U	1.0 U	3.88	1.0 U	1.0 U	3.62	1.0 U	1.0 U	1.85	1.0 U	1.0 U	0.5 U
Bromomethane	5	NA	1.0 U	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
Carbon disulfide		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	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	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	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	NA	1.0 U	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
Chloromethane		NA	1.0 U	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-1,2-Dichloroethene	5	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**	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		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	NA	1.0 U	1.0 U	0.91	1.0 U	1.0 U	1.20	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Dichlorodifluoromethane	5	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	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	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		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		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	0.5 U	1.0 U	1.0 U	0.5 U	1.6 B	1.7 B	0.5 U	1.0 U	1.0 U	0.5 U	1.0 U	1.0 U	0.5 U
Methyl Tert Butyl Ether	10	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	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	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	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	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**	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	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	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	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		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	4.79	1.6	1.7	4.82	0	0	1.85	0	0	0

Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Sample ID	NYSDEC GA Standard / Guidance Value	Well 1-3 (post) Effluent 2/6/2020	Well 1-3 Influent 2/6/2020	Well 1-3 Influent 2/25/2020	Well 1-3 (Post) Effluent 2/25/2020	Well 1-3 Influent 3/16/2020	Well 1-3 (Post) Effluent 3/16/2020	Well 1-3 Influent 3/23/2020	Well 1-3 (Post) Effluent 3/23/2020	Well 1-3 Influent 4/6/2020	Well 1-3 (Post) Effluent 4/6/2020	Well 1-3 Influent 4/28/2020	Well 1-3 (Post) Effluent 4/28/2020	Well 1-3 Influent 5/15/2020
Sampling Date Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	5	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	0.5 U	0.5 U	1.0 U
1,1,2,2-Tetrachloroethane	5	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	0.5 U	0.5 U	1.0 U
1,1,2-Trichloro-1,2,2-Trifluoroethane		1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	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	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
1,1-Dichloroethane	5	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	0.5 U	0.5 U	1.0 U
1,1-Dichloroethene	5	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	0.5 U	0.5 U	1.0 U
1,2,3-Trimethylbenzene		1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	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	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
1,2,4-Trimethylbenzne	5	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	0.5 U	0.5 U	1.0 U
1,2-Dibromo-3-Chloropropane	0.04	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U
1,2-Dibromoethane (Ethylene Dibromide)	5	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U
1,2-Dichlorobenzene	3	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	0.5 U	0.5 U	1.0 U
1,2-Dichloroethane	0.6	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	0.5 U	0.5 U	1.0 U
1,2-Dichloropropane	1	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	0.5 U	0.5 U	1.0 U
1,3,5-Trimethylbenzene (Mesitylene)	5	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	0.5 U	0.5 U	1.0 U
1,3-Dichlorobenzene	3	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	0.5 U	0.5 U	1.0 U
1,4-Dichlorobenzene	3	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	0.5 U	0.5 U	1.0 U
2-Butanone (MEK)	50	10 U'	10 U'	NA	NA	10 U	10 U	NA	NA	10 U'	10 U'	NA	NA	10 U'
2-Hexanone	50*	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	NA	NA	5.0 U
4-Methyl-2-pentanone (MIBK)		5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	NA	NA	5.0 U	5.0 U	NA	NA	5.0 U
Acetone	50*	10 U	10 U	NA	NA	10 U	10 U	NA	NA	10 U	10 U	NA	NA	10 U
Benzene	1	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	0.5 U	0.5 U	1.0 U
Bromodichloromethane	50*	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	0.5 U	0.5 U	1.0 U
Bromoform	50*	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	0.5 U	0.5 U	1.0 U
Bromomethane	5	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	0.5 U	0.5 U	1.0 U
Carbon disulfide		1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U
Carbon tetrachloride	5	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	0.5 U	0.5 U	1.0 U
Chlorobenzene	5	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	0.5 U	0.5 U	1.0 U
Chloroethane	5	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	0.5 U	0.5 U	1.0 U
Chloroform	7	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	0.5 U	0.5 U	1.0 U
Chloromethane		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	0.5 U	0.5 U	1.0 U
cis-1,2-Dichloroethene	5	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	0.5 U	0.5 U	1.0 U
cis-1,3-Dichloropropene	0.4**	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	0.5 U	0.5 U	1.0 U
Cyclohexane		1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U
Dibromochloromethane	50	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	0.5 U	0.5 U	1.0 U
Dichlorodifluoromethane	5	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	0.5 U	0.5 U	1.0 U
Ethylbenzene	5	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	0.5 U	0.5 U	1.0 U
Isopropylbenzne (Cumene)	5	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	0.5 U	0.5 U	1.0 U
Methyl Acetate		2.5 U	2.5 U	NA	NA	2.5 U	2.5 U	NA	NA	2.5 U	2.5 U	NA	NA	2.5 U
Methyl Cyclohexane		1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U	1.0 U	NA	NA	1.0 U
Methylene Chloride	5	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	0.5 U	0.5 U	1.0 U
Methyl Tert Butyl Ether	10	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	0.5 U	0.5 U	1.0 U
Styrene	5	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	0.5 U	0.5 U	1.0 U
Tetrachloroethene	5	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'	0.5 U	0.5 U	1.0 U'
Toluene	5	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	0.5 U	0.5 U	1.0 U
trans-1,2-Dichloroethene	5	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	0.5 U	0.5 U	1.0 U
trans-1,3-Dichloropropene	0.4**	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	0.5 U	0.5 U	1.0 U
Trichloroethene	5	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	0.5 U	0.5 U	1.0 U
Trichlorofluoromethane	5	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	0.5 U	0.5 U	1.0 U
Vinyl chloride	2	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	0.5 U	0.5 U	1.0 U
Xylenes, Total		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	0.5 U	0.5 U	2.0 U
Total VOCs		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
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



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

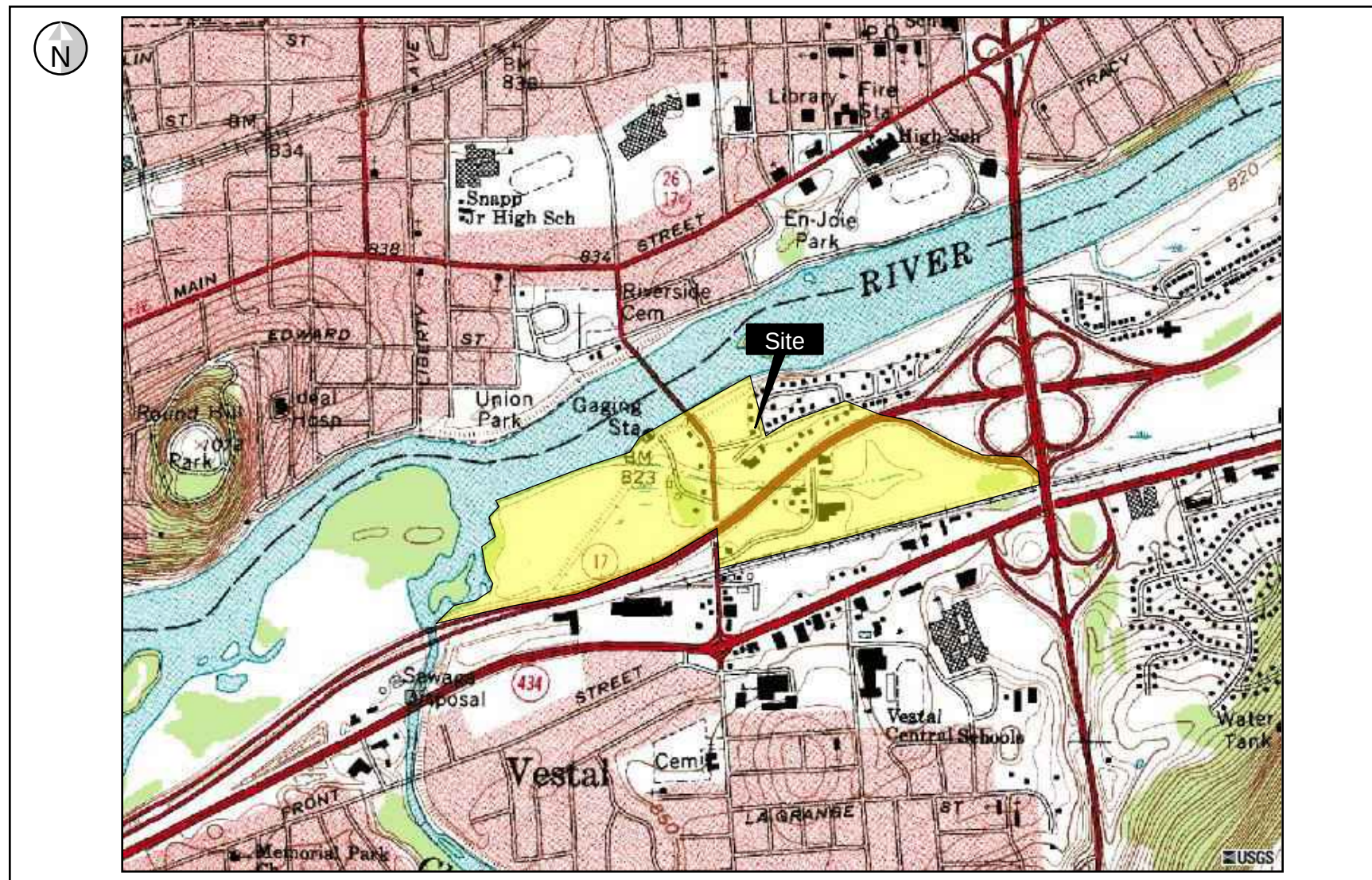
Table 2-3
Summary of Town of Vestal Municipal Well Sampling Results
Semi-Annual Remedial System Optimization Report - January - June 2020
Vestal Water Supply Site
Vestal, New York (Site Number 7-04-009A)



Notes:
NYSDEC GA Standard / Guidance Value - New York State Department of Environmental Conservation Groundwater Standard/Guidance Value
 - 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 -Compound detected below the reporting limit or 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

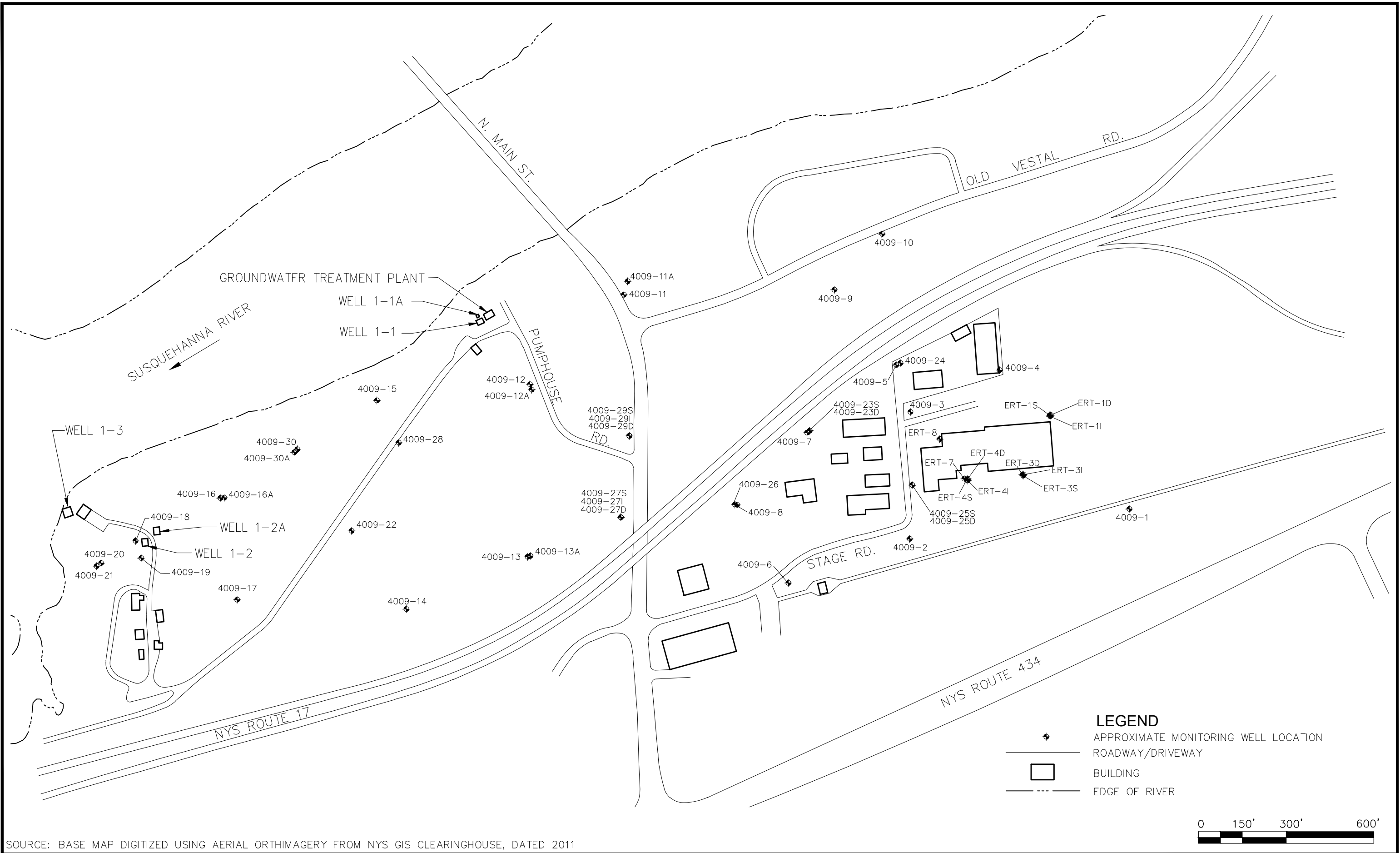
Figures

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).

USER: HAUSMANN FILENAME: G:\ACAD\PROJ\00266401.0000\FIGURES\FIGURE 2-1 MW LOCATION MAP.DWG SAVE DATE: 4/11/2018 6:51 AM PLOT DATE: 4/11/2018 6:52 AM



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



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

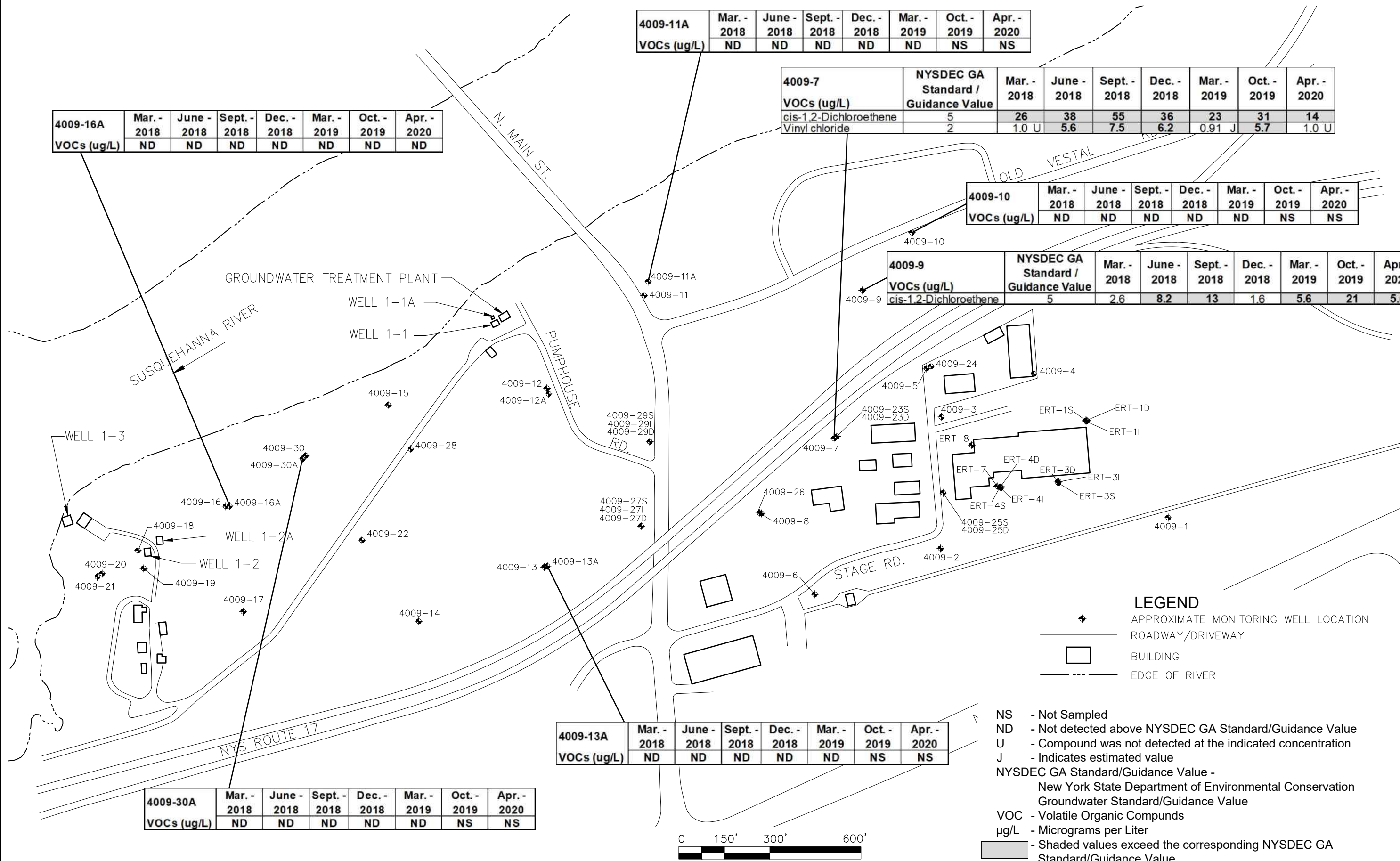
MONITORING WELL LOCATION MAP

SCALE: AS SHOWN

APRIL 2020

FIGURE 2-1

CITY: SYRACUSE NY DIV/GRP: ENV/CD DE: E. KRAHMER PIC: PM: TM: TR: LVR: (OPTION="OFF"=REF)
C:\Users\Krahn\BIM 360\Arcadis\ANA - NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION\Project Files\Shallow Wells\Map\Map.dwg LAYOUT: BLANK SAVED: 6/22/2020 10:56 AM ACADVER: 23.15 (LMS TECH)
PAGESETUP: --- PLOTSTYLETABLE: AUS-NCMOD FULL MONO.CTB PLOTTED: 6/22/2020 11:00 AM BY: KRAHMER, ERIC



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

4009-29I	NYSDEC GA Standard / Guidance Value	Mar. - 2018	June - 2018	Sept. - 2018	Dec. - 2018	Mar. - 2019	Oct. - 2019	Apr. - 2020
VOCs (ug/L)								
1,1,1-Trichloroethane	5	1200	620	990	950	850	1200	810
1,1-Dichloroethane	5	93	50	84	72	70	91	65
1,1-Dichloroethene	5	95	50	82	79	65	86	70
cis-1,2-Dichloroethene	5	400	250	380	350	290	320	290
Trichloroethene	5	420	200	400	330	340	340	230
Vinyl chloride	2	92	63	79	68	57	81	53

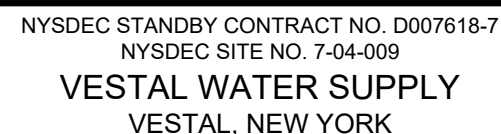
A diagram showing the Susquehanna River flowing into the Chesapeake Bay. The river is represented by a line with an arrow pointing towards the bay. The bay is labeled 'CHESAPEAKE BAY' and contains a small area labeled 'ANNE ARUNDEL COUNTY'. The river is labeled 'SUSQUEHANNA RIVER'.



- APPROXIMATE MONITORING WELL LOCATION
ROADWAY/DRIVEWAY
BUILDING
EDGE OF RIVER

4009-8 VOCs (ug/L)	NYSDEC GA Standard / Guidance Value	Mar. - 2018	June - 2018	Sept. - 2018	Dec. - 2018	Mar. - 2019	Oct. - 2019	Apr. - 2020
1,1,1-Trichloroethane	5	1100	800	3700	2000	4100	3300	1500
1,1-Dichloroethane	5	51	44	150	96	130	92	57
1,1-Dichloroethene	5	47	34	160	110	120	210	95
Chloroethane	5	40 U	5.2	40 U	40 U	40 U	80 U	50
cis-1,2-Dichloroethene	5	490	320	910	700	950	670	510
Trichloroethene	5	300	190	580	330	95	990	390
Vinyl chloride	2	40 U	11	40 U	40 U	40 U	80 U	50

NS - Not Sampled
ND - Not detected above NYSDEC GA Standard/Guidance Value
U - Compound was not detected at the indicated concentration
J - Indicates estimated value
NYSDEC GA Standard/Guidance Value -
New York State Department of Environmental Conservation
Groundwater Standard/Guidance Value
VOC - Volatile Organic Compounds
µg/L - Micrograms per Liter
 - Shaded values exceed the corresponding NYSDEC GA
Standard/Guidance Value



SCALE: AS SHOWN

FIGURE 2-3

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

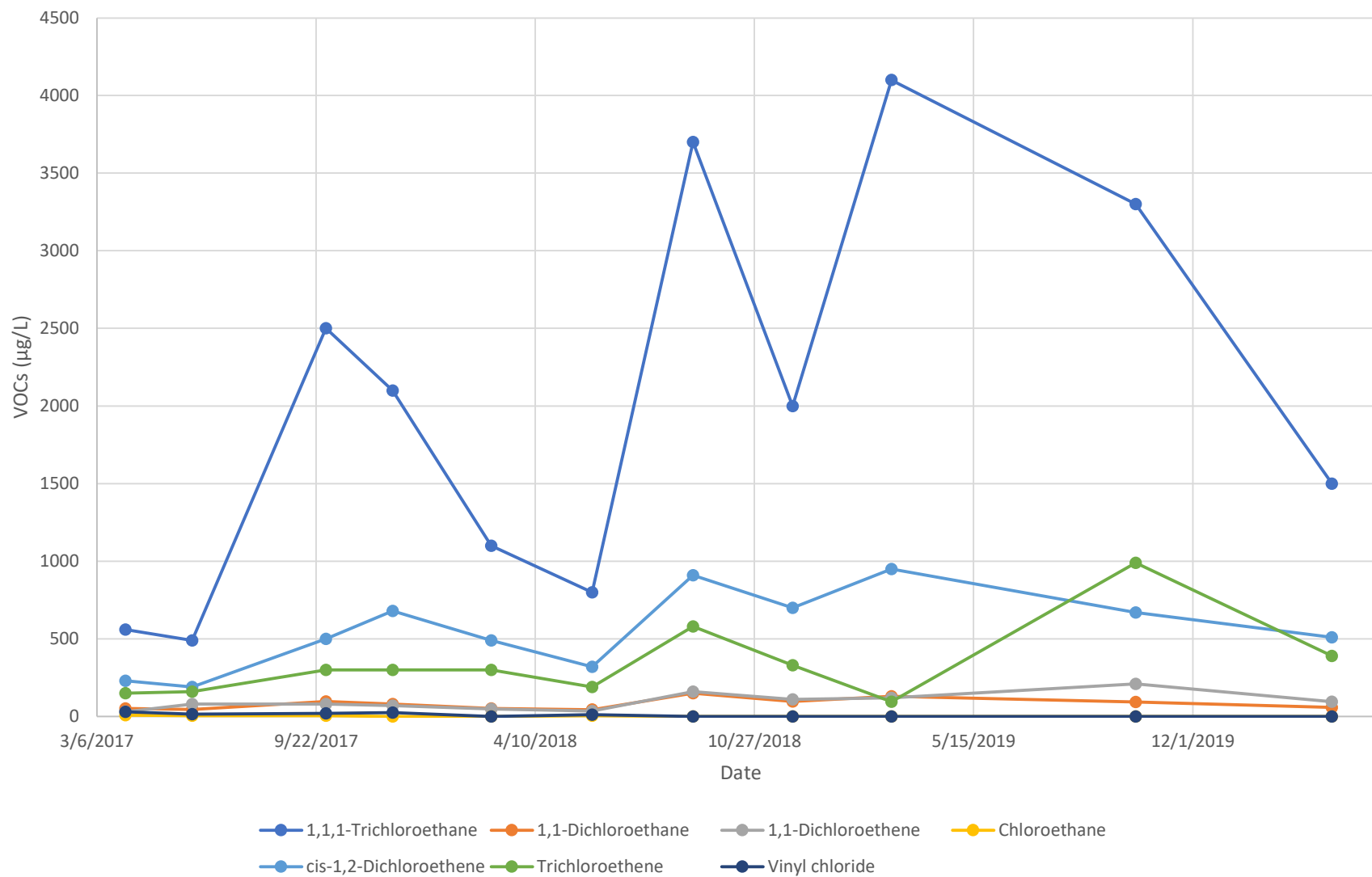


Figure 2-5
Vestal Water Supply Site
Site No. 7-04-009A
VOC Concentrations in Monitoring Well 4009-26

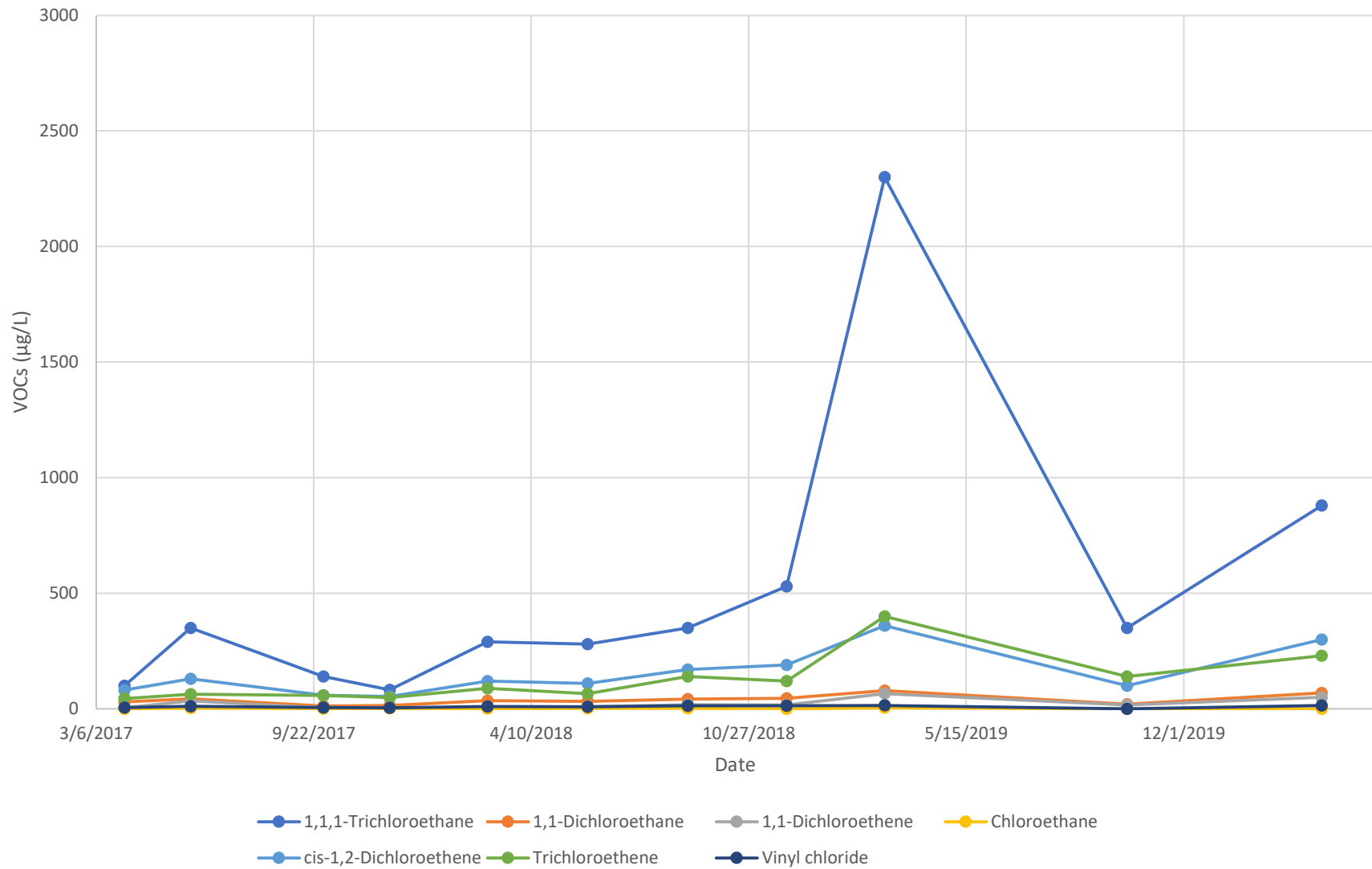
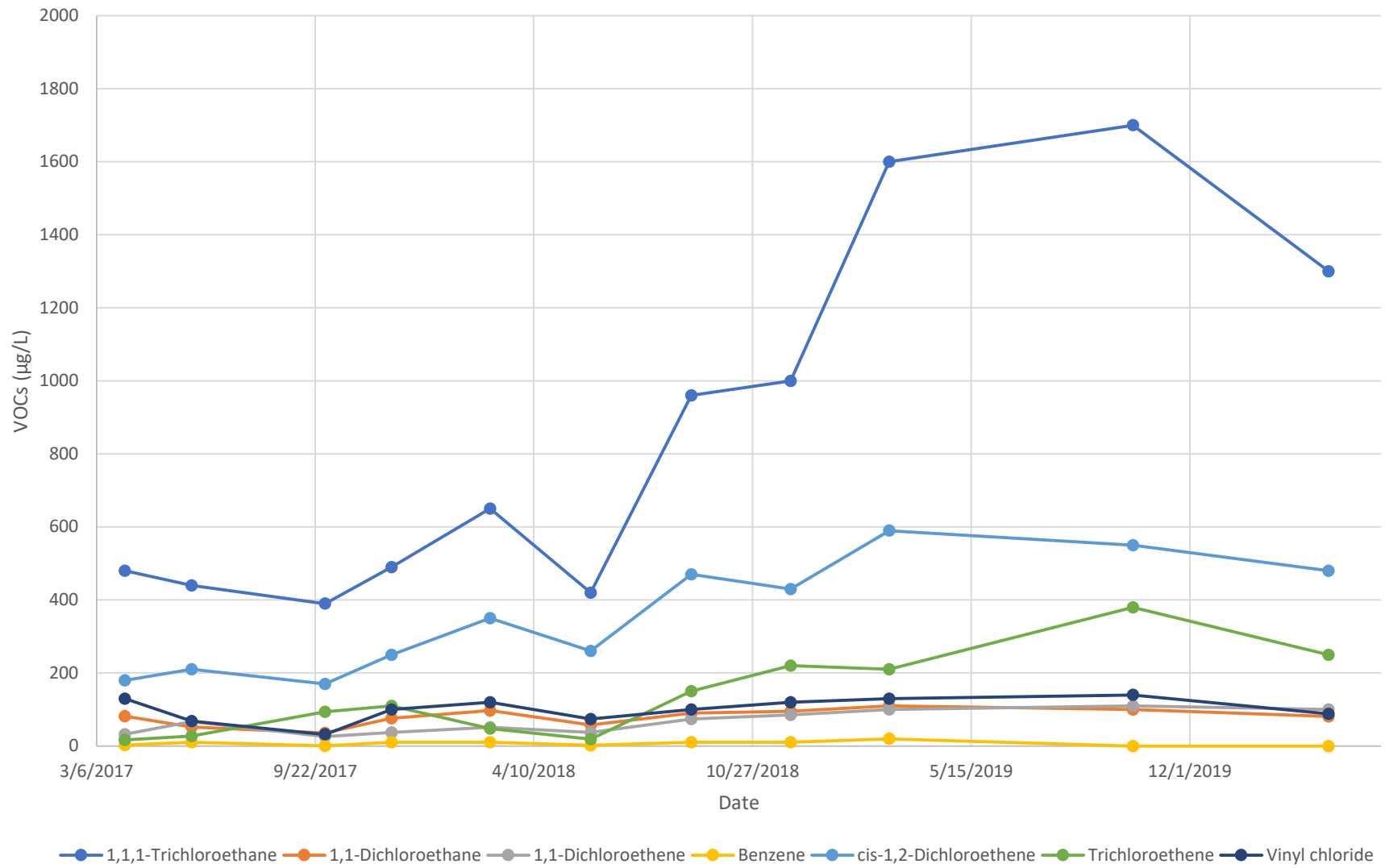


Figure 2-6
Vestal Water Supply Site
Site No. 7-04-009A
VOC Concentrations in Monitoring Well 4009-29S



Well 1-1	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
1,1,1-Trichloroethane	5	230	170	220	220	360	250	230
1,1-Dichloroethane	5	21	17	20	25	36	21	29
1,1-Dichloroethene	5	16	14	18	18	25	18	20
cis-1,2-Dichloroethene	5	69	56	68	78	100	73	87
Trichloroethene	5	73	53	67	67	89	71	64

4009-11	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
1,1,1-Trichloroethane	5	88	68	1.0 U	170	71	51	160
1,1-Dichloroethane	5	24	21	7.0	49	30	15	49
1,1-Dichloroethene	5	7.2	6.4	1.0 U	17	5.5	5.5	19
Benzene	1	1.0 U	1.0 U	8.9	1.0 U	2.0 U	1.0 U	2.0 U
cis-1,2-Dichloroethene	5	23	20	1.3	48	19	16	52
Trichloroethene	5	1.6	1.1	1.0 U	4.7	2.5	2.2	7.9
Vinyl chloride	2	17	19	1.7	38	18	11	40

4009-15	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
Benzene	1	9.3	9.0	7.3	8.7	8.8	9.2	9.0

4009-12	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
1,1,1-Trichloroethane	5	45	1.0 U	95	80	280	1.0 U	230
1,1-Dichloroethane	5	13	6.2	11	12	50	0.64 J	46
1,1-Dichloroethene	5	5.0	0.54 J	6.9	3.9	15	1.0 U	9.6
Benzene	1	2.5	1.7	0.73 J	1.0 U	0.44 J	1.0 U	4.0 U
Chloroethane	5	0.88 J	1.0 U	0.68 J	0.32 J	5.0	1.0 U	3.8 J
cis-1,2-Dichloroethene	5	15	2.0	25	14	55	1.0 U	22
Trichloroethene	5	14	1.6	25	13	51	1.0 U	23
Vinyl chloride	2	38	2.6	26	34	81	1.0 U	80

4009-16	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
Benzene	1	1.1	5.7	1.5	7.3	2.1	4.2	42

4009-29D	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
1,1,1-Trichloroethane	5	280	41	150	56	100	210	17
1,1-Dichloroethane	5	38	11	29	14	15	18	3.7 J
1,1-Dichloroethene	5	42	5.3	13	3.7	5.0	32	1.6 J
cis-1,2-Dichloroethene	5	180	26	77	20	29	93	3.8 J
Trichloroethene	5	120	10	16	12	12	100	5.3
Vinyl chloride	2	72	17	35	15	22	42	11

4009-27D	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)	ND	ND	ND	ND	ND	ND	ND

4009-13	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)	ND	ND	ND	ND	ND	ND	ND

4009-28	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
Benzene	1	1.0 U	0.61 J	1.0 U	1.0 U	1.0 U	2.4	1.0 U

4009-30	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
Benzene	1	5.3	4.1	33	0.87 J	1.2	4.5	1.6

4009-22	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	May - 2020
VOCs (ug/L)								
Benzene	1	1.2	0.96 J	1.2	0.96 J	1.1	1.2	0.97 J

4009-14	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
Benzene	1	13	11	1.6	1.5	1.7	1.3	1.1

4009-19	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
Benzene	1	1.0 U	1.0 U	1.5	0.50 J	1.0 U	1.0 U	1.0 U

4009-18	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)	ND	ND	ND	ND	ND	ND	ND

4009-21	NYSDEC GA Standard / Guidance Value	Mar.- 2018	June - 2018	Sept.- 2018	Dec.- 2018	Mar.- 2019	Oct.- 2019	Apr.- 2020
VOCs (ug/L)								
Benzene	1	17	11	5.3	11	7.3	3.7	7.7

LEGEND

- APPROXIMATE MONITORING WELL LOCATION
- ROADWAY/DRIVEWAY
- BUILDING
- EDGE OF RIVER

- NS - Not Sampled
- ND - Not detected above NYSDEC GA Standard/Guidance Value
- U - Compound was not detected at the indicated concentration
- J - Indicates estimated value
- NYSDEC GA Standard/Guidance Value - New York State Department of Environmental Conservation Groundwater Standard/Guidance Value
- VOC - Volatile Organic Compounds
- µg/L - Micrograms per Liter
- Shaded values exceed the corresponding NYSDEC GA Standard/Guidance Value



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



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

SUMMARY OF VOC SAMPLING RESULTS -
(DEEP WELLS)
SCALE: AS SHOWN

APRIL 2020
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

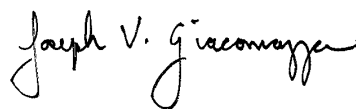
Laboratory Job ID: 480-165128-1

Client Project/Site: NYSDEC-Standby VESTAL

For:

ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Mr. Jeremy Wyckoff



Authorized for release by:

1/23/2020 2:49:06 PM

Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 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.

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Analyzed for but not detected.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Job ID: 480-165128-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-165128-1

Comments

No additional comments.

Receipt

The samples were received on 1/14/2020 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.5° C.

GC/MS VOA

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) associated with batch 480-513770. The following samples were affected : WELL1-2A (480-165128-1), WELL1-3 (480-165128-2), WELL 1-3 POST (480-165128-3) and TRIP BLANKS (480-165128-4).

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-513770 recovered outside acceptance criteria, low biased, for Chloromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

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

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Client Sample ID: WELL1-2A

Lab Sample ID: 480-165128-1

No Detections.

Client Sample ID: WELL1-3

Lab Sample ID: 480-165128-2

No Detections.

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-165128-3

No Detections.

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-165128-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Client Sample ID: WELL1-2A

Lab Sample ID: 480-165128-1

Date Collected: 01/13/20 09:40

Matrix: Water

Date Received: 01/14/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			01/16/20 12:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			01/16/20 12:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			01/16/20 12:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			01/16/20 12:41	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			01/16/20 12:41	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			01/16/20 12:41	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			01/16/20 12:41	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			01/16/20 12:41	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			01/16/20 12:41	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			01/16/20 12:41	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			01/16/20 12:41	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			01/16/20 12:41	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			01/16/20 12:41	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			01/16/20 12:41	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			01/16/20 12:41	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			01/16/20 12:41	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			01/16/20 12:41	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			01/16/20 12:41	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			01/16/20 12:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			01/16/20 12:41	1
Acetone	10	U	10	3.0	ug/L			01/16/20 12:41	1
Benzene	1.0	U	1.0	0.41	ug/L			01/16/20 12:41	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			01/16/20 12:41	1
Bromoform	1.0	U	1.0	0.26	ug/L			01/16/20 12:41	1
Bromomethane	1.0	U	1.0	0.69	ug/L			01/16/20 12:41	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			01/16/20 12:41	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			01/16/20 12:41	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			01/16/20 12:41	1
Chloroethane	1.0	U	1.0	0.32	ug/L			01/16/20 12:41	1
Chloroform	1.0	U	1.0	0.34	ug/L			01/16/20 12:41	1
Chloromethane	1.0	U	1.0	0.35	ug/L			01/16/20 12:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			01/16/20 12:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			01/16/20 12:41	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			01/16/20 12:41	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			01/16/20 12:41	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			01/16/20 12:41	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			01/16/20 12:41	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			01/16/20 12:41	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			01/16/20 12:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			01/16/20 12:41	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			01/16/20 12:41	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			01/16/20 12:41	1
Styrene	1.0	U	1.0	0.73	ug/L			01/16/20 12:41	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			01/16/20 12:41	1
Toluene	1.0	U	1.0	0.51	ug/L			01/16/20 12:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			01/16/20 12:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			01/16/20 12:41	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			01/16/20 12:41	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			01/16/20 12:41	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Client Sample ID: WELL1-2A

Lab Sample ID: 480-165128-1

Date Collected: 01/13/20 09:40

Matrix: Water

Date Received: 01/14/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			01/16/20 12:41	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			01/16/20 12:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		77 - 120					01/16/20 12:41	1
4-Bromofluorobenzene (Surr)	108		73 - 120					01/16/20 12:41	1
Dibromofluoromethane (Surr)	114		75 - 123					01/16/20 12:41	1
Toluene-d8 (Surr)	103		80 - 120					01/16/20 12:41	1

Client Sample ID: WELL1-3

Lab Sample ID: 480-165128-2

Date Collected: 01/13/20 09:25

Matrix: Water

Date Received: 01/14/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			01/16/20 13:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			01/16/20 13:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			01/16/20 13:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			01/16/20 13:05	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			01/16/20 13:05	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			01/16/20 13:05	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			01/16/20 13:05	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			01/16/20 13:05	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			01/16/20 13:05	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			01/16/20 13:05	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			01/16/20 13:05	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			01/16/20 13:05	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			01/16/20 13:05	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			01/16/20 13:05	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			01/16/20 13:05	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			01/16/20 13:05	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			01/16/20 13:05	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			01/16/20 13:05	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			01/16/20 13:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			01/16/20 13:05	1
Acetone	10	U	10	3.0	ug/L			01/16/20 13:05	1
Benzene	1.0	U	1.0	0.41	ug/L			01/16/20 13:05	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			01/16/20 13:05	1
Bromoform	1.0	U	1.0	0.26	ug/L			01/16/20 13:05	1
Bromomethane	1.0	U	1.0	0.69	ug/L			01/16/20 13:05	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			01/16/20 13:05	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			01/16/20 13:05	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			01/16/20 13:05	1
Chloroethane	1.0	U	1.0	0.32	ug/L			01/16/20 13:05	1
Chloroform	1.0	U	1.0	0.34	ug/L			01/16/20 13:05	1
Chloromethane	1.0	U	1.0	0.35	ug/L			01/16/20 13:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			01/16/20 13:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			01/16/20 13:05	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			01/16/20 13:05	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			01/16/20 13:05	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Client Sample ID: WELL1-3

Lab Sample ID: 480-165128-2

Date Collected: 01/13/20 09:25

Matrix: Water

Date Received: 01/14/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			01/16/20 13:05	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			01/16/20 13:05	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			01/16/20 13:05	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			01/16/20 13:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			01/16/20 13:05	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			01/16/20 13:05	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			01/16/20 13:05	1
Styrene	1.0	U	1.0	0.73	ug/L			01/16/20 13:05	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			01/16/20 13:05	1
Toluene	1.0	U	1.0	0.51	ug/L			01/16/20 13:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			01/16/20 13:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			01/16/20 13:05	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			01/16/20 13:05	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			01/16/20 13:05	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			01/16/20 13:05	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			01/16/20 13:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	112		77 - 120		01/16/20 13:05	1
4-Bromofluorobenzene (Surr)	106		73 - 120		01/16/20 13:05	1
Dibromofluoromethane (Surr)	106		75 - 123		01/16/20 13:05	1
Toluene-d8 (Surr)	105		80 - 120		01/16/20 13:05	1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-165128-3

Date Collected: 01/13/20 09:30

Matrix: Water

Date Received: 01/14/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			01/16/20 13:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			01/16/20 13:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			01/16/20 13:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			01/16/20 13:30	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			01/16/20 13:30	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			01/16/20 13:30	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			01/16/20 13:30	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			01/16/20 13:30	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			01/16/20 13:30	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			01/16/20 13:30	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			01/16/20 13:30	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			01/16/20 13:30	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			01/16/20 13:30	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			01/16/20 13:30	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			01/16/20 13:30	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			01/16/20 13:30	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			01/16/20 13:30	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			01/16/20 13:30	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			01/16/20 13:30	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			01/16/20 13:30	1
Acetone	10	U	10	3.0	ug/L			01/16/20 13:30	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-165128-3

Date Collected: 01/13/20 09:30

Matrix: Water

Date Received: 01/14/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			01/16/20 13:30	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			01/16/20 13:30	1
Bromoform	1.0	U	1.0	0.26	ug/L			01/16/20 13:30	1
Bromomethane	1.0	U	1.0	0.69	ug/L			01/16/20 13:30	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			01/16/20 13:30	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			01/16/20 13:30	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			01/16/20 13:30	1
Chloroethane	1.0	U	1.0	0.32	ug/L			01/16/20 13:30	1
Chloroform	1.0	U	1.0	0.34	ug/L			01/16/20 13:30	1
Chloromethane	1.0	U	1.0	0.35	ug/L			01/16/20 13:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			01/16/20 13:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			01/16/20 13:30	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			01/16/20 13:30	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			01/16/20 13:30	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			01/16/20 13:30	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			01/16/20 13:30	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			01/16/20 13:30	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			01/16/20 13:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			01/16/20 13:30	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			01/16/20 13:30	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			01/16/20 13:30	1
Styrene	1.0	U	1.0	0.73	ug/L			01/16/20 13:30	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			01/16/20 13:30	1
Toluene	1.0	U	1.0	0.51	ug/L			01/16/20 13:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			01/16/20 13:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			01/16/20 13:30	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			01/16/20 13:30	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			01/16/20 13:30	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			01/16/20 13:30	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			01/16/20 13:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 120		01/16/20 13:30	1
4-Bromofluorobenzene (Surr)	103		73 - 120		01/16/20 13:30	1
Dibromofluoromethane (Surr)	106		75 - 123		01/16/20 13:30	1
Toluene-d8 (Surr)	103		80 - 120		01/16/20 13:30	1

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-165128-4

Date Collected: 01/13/20 00:00

Matrix: Water

Date Received: 01/14/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			01/16/20 13:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			01/16/20 13:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			01/16/20 13:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			01/16/20 13:54	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			01/16/20 13:54	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			01/16/20 13:54	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			01/16/20 13:54	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-165128-4

Date Collected: 01/13/20 00:00

Matrix: Water

Date Received: 01/14/20 09:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			01/16/20 13:54	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			01/16/20 13:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			01/16/20 13:54	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			01/16/20 13:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			01/16/20 13:54	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			01/16/20 13:54	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			01/16/20 13:54	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			01/16/20 13:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			01/16/20 13:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			01/16/20 13:54	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			01/16/20 13:54	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			01/16/20 13:54	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			01/16/20 13:54	1
Acetone	10	U	10	3.0	ug/L			01/16/20 13:54	1
Benzene	1.0	U	1.0	0.41	ug/L			01/16/20 13:54	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			01/16/20 13:54	1
Bromoform	1.0	U	1.0	0.26	ug/L			01/16/20 13:54	1
Bromomethane	1.0	U	1.0	0.69	ug/L			01/16/20 13:54	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			01/16/20 13:54	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			01/16/20 13:54	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			01/16/20 13:54	1
Chloroethane	1.0	U	1.0	0.32	ug/L			01/16/20 13:54	1
Chloroform	1.0	U	1.0	0.34	ug/L			01/16/20 13:54	1
Chloromethane	1.0	U	1.0	0.35	ug/L			01/16/20 13:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			01/16/20 13:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			01/16/20 13:54	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			01/16/20 13:54	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			01/16/20 13:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			01/16/20 13:54	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			01/16/20 13:54	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			01/16/20 13:54	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			01/16/20 13:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			01/16/20 13:54	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			01/16/20 13:54	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			01/16/20 13:54	1
Styrene	1.0	U	1.0	0.73	ug/L			01/16/20 13:54	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			01/16/20 13:54	1
Toluene	1.0	U	1.0	0.51	ug/L			01/16/20 13:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			01/16/20 13:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			01/16/20 13:54	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			01/16/20 13:54	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			01/16/20 13:54	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			01/16/20 13:54	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			01/16/20 13:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		01/16/20 13:54	1
4-Bromofluorobenzene (Surr)	104		73 - 120		01/16/20 13:54	1
Dibromofluoromethane (Surr)	103		75 - 123		01/16/20 13:54	1
Toluene-d8 (Surr)	105		80 - 120		01/16/20 13:54	1

Eurofins TestAmerica, Buffalo

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

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)
480-165128-1	WELL1-2A	111	108	114	103
480-165128-2	WELL1-3	112	106	106	105
480-165128-3	WELL 1-3 POST	109	103	106	103
480-165128-4	TRIP BLANKS	108	104	103	105
LCS 480-513770/5	Lab Control Sample	110	100	102	97
MB 480-513770/7	Method Blank	107	104	104	101

Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

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

Lab Sample ID: MB 480-513770/7

Matrix: Water

Analysis Batch: 513770

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	1.0	U	1.0	0.82	ug/L			01/16/20 11:58	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			01/16/20 11:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			01/16/20 11:58	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			01/16/20 11:58	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			01/16/20 11:58	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			01/16/20 11:58	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			01/16/20 11:58	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			01/16/20 11:58	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			01/16/20 11:58	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			01/16/20 11:58	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			01/16/20 11:58	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			01/16/20 11:58	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			01/16/20 11:58	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			01/16/20 11:58	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			01/16/20 11:58	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			01/16/20 11:58	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			01/16/20 11:58	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			01/16/20 11:58	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			01/16/20 11:58	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			01/16/20 11:58	1
Acetone	10	U	10	3.0	ug/L			01/16/20 11:58	1
Benzene	1.0	U	1.0	0.41	ug/L			01/16/20 11:58	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			01/16/20 11:58	1
Bromoform	1.0	U	1.0	0.26	ug/L			01/16/20 11:58	1
Bromomethane	1.0	U	1.0	0.69	ug/L			01/16/20 11:58	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			01/16/20 11:58	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			01/16/20 11:58	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			01/16/20 11:58	1
Chloroethane	1.0	U	1.0	0.32	ug/L			01/16/20 11:58	1
Chloroform	1.0	U	1.0	0.34	ug/L			01/16/20 11:58	1
Chloromethane	1.0	U	1.0	0.35	ug/L			01/16/20 11:58	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			01/16/20 11:58	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			01/16/20 11:58	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			01/16/20 11:58	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			01/16/20 11:58	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			01/16/20 11:58	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			01/16/20 11:58	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			01/16/20 11:58	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			01/16/20 11:58	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			01/16/20 11:58	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			01/16/20 11:58	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			01/16/20 11:58	1
Styrene	1.0	U	1.0	0.73	ug/L			01/16/20 11:58	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			01/16/20 11:58	1
Toluene	1.0	U	1.0	0.51	ug/L			01/16/20 11:58	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			01/16/20 11:58	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			01/16/20 11:58	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			01/16/20 11:58	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

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

Lab Sample ID: MB 480-513770/7

Matrix: Water

Analysis Batch: 513770

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			01/16/20 11:58	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			01/16/20 11:58	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			01/16/20 11:58	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120					01/16/20 11:58	1
4-Bromofluorobenzene (Surr)	104		73 - 120					01/16/20 11:58	1
Dibromofluoromethane (Surr)	104		75 - 123					01/16/20 11:58	1
Toluene-d8 (Surr)	101		80 - 120					01/16/20 11:58	1

Lab Sample ID: LCS 480-513770/5

Matrix: Water

Analysis Batch: 513770

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	26.0		ug/L		104	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.6		ug/L		107	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.7		ug/L		95	61 - 148
1,1,2-Trichloroethane	25.0	24.7		ug/L		99	76 - 122
1,1-Dichloroethane	25.0	25.9		ug/L		103	77 - 120
1,1-Dichloroethene	25.0	24.7		ug/L		99	66 - 127
1,2,3-Trimethylbenzene	25.0	28.7		ug/L		115	78 - 120
1,2,4-Trichlorobenzene	25.0	26.0		ug/L		104	79 - 122
1,2,4-Trimethylbenzene	25.0	27.9		ug/L		112	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	27.2		ug/L		109	56 - 134
1,2-Dibromoethane	25.0	27.2		ug/L		109	77 - 120
1,2-Dichlorobenzene	25.0	25.7		ug/L		103	80 - 124
1,2-Dichloroethane	25.0	27.2		ug/L		109	75 - 120
1,2-Dichloropropane	25.0	25.8		ug/L		103	76 - 120
1,3,5-Trimethylbenzene	25.0	27.4		ug/L		109	77 - 121
1,3-Dichlorobenzene	25.0	26.0		ug/L		104	77 - 120
1,4-Dichlorobenzene	25.0	25.7		ug/L		103	80 - 120
2-Butanone (MEK)	125	229 *		ug/L		183	57 - 140
2-Hexanone	125	125		ug/L		100	65 - 127
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		103	71 - 125
Acetone	125	130		ug/L		104	56 - 142
Benzene	25.0	25.4		ug/L		102	71 - 124
Bromodichloromethane	25.0	27.7		ug/L		111	80 - 122
Bromoform	25.0	27.9		ug/L		111	61 - 132
Bromomethane	25.0	23.6		ug/L		94	55 - 144
Carbon disulfide	25.0	24.7		ug/L		99	59 - 134
Carbon tetrachloride	25.0	25.9		ug/L		104	72 - 134
Chlorobenzene	25.0	25.0		ug/L		100	80 - 120
Chloroethane	25.0	22.8		ug/L		91	69 - 136
Chloroform	25.0	26.7		ug/L		107	73 - 127
Chloromethane	25.0	19.7		ug/L		79	68 - 124
cis-1,2-Dichloroethene	25.0	25.9		ug/L		104	74 - 124
cis-1,3-Dichloropropene	25.0	26.9		ug/L		108	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

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

Lab Sample ID: LCS 480-513770/5

Matrix: Water

Analysis Batch: 513770

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	22.8		ug/L		91	59 - 135
Dibromochloromethane	25.0	27.8		ug/L		111	75 - 125
Dichlorodifluoromethane	25.0	17.5		ug/L		70	59 - 135
Ethylbenzene	25.0	25.8		ug/L		103	77 - 123
Isopropylbenzene	25.0	26.8		ug/L		107	77 - 122
Methyl acetate	50.0	48.3		ug/L		97	74 - 133
Methyl tert-butyl ether	25.0	25.8		ug/L		103	77 - 120
Methylcyclohexane	25.0	23.0		ug/L		92	68 - 134
Methylene Chloride	25.0	26.1		ug/L		104	75 - 124
Styrene	25.0	26.5		ug/L		106	80 - 120
Tetrachloroethene	25.0	25.4		ug/L		101	74 - 122
Toluene	25.0	25.7		ug/L		103	80 - 122
trans-1,2-Dichloroethene	25.0	25.1		ug/L		100	73 - 127
trans-1,3-Dichloropropene	25.0	26.8		ug/L		107	80 - 120
Trichloroethene	25.0	25.8		ug/L		103	74 - 123
Trichlorofluoromethane	25.0	21.0		ug/L		84	62 - 150
Vinyl chloride	25.0	19.3		ug/L		77	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		77 - 120
4-Bromofluorobenzene (Surr)	100		73 - 120
Dibromofluoromethane (Surr)	102		75 - 123
Toluene-d8 (Surr)	97		80 - 120

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

GC/MS VOA

Analysis Batch: 513770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-165128-1	WELL1-2A	Total/NA	Water	8260C	
480-165128-2	WELL1-3	Total/NA	Water	8260C	
480-165128-3	WELL 1-3 POST	Total/NA	Water	8260C	
480-165128-4	TRIP BLANKS	Total/NA	Water	8260C	
MB 480-513770/7	Method Blank	Total/NA	Water	8260C	
LCS 480-513770/5	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Client Sample ID: WELL1-2A

Lab Sample ID: 480-165128-1

Date Collected: 01/13/20 09:40

Matrix: Water

Date Received: 01/14/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	513770	01/16/20 12:41	CDC	TAL BUF

Client Sample ID: WELL1-3

Lab Sample ID: 480-165128-2

Date Collected: 01/13/20 09:25

Matrix: Water

Date Received: 01/14/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	513770	01/16/20 13:05	CDC	TAL BUF

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-165128-3

Date Collected: 01/13/20 09:30

Matrix: Water

Date Received: 01/14/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	513770	01/16/20 13:30	CDC	TAL BUF

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-165128-4

Date Collected: 01/13/20 00:00

Matrix: Water

Date Received: 01/14/20 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	513770	01/16/20 13:54	CDC	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0686	07-06-20
California	State	2931	04-01-20 *
Connecticut	State	PH-0568	09-30-20
Florida	NELAP	E87672	06-30-20
Georgia	State	10026 (NY)	03-31-20 *
Georgia (DW)	State	956	03-31-20 *
Illinois	NELAP	200003	09-30-19 *
Iowa	State	374	02-28-21
Kansas	NELAP	E-10187	01-31-20
Kentucky (DW)	State	90029	12-31-20 *
Kentucky (UST)	State	30	03-31-20 *
Kentucky (WW)	State	KY90029	12-31-20
Louisiana	NELAP	02031	06-30-20
Maine	State	NY00044	12-04-20
Maryland	State	294	03-31-20 *
Massachusetts	State	M-NY044	06-30-20
Michigan	State	9937	03-31-20 *
Minnesota	NELAP	1524384	12-31-20
New Hampshire	NELAP	2337	11-17-19 *
New Jersey	NELAP	NY455	06-30-20
New York	NELAP	10026	04-01-20 *
North Dakota	State	R-176	03-31-20 *
Oklahoma	State	9421	09-01-20
Oregon	NELAP	NY200003	06-10-20
Pennsylvania	NELAP	68-00281	07-31-20
Rhode Island	State	LAO00328	12-30-20 *
Tennessee	State	02970	03-31-20 *
Texas	NELAP	T104704412-18-10	08-01-20
USDA	US Federal Programs	P330-18-00039	02-06-21
Virginia	NELAP	460185	09-14-20
Washington	State	C784	02-10-20 *
Wisconsin	State	998310390	08-31-20

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Buffalo

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-165128-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-165128-1	WELL1-2A	Water	01/13/20 09:40	01/14/20 09:00	
480-165128-2	WELL1-3	Water	01/13/20 09:25	01/14/20 09:00	
480-165128-3	WELL 1-3 POST	Water	01/13/20 09:30	01/14/20 09:00	
480-165128-4	TRIP BLANKS	Water	01/13/20 00:00	01/14/20 09:00	

Chain of Custody Record

Client Information Client Contact: Ms. Katie Bidwell Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State, Zip: NY, 12065 Phone: 518-250-7300 (Tel) Email: katie.bidwell@arcadis-us.com Project Name: NYSDEC-Standby VESTAL Site: Town of Vestal Water Supply		Lab PM: Stone, Judy L E-Mail: judy.stone@testamericainc.com Phone: (315) 436-5041	
Due Date Requested: TAT Requested (days): Standard		Analysis Requested Perform MS/MSD (Yes or No) ☒ Field Filtered Sample (Yes or No) ☒ 8260C - (MOD) TCL list OLM04.2 ☒	
PO #: Project 00266401.0000 WO #: Contract D007618 Project #: 48005198 SSOW#:		Matrix (W=water, S=solid, O=soil, BT=tissue, A=air) Sample Type (C=comp, G=grab) Sample Time Sample Date	
Well 1-2A Well 1-3 Well 1-3 Post Trip Blanks		Preservation Code: Water Water Water W	
Sample Identification		Special Instructions/Note:	
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Method of Shipment:	
Relinquished by: [Signature] Date/Time: 01-13-20 / 1130 Company: Arcadis		Received by: [Signature] Date/Time: 11/4/20 0900 Company: [Signature]	
Relinquished by:		Received by:	
Relinquished by:		Received by:	
Custody Seal No.: Δ Yes Δ No		Cooler Temperature(s) °C and Other Remarks: #1 2.5	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-165128-1

Login Number: 165128

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	



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0A1334

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: 01/28/2020
Reported: 02/06/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0A1334-01

Collected By: Michael Emm
Collection Date: 01/28/2020 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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Bromodichloromethane	<0.50		0.50	ug/L			01/31/20 1450	RSD
Bromoform	<0.50		0.50	ug/L			01/31/20 1450	RSD
Bromomethane	<0.50		0.50	ug/L			01/31/20 1450	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Chloroform	<0.50		0.50	ug/L			01/31/20 1450	RSD
Chloromethane	<0.50		0.50	ug/L			01/31/20 1450	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Dibromochloromethane	<0.50		0.50	ug/L			01/31/20 1450	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD

Microbac Laboratories, Inc.

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0A1334

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0A1334-01

Collected By: Michael Emm
Collection Date: 01/28/2020 10:15

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			01/31/20 1450	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1450	RSD
Surrogate: 4-Bromofluorobenzene	78.2	Limit: 70-130		% Rec			01/31/20 1450	RSD
Surrogate: 1,2-Dichlorobenzene-d4	82.0	Limit: 70-130		% Rec			01/31/20 1450	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0A1334

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0A1334-02

Collected By: Michael Emm
Collection Date: 01/28/2020 10:21

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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Bromodichloromethane	<0.50		0.50	ug/L			01/31/20 1516	RSD
Bromoform	<0.50		0.50	ug/L			01/31/20 1516	RSD
Bromomethane	<0.50		0.50	ug/L			01/31/20 1516	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Chloroform	<0.50		0.50	ug/L			01/31/20 1516	RSD
Chloromethane	<0.50		0.50	ug/L			01/31/20 1516	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Dibromochloromethane	<0.50		0.50	ug/L			01/31/20 1516	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD

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CERTIFICATE OF ANALYSIS

J0A1334

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0A1334-02

Collected By: Michael Emm
Collection Date: 01/28/2020 10:21

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			01/31/20 1516	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1516	RSD
Surrogate: 4-Bromofluorobenzene	75.2	Limit: 70-130		% Rec			01/31/20 1516	RSD
Surrogate: 1,2-Dichlorobenzene-d4	78.4	Limit: 70-130		% Rec			01/31/20 1516	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0A1334

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0A1334-03

Collected By: Michael Emm
Collection Date: 01/28/2020 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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Bromodichloromethane	<0.50		0.50	ug/L			01/31/20 1542	RSD
Bromoform	<0.50		0.50	ug/L			01/31/20 1542	RSD
Bromomethane	<0.50		0.50	ug/L			01/31/20 1542	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Chloroform	<0.50		0.50	ug/L			01/31/20 1542	RSD
Chloromethane	<0.50		0.50	ug/L			01/31/20 1542	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Dibromochloromethane	<0.50		0.50	ug/L			01/31/20 1542	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD

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CERTIFICATE OF ANALYSIS

J0A1334

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0A1334-03

Collected By: Michael Emm
Collection Date: 01/28/2020 10:05

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			01/31/20 1542	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			01/31/20 1542	RSD
Surrogate: 4-Bromofluorobenzene	71.6	Limit: 70-130		% Rec			01/31/20 1542	RSD
Surrogate: 1,2-Dichlorobenzene-d4	78.4	Limit: 70-130		% Rec			01/31/20 1542	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0A1334

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0A1334-04

Collected By: Michael Emm
Collection Date: 01/28/2020 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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Bromodichloromethane	<0.50		0.50	ug/L			01/30/20 1809	JAN
Bromoform	<0.50		0.50	ug/L			01/30/20 1809	JAN
Bromomethane	<0.50		0.50	ug/L			01/30/20 1809	JAN
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Chloroform	0.55		0.50	ug/L			01/30/20 1809	JAN
Chloromethane	<0.50		0.50	ug/L			01/30/20 1809	JAN
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Dibromochloromethane	<0.50		0.50	ug/L			01/30/20 1809	JAN
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN

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CERTIFICATE OF ANALYSIS

J0A1334

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0A1334-04

Collected By: Michael Emm
Collection Date: 01/28/2020 10:10

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Toluene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			01/30/20 1809	JAN
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1809	JAN
Surrogate: 4-Bromofluorobenzene	0.0805	Limit: 70-130		% Rec			01/30/20 1809	JAN
Surrogate: 1,2-Dichlorobenzene-d4	0.0856	Limit: 70-130		% Rec			01/30/20 1809	JAN



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0A1334

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0A1334-07

Collected By: Thomas Webster
Collection Date: 01/27/2020 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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Bromodichloromethane	<0.50		0.50	ug/L			01/30/20 1718	JAN
Bromoform	<0.50		0.50	ug/L			01/30/20 1718	JAN
Bromomethane	<0.50		0.50	ug/L			01/30/20 1718	JAN
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Chloroform	<0.50		0.50	ug/L			01/30/20 1718	JAN
Chloromethane	<0.50		0.50	ug/L			01/30/20 1718	JAN
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Dibromochloromethane	<0.50		0.50	ug/L			01/30/20 1718	JAN
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN

Microbac Laboratories, Inc.

3821 Buck Dr. | Cortland, NY 13045 | 607-753-3403 p | www.microbac.com

Page 13 of 18



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0A1334

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0A1334-07

Collected By: Thomas Webster
Collection Date: 01/27/2020 14:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Toluene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			01/30/20 1718	JAN
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			01/30/20 1718	JAN
Surrogate: 4-Bromofluorobenzene	0.0728	Limit: 70-130		% Rec			01/30/20 1718	JAN
Surrogate: 1,2-Dichlorobenzene-d4	0.0813	Limit: 70-130		% Rec			01/30/20 1718	JAN

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



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0A1334

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.

Reviewed and Approved By:

A handwritten signature in black ink that reads "Renee Lantz". The signature is fluid and cursive, with the first name "Renee" and last name "Lantz" clearly distinguishable.

Renee Lantz

Customer Relationship Specialist

Reported: 02/06/2020 20:17



Microbac Laboratories, Inc., New York Division

Chain of Custody

J0A1334**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: 1/14/2020
Lab Manager: Renee Lantz
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J0A1334-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 1-28-2020 10:15

<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		14.00 days
		<u>Container(s)</u>	<u>Designator</u>
		V-40ml Clear vial, HCL	A
		V-40ml Clear vial, HCL	B

Client Sample ID: 1-2A Finished

Lab Sample ID: J0A1334-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 1-28-2020 10:21

<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		14.00 days
		<u>Container(s)</u>	<u>Designator</u>
		V-40ml Clear Vial, Ascorbic Acid, HCL	A
		V-40ml Clear Vial, Ascorbic Acid, HCL	B

Client Sample ID: 1-3 Raw

Lab Sample ID: J0A1334-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 1-28-2020 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		14.00 days
		<u>Container(s)</u>	<u>Designator</u>
		V-40ml Clear vial, HCL	A
		V-40ml Clear vial, HCL	B



Microbac Laboratories, Inc., New York Division

Chain of Custody

J0A1334

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: 1/14/2020
Lab Manager: Renee Lantz
Route: NY-Route 1 Bing

Client Sample ID: 1-3 Finished

Lab Sample ID: J0A1334-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 1-28-2020 10:10

<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		14.00 days
		<u>Container(s)</u>	<u>Designator</u>
		V-40ml Clear Vial, Ascorbic Acid, HCL	A
		V-40ml Clear Vial, Ascorbic Acid, HCL	B

Client Sample ID: 4-2 Raw

Lab Sample ID: J0A1334-05

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 1-28-2020 10:30

<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		14.00 days
		<u>Container(s)</u>	<u>Designator</u>
		V-40ml Clear vial, HCL	A
		V-40ml Clear vial, HCL	B

Client Sample ID: 4-2 Finished

Lab Sample ID: J0A1334-06

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 1-28-2020 10:40

<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		14.00 days
		<u>Container(s)</u>	<u>Designator</u>
		V-40ml Clear Vial, Ascorbic Acid, HCL	A
		V-40ml Clear Vial, Ascorbic Acid, HCL	B



Microbac Laboratories, Inc., New York Division
Chain of Custody
J0A1334

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: 1/14/2020
Lab Manager: Renee Lantz
Route: NY-Route 1 Bing

Client Sample ID: Trip Blank

Lab Sample ID: J0A1334-07

Matrix: Drinking Water

Sampled Date & Time: 1-27-2020 / 1400

Type: Trip Blank

AnalysisMethodField Results/CommentsHold Time

524.2 VOC NY

EPA 524.2, Rv 4.1

14.00 days

Container(s)Designator

V-40ml Clear vial, HCL

A

Sampled/Relinquished by: <i>Michael Emm</i>	Date/Time: <u>1-28-2020</u> <u>13:10</u>	Received by: <i>[Signature]</i>
Printed Name: Bethany Robinson <i>Michael Emm</i>		Printed Name: <i>[Signature]</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 / NoTemp 5.0 °C

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:

ANALYTICAL REPORT

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

Laboratory Job ID: 480-166112-1

Client Project/Site: NYSDEC-Standby VESTAL

For:

ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Mr. Jeremy Wyckoff



Authorized for release by:

2/18/2020 1:41:01 PM

Alexander Gilbert, Project Management Assistant I
alexander.gilbert@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 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.

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.



Alexander Gilbert
Project Management Assistant I
2/18/2020 1:41:01 PM

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

Job ID: 480-166112-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-166112-1

Comments

No additional comments.

Receipt

The samples were received on 2/7/2020 2:30 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.2° C.

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-517391 recovered above the upper control limit for 2-Hexanone. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The following samples are impacted: WELL 1-2A (480-166112-1), WELL 1-3 (480-166112-2), WELL 1-3 POST (480-166112-3) and TRIP BLANK (480-166112-4).

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 517391. The following samples were affected : WELL 1-2A (480-166112-1), WELL 1-3 (480-166112-2), WELL 1-3 POST (480-166112-3) and TRIP BLANK (480-166112-4).

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

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-166112-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.36	J	1.0	0.35	ug/L	1		8260C	Total/NA

Client Sample ID: WELL 1-3

Lab Sample ID: 480-166112-2

No Detections.

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-166112-3

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-166112-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-166112-1

Date Collected: 02/06/20 11:00

Matrix: Water

Date Received: 02/07/20 14:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			02/13/20 12:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			02/13/20 12:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			02/13/20 12:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/13/20 12:28	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			02/13/20 12:28	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/13/20 12:28	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			02/13/20 12:28	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			02/13/20 12:28	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			02/13/20 12:28	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			02/13/20 12:28	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			02/13/20 12:28	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			02/13/20 12:28	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			02/13/20 12:28	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			02/13/20 12:28	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			02/13/20 12:28	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			02/13/20 12:28	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			02/13/20 12:28	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			02/13/20 12:28	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			02/13/20 12:28	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			02/13/20 12:28	1
Acetone	10	U	10	3.0	ug/L			02/13/20 12:28	1
Benzene	1.0	U	1.0	0.41	ug/L			02/13/20 12:28	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			02/13/20 12:28	1
Bromoform	1.0	U	1.0	0.26	ug/L			02/13/20 12:28	1
Bromomethane	1.0	U	1.0	0.69	ug/L			02/13/20 12:28	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			02/13/20 12:28	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			02/13/20 12:28	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			02/13/20 12:28	1
Chloroethane	1.0	U	1.0	0.32	ug/L			02/13/20 12:28	1
Chloroform	1.0	U	1.0	0.34	ug/L			02/13/20 12:28	1
Chloromethane	0.36	J	1.0	0.35	ug/L			02/13/20 12:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			02/13/20 12:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			02/13/20 12:28	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			02/13/20 12:28	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			02/13/20 12:28	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			02/13/20 12:28	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			02/13/20 12:28	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			02/13/20 12:28	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			02/13/20 12:28	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			02/13/20 12:28	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			02/13/20 12:28	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			02/13/20 12:28	1
Styrene	1.0	U	1.0	0.73	ug/L			02/13/20 12:28	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			02/13/20 12:28	1
Toluene	1.0	U	1.0	0.51	ug/L			02/13/20 12:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			02/13/20 12:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			02/13/20 12:28	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			02/13/20 12:28	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			02/13/20 12:28	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-166112-1

Date Collected: 02/06/20 11:00

Matrix: Water

Date Received: 02/07/20 14:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			02/13/20 12:28	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			02/13/20 12:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 120		02/13/20 12:28	1
4-Bromofluorobenzene (Surr)	98		73 - 120		02/13/20 12:28	1
Dibromofluoromethane (Surr)	101		75 - 123		02/13/20 12:28	1
Toluene-d8 (Surr)	97		80 - 120		02/13/20 12:28	1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-166112-2

Date Collected: 02/06/20 11:05

Matrix: Water

Date Received: 02/07/20 14:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			02/13/20 12:52	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			02/13/20 12:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			02/13/20 12:52	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/13/20 12:52	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			02/13/20 12:52	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/13/20 12:52	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			02/13/20 12:52	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			02/13/20 12:52	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			02/13/20 12:52	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			02/13/20 12:52	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			02/13/20 12:52	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			02/13/20 12:52	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			02/13/20 12:52	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			02/13/20 12:52	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			02/13/20 12:52	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			02/13/20 12:52	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			02/13/20 12:52	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			02/13/20 12:52	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			02/13/20 12:52	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			02/13/20 12:52	1
Acetone	10	U	10	3.0	ug/L			02/13/20 12:52	1
Benzene	1.0	U	1.0	0.41	ug/L			02/13/20 12:52	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			02/13/20 12:52	1
Bromoform	1.0	U	1.0	0.26	ug/L			02/13/20 12:52	1
Bromomethane	1.0	U	1.0	0.69	ug/L			02/13/20 12:52	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			02/13/20 12:52	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			02/13/20 12:52	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			02/13/20 12:52	1
Chloroethane	1.0	U	1.0	0.32	ug/L			02/13/20 12:52	1
Chloroform	1.0	U	1.0	0.34	ug/L			02/13/20 12:52	1
Chloromethane	1.0	U	1.0	0.35	ug/L			02/13/20 12:52	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			02/13/20 12:52	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			02/13/20 12:52	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			02/13/20 12:52	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			02/13/20 12:52	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-166112-2

Date Collected: 02/06/20 11:05

Matrix: Water

Date Received: 02/07/20 14:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			02/13/20 12:52	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			02/13/20 12:52	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			02/13/20 12:52	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			02/13/20 12:52	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			02/13/20 12:52	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			02/13/20 12:52	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			02/13/20 12:52	1
Styrene	1.0	U	1.0	0.73	ug/L			02/13/20 12:52	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			02/13/20 12:52	1
Toluene	1.0	U	1.0	0.51	ug/L			02/13/20 12:52	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			02/13/20 12:52	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			02/13/20 12:52	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			02/13/20 12:52	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			02/13/20 12:52	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			02/13/20 12:52	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			02/13/20 12:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		77 - 120		02/13/20 12:52	1
4-Bromofluorobenzene (Surr)	99		73 - 120		02/13/20 12:52	1
Dibromofluoromethane (Surr)	101		75 - 123		02/13/20 12:52	1
Toluene-d8 (Surr)	97		80 - 120		02/13/20 12:52	1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-166112-3

Date Collected: 02/06/20 11:10

Matrix: Water

Date Received: 02/07/20 14:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			02/13/20 13:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			02/13/20 13:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			02/13/20 13:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/13/20 13:16	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			02/13/20 13:16	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/13/20 13:16	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			02/13/20 13:16	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			02/13/20 13:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			02/13/20 13:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			02/13/20 13:16	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			02/13/20 13:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			02/13/20 13:16	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			02/13/20 13:16	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			02/13/20 13:16	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			02/13/20 13:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			02/13/20 13:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			02/13/20 13:16	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			02/13/20 13:16	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			02/13/20 13:16	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			02/13/20 13:16	1
Acetone	10	U	10	3.0	ug/L			02/13/20 13:16	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-166112-3

Date Collected: 02/06/20 11:10

Matrix: Water

Date Received: 02/07/20 14:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			02/13/20 13:16	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			02/13/20 13:16	1
Bromoform	1.0	U	1.0	0.26	ug/L			02/13/20 13:16	1
Bromomethane	1.0	U	1.0	0.69	ug/L			02/13/20 13:16	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			02/13/20 13:16	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			02/13/20 13:16	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			02/13/20 13:16	1
Chloroethane	1.0	U	1.0	0.32	ug/L			02/13/20 13:16	1
Chloroform	1.0	U	1.0	0.34	ug/L			02/13/20 13:16	1
Chloromethane	1.0	U	1.0	0.35	ug/L			02/13/20 13:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			02/13/20 13:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			02/13/20 13:16	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			02/13/20 13:16	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			02/13/20 13:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			02/13/20 13:16	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			02/13/20 13:16	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			02/13/20 13:16	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			02/13/20 13:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			02/13/20 13:16	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			02/13/20 13:16	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			02/13/20 13:16	1
Styrene	1.0	U	1.0	0.73	ug/L			02/13/20 13:16	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			02/13/20 13:16	1
Toluene	1.0	U	1.0	0.51	ug/L			02/13/20 13:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			02/13/20 13:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			02/13/20 13:16	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			02/13/20 13:16	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			02/13/20 13:16	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			02/13/20 13:16	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			02/13/20 13:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		02/13/20 13:16	1
4-Bromofluorobenzene (Surr)	100		73 - 120		02/13/20 13:16	1
Dibromofluoromethane (Surr)	100		75 - 123		02/13/20 13:16	1
Toluene-d8 (Surr)	99		80 - 120		02/13/20 13:16	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-166112-4

Date Collected: 02/06/20 00:00

Matrix: Water

Date Received: 02/07/20 14:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			02/13/20 13:39	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			02/13/20 13:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			02/13/20 13:39	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/13/20 13:39	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			02/13/20 13:39	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/13/20 13:39	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			02/13/20 13:39	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-166112-4

Date Collected: 02/06/20 00:00

Matrix: Water

Date Received: 02/07/20 14:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			02/13/20 13:39	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			02/13/20 13:39	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			02/13/20 13:39	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			02/13/20 13:39	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			02/13/20 13:39	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			02/13/20 13:39	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			02/13/20 13:39	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			02/13/20 13:39	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			02/13/20 13:39	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			02/13/20 13:39	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			02/13/20 13:39	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			02/13/20 13:39	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			02/13/20 13:39	1
Acetone	10	U	10	3.0	ug/L			02/13/20 13:39	1
Benzene	1.0	U	1.0	0.41	ug/L			02/13/20 13:39	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			02/13/20 13:39	1
Bromoform	1.0	U	1.0	0.26	ug/L			02/13/20 13:39	1
Bromomethane	1.0	U	1.0	0.69	ug/L			02/13/20 13:39	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			02/13/20 13:39	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			02/13/20 13:39	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			02/13/20 13:39	1
Chloroethane	1.0	U	1.0	0.32	ug/L			02/13/20 13:39	1
Chloroform	1.0	U	1.0	0.34	ug/L			02/13/20 13:39	1
Chloromethane	1.0	U	1.0	0.35	ug/L			02/13/20 13:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			02/13/20 13:39	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			02/13/20 13:39	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			02/13/20 13:39	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			02/13/20 13:39	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			02/13/20 13:39	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			02/13/20 13:39	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			02/13/20 13:39	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			02/13/20 13:39	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			02/13/20 13:39	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			02/13/20 13:39	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			02/13/20 13:39	1
Styrene	1.0	U	1.0	0.73	ug/L			02/13/20 13:39	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			02/13/20 13:39	1
Toluene	1.0	U	1.0	0.51	ug/L			02/13/20 13:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			02/13/20 13:39	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			02/13/20 13:39	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			02/13/20 13:39	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			02/13/20 13:39	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			02/13/20 13:39	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			02/13/20 13:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		77 - 120		02/13/20 13:39	1
4-Bromofluorobenzene (Surr)	100		73 - 120		02/13/20 13:39	1
Dibromofluoromethane (Surr)	98		75 - 123		02/13/20 13:39	1
Toluene-d8 (Surr)	98		80 - 120		02/13/20 13:39	1

Eurofins TestAmerica, Buffalo

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

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)
480-166112-1	WELL 1-2A	98	98	101	97
480-166112-2	WELL 1-3	97	99	101	97
480-166112-3	WELL 1-3 POST	96	100	100	99
480-166112-4	TRIP BLANK	96	100	98	98
LCS 480-517391/6	Lab Control Sample	97	100	99	98
LCSD 480-517391/10	Lab Control Sample Dup	97	100	99	98
MB 480-517391/8	Method Blank	100	101	100	98

Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

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

Lab Sample ID: MB 480-517391/8

Matrix: Water

Analysis Batch: 517391

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	1.0	U	1.0	0.82	ug/L			02/13/20 11:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			02/13/20 11:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			02/13/20 11:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			02/13/20 11:54	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			02/13/20 11:54	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			02/13/20 11:54	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			02/13/20 11:54	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			02/13/20 11:54	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			02/13/20 11:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			02/13/20 11:54	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			02/13/20 11:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			02/13/20 11:54	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			02/13/20 11:54	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			02/13/20 11:54	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			02/13/20 11:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			02/13/20 11:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			02/13/20 11:54	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			02/13/20 11:54	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			02/13/20 11:54	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			02/13/20 11:54	1
Acetone	10	U	10	3.0	ug/L			02/13/20 11:54	1
Benzene	1.0	U	1.0	0.41	ug/L			02/13/20 11:54	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			02/13/20 11:54	1
Bromoform	1.0	U	1.0	0.26	ug/L			02/13/20 11:54	1
Bromomethane	1.0	U	1.0	0.69	ug/L			02/13/20 11:54	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			02/13/20 11:54	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			02/13/20 11:54	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			02/13/20 11:54	1
Chloroethane	1.0	U	1.0	0.32	ug/L			02/13/20 11:54	1
Chloroform	1.0	U	1.0	0.34	ug/L			02/13/20 11:54	1
Chloromethane	1.0	U	1.0	0.35	ug/L			02/13/20 11:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			02/13/20 11:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			02/13/20 11:54	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			02/13/20 11:54	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			02/13/20 11:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			02/13/20 11:54	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			02/13/20 11:54	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			02/13/20 11:54	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			02/13/20 11:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			02/13/20 11:54	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			02/13/20 11:54	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			02/13/20 11:54	1
Styrene	1.0	U	1.0	0.73	ug/L			02/13/20 11:54	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			02/13/20 11:54	1
Toluene	1.0	U	1.0	0.51	ug/L			02/13/20 11:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			02/13/20 11:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			02/13/20 11:54	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			02/13/20 11:54	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

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

Lab Sample ID: MB 480-517391/8

Matrix: Water

Analysis Batch: 517391

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			02/13/20 11:54	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			02/13/20 11:54	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			02/13/20 11:54	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120					02/13/20 11:54	1
4-Bromofluorobenzene (Surr)	101		73 - 120					02/13/20 11:54	1
Dibromofluoromethane (Surr)	100		75 - 123					02/13/20 11:54	1
Toluene-d8 (Surr)	98		80 - 120					02/13/20 11:54	1

Lab Sample ID: LCS 480-517391/6

Matrix: Water

Analysis Batch: 517391

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	26.2		ug/L		105	73 - 126
1,1,2,2-Tetrachloroethane	25.0	26.9		ug/L		108	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.7		ug/L		103	61 - 148
1,1,2-Trichloroethane	25.0	25.8		ug/L		103	76 - 122
1,1-Dichloroethane	25.0	27.5		ug/L		110	77 - 120
1,1-Dichloroethene	25.0	24.9		ug/L		100	66 - 127
1,2,3-Trimethylbenzene	25.0	27.1		ug/L		108	78 - 120
1,2,4-Trichlorobenzene	25.0	26.1		ug/L		104	79 - 122
1,2,4-Trimethylbenzene	25.0	26.7		ug/L		107	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	26.2		ug/L		105	56 - 134
1,2-Dibromoethane	25.0	26.4		ug/L		106	77 - 120
1,2-Dichlorobenzene	25.0	25.6		ug/L		102	80 - 124
1,2-Dichloroethane	25.0	24.8		ug/L		99	75 - 120
1,2-Dichloropropane	25.0	26.1		ug/L		104	76 - 120
1,3,5-Trimethylbenzene	25.0	26.2		ug/L		105	77 - 121
1,3-Dichlorobenzene	25.0	25.4		ug/L		102	77 - 120
1,4-Dichlorobenzene	25.0	24.6		ug/L		98	80 - 120
2-Butanone (MEK)	125	236	*	ug/L		189	57 - 140
2-Hexanone	125	147		ug/L		117	65 - 127
4-Methyl-2-pentanone (MIBK)	125	141		ug/L		113	71 - 125
Acetone	125	138		ug/L		110	56 - 142
Benzene	25.0	25.7		ug/L		103	71 - 124
Bromodichloromethane	25.0	27.4		ug/L		110	80 - 122
Bromoform	25.0	31.1		ug/L		125	61 - 132
Bromomethane	25.0	25.9		ug/L		104	55 - 144
Carbon disulfide	25.0	25.5		ug/L		102	59 - 134
Carbon tetrachloride	25.0	27.6		ug/L		111	72 - 134
Chlorobenzene	25.0	24.9		ug/L		99	80 - 120
Chloroethane	25.0	26.7		ug/L		107	69 - 136
Chloroform	25.0	23.7		ug/L		95	73 - 127
Chloromethane	25.0	25.7		ug/L		103	68 - 124
cis-1,2-Dichloroethene	25.0	24.6		ug/L		99	74 - 124
cis-1,3-Dichloropropene	25.0	29.6		ug/L		118	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

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

Lab Sample ID: LCS 480-517391/6

Matrix: Water

Analysis Batch: 517391

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	27.0		ug/L		108	59 - 135
Dibromochloromethane	25.0	29.4		ug/L		118	75 - 125
Dichlorodifluoromethane	25.0	25.7		ug/L		103	59 - 135
Ethylbenzene	25.0	25.3		ug/L		101	77 - 123
Isopropylbenzene	25.0	26.2		ug/L		105	77 - 122
Methyl acetate	50.0	54.7		ug/L		109	74 - 133
Methyl tert-butyl ether	25.0	25.0		ug/L		100	77 - 120
Methylcyclohexane	25.0	26.7		ug/L		107	68 - 134
Methylene Chloride	25.0	22.2		ug/L		89	75 - 124
Styrene	25.0	26.3		ug/L		105	80 - 120
Tetrachloroethene	25.0	27.3		ug/L		109	74 - 122
Toluene	25.0	24.6		ug/L		98	80 - 122
trans-1,2-Dichloroethene	25.0	25.6		ug/L		103	73 - 127
trans-1,3-Dichloropropene	25.0	28.7		ug/L		115	80 - 120
Trichloroethene	25.0	24.9		ug/L		99	74 - 123
Trichlorofluoromethane	25.0	24.5		ug/L		98	62 - 150
Vinyl chloride	25.0	26.7		ug/L		107	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		77 - 120
4-Bromofluorobenzene (Surr)	100		73 - 120
Dibromofluoromethane (Surr)	99		75 - 123
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: LCSD 480-517391/10

Matrix: Water

Analysis Batch: 517391

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	25.2		ug/L		101	73 - 126	4	15
1,1,1,2-Tetrachloroethane	25.0	26.9		ug/L		107	76 - 120	0	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.8		ug/L		99	61 - 148	4	20
1,1,2-Trichloroethane	25.0	24.7		ug/L		99	76 - 122	4	15
1,1-Dichloroethane	25.0	26.8		ug/L		107	77 - 120	3	20
1,1-Dichloroethene	25.0	23.7		ug/L		95	66 - 127	5	16
1,2,3-Trimethylbenzene	25.0	26.8		ug/L		107	78 - 120	1	20
1,2,4-Trichlorobenzene	25.0	26.1		ug/L		105	79 - 122	0	20
1,2,4-Trimethylbenzene	25.0	25.5		ug/L		102	76 - 121	4	20
1,2-Dibromo-3-Chloropropane	25.0	26.9		ug/L		108	56 - 134	3	15
1,2-Dibromoethane	25.0	26.3		ug/L		105	77 - 120	0	15
1,2-Dichlorobenzene	25.0	25.6		ug/L		103	80 - 124	0	20
1,2-Dichloroethane	25.0	23.9		ug/L		96	75 - 120	4	20
1,2-Dichloropropane	25.0	25.8		ug/L		103	76 - 120	1	20
1,3,5-Trimethylbenzene	25.0	25.9		ug/L		104	77 - 121	1	20
1,3-Dichlorobenzene	25.0	24.9		ug/L		100	77 - 120	2	20
1,4-Dichlorobenzene	25.0	24.7		ug/L		99	80 - 120	0	20
2-Butanone (MEK)	125	236	*	ug/L		189	57 - 140	0	20
2-Hexanone	125	144		ug/L		115	65 - 127	2	15

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

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

Lab Sample ID: LCSD 480-517391/10

Matrix: Water

Analysis Batch: 517391

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	139		ug/L		111	71 - 125	2	35
Acetone	125	140		ug/L		112	56 - 142	2	15
Benzene	25.0	25.0		ug/L		100	71 - 124	3	13
Bromodichloromethane	25.0	27.0		ug/L		108	80 - 122	2	15
Bromoform	25.0	31.1		ug/L		124	61 - 132	0	15
Bromomethane	25.0	24.1		ug/L		97	55 - 144	7	15
Carbon disulfide	25.0	24.2		ug/L		97	59 - 134	5	15
Carbon tetrachloride	25.0	26.0		ug/L		104	72 - 134	6	15
Chlorobenzene	25.0	23.6		ug/L		94	80 - 120	5	25
Chloroethane	25.0	23.7		ug/L		95	69 - 136	12	15
Chloroform	25.0	23.0		ug/L		92	73 - 127	3	20
Chloromethane	25.0	25.5		ug/L		102	68 - 124	1	15
cis-1,2-Dichloroethene	25.0	23.7		ug/L		95	74 - 124	4	15
cis-1,3-Dichloropropene	25.0	28.1		ug/L		112	74 - 124	5	15
Cyclohexane	25.0	25.2		ug/L		101	59 - 135	7	20
Dibromochloromethane	25.0	29.2		ug/L		117	75 - 125	1	15
Dichlorodifluoromethane	25.0	24.2		ug/L		97	59 - 135	6	20
Ethylbenzene	25.0	24.2		ug/L		97	77 - 123	4	15
Isopropylbenzene	25.0	25.4		ug/L		102	77 - 122	3	20
Methyl acetate	50.0	54.7		ug/L		109	74 - 133	0	20
Methyl tert-butyl ether	25.0	25.2		ug/L		101	77 - 120	1	37
Methylcyclohexane	25.0	26.0		ug/L		104	68 - 134	3	20
Methylene Chloride	25.0	21.7		ug/L		87	75 - 124	2	15
Styrene	25.0	25.3		ug/L		101	80 - 120	4	20
Tetrachloroethene	25.0	25.3		ug/L		101	74 - 122	8	20
Toluene	25.0	23.9		ug/L		96	80 - 122	3	15
trans-1,2-Dichloroethene	25.0	24.5		ug/L		98	73 - 127	5	20
trans-1,3-Dichloropropene	25.0	28.3		ug/L		113	80 - 120	1	15
Trichloroethene	25.0	23.5		ug/L		94	74 - 123	6	16
Trichlorofluoromethane	25.0	23.3		ug/L		93	62 - 150	5	20
Vinyl chloride	25.0	26.1		ug/L		104	65 - 133	2	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	97		77 - 120
4-Bromofluorobenzene (Surr)	100		73 - 120
Dibromofluoromethane (Surr)	99		75 - 123
Toluene-d8 (Surr)	98		80 - 120

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

GC/MS VOA

Analysis Batch: 517391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-166112-1	WELL 1-2A	Total/NA	Water	8260C	
480-166112-2	WELL 1-3	Total/NA	Water	8260C	
480-166112-3	WELL 1-3 POST	Total/NA	Water	8260C	
480-166112-4	TRIP BLANK	Total/NA	Water	8260C	
MB 480-517391/8	Method Blank	Total/NA	Water	8260C	
LCS 480-517391/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-517391/10	Lab Control Sample Dup	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

Client Sample ID: WELL 1-2A

Date Collected: 02/06/20 11:00

Date Received: 02/07/20 14:30

Lab Sample ID: 480-166112-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	517391	02/13/20 12:28	CRL	TAL BUF

Client Sample ID: WELL 1-3

Date Collected: 02/06/20 11:05

Date Received: 02/07/20 14:30

Lab Sample ID: 480-166112-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	517391	02/13/20 12:52	CRL	TAL BUF

Client Sample ID: WELL 1-3 POST

Date Collected: 02/06/20 11:10

Date Received: 02/07/20 14:30

Lab Sample ID: 480-166112-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	517391	02/13/20 13:16	CRL	TAL BUF

Client Sample ID: TRIP BLANK

Date Collected: 02/06/20 00:00

Date Received: 02/07/20 14:30

Lab Sample ID: 480-166112-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	517391	02/13/20 13:39	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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

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	04-01-20 *

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

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Buffalo

Method Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-166112-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-166112-1	WELL 1-2A	Water	02/06/20 11:00	02/07/20 14:30	
480-166112-2	WELL 1-3	Water	02/06/20 11:05	02/07/20 14:30	
480-166112-3	WELL 1-3 POST	Water	02/06/20 11:10	02/07/20 14:30	
480-166112-4	TRIP BLANK	Water	02/06/20 00:00	02/07/20 14:30	

Chain of Custody Record

Environment Testing
TestAmerica

Client Information Client Contact: Ms. Katie Bidwell Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State, Zip: NY, 12065 Phone: 518-250-7300(Tel) Email: katie.bidwell@arcadis.com Project Name: NYSDC-Standby VESTAL Site: Town of Vestal Water Supply		Lab PM: Stone, Judy L E-Mail: judy.stone@testamericainc.com Phone: (315) 436-5041 Due Date Requested: TAT Requested (days): Standard PO #: Project 00266401.0000 WO #: Contract D007618 Project #: 48005198 SOW#:		Analysis Key: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 L - EDTA Z - other (specify) Other:	
Sample Identification Well 1-2A Well 1-3 Well 1-3 POST Trip Blank		Sample Date 02-06-20 1105 1110 -		Sample Time 1100 1105 1110 -	
Sample Type (C=Comp, G=Grab) G - - -		Matrix (W=water, S=solid, O=organic, A=air) Water Water Water Water		Field Filtered Sample (Yes or No) A N X X X X	
Perform MS/MSD (Yes or No) A N X X X X		B260C - (MOD) TCL list OLM04.2 B260C - (MOD) TCL list OLM04.2		Total Number of Containers Special Instructions/Note:	
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:					
Relinquished by: L. Whalen Date/Time: 2-6-20 / 1300 Company: Arcadis		Relinquished by:		Relinquished by:	
Relinquished by:		Relinquished by:		Relinquished by:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.2 #1 XE	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-166112-1

Login Number: 166112

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	



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0B1126

Town of Vestal

Project Name: Town of Vestal Monthly/Quarterly

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project / PO Number: N/A
Received: 02/25/2020
Reported: 03/09/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0B1126-01

Collected By: Thomas Webster
Collection Date: 02/25/2020 10:40

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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/04/20 1505	RSD
Bromoform	<0.50		0.50	ug/L			03/04/20 1505	RSD
Bromomethane	<0.50		0.50	ug/L			03/04/20 1505	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Chloroform	<0.50		0.50	ug/L			03/04/20 1505	RSD
Chloromethane	<0.50		0.50	ug/L			03/04/20 1505	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/04/20 1505	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD

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CERTIFICATE OF ANALYSIS

J0B1126

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0B1126-01

Collected By: Thomas Webster
Collection Date: 02/25/2020 10:40

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/04/20 1505	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/04/20 1505	RSD
Surrogate: 4-Bromofluorobenzene	93.8	Limit: 70-130		% Rec			03/04/20 1505	RSD
Surrogate: 1,2-Dichlorobenzene-d4	86.6	Limit: 70-130		% Rec			03/04/20 1505	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0B1126

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0B1126-02

Collected By: Thomas Webster
Collection Date: 02/25/2020 10:44

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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/03/20 1716	RSD
Bromoform	<0.50		0.50	ug/L			03/03/20 1716	RSD
Bromomethane	<0.50		0.50	ug/L			03/03/20 1716	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Chloroform	<0.50		0.50	ug/L			03/03/20 1716	RSD
Chloromethane	<0.50		0.50	ug/L			03/03/20 1716	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/03/20 1716	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0B1126

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0B1126-02

Collected By: Thomas Webster
Collection Date: 02/25/2020 10:44

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/03/20 1716	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1716	RSD
Surrogate: 4-Bromofluorobenzene	94.6	Limit: 70-130		% Rec			03/03/20 1716	RSD
Surrogate: 1,2-Dichlorobenzene-d4	87.6	Limit: 70-130		% Rec			03/03/20 1716	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0B1126

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0B1126-03

Collected By: Thomas Webster
Collection Date: 02/25/2020 10:52

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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/03/20 1741	RSD
Bromoform	<0.50		0.50	ug/L			03/03/20 1741	RSD
Bromomethane	<0.50		0.50	ug/L			03/03/20 1741	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Chloroform	<0.50		0.50	ug/L			03/03/20 1741	RSD
Chloromethane	<0.50		0.50	ug/L			03/03/20 1741	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/03/20 1741	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0B1126

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0B1126-03

Collected By: Thomas Webster
Collection Date: 02/25/2020 10:52

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/03/20 1741	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1741	RSD
Surrogate: 4-Bromofluorobenzene	96.4	Limit: 70-130		% Rec			03/03/20 1741	RSD
Surrogate: 1,2-Dichlorobenzene-d4	89.8	Limit: 70-130		% Rec			03/03/20 1741	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0B1126

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0B1126-04

Collected By: Thomas Webster
Collection Date: 02/25/2020 10:56

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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/03/20 1806	RSD
Bromoform	<0.50		0.50	ug/L			03/03/20 1806	RSD
Bromomethane	<0.50		0.50	ug/L			03/03/20 1806	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Chloroform	<0.50		0.50	ug/L			03/03/20 1806	RSD
Chloromethane	<0.50		0.50	ug/L			03/03/20 1806	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/03/20 1806	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0B1126

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0B1126-04

Collected By: Thomas Webster
Collection Date: 02/25/2020 10:56

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/03/20 1806	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/03/20 1806	RSD
Surrogate: 4-Bromofluorobenzene	95.8	Limit: 70-130		% Rec			03/03/20 1806	RSD
Surrogate: 1,2-Dichlorobenzene-d4	88.0	Limit: 70-130		% Rec			03/03/20 1806	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0B1126

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0B1126-07

Collected By: Thomas Webster
Collection Date: 02/24/2020 16:00

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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/06/20 0013	RSD
Bromoform	<0.50		0.50	ug/L			03/06/20 0013	RSD
Bromomethane	<0.50		0.50	ug/L			03/06/20 0013	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Chloroform	<0.50		0.50	ug/L			03/06/20 0013	RSD
Chloromethane	<0.50		0.50	ug/L			03/06/20 0013	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/06/20 0013	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0B1126

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0B1126-07

Collected By: Thomas Webster
Collection Date: 02/24/2020 16:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/06/20 0013	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/06/20 0013	RSD
Surrogate: 4-Bromofluorobenzene	95.2	Limit: 70-130		% Rec			03/06/20 0013	RSD
Surrogate: 1,2-Dichlorobenzene-d4	93.8	Limit: 70-130		% Rec			03/06/20 0013	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: 03/09/2020 17:27

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Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0B1126

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: 2/25/2020
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J0B1126-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 2-25-2020/1040

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv 4.1	Container(s) 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days Designator A B

Client Sample ID: 1-2A Finished

Lab Sample ID: J0B1126-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 2-25-2020/1044

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv 4.1	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: J0B1126-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 2-25-2020/1052

Analysis	Method	Field Results/Comments	Hold Time
524.2 VOC NY	EPA 524.2, Rv 4.1	Container(s) 40ml-Vial-HCL 40ml-Vial-HCL	14.00 days Designator A B

Client Sample ID: 1-3 Finished

Lab Sample ID: J0B1126-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 2-25-2020/1056



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0B1126

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: 2/25/2020
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	<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: J0B1126-05

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 2-25-2020/1110

<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	<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: J0B1126-06

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 2-25-2020/1114

<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	<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: J0B1126-07

Matrix: Drinking Water
Type: Trip Blank

Sampled Date & Time: 2-24-2020/1600

<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	<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



J0B1126

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: 2/25/2020
Route: NY-Route 1 Bing

Sampled/Relinquished by: <i>Thomas Webster</i>	Date/Time:	Received by: <i>[Signature]</i>
Printed Name: Bethany Robinson <i>Thomas Webster</i>	<i>2-25-2020/1320</i>	Printed Name: <i>Emily A. Conway</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 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:

ANALYTICAL REPORT

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

Laboratory Job ID: 480-167513-1

Client Project/Site: NYSDEC-Standby VESTAL

For:

ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Mr. Jeremy Wyckoff



Authorized for release by:
3/25/2020 5:34:59 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

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results through
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The test results in this report meet all 2003 NELAC and 2009 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.

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Analyzed for but not detected.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

Job ID: 480-167513-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-167513-1

Receipt

The samples were received on 3/17/2020 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.9° C.

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-522089 recovered outside acceptance criteria, low biased, for Trichlorofluoromethane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

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

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-167513-1

No Detections.

Client Sample ID: WELL 1-3

Lab Sample ID: 480-167513-2

No Detections.

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-167513-3

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-167513-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-167513-1

Date Collected: 03/16/20 08:20

Matrix: Water

Date Received: 03/17/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			03/19/20 10:40	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			03/19/20 10:40	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			03/19/20 10:40	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			03/19/20 10:40	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			03/19/20 10:40	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			03/19/20 10:40	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			03/19/20 10:40	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			03/19/20 10:40	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			03/19/20 10:40	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			03/19/20 10:40	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			03/19/20 10:40	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			03/19/20 10:40	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/19/20 10:40	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			03/19/20 10:40	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			03/19/20 10:40	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			03/19/20 10:40	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			03/19/20 10:40	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			03/19/20 10:40	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			03/19/20 10:40	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			03/19/20 10:40	1
Acetone	10	U	10	3.0	ug/L			03/19/20 10:40	1
Benzene	1.0	U	1.0	0.41	ug/L			03/19/20 10:40	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			03/19/20 10:40	1
Bromoform	1.0	U	1.0	0.26	ug/L			03/19/20 10:40	1
Bromomethane	1.0	U	1.0	0.69	ug/L			03/19/20 10:40	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			03/19/20 10:40	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			03/19/20 10:40	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			03/19/20 10:40	1
Chloroethane	1.0	U	1.0	0.32	ug/L			03/19/20 10:40	1
Chloroform	1.0	U	1.0	0.34	ug/L			03/19/20 10:40	1
Chloromethane	1.0	U	1.0	0.35	ug/L			03/19/20 10:40	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			03/19/20 10:40	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			03/19/20 10:40	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			03/19/20 10:40	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			03/19/20 10:40	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			03/19/20 10:40	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			03/19/20 10:40	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			03/19/20 10:40	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			03/19/20 10:40	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			03/19/20 10:40	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			03/19/20 10:40	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			03/19/20 10:40	1
Styrene	1.0	U	1.0	0.73	ug/L			03/19/20 10:40	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			03/19/20 10:40	1
Toluene	1.0	U	1.0	0.51	ug/L			03/19/20 10:40	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			03/19/20 10:40	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			03/19/20 10:40	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			03/19/20 10:40	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			03/19/20 10:40	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-167513-1

Date Collected: 03/16/20 08:20

Matrix: Water

Date Received: 03/17/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			03/19/20 10:40	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			03/19/20 10:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120					03/19/20 10:40	1
4-Bromofluorobenzene (Surr)	108		73 - 120					03/19/20 10:40	1
Dibromofluoromethane (Surr)	98		75 - 123					03/19/20 10:40	1
Toluene-d8 (Surr)	102		80 - 120					03/19/20 10:40	1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-167513-2

Date Collected: 03/16/20 08:25

Matrix: Water

Date Received: 03/17/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			03/19/20 11:03	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			03/19/20 11:03	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			03/19/20 11:03	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			03/19/20 11:03	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			03/19/20 11:03	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			03/19/20 11:03	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			03/19/20 11:03	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			03/19/20 11:03	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			03/19/20 11:03	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			03/19/20 11:03	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			03/19/20 11:03	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			03/19/20 11:03	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/19/20 11:03	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			03/19/20 11:03	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			03/19/20 11:03	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			03/19/20 11:03	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			03/19/20 11:03	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			03/19/20 11:03	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			03/19/20 11:03	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			03/19/20 11:03	1
Acetone	10	U	10	3.0	ug/L			03/19/20 11:03	1
Benzene	1.0	U	1.0	0.41	ug/L			03/19/20 11:03	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			03/19/20 11:03	1
Bromoform	1.0	U	1.0	0.26	ug/L			03/19/20 11:03	1
Bromomethane	1.0	U	1.0	0.69	ug/L			03/19/20 11:03	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			03/19/20 11:03	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			03/19/20 11:03	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			03/19/20 11:03	1
Chloroethane	1.0	U	1.0	0.32	ug/L			03/19/20 11:03	1
Chloroform	1.0	U	1.0	0.34	ug/L			03/19/20 11:03	1
Chloromethane	1.0	U	1.0	0.35	ug/L			03/19/20 11:03	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			03/19/20 11:03	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			03/19/20 11:03	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			03/19/20 11:03	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			03/19/20 11:03	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-167513-2

Date Collected: 03/16/20 08:25

Matrix: Water

Date Received: 03/17/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			03/19/20 11:03	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			03/19/20 11:03	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			03/19/20 11:03	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			03/19/20 11:03	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			03/19/20 11:03	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			03/19/20 11:03	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			03/19/20 11:03	1
Styrene	1.0	U	1.0	0.73	ug/L			03/19/20 11:03	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			03/19/20 11:03	1
Toluene	1.0	U	1.0	0.51	ug/L			03/19/20 11:03	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			03/19/20 11:03	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			03/19/20 11:03	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			03/19/20 11:03	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			03/19/20 11:03	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			03/19/20 11:03	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			03/19/20 11:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 120		03/19/20 11:03	1
4-Bromofluorobenzene (Surr)	107		73 - 120		03/19/20 11:03	1
Dibromofluoromethane (Surr)	99		75 - 123		03/19/20 11:03	1
Toluene-d8 (Surr)	104		80 - 120		03/19/20 11:03	1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-167513-3

Date Collected: 03/16/20 08:30

Matrix: Water

Date Received: 03/17/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			03/19/20 11:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			03/19/20 11:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			03/19/20 11:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			03/19/20 11:26	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			03/19/20 11:26	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			03/19/20 11:26	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			03/19/20 11:26	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			03/19/20 11:26	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			03/19/20 11:26	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			03/19/20 11:26	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			03/19/20 11:26	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			03/19/20 11:26	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/19/20 11:26	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			03/19/20 11:26	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			03/19/20 11:26	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			03/19/20 11:26	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			03/19/20 11:26	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			03/19/20 11:26	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			03/19/20 11:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			03/19/20 11:26	1
Acetone	10	U	10	3.0	ug/L			03/19/20 11:26	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-167513-3

Date Collected: 03/16/20 08:30

Matrix: Water

Date Received: 03/17/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			03/19/20 11:26	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			03/19/20 11:26	1
Bromoform	1.0	U	1.0	0.26	ug/L			03/19/20 11:26	1
Bromomethane	1.0	U	1.0	0.69	ug/L			03/19/20 11:26	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			03/19/20 11:26	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			03/19/20 11:26	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			03/19/20 11:26	1
Chloroethane	1.0	U	1.0	0.32	ug/L			03/19/20 11:26	1
Chloroform	1.0	U	1.0	0.34	ug/L			03/19/20 11:26	1
Chloromethane	1.0	U	1.0	0.35	ug/L			03/19/20 11:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			03/19/20 11:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			03/19/20 11:26	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			03/19/20 11:26	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			03/19/20 11:26	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			03/19/20 11:26	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			03/19/20 11:26	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			03/19/20 11:26	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			03/19/20 11:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			03/19/20 11:26	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			03/19/20 11:26	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			03/19/20 11:26	1
Styrene	1.0	U	1.0	0.73	ug/L			03/19/20 11:26	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			03/19/20 11:26	1
Toluene	1.0	U	1.0	0.51	ug/L			03/19/20 11:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			03/19/20 11:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			03/19/20 11:26	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			03/19/20 11:26	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			03/19/20 11:26	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			03/19/20 11:26	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			03/19/20 11:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 120		03/19/20 11:26	1
4-Bromofluorobenzene (Surr)	103		73 - 120		03/19/20 11:26	1
Dibromofluoromethane (Surr)	99		75 - 123		03/19/20 11:26	1
Toluene-d8 (Surr)	102		80 - 120		03/19/20 11:26	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-167513-4

Date Collected: 03/16/20 00:00

Matrix: Water

Date Received: 03/17/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			03/19/20 11:49	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			03/19/20 11:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			03/19/20 11:49	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			03/19/20 11:49	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			03/19/20 11:49	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			03/19/20 11:49	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			03/19/20 11:49	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-167513-4

Date Collected: 03/16/20 00:00

Matrix: Water

Date Received: 03/17/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			03/19/20 11:49	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			03/19/20 11:49	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			03/19/20 11:49	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			03/19/20 11:49	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			03/19/20 11:49	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/19/20 11:49	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			03/19/20 11:49	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			03/19/20 11:49	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			03/19/20 11:49	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			03/19/20 11:49	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			03/19/20 11:49	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			03/19/20 11:49	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			03/19/20 11:49	1
Acetone	10	U	10	3.0	ug/L			03/19/20 11:49	1
Benzene	1.0	U	1.0	0.41	ug/L			03/19/20 11:49	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			03/19/20 11:49	1
Bromoform	1.0	U	1.0	0.26	ug/L			03/19/20 11:49	1
Bromomethane	1.0	U	1.0	0.69	ug/L			03/19/20 11:49	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			03/19/20 11:49	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			03/19/20 11:49	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			03/19/20 11:49	1
Chloroethane	1.0	U	1.0	0.32	ug/L			03/19/20 11:49	1
Chloroform	1.0	U	1.0	0.34	ug/L			03/19/20 11:49	1
Chloromethane	1.0	U	1.0	0.35	ug/L			03/19/20 11:49	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			03/19/20 11:49	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			03/19/20 11:49	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			03/19/20 11:49	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			03/19/20 11:49	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			03/19/20 11:49	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			03/19/20 11:49	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			03/19/20 11:49	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			03/19/20 11:49	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			03/19/20 11:49	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			03/19/20 11:49	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			03/19/20 11:49	1
Styrene	1.0	U	1.0	0.73	ug/L			03/19/20 11:49	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			03/19/20 11:49	1
Toluene	1.0	U	1.0	0.51	ug/L			03/19/20 11:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			03/19/20 11:49	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			03/19/20 11:49	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			03/19/20 11:49	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			03/19/20 11:49	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			03/19/20 11:49	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			03/19/20 11:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120		03/19/20 11:49	1
4-Bromofluorobenzene (Surr)	100		73 - 120		03/19/20 11:49	1
Dibromofluoromethane (Surr)	97		75 - 123		03/19/20 11:49	1
Toluene-d8 (Surr)	100		80 - 120		03/19/20 11:49	1

Eurofins TestAmerica, Buffalo

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

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)
480-167513-1	WELL 1-2A	100	108	98	102
480-167513-2	WELL 1-3	98	107	99	104
480-167513-3	WELL 1-3 POST	98	103	99	102
480-167513-4	TRIP BLANK	100	100	97	100
LCS 480-522089/5	Lab Control Sample	99	107	94	102
MB 480-522089/7	Method Blank	100	104	98	103

Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

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

Lab Sample ID: MB 480-522089/7

Matrix: Water

Analysis Batch: 522089

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	1.0	U	1.0	0.82	ug/L			03/19/20 08:36	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			03/19/20 08:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			03/19/20 08:36	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			03/19/20 08:36	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			03/19/20 08:36	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			03/19/20 08:36	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			03/19/20 08:36	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			03/19/20 08:36	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			03/19/20 08:36	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			03/19/20 08:36	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			03/19/20 08:36	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			03/19/20 08:36	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			03/19/20 08:36	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			03/19/20 08:36	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			03/19/20 08:36	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			03/19/20 08:36	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			03/19/20 08:36	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			03/19/20 08:36	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			03/19/20 08:36	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			03/19/20 08:36	1
Acetone	10	U	10	3.0	ug/L			03/19/20 08:36	1
Benzene	1.0	U	1.0	0.41	ug/L			03/19/20 08:36	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			03/19/20 08:36	1
Bromoform	1.0	U	1.0	0.26	ug/L			03/19/20 08:36	1
Bromomethane	1.0	U	1.0	0.69	ug/L			03/19/20 08:36	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			03/19/20 08:36	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			03/19/20 08:36	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			03/19/20 08:36	1
Chloroethane	1.0	U	1.0	0.32	ug/L			03/19/20 08:36	1
Chloroform	1.0	U	1.0	0.34	ug/L			03/19/20 08:36	1
Chloromethane	1.0	U	1.0	0.35	ug/L			03/19/20 08:36	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			03/19/20 08:36	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			03/19/20 08:36	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			03/19/20 08:36	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			03/19/20 08:36	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			03/19/20 08:36	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			03/19/20 08:36	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			03/19/20 08:36	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			03/19/20 08:36	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			03/19/20 08:36	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			03/19/20 08:36	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			03/19/20 08:36	1
Styrene	1.0	U	1.0	0.73	ug/L			03/19/20 08:36	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			03/19/20 08:36	1
Toluene	1.0	U	1.0	0.51	ug/L			03/19/20 08:36	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			03/19/20 08:36	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			03/19/20 08:36	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			03/19/20 08:36	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

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

Lab Sample ID: MB 480-522089/7

Matrix: Water

Analysis Batch: 522089

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			03/19/20 08:36	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			03/19/20 08:36	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			03/19/20 08:36	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120					03/19/20 08:36	1
4-Bromofluorobenzene (Surr)	104		73 - 120					03/19/20 08:36	1
Dibromofluoromethane (Surr)	98		75 - 123					03/19/20 08:36	1
Toluene-d8 (Surr)	103		80 - 120					03/19/20 08:36	1

Lab Sample ID: LCS 480-522089/5

Matrix: Water

Analysis Batch: 522089

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	19.9		ug/L		80	73 - 126
1,1,2,2-Tetrachloroethane	25.0	23.2		ug/L		93	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	21.5		ug/L		86	61 - 148
1,1,2-Trichloroethane	25.0	24.1		ug/L		96	76 - 122
1,1-Dichloroethane	25.0	22.5		ug/L		90	77 - 120
1,1-Dichloroethene	25.0	21.2		ug/L		85	66 - 127
1,2,3-Trimethylbenzene	25.0	25.2		ug/L		101	78 - 120
1,2,4-Trichlorobenzene	25.0	24.1		ug/L		96	79 - 122
1,2,4-Trimethylbenzene	25.0	23.3		ug/L		93	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	23.4		ug/L		94	56 - 134
1,2-Dibromoethane	25.0	23.9		ug/L		96	77 - 120
1,2-Dichlorobenzene	25.0	23.1		ug/L		92	80 - 124
1,2-Dichloroethane	25.0	21.4		ug/L		86	75 - 120
1,2-Dichloropropane	25.0	23.6		ug/L		94	76 - 120
1,3,5-Trimethylbenzene	25.0	22.6		ug/L		91	77 - 121
1,3-Dichlorobenzene	25.0	23.2		ug/L		93	77 - 120
1,4-Dichlorobenzene	25.0	22.9		ug/L		92	80 - 120
2-Butanone (MEK)	125	117		ug/L		94	57 - 140
2-Hexanone	125	124		ug/L		99	65 - 127
4-Methyl-2-pentanone (MIBK)	125	125		ug/L		100	71 - 125
Acetone	125	127		ug/L		102	56 - 142
Benzene	25.0	21.8		ug/L		87	71 - 124
Bromodichloromethane	25.0	22.9		ug/L		92	80 - 122
Bromoform	25.0	26.8		ug/L		107	61 - 132
Bromomethane	25.0	23.3		ug/L		93	55 - 144
Carbon disulfide	25.0	21.9		ug/L		88	59 - 134
Carbon tetrachloride	25.0	20.6		ug/L		82	72 - 134
Chlorobenzene	25.0	23.9		ug/L		96	80 - 120
Chloroethane	25.0	22.7		ug/L		91	69 - 136
Chloroform	25.0	20.6		ug/L		82	73 - 127
Chloromethane	25.0	22.4		ug/L		89	68 - 124
cis-1,2-Dichloroethene	25.0	21.9		ug/L		88	74 - 124
cis-1,3-Dichloropropene	25.0	24.1		ug/L		96	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

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

Lab Sample ID: LCS 480-522089/5

Matrix: Water

Analysis Batch: 522089

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	21.2		ug/L		85	59 - 135
Dibromochloromethane	25.0	24.8		ug/L		99	75 - 125
Dichlorodifluoromethane	25.0	20.3		ug/L		81	59 - 135
Ethylbenzene	25.0	23.0		ug/L		92	77 - 123
Isopropylbenzene	25.0	21.7		ug/L		87	77 - 122
Methyl acetate	50.0	47.5		ug/L		95	74 - 133
Methyl tert-butyl ether	25.0	22.9		ug/L		91	77 - 120
Methylcyclohexane	25.0	21.0		ug/L		84	68 - 134
Methylene Chloride	25.0	24.1		ug/L		96	75 - 124
Styrene	25.0	24.2		ug/L		97	80 - 120
Tetrachloroethene	25.0	24.3		ug/L		97	74 - 122
Toluene	25.0	22.6		ug/L		91	80 - 122
trans-1,2-Dichloroethene	25.0	22.3		ug/L		89	73 - 127
trans-1,3-Dichloropropene	25.0	25.7		ug/L		103	80 - 120
Trichloroethene	25.0	20.4		ug/L		82	74 - 123
Trichlorofluoromethane	25.0	21.4		ug/L		86	62 - 150
Vinyl chloride	25.0	22.2		ug/L		89	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		77 - 120
4-Bromofluorobenzene (Surr)	107		73 - 120
Dibromofluoromethane (Surr)	94		75 - 123
Toluene-d8 (Surr)	102		80 - 120

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

GC/MS VOA

Analysis Batch: 522089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-167513-1	WELL 1-2A	Total/NA	Water	8260C	
480-167513-2	WELL 1-3	Total/NA	Water	8260C	
480-167513-3	WELL 1-3 POST	Total/NA	Water	8260C	
480-167513-4	TRIP BLANK	Total/NA	Water	8260C	
MB 480-522089/7	Method Blank	Total/NA	Water	8260C	
LCS 480-522089/5	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-167513-1

Date Collected: 03/16/20 08:20

Matrix: Water

Date Received: 03/17/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	522089	03/19/20 10:40	CRL	TAL BUF

Client Sample ID: WELL 1-3

Lab Sample ID: 480-167513-2

Date Collected: 03/16/20 08:25

Matrix: Water

Date Received: 03/17/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	522089	03/19/20 11:03	CRL	TAL BUF

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-167513-3

Date Collected: 03/16/20 08:30

Matrix: Water

Date Received: 03/17/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	522089	03/19/20 11:26	CRL	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-167513-4

Date Collected: 03/16/20 00:00

Matrix: Water

Date Received: 03/17/20 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	522089	03/19/20 11:49	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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

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	04-01-20

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-167513-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-167513-1	WELL 1-2A	Water	03/16/20 08:20	03/17/20 09:45	
480-167513-2	WELL 1-3	Water	03/16/20 08:25	03/17/20 09:45	
480-167513-3	WELL 1-3 POST	Water	03/16/20 08:30	03/17/20 09:45	
480-167513-4	TRIP BLANK	Water	03/16/20 00:00	03/17/20 09:45	

Chain of Custody Record

Client Information Client Contact: Ms. Katie Bidwell Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State: NY Zip: 12065 Phone: 518-250-7300 (Tel) Email: katie.bidwell@arcadis.com Project Name: NYSDC-Standard VESTAL Site: Town of Vestal Water Supply		Due Date Requested: TAT Requested (days): Standard PO #: Project 00266401.0000 WO #: Contract D007618 Project #: 48005198 SOW#:		Lab PM: Stone, Judy L. Phone: (315) 436-5041 E-Mail: judy.stone@testame.com	
Carrier Tracking No(s): 480-143330-28509.1 Page 1 of 1		Barcode: 480-167513 Chain of Custody			
Sample Identification Well 1-2A Well 1-3 Well 1-3 POST Trip Blank		Sample Date 3-16-20 0820 0825 0830 -		Sample Type (C=Comp, G=grab) G ↓ ↓ -	
Matrix (Water, Solid, Overstool, BT-Tissue, Air)		Preservation Code:		Field Filtered Sample (Yes or No)	
Perform MS/MSD (Yes or No)		8260C - (MOD) TCL list OLM04.2 8260C - (MOD) TCL list OLM04.2		Total Number of Containers	
Special Instructions/Note:		Special Instructions/Note:			
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by: Relinquished by: Lane Whalen Relinquished by: Relinquished by:					
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/OC Requirements:					
Date/Time: 3-16-20 / 1430 Date/Time: Date/Time:		Date/Time: 3-17-20 945 Date/Time: Date/Time:		Date/Time: 3-17-20 945 Date/Time: Date/Time:	
Relinquished by: Lane Whalen Relinquished by: Relinquished by:		Relinquished by: Lane Whalen Relinquished by: Relinquished by:		Relinquished by: Lane Whalen Relinquished by: Relinquished by:	
Custody Seal Intact: Yes ☒ No ☐		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-167513-1

Login Number: 167513

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	



Microbac Laboratories, Inc., Sayre Division

CERTIFICATE OF ANALYSIS

S0C0292

Town of Vestal

Project Name: Town of Vestal Monthly/Quarterly

Scott Groats
701 Vestal Parkway West
Vestal, NY 13850-1363

Project / PO Number: N/A
Received: 03/23/2020
Reported: 03/30/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: S0C0292-01

Collected By: Michael Emm
Collection Date: 03/23/2020 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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/26/20 1452	RSD
Bromoform	<0.50		0.50	ug/L			03/26/20 1452	RSD
Bromomethane	<0.50		0.50	ug/L			03/26/20 1452	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Chloroform	<0.50		0.50	ug/L			03/26/20 1452	RSD
Chloromethane	<0.50		0.50	ug/L			03/26/20 1452	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/26/20 1452	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD

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Microbac Laboratories, Inc., Sayre Division

CERTIFICATE OF ANALYSIS

S0C0292

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: S0C0292-01

Collected By: Michael Emm
Collection Date: 03/23/2020 11:15

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/26/20 1452	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1452	RSD
Surrogate: 4-Bromofluorobenzene	92.8	Limit: 70-130		% Rec			03/26/20 1452	RSD
Surrogate: 1,2-Dichlorobenzene-d4	90.2	Limit: 70-130		% Rec			03/26/20 1452	RSD



Microbac Laboratories, Inc., Sayre Division

CERTIFICATE OF ANALYSIS

S0C0292

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: S0C0292-02

Collected By: Michael Emm
Collection Date: 03/23/2020 11:20

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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/26/20 1518	RSD
Bromoform	<0.50		0.50	ug/L			03/26/20 1518	RSD
Bromomethane	<0.50		0.50	ug/L			03/26/20 1518	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Chloroform	<0.50		0.50	ug/L			03/26/20 1518	RSD
Chloromethane	<0.50		0.50	ug/L			03/26/20 1518	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/26/20 1518	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD

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Microbac Laboratories, Inc., Sayre Division

CERTIFICATE OF ANALYSIS

S0C0292

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: S0C0292-02

Collected By: Michael Emm
Collection Date: 03/23/2020 11:20

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/26/20 1518	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1518	RSD
Surrogate: 4-Bromofluorobenzene	93.6	Limit: 70-130		% Rec			03/26/20 1518	RSD
Surrogate: 1,2-Dichlorobenzene-d4	90.2	Limit: 70-130		% Rec			03/26/20 1518	RSD



Microbac Laboratories, Inc., Sayre Division

CERTIFICATE OF ANALYSIS

S0C0292

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: S0C0292-03

Collected By: Michael Emm
Collection Date: 03/23/2020 11:05

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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/26/20 1544	RSD
Bromoform	<0.50		0.50	ug/L			03/26/20 1544	RSD
Bromomethane	<0.50		0.50	ug/L			03/26/20 1544	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Chloroform	<0.50		0.50	ug/L			03/26/20 1544	RSD
Chloromethane	<0.50		0.50	ug/L			03/26/20 1544	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/26/20 1544	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD

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Microbac Laboratories, Inc., Sayre Division

CERTIFICATE OF ANALYSIS

S0C0292

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: S0C0292-03

Collected By: Michael Emm
Collection Date: 03/23/2020 11:05

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/26/20 1544	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1544	RSD
Surrogate: 4-Bromofluorobenzene	94.2	Limit: 70-130		% Rec			03/26/20 1544	RSD
Surrogate: 1,2-Dichlorobenzene-d4	80.8	Limit: 70-130		% Rec			03/26/20 1544	RSD



Microbac Laboratories, Inc., Sayre Division

CERTIFICATE OF ANALYSIS

S0C0292

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: S0C0292-04

Collected By: Michael Emm
Collection Date: 03/23/2020 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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/26/20 1609	RSD
Bromoform	<0.50		0.50	ug/L			03/26/20 1609	RSD
Bromomethane	<0.50		0.50	ug/L			03/26/20 1609	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Chloroform	<0.50		0.50	ug/L			03/26/20 1609	RSD
Chloromethane	<0.50		0.50	ug/L			03/26/20 1609	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/26/20 1609	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD

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Microbac Laboratories, Inc., Sayre Division

CERTIFICATE OF ANALYSIS

S0C0292

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: S0C0292-04

Collected By: Michael Emm
Collection Date: 03/23/2020 11:10

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/26/20 1609	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1609	RSD
Surrogate: 4-Bromofluorobenzene	92.6	Limit: 70-130		% Rec			03/26/20 1609	RSD
Surrogate: 1,2-Dichlorobenzene-d4	90.4	Limit: 70-130		% Rec			03/26/20 1609	RSD



Microbac Laboratories, Inc., Sayre Division

CERTIFICATE OF ANALYSIS

S0C0292

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: S0C0292-07

Collected By: Michael Emm
Collection Date: 03/23/2020 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								
Benzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Bromodichloromethane	<0.50		0.50	ug/L			03/26/20 1726	RSD
Bromoform	<0.50		0.50	ug/L			03/26/20 1726	RSD
Bromomethane	<0.50		0.50	ug/L			03/26/20 1726	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Chloroform	<0.50		0.50	ug/L			03/26/20 1726	RSD
Chloromethane	<0.50		0.50	ug/L			03/26/20 1726	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Dibromochloromethane	<0.50		0.50	ug/L			03/26/20 1726	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD

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Microbac Laboratories, Inc., Sayre Division

CERTIFICATE OF ANALYSIS

S0C0292

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: S0C0292-07

Collected By: Michael Emm
Collection Date: 03/23/2020 9:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			03/26/20 1726	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			03/26/20 1726	RSD
Surrogate: 4-Bromofluorobenzene	111	Limit: 70-130		% Rec			03/26/20 1726	RSD
Surrogate: 1,2-Dichlorobenzene-d4	113	Limit: 70-130		% Rec			03/26/20 1726	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: 03/30/2020 13:18

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Chain of Custody

Microbac Laboratories, Inc., Sayre Division

Lab Manager: Renee Lantz



S0C0292

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: 3/10/2020
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: S0C0292-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 03-23-2020 11:15

<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	<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: S0C0292-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 03-23-2020 11:20

<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	<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: S0C0292-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 03-23-2020 11:05

<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	<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: S0C0292-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 03-23-2020 11:10



Chain of Custody

Microbac Laboratories, Inc., Sayre Division

Lab Manager: Renee Lantz



S0C0292

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: 3/10/2020
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		14.00 days
		<u>Container(s)</u>	<u>Designator</u>
		40ml-Vial-Ascorbic, HCL	A
		40ml-Vial-Ascorbic, HCL	B

Client Sample ID: 4-2 Raw

Lab Sample ID: S0C0292-05

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 03-23-2020 10:52

<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		14.00 days
		<u>Container(s)</u>	<u>Designator</u>
		40ml-Vial-HCL	A
		40ml-Vial-HCL	B

Client Sample ID: 4-2 Finished

Lab Sample ID: S0C0292-06

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 03-23-2020 10:55

<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		14.00 days
		<u>Container(s)</u>	<u>Designator</u>
		40ml-Vial-Ascorbic, HCL	A
		40ml-Vial-Ascorbic, HCL	B

Client Sample ID: Trip Blank

Lab Sample ID: S0C0292-07

Matrix: Drinking Water
Type: Trip Blank

Sampled Date & Time: 03-23-2020 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		14.00 days
		<u>Container(s)</u>	<u>Designator</u>
		40ml-Vial-HCL	A



Chain of Custody

Microbac Laboratories, Inc., Sayre Division

Lab Manager: Renee Lantz



S0C0292

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: 3/10/2020
Route: NY-Route 1 Bing

Sampled/Relinquished by: <i>Michael Egan</i>	Date/Time: <i>3/25/2020 16:10</i>	Received by: <i>[Signature]</i>
Printed Name: <i>Michael Egan</i>		Printed Name: <i>[Signature]</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 *4.3* °C 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:

ANALYTICAL REPORT

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

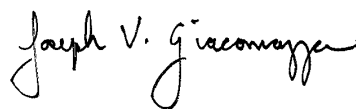
Laboratory Job ID: 480-168280-1

Client Project/Site: NYSDEC-Standby VESTAL

For:

ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Mr. Jeremy Wyckoff



Authorized for release by:

4/14/2020 3:22:18 PM

Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

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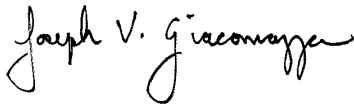
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 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.

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 Management Assistant II
4/14/2020 3:22:18 PM

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

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
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
DL C	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

Job ID: 480-168280-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-168280-1

Comments

No additional comments.

Receipt

The samples were received on 4/8/2020 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-525323 recovered above the upper control limit for Carbon tetrachloride and 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 (480-168280-1), WELL 1-3 (480-168280-2), WELL 1-3 POST (480-168280-3) and TRIP BLANKS (480-168280-4).

Method 8260C: The laboratory control sample (LCS) for analytical batch 480-525323 recovered outside control limits for the following analytes: Tetrachloroethene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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 480-525323 .

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

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-168280-1

No Detections.

Client Sample ID: WELL 1-3

Lab Sample ID: 480-168280-2

No Detections.

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-168280-3

No Detections.

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-168280-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chloromethane	0.58	J	1.0	0.35	ug/L	1			8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-168280-1

Date Collected: 04/06/20 10:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 20:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 20:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 20:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 20:33	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 20:33	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 20:33	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 20:33	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 20:33	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 20:33	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 20:33	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 20:33	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 20:33	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 20:33	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 20:33	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 20:33	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 20:33	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 20:33	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			04/10/20 20:33	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 20:33	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 20:33	1
Acetone	10	U	10	3.0	ug/L			04/10/20 20:33	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 20:33	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 20:33	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 20:33	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 20:33	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 20:33	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 20:33	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 20:33	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 20:33	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 20:33	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 20:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 20:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 20:33	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 20:33	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 20:33	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 20:33	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 20:33	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 20:33	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 20:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 20:33	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 20:33	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 20:33	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 20:33	1
Tetrachloroethene	1.0	U *	1.0	0.36	ug/L			04/10/20 20:33	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 20:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 20:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 20:33	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 20:33	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 20:33	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-168280-1

Date Collected: 04/06/20 10:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 20:33	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 20:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120					04/10/20 20:33	1
4-Bromofluorobenzene (Surr)	97		73 - 120					04/10/20 20:33	1
Dibromofluoromethane (Surr)	101		75 - 123					04/10/20 20:33	1
Toluene-d8 (Surr)	98		80 - 120					04/10/20 20:33	1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-168280-2

Date Collected: 04/06/20 10:10

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 20:56	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 20:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 20:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 20:56	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 20:56	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 20:56	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 20:56	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 20:56	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 20:56	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 20:56	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 20:56	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 20:56	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 20:56	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 20:56	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 20:56	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 20:56	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 20:56	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			04/10/20 20:56	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 20:56	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 20:56	1
Acetone	10	U	10	3.0	ug/L			04/10/20 20:56	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 20:56	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 20:56	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 20:56	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 20:56	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 20:56	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 20:56	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 20:56	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 20:56	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 20:56	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 20:56	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 20:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 20:56	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 20:56	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 20:56	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-168280-2

Date Collected: 04/06/20 10:10

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 20:56	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 20:56	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 20:56	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 20:56	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 20:56	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 20:56	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 20:56	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 20:56	1
Tetrachloroethene	1.0	U *	1.0	0.36	ug/L			04/10/20 20:56	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 20:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 20:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 20:56	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 20:56	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 20:56	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 20:56	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 20:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		04/10/20 20:56	1
4-Bromofluorobenzene (Surr)	98		73 - 120		04/10/20 20:56	1
Dibromofluoromethane (Surr)	102		75 - 123		04/10/20 20:56	1
Toluene-d8 (Surr)	96		80 - 120		04/10/20 20:56	1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-168280-3

Date Collected: 04/06/20 10:15

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 21:19	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 21:19	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 21:19	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 21:19	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 21:19	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 21:19	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 21:19	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 21:19	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 21:19	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 21:19	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 21:19	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 21:19	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 21:19	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 21:19	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 21:19	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 21:19	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 21:19	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			04/10/20 21:19	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 21:19	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 21:19	1
Acetone	10	U	10	3.0	ug/L			04/10/20 21:19	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-168280-3

Date Collected: 04/06/20 10:15

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 21:19	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 21:19	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 21:19	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 21:19	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 21:19	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 21:19	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 21:19	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 21:19	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 21:19	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 21:19	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 21:19	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 21:19	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 21:19	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 21:19	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 21:19	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 21:19	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 21:19	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 21:19	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 21:19	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 21:19	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 21:19	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 21:19	1
Tetrachloroethene	1.0	U *	1.0	0.36	ug/L			04/10/20 21:19	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 21:19	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 21:19	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 21:19	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 21:19	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 21:19	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 21:19	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 21:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/10/20 21:19	1
4-Bromofluorobenzene (Surr)	97		73 - 120		04/10/20 21:19	1
Dibromofluoromethane (Surr)	102		75 - 123		04/10/20 21:19	1
Toluene-d8 (Surr)	98		80 - 120		04/10/20 21:19	1

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-168280-4

Date Collected: 04/06/20 00:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 21:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 21:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 21:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 21:42	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 21:42	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 21:42	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 21:42	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-168280-4

Date Collected: 04/06/20 00:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 21:42	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 21:42	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 21:42	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 21:42	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 21:42	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 21:42	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 21:42	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 21:42	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 21:42	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 21:42	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			04/10/20 21:42	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 21:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 21:42	1
Acetone	10	U	10	3.0	ug/L			04/10/20 21:42	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 21:42	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 21:42	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 21:42	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 21:42	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 21:42	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 21:42	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 21:42	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 21:42	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 21:42	1
Chloromethane	0.58	J	1.0	0.35	ug/L			04/10/20 21:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 21:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 21:42	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 21:42	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 21:42	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 21:42	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 21:42	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 21:42	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 21:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 21:42	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 21:42	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 21:42	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 21:42	1
Tetrachloroethene	1.0	U *	1.0	0.36	ug/L			04/10/20 21:42	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 21:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 21:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 21:42	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 21:42	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 21:42	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 21:42	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 21:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/10/20 21:42	1
4-Bromofluorobenzene (Surr)	95		73 - 120		04/10/20 21:42	1
Dibromofluoromethane (Surr)	101		75 - 123		04/10/20 21:42	1
Toluene-d8 (Surr)	99		80 - 120		04/10/20 21:42	1

Eurofins TestAmerica, Buffalo

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

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)
480-168280-1	WELL 1-2A	103	97	101	98
480-168280-2	WELL 1-3	106	98	102	96
480-168280-3	WELL 1-3 POST	104	97	102	98
480-168280-4	TRIP BLANKS	105	95	101	99
LCS 480-525323/28	Lab Control Sample	112	100	104	98
LCS 480-525323/5	Lab Control Sample	106	102	103	99
MB 480-525323/8	Method Blank	104	100	102	99

Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

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

Lab Sample ID: MB 480-525323/8

Matrix: Water

Analysis Batch: 525323

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	1.0	U	1.0	0.82	ug/L			04/10/20 13:39	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 13:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 13:39	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 13:39	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 13:39	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 13:39	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 13:39	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 13:39	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 13:39	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 13:39	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 13:39	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 13:39	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 13:39	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 13:39	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 13:39	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 13:39	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 13:39	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 13:39	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 13:39	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 13:39	1
Acetone	10	U	10	3.0	ug/L			04/10/20 13:39	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 13:39	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 13:39	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 13:39	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 13:39	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 13:39	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 13:39	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 13:39	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 13:39	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 13:39	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 13:39	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 13:39	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 13:39	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 13:39	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 13:39	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 13:39	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 13:39	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 13:39	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 13:39	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 13:39	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 13:39	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 13:39	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 13:39	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 13:39	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 13:39	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 13:39	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 13:39	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 13:39	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

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

Lab Sample ID: MB 480-525323/8

Matrix: Water

Analysis Batch: 525323

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 13:39	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 13:39	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 13:39	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120					04/10/20 13:39	1
4-Bromofluorobenzene (Surr)	100		73 - 120					04/10/20 13:39	1
Dibromofluoromethane (Surr)	102		75 - 123					04/10/20 13:39	1
Toluene-d8 (Surr)	99		80 - 120					04/10/20 13:39	1

Lab Sample ID: LCS 480-525323/28

Matrix: Water

Analysis Batch: 525323

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	28.3		ug/L		113	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L		97	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	25.5		ug/L		102	61 - 148
1,1,2-Trichloroethane	25.0	24.3		ug/L		97	76 - 122
1,1-Dichloroethane	25.0	26.9		ug/L		108	77 - 120
1,1-Dichloroethene	25.0	25.7		ug/L		103	66 - 127
1,2,3-Trimethylbenzene	25.0	27.9		ug/L		112	78 - 120
1,2,4-Trichlorobenzene	25.0	26.1		ug/L		105	79 - 122
1,2,4-Trimethylbenzene	25.0	26.9		ug/L		108	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	25.8		ug/L		103	56 - 134
1,2-Dibromoethane	25.0	25.0		ug/L		100	77 - 120
1,2-Dichlorobenzene	25.0	25.5		ug/L		102	80 - 124
1,2-Dichloroethane	25.0	26.0		ug/L		104	75 - 120
1,2-Dichloropropane	25.0	25.7		ug/L		103	76 - 120
1,3,5-Trimethylbenzene	25.0	26.8		ug/L		107	77 - 121
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	77 - 120
1,4-Dichlorobenzene	25.0	25.1		ug/L		100	80 - 120
2-Butanone (MEK)	125	245 *		ug/L		196	57 - 140
2-Hexanone	125	130		ug/L		104	65 - 127
4-Methyl-2-pentanone (MIBK)	125	129		ug/L		103	71 - 125
Acetone	125	130		ug/L		104	56 - 142
Benzene	25.0	25.0		ug/L		100	71 - 124
Bromodichloromethane	25.0	27.6		ug/L		110	80 - 122
Bromoform	25.0	26.9		ug/L		108	61 - 132
Bromomethane	25.0	26.6		ug/L		106	55 - 144
Carbon disulfide	25.0	26.7		ug/L		107	59 - 134
Carbon tetrachloride	25.0	29.6		ug/L		118	72 - 134
Chlorobenzene	25.0	24.7		ug/L		99	80 - 120
Chloroethane	25.0	26.0		ug/L		104	69 - 136
Chloroform	25.0	25.3		ug/L		101	73 - 127
Chloromethane	25.0	26.1		ug/L		104	68 - 124
cis-1,2-Dichloroethene	25.0	26.0		ug/L		104	74 - 124
cis-1,3-Dichloropropene	25.0	25.5		ug/L		102	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

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

Lab Sample ID: LCS 480-525323/28

Matrix: Water

Analysis Batch: 525323

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	25.1		ug/L		100	59 - 135
Dibromochloromethane	25.0	26.7		ug/L		107	75 - 125
Dichlorodifluoromethane	25.0	26.0		ug/L		104	59 - 135
Ethylbenzene	25.0	25.6		ug/L		102	77 - 123
Isopropylbenzene	25.0	26.5		ug/L		106	77 - 122
Methyl acetate	50.0	53.9		ug/L		108	74 - 133
Methyl tert-butyl ether	25.0	26.2		ug/L		105	77 - 120
Methylcyclohexane	25.0	24.5		ug/L		98	68 - 134
Methylene Chloride	25.0	24.8		ug/L		99	75 - 124
Styrene	25.0	26.4		ug/L		106	80 - 120
Tetrachloroethene	25.0	31.0	*	ug/L		124	74 - 122
Toluene	25.0	24.7		ug/L		99	80 - 122
trans-1,2-Dichloroethene	25.0	26.1		ug/L		104	73 - 127
trans-1,3-Dichloropropene	25.0	25.1		ug/L		101	80 - 120
Trichloroethene	25.0	27.0		ug/L		108	74 - 123
Trichlorofluoromethane	25.0	29.5		ug/L		118	62 - 150
Vinyl chloride	25.0	24.5		ug/L		98	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	112		77 - 120
4-Bromofluorobenzene (Surr)	100		73 - 120
Dibromofluoromethane (Surr)	104		75 - 123
Toluene-d8 (Surr)	98		80 - 120

Lab Sample ID: LCS 480-525323/5

Matrix: Water

Analysis Batch: 525323

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	28.9		ug/L		116	73 - 126
1,1,1,2-Tetrachloroethane	25.0	24.8		ug/L		99	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	28.0		ug/L		112	61 - 148
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	76 - 122
1,1-Dichloroethane	25.0	26.6		ug/L		107	77 - 120
1,1-Dichloroethene	25.0	26.2		ug/L		105	66 - 127
1,2,4-Trichlorobenzene	25.0	27.6		ug/L		110	79 - 122
1,2,4-Trimethylbenzene	25.0	27.1		ug/L		108	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	27.2		ug/L		109	56 - 134
1,2-Dibromoethane	25.0	25.9		ug/L		104	77 - 120
1,2-Dichlorobenzene	25.0	25.8		ug/L		103	80 - 124
1,2-Dichloroethane	25.0	26.0		ug/L		104	75 - 120
1,2-Dichloropropane	25.0	26.1		ug/L		104	76 - 120
1,3,5-Trimethylbenzene	25.0	27.2		ug/L		109	77 - 121
1,3-Dichlorobenzene	25.0	25.7		ug/L		103	77 - 120
1,4-Dichlorobenzene	25.0	25.9		ug/L		104	80 - 120
2-Butanone (MEK)	125	126		ug/L		101	57 - 140
2-Hexanone	125	133		ug/L		107	65 - 127
4-Methyl-2-pentanone (MIBK)	125	134		ug/L		107	71 - 125

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

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

Lab Sample ID: LCS 480-525323/5

Matrix: Water

Analysis Batch: 525323

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	125	127		ug/L		102	56 - 142
Benzene	25.0	25.6		ug/L		103	71 - 124
Bromodichloromethane	25.0	27.6		ug/L		110	80 - 122
Bromoform	25.0	28.8		ug/L		115	61 - 132
Bromomethane	25.0	26.2		ug/L		105	55 - 144
Carbon disulfide	25.0	27.8		ug/L		111	59 - 134
Carbon tetrachloride	25.0	31.0		ug/L		124	72 - 134
Chlorobenzene	25.0	25.2		ug/L		101	80 - 120
Chloroethane	25.0	26.7		ug/L		107	69 - 136
Chloroform	25.0	25.4		ug/L		102	73 - 127
Chloromethane	25.0	26.2		ug/L		105	68 - 124
cis-1,2-Dichloroethene	25.0	26.1		ug/L		105	74 - 124
cis-1,3-Dichloropropene	25.0	26.5		ug/L		106	74 - 124
Cyclohexane	25.0	27.0		ug/L		108	59 - 135
Dibromochloromethane	25.0	28.0		ug/L		112	75 - 125
Dichlorodifluoromethane	25.0	26.6		ug/L		107	59 - 135
Ethylbenzene	25.0	26.5		ug/L		106	77 - 123
Isopropylbenzene	25.0	26.7		ug/L		107	77 - 122
Methyl acetate	50.0	50.9		ug/L		102	74 - 133
Methyl tert-butyl ether	25.0	26.6		ug/L		106	77 - 120
Methylcyclohexane	25.0	27.1		ug/L		108	68 - 134
Methylene Chloride	25.0	25.2		ug/L		101	75 - 124
Styrene	25.0	26.9		ug/L		108	80 - 120
Tetrachloroethene	25.0	27.1		ug/L		108	74 - 122
Toluene	25.0	25.7		ug/L		103	80 - 122
trans-1,2-Dichloroethene	25.0	26.4		ug/L		106	73 - 127
trans-1,3-Dichloropropene	25.0	26.5		ug/L		106	80 - 120
Trichloroethene	25.0	27.2		ug/L		109	74 - 123
Trichlorofluoromethane	25.0	31.5		ug/L		126	62 - 150
Vinyl chloride	25.0	26.2		ug/L		105	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		77 - 120
4-Bromofluorobenzene (Surr)	102		73 - 120
Dibromofluoromethane (Surr)	103		75 - 123
Toluene-d8 (Surr)	99		80 - 120

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

GC/MS VOA

Analysis Batch: 525323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168280-1	WELL 1-2A	Total/NA	Water	8260C	
480-168280-2	WELL 1-3	Total/NA	Water	8260C	
480-168280-3	WELL 1-3 POST	Total/NA	Water	8260C	
480-168280-4	TRIP BLANKS	Total/NA	Water	8260C	
MB 480-525323/8	Method Blank	Total/NA	Water	8260C	
LCS 480-525323/28	Lab Control Sample	Total/NA	Water	8260C	
LCS 480-525323/5	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-168280-1

Date Collected: 04/06/20 10:00

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525323	04/10/20 20:33	LCH	TAL BUF

Client Sample ID: WELL 1-3

Lab Sample ID: 480-168280-2

Date Collected: 04/06/20 10:10

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525323	04/10/20 20:56	LCH	TAL BUF

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-168280-3

Date Collected: 04/06/20 10:15

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525323	04/10/20 21:19	LCH	TAL BUF

Client Sample ID: TRIP BLANKS

Lab Sample ID: 480-168280-4

Date Collected: 04/06/20 00:00

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525323	04/10/20 21:42	LCH	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

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	04-02-21

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168280-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-168280-1	WELL 1-2A	Water	04/06/20 10:00	04/08/20 08:00	
480-168280-2	WELL 1-3	Water	04/06/20 10:10	04/08/20 08:00	
480-168280-3	WELL 1-3 POST	Water	04/06/20 10:15	04/08/20 08:00	
480-168280-4	TRIP BLANKS	Water	04/06/20 00:00	04/08/20 08:00	

address: 10 Hazelwood Dr. Amherst, N.Y. 14228

Regulatory Program:

☐ Other:☐ RCRA☐ NPDES

DW

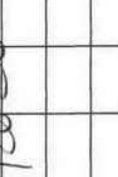
Program

regulator.

Company Name: ARCADIS		Client Contact	
Address: 855 Route 146 Suite 210			
City/State/Zip: Clifton Park, NY, 12065			
Phone: (518) 518-250-7300			
Fax:			
Project Name: NYSDDEC - Stand by Vesta			
City/State/Zip: Town of Vesta Water Supply			
O# 30001348.00001			

Project Manager: Katie Bidwell		Site Contact:	
Tel/Email: Katie.bidwell@arcadis.com		Lab Contact: Stone, Jody L	
Analysis Turnaround Time			
☐ CALENDAR DAYS ☐ WORKING DAYS TAT if different from Below			
☐ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day			
Standard			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.
Well 1-2A	4-6-20	1000	G	water	3
Well 1-3	↓	1010	↓	↓	3
Well 1-3 Post	↓	1015	↓	↓	3
Trip Blanks	-	-	-	-	2



480-168280 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other	
Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the comments Section if the lab is to dispose of the sample.	
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown	

Special Instructions/QC Requirements & Comments:	
ATCL list 04.04.2	

Custody Seals Intact: ☐ Yes ☐ No	
Disinfectant by: <i>[Signature]</i>	Date/Time: 4-6-20 1600
Disinfectant by: <i>[Signature]</i>	Date/Time: 4-7-20 1700
Disinfectant by: <i>[Signature]</i>	Date/Time: 4-7-20 0800

Custody Seal No.:		Cooler Temp. (°C): Obs'd:	
Company: ARCADIS		Company: ETA	
Company: EUROFINS TA		Company: TA3	

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

Therm ID No.:	
Date/Time: 4-6-20 1600	
Date/Time: 4-6-20 0800	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-168280-1

Login Number: 168280

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	

ANALYTICAL REPORT

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

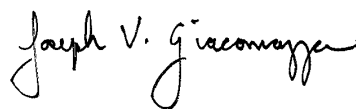
Laboratory Job ID: 480-168281-1

Client Project/Site: NYSDEC-Standby VESTAL

For:

ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Mr. Jeremy Wyckoff



Authorized for release by:

4/14/2020 1:33:23 PM

Joe Giacomazza, Project Management Assistant II
joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

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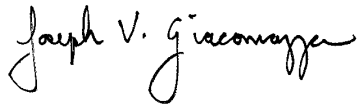
www.testamericainc.com

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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.

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 Management Assistant II
4/14/2020 1:33:23 PM

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	MS or MSD is outside acceptance limits.
*	LCS or LCSD is outside acceptance limits.
E	Compound concentration exceeds the upper level of the calibration range of the instrument for that specific analysis.
J	Indicates an estimated value.
U	Analyzed for but not detected.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Job ID: 480-168281-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-168281-1

Comments

No additional comments.

Receipt

The samples were received on 4/8/2020 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.0° C.

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-525112 recovered outside acceptance criteria, low biased, for Carbon disulfide, cis-1,2-Dichloroethene, Chloroform, 1,1-Dichloroethene, 1,1,1-Trichloroethane, and trans-1,2-Dichloroethene. A reporting limit (RL) standard was analyzed, and the target analytes were detected. Since the associated samples were non-detect for these analytes, the data have been reported. The following samples are impacted: 4009-13-040620 (480-168281-6), 4009-14-040620 (480-168281-7), 4009-15-040620 (480-168281-8), 4009-16-040620 (480-168281-9), 4009-16A-040620 (480-168281-10), 4009-18-040620 (480-168281-11), 4009-19-040620 (480-168281-12), 4009-21-040620 (480-168281-13), 4009-27I-040620 (480-168281-16) and 4009-27D-040620 (480-168281-17).

Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: 4009-8-040620 (480-168281-2), 4009-11-040620 (480-168281-4), 4009-12-040620 (480-168281-5), 4009-26-040620 (480-168281-14), 4009-29S-040620 (480-168281-19), 4009-29I-040620 (480-168281-20), 4009-29D-040620 (480-168281-21), WELL 1-1-040620 (480-168281-23), DUP 2--040620 (480-168281-25), (480-168281-B-20 MS) and (480-168281-B-20 MSD). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was diluted to bring the concentration of target analytes within the calibration range: DUP 1-040620 (480-168281-24). Elevated reporting limits (RLs) are provided.

Method 8260C: Due to the coelution of 2-Butanone (MEK) with Ethyl Acetate 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 480-525488. The following sample was affected : DUP 1-040620 (480-168281-24).

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

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-7-040620

Lab Sample ID: 480-168281-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.38	J	1.0	0.38	ug/L	1		8260C	Total/NA
Acetone	3.7	J	10	3.0	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	14		1.0	0.81	ug/L	1		8260C	Total/NA

Client Sample ID: 4009-8-040620

Lab Sample ID: 480-168281-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1500		50	41	ug/L	50		8260C	Total/NA
1,1-Dichloroethane	57		50	19	ug/L	50		8260C	Total/NA
1,1-Dichloroethene	95		50	15	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene	510		50	41	ug/L	50		8260C	Total/NA
Trichloroethene	390		50	23	ug/L	50		8260C	Total/NA

Client Sample ID: 4009-9-040620

Lab Sample ID: 480-168281-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.7	J	10	3.0	ug/L	1		8260C	Total/NA
Chloroform	0.43	J	1.0	0.34	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	5.6		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	0.68	J	1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: 4009-11-040620

Lab Sample ID: 480-168281-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	160		2.0	1.6	ug/L	2		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0		2.0	0.62	ug/L	2		8260C	Total/NA
1,1-Dichloroethane	49		2.0	0.76	ug/L	2		8260C	Total/NA
1,1-Dichloroethene	19		2.0	0.58	ug/L	2		8260C	Total/NA
Acetone	6.3	J	20	6.0	ug/L	2		8260C	Total/NA
Chloroethane	1.7	J	2.0	0.64	ug/L	2		8260C	Total/NA
cis-1,2-Dichloroethene	52		2.0	1.6	ug/L	2		8260C	Total/NA
Trichloroethene	7.9		2.0	0.92	ug/L	2		8260C	Total/NA
Vinyl chloride	40		2.0	1.8	ug/L	2		8260C	Total/NA

Client Sample ID: 4009-12-040620

Lab Sample ID: 480-168281-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	230		4.0	3.3	ug/L	4		8260C	Total/NA
1,1-Dichloroethane	46		4.0	1.5	ug/L	4		8260C	Total/NA
1,1-Dichloroethene	9.6		4.0	1.2	ug/L	4		8260C	Total/NA
Chloroethane	3.8	J	4.0	1.3	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	22		4.0	3.2	ug/L	4		8260C	Total/NA
Trichloroethene	23		4.0	1.8	ug/L	4		8260C	Total/NA
Vinyl chloride	80		4.0	3.6	ug/L	4		8260C	Total/NA

Client Sample ID: 4009-13-040620

Lab Sample ID: 480-168281-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.0	0.41	ug/L	1		8260C	Total/NA

Client Sample ID: 4009-14-040620

Lab Sample ID: 480-168281-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.1		1.0	0.41	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-15-040620

Lab Sample ID: 480-168281-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	8.3	J	10	3.0	ug/L	1		8260C	Total/NA
Benzene	9.0		1.0	0.41	ug/L	1		8260C	Total/NA

Client Sample ID: 4009-16-040620

Lab Sample ID: 480-168281-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.7	J	10	3.0	ug/L	1		8260C	Total/NA
Benzene	42		1.0	0.41	ug/L	1		8260C	Total/NA

Client Sample ID: 4009-16A-040620

Lab Sample ID: 480-168281-10

No Detections.

Client Sample ID: 4009-18-040620

Lab Sample ID: 480-168281-11

No Detections.

Client Sample ID: 4009-19-040620

Lab Sample ID: 480-168281-12

No Detections.

Client Sample ID: 4009-21-040620

Lab Sample ID: 480-168281-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.7		1.0	0.41	ug/L	1		8260C	Total/NA

Client Sample ID: 4009-26-040620

Lab Sample ID: 480-168281-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	880		10	8.2	ug/L	10		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	21		10	3.1	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	69		10	3.8	ug/L	10		8260C	Total/NA
1,1-Dichloroethene	50		10	2.9	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	300		10	8.1	ug/L	10		8260C	Total/NA
Trichloroethene	230		10	4.6	ug/L	10		8260C	Total/NA
Vinyl chloride	14		10	9.0	ug/L	10		8260C	Total/NA

Client Sample ID: 4009-27S-040620

Lab Sample ID: 480-168281-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	54		1.0	0.82	ug/L	1		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	2.2		1.0	0.31	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	2.4		1.0	0.38	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	5.5		1.0	0.29	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	19		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	17		1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: 4009-27I-040620

Lab Sample ID: 480-168281-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.5		1.0	0.46	ug/L	1		8260C	Total/NA

Client Sample ID: 4009-27D-040620

Lab Sample ID: 480-168281-17

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-28-040620

Lab Sample ID: 480-168281-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.7		1.0	0.82	ug/L	1		8260C	Total/NA

Client Sample ID: 4009-29S-040620

Lab Sample ID: 480-168281-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1300		20	16	ug/L	20		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	12	J	20	6.2	ug/L	20		8260C	Total/NA
1,1-Dichloroethane	81		20	7.6	ug/L	20		8260C	Total/NA
1,1-Dichloroethene	100		20	5.8	ug/L	20		8260C	Total/NA
cis-1,2-Dichloroethene	480		20	16	ug/L	20		8260C	Total/NA
Trichloroethene	250		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	88		20	18	ug/L	20		8260C	Total/NA

Client Sample ID: 4009-29I-040620

Lab Sample ID: 480-168281-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	810		20	16	ug/L	20		8260C	Total/NA
1,1-Dichloroethane	65		20	7.6	ug/L	20		8260C	Total/NA
1,1-Dichloroethene	70		20	5.8	ug/L	20		8260C	Total/NA
cis-1,2-Dichloroethene	290		20	16	ug/L	20		8260C	Total/NA
Trichloroethene	230		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	53		20	18	ug/L	20		8260C	Total/NA

Client Sample ID: 4009-29D-040620

Lab Sample ID: 480-168281-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	17		4.0	3.3	ug/L	4		8260C	Total/NA
1,1-Dichloroethane	3.7	J	4.0	1.5	ug/L	4		8260C	Total/NA
1,1-Dichloroethene	1.6	J	4.0	1.2	ug/L	4		8260C	Total/NA
Chloroethane	3.3	J	4.0	1.3	ug/L	4		8260C	Total/NA
cis-1,2-Dichloroethene	3.8	J	4.0	3.2	ug/L	4		8260C	Total/NA
Trichloroethene	5.3		4.0	1.8	ug/L	4		8260C	Total/NA
Vinyl chloride	11		4.0	3.6	ug/L	4		8260C	Total/NA

Client Sample ID: 4009-30-040620

Lab Sample ID: 480-168281-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.75	J	1.0	0.38	ug/L	1		8260C	Total/NA
Benzene	1.6		1.0	0.41	ug/L	1		8260C	Total/NA

Client Sample ID: WELL 1-1-040620

Lab Sample ID: 480-168281-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	230		5.0	4.1	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	29		5.0	1.9	ug/L	5		8260C	Total/NA
1,1-Dichloroethene	20		5.0	1.5	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	87		5.0	4.1	ug/L	5		8260C	Total/NA
Trichloroethene	64		5.0	2.3	ug/L	5		8260C	Total/NA

Client Sample ID: DUP 1-040620

Lab Sample ID: 480-168281-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	250	E	1.0	0.82	ug/L	1		8260C	Total/NA
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5		1.0	0.31	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: DUP 1-040620 (Continued)

Lab Sample ID: 480-168281-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	49		1.0	0.38	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	8.4		1.0	0.29	ug/L	1		8260C	Total/NA
Benzene	0.49	J	1.0	0.41	ug/L	1		8260C	Total/NA
Chloroethane	6.6		1.0	0.32	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	23		1.0	0.81	ug/L	1		8260C	Total/NA
Trichloroethene	23		1.0	0.46	ug/L	1		8260C	Total/NA
Vinyl chloride	89		1.0	0.90	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane - DL	280		5.0	4.1	ug/L	5		8260C	Total/NA
1,1-Dichloroethane - DL	55		5.0	1.9	ug/L	5		8260C	Total/NA
1,1-Dichloroethene - DL	5.9		5.0	1.5	ug/L	5		8260C	Total/NA
Chloroethane - DL	4.4	J	5.0	1.6	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene - DL	26		5.0	4.1	ug/L	5		8260C	Total/NA
Trichloroethene - DL	29		5.0	2.3	ug/L	5		8260C	Total/NA
Vinyl chloride - DL	100		5.0	4.5	ug/L	5		8260C	Total/NA

Client Sample ID: DUP 2--040620

Lab Sample ID: 480-168281-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	810		20	16	ug/L	20		8260C	Total/NA
1,1-Dichloroethane	69		20	7.6	ug/L	20		8260C	Total/NA
1,1-Dichloroethene	66		20	5.8	ug/L	20		8260C	Total/NA
cis-1,2-Dichloroethene	310		20	16	ug/L	20		8260C	Total/NA
Trichloroethene	230		20	9.2	ug/L	20		8260C	Total/NA
Vinyl chloride	62		20	18	ug/L	20		8260C	Total/NA

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 480-168281-26

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

Client Sample ID: TRIP BLANK 2

Lab Sample ID: 480-168281-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.7	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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-7-040620

Lab Sample ID: 480-168281-1

Date Collected: 04/06/20 11:30

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 13:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 13:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 13:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 13:16	1
1,1-Dichloroethane	0.38	J	1.0	0.38	ug/L			04/10/20 13:16	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 13:16	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 13:16	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 13:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 13:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 13:16	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 13:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 13:16	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 13:16	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 13:16	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 13:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 13:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 13:16	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 13:16	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 13:16	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 13:16	1
Acetone	3.7	J	10	3.0	ug/L			04/10/20 13:16	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 13:16	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 13:16	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 13:16	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 13:16	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 13:16	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 13:16	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 13:16	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 13:16	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 13:16	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 13:16	1
cis-1,2-Dichloroethene	14		1.0	0.81	ug/L			04/10/20 13:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 13:16	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 13:16	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 13:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 13:16	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 13:16	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 13:16	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 13:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 13:16	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 13:16	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 13:16	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 13:16	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 13:16	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 13:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 13:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 13:16	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 13:16	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 13:16	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-7-040620

Lab Sample ID: 480-168281-1

Date Collected: 04/06/20 11:30

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 13:16	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 13:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120					04/10/20 13:16	1
4-Bromofluorobenzene (Surr)	99		73 - 120					04/10/20 13:16	1
Dibromofluoromethane (Surr)	100		75 - 123					04/10/20 13:16	1
Toluene-d8 (Surr)	100		80 - 120					04/10/20 13:16	1

Client Sample ID: 4009-8-040620

Lab Sample ID: 480-168281-2

Date Collected: 04/06/20 11:20

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1500		50	41	ug/L			04/10/20 13:39	50
1,1,2,2-Tetrachloroethane	50	U	50	11	ug/L			04/10/20 13:39	50
1,1,2-Trichloro-1,2,2-trifluoroethane	50	U	50	16	ug/L			04/10/20 13:39	50
1,1,2-Trichloroethane	50	U	50	12	ug/L			04/10/20 13:39	50
1,1-Dichloroethane	57		50	19	ug/L			04/10/20 13:39	50
1,1-Dichloroethene	95		50	15	ug/L			04/10/20 13:39	50
1,2,3-Trimethylbenzene	50	U	50	13	ug/L			04/10/20 13:39	50
1,2,4-Trichlorobenzene	50	U	50	21	ug/L			04/10/20 13:39	50
1,2,4-Trimethylbenzene	50	U	50	38	ug/L			04/10/20 13:39	50
1,2-Dibromo-3-Chloropropane	50	U	50	20	ug/L			04/10/20 13:39	50
1,2-Dibromoethane	50	U	50	37	ug/L			04/10/20 13:39	50
1,2-Dichlorobenzene	50	U	50	40	ug/L			04/10/20 13:39	50
1,2-Dichloroethane	50	U	50	11	ug/L			04/10/20 13:39	50
1,2-Dichloropropane	50	U	50	36	ug/L			04/10/20 13:39	50
1,3,5-Trimethylbenzene	50	U	50	39	ug/L			04/10/20 13:39	50
1,3-Dichlorobenzene	50	U	50	39	ug/L			04/10/20 13:39	50
1,4-Dichlorobenzene	50	U	50	42	ug/L			04/10/20 13:39	50
2-Butanone (MEK)	500	U	500	66	ug/L			04/10/20 13:39	50
2-Hexanone	250	U	250	62	ug/L			04/10/20 13:39	50
4-Methyl-2-pentanone (MIBK)	250	U	250	110	ug/L			04/10/20 13:39	50
Acetone	500	U	500	150	ug/L			04/10/20 13:39	50
Benzene	50	U	50	21	ug/L			04/10/20 13:39	50
Bromodichloromethane	50	U	50	20	ug/L			04/10/20 13:39	50
Bromoform	50	U	50	13	ug/L			04/10/20 13:39	50
Bromomethane	50	U	50	35	ug/L			04/10/20 13:39	50
Carbon disulfide	50	U	50	9.5	ug/L			04/10/20 13:39	50
Carbon tetrachloride	50	U	50	14	ug/L			04/10/20 13:39	50
Chlorobenzene	50	U	50	38	ug/L			04/10/20 13:39	50
Chloroethane	50	U	50	16	ug/L			04/10/20 13:39	50
Chloroform	50	U	50	17	ug/L			04/10/20 13:39	50
Chloromethane	50	U	50	18	ug/L			04/10/20 13:39	50
cis-1,2-Dichloroethene	510		50	41	ug/L			04/10/20 13:39	50
cis-1,3-Dichloropropene	50	U	50	18	ug/L			04/10/20 13:39	50
Cyclohexane	50	U	50	9.0	ug/L			04/10/20 13:39	50
Dibromochloromethane	50	U	50	16	ug/L			04/10/20 13:39	50

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-8-040620

Lab Sample ID: 480-168281-2

Date Collected: 04/06/20 11:20

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	50	U	50	34	ug/L			04/10/20 13:39	50
Ethylbenzene	50	U	50	37	ug/L			04/10/20 13:39	50
Isopropylbenzene	50	U	50	40	ug/L			04/10/20 13:39	50
Methyl acetate	130	U	130	65	ug/L			04/10/20 13:39	50
Methyl tert-butyl ether	50	U	50	8.0	ug/L			04/10/20 13:39	50
Methylcyclohexane	50	U	50	8.0	ug/L			04/10/20 13:39	50
Methylene Chloride	50	U	50	22	ug/L			04/10/20 13:39	50
Styrene	50	U	50	37	ug/L			04/10/20 13:39	50
Tetrachloroethene	50	U	50	18	ug/L			04/10/20 13:39	50
Toluene	50	U	50	26	ug/L			04/10/20 13:39	50
trans-1,2-Dichloroethene	50	U	50	45	ug/L			04/10/20 13:39	50
trans-1,3-Dichloropropene	50	U	50	19	ug/L			04/10/20 13:39	50
Trichloroethene	390		50	23	ug/L			04/10/20 13:39	50
Trichlorofluoromethane	50	U	50	44	ug/L			04/10/20 13:39	50
Vinyl chloride	50	U	50	45	ug/L			04/10/20 13:39	50
Xylenes, Total	100	U	100	33	ug/L			04/10/20 13:39	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/10/20 13:39	50
4-Bromofluorobenzene (Surr)	102		73 - 120		04/10/20 13:39	50
Dibromofluoromethane (Surr)	103		75 - 123		04/10/20 13:39	50
Toluene-d8 (Surr)	100		80 - 120		04/10/20 13:39	50

Client Sample ID: 4009-9-040620

Lab Sample ID: 480-168281-3

Date Collected: 04/06/20 11:10

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 14:02	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 14:02	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 14:02	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 14:02	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 14:02	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 14:02	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 14:02	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 14:02	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 14:02	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 14:02	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 14:02	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 14:02	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 14:02	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 14:02	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 14:02	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 14:02	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 14:02	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 14:02	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 14:02	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 14:02	1
Acetone	3.7	J	10	3.0	ug/L			04/10/20 14:02	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-9-040620

Lab Sample ID: 480-168281-3

Date Collected: 04/06/20 11:10

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 14:02	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 14:02	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 14:02	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 14:02	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 14:02	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 14:02	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 14:02	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 14:02	1
Chloroform	0.43	J	1.0	0.34	ug/L			04/10/20 14:02	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 14:02	1
cis-1,2-Dichloroethene	5.6		1.0	0.81	ug/L			04/10/20 14:02	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 14:02	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 14:02	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 14:02	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 14:02	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 14:02	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 14:02	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 14:02	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 14:02	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 14:02	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 14:02	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 14:02	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 14:02	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 14:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 14:02	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 14:02	1
Trichloroethene	0.68	J	1.0	0.46	ug/L			04/10/20 14:02	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 14:02	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 14:02	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 14:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		77 - 120		04/10/20 14:02	1
4-Bromofluorobenzene (Surr)	99		73 - 120		04/10/20 14:02	1
Dibromofluoromethane (Surr)	102		75 - 123		04/10/20 14:02	1
Toluene-d8 (Surr)	100		80 - 120		04/10/20 14:02	1

Client Sample ID: 4009-11-040620

Lab Sample ID: 480-168281-4

Date Collected: 04/06/20 11:15

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	160		2.0	1.6	ug/L			04/10/20 14:26	2
1,1,2,2-Tetrachloroethane	2.0	U	2.0	0.42	ug/L			04/10/20 14:26	2
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0		2.0	0.62	ug/L			04/10/20 14:26	2
1,1,2-Trichloroethane	2.0	U	2.0	0.46	ug/L			04/10/20 14:26	2
1,1-Dichloroethane	49		2.0	0.76	ug/L			04/10/20 14:26	2
1,1-Dichloroethene	19		2.0	0.58	ug/L			04/10/20 14:26	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-11-040620

Lab Sample ID: 480-168281-4

Date Collected: 04/06/20 11:15

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trimethylbenzene	2.0	U	2.0	0.52	ug/L			04/10/20 14:26	2
1,2,4-Trichlorobenzene	2.0	U	2.0	0.82	ug/L			04/10/20 14:26	2
1,2,4-Trimethylbenzene	2.0	U	2.0	1.5	ug/L			04/10/20 14:26	2
1,2-Dibromo-3-Chloropropane	2.0	U	2.0	0.78	ug/L			04/10/20 14:26	2
1,2-Dibromoethane	2.0	U	2.0	1.5	ug/L			04/10/20 14:26	2
1,2-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/10/20 14:26	2
1,2-Dichloroethane	2.0	U	2.0	0.42	ug/L			04/10/20 14:26	2
1,2-Dichloropropane	2.0	U	2.0	1.4	ug/L			04/10/20 14:26	2
1,3,5-Trimethylbenzene	2.0	U	2.0	1.5	ug/L			04/10/20 14:26	2
1,3-Dichlorobenzene	2.0	U	2.0	1.6	ug/L			04/10/20 14:26	2
1,4-Dichlorobenzene	2.0	U	2.0	1.7	ug/L			04/10/20 14:26	2
2-Butanone (MEK)	20	U	20	2.6	ug/L			04/10/20 14:26	2
2-Hexanone	10	U	10	2.5	ug/L			04/10/20 14:26	2
4-Methyl-2-pentanone (MIBK)	10	U	10	4.2	ug/L			04/10/20 14:26	2
Acetone	6.3	J	20	6.0	ug/L			04/10/20 14:26	2
Benzene	2.0	U	2.0	0.82	ug/L			04/10/20 14:26	2
Bromodichloromethane	2.0	U	2.0	0.78	ug/L			04/10/20 14:26	2
Bromoform	2.0	U	2.0	0.52	ug/L			04/10/20 14:26	2
Bromomethane	2.0	U	2.0	1.4	ug/L			04/10/20 14:26	2
Carbon disulfide	2.0	U	2.0	0.38	ug/L			04/10/20 14:26	2
Carbon tetrachloride	2.0	U	2.0	0.54	ug/L			04/10/20 14:26	2
Chlorobenzene	2.0	U	2.0	1.5	ug/L			04/10/20 14:26	2
Chloroethane	1.7	J	2.0	0.64	ug/L			04/10/20 14:26	2
Chloroform	2.0	U	2.0	0.68	ug/L			04/10/20 14:26	2
Chloromethane	2.0	U	2.0	0.70	ug/L			04/10/20 14:26	2
cis-1,2-Dichloroethene	52		2.0	1.6	ug/L			04/10/20 14:26	2
cis-1,3-Dichloropropene	2.0	U	2.0	0.72	ug/L			04/10/20 14:26	2
Cyclohexane	2.0	U	2.0	0.36	ug/L			04/10/20 14:26	2
Dibromochloromethane	2.0	U	2.0	0.64	ug/L			04/10/20 14:26	2
Dichlorodifluoromethane	2.0	U	2.0	1.4	ug/L			04/10/20 14:26	2
Ethylbenzene	2.0	U	2.0	1.5	ug/L			04/10/20 14:26	2
Isopropylbenzene	2.0	U	2.0	1.6	ug/L			04/10/20 14:26	2
Methyl acetate	5.0	U	5.0	2.6	ug/L			04/10/20 14:26	2
Methyl tert-butyl ether	2.0	U	2.0	0.32	ug/L			04/10/20 14:26	2
Methylcyclohexane	2.0	U	2.0	0.32	ug/L			04/10/20 14:26	2
Methylene Chloride	2.0	U	2.0	0.88	ug/L			04/10/20 14:26	2
Styrene	2.0	U	2.0	1.5	ug/L			04/10/20 14:26	2
Tetrachloroethene	2.0	U	2.0	0.72	ug/L			04/10/20 14:26	2
Toluene	2.0	U	2.0	1.0	ug/L			04/10/20 14:26	2
trans-1,2-Dichloroethene	2.0	U	2.0	1.8	ug/L			04/10/20 14:26	2
trans-1,3-Dichloropropene	2.0	U	2.0	0.74	ug/L			04/10/20 14:26	2
Trichloroethene	7.9		2.0	0.92	ug/L			04/10/20 14:26	2
Trichlorofluoromethane	2.0	U	2.0	1.8	ug/L			04/10/20 14:26	2
Vinyl chloride	40		2.0	1.8	ug/L			04/10/20 14:26	2
Xylenes, Total	4.0	U	4.0	1.3	ug/L			04/10/20 14:26	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/10/20 14:26	2
4-Bromofluorobenzene (Surr)	98		73 - 120		04/10/20 14:26	2
Dibromofluoromethane (Surr)	101		75 - 123		04/10/20 14:26	2

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-11-040620

Lab Sample ID: 480-168281-4

Date Collected: 04/06/20 11:15

Matrix: Water

Date Received: 04/08/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		04/10/20 14:26	2

Client Sample ID: 4009-12-040620

Lab Sample ID: 480-168281-5

Date Collected: 04/06/20 09:35

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	230		4.0	3.3	ug/L			04/10/20 14:49	4
1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.84	ug/L			04/10/20 14:49	4
1,1,2-Trichloro-1,2,2-trifluoroethane	4.0	U	4.0	1.2	ug/L			04/10/20 14:49	4
1,1,2-Trichloroethane	4.0	U	4.0	0.92	ug/L			04/10/20 14:49	4
1,1-Dichloroethane	46		4.0	1.5	ug/L			04/10/20 14:49	4
1,1-Dichloroethene	9.6		4.0	1.2	ug/L			04/10/20 14:49	4
1,2,3-Trimethylbenzene	4.0	U	4.0	1.0	ug/L			04/10/20 14:49	4
1,2,4-Trichlorobenzene	4.0	U	4.0	1.6	ug/L			04/10/20 14:49	4
1,2,4-Trimethylbenzene	4.0	U	4.0	3.0	ug/L			04/10/20 14:49	4
1,2-Dibromo-3-Chloropropane	4.0	U	4.0	1.6	ug/L			04/10/20 14:49	4
1,2-Dibromoethane	4.0	U	4.0	2.9	ug/L			04/10/20 14:49	4
1,2-Dichlorobenzene	4.0	U	4.0	3.2	ug/L			04/10/20 14:49	4
1,2-Dichloroethane	4.0	U	4.0	0.84	ug/L			04/10/20 14:49	4
1,2-Dichloropropane	4.0	U	4.0	2.9	ug/L			04/10/20 14:49	4
1,3,5-Trimethylbenzene	4.0	U	4.0	3.1	ug/L			04/10/20 14:49	4
1,3-Dichlorobenzene	4.0	U	4.0	3.1	ug/L			04/10/20 14:49	4
1,4-Dichlorobenzene	4.0	U	4.0	3.4	ug/L			04/10/20 14:49	4
2-Butanone (MEK)	40	U	40	5.3	ug/L			04/10/20 14:49	4
2-Hexanone	20	U	20	5.0	ug/L			04/10/20 14:49	4
4-Methyl-2-pentanone (MIBK)	20	U	20	8.4	ug/L			04/10/20 14:49	4
Acetone	40	U	40	12	ug/L			04/10/20 14:49	4
Benzene	4.0	U	4.0	1.6	ug/L			04/10/20 14:49	4
Bromodichloromethane	4.0	U	4.0	1.6	ug/L			04/10/20 14:49	4
Bromoform	4.0	U	4.0	1.0	ug/L			04/10/20 14:49	4
Bromomethane	4.0	U	4.0	2.8	ug/L			04/10/20 14:49	4
Carbon disulfide	4.0	U	4.0	0.76	ug/L			04/10/20 14:49	4
Carbon tetrachloride	4.0	U	4.0	1.1	ug/L			04/10/20 14:49	4
Chlorobenzene	4.0	U	4.0	3.0	ug/L			04/10/20 14:49	4
Chloroethane	3.8 J		4.0	1.3	ug/L			04/10/20 14:49	4
Chloroform	4.0	U	4.0	1.4	ug/L			04/10/20 14:49	4
Chloromethane	4.0	U	4.0	1.4	ug/L			04/10/20 14:49	4
cis-1,2-Dichloroethene	22		4.0	3.2	ug/L			04/10/20 14:49	4
cis-1,3-Dichloropropene	4.0	U	4.0	1.4	ug/L			04/10/20 14:49	4
Cyclohexane	4.0	U	4.0	0.72	ug/L			04/10/20 14:49	4
Dibromochloromethane	4.0	U	4.0	1.3	ug/L			04/10/20 14:49	4
Dichlorodifluoromethane	4.0	U	4.0	2.7	ug/L			04/10/20 14:49	4
Ethylbenzene	4.0	U	4.0	3.0	ug/L			04/10/20 14:49	4
Isopropylbenzene	4.0	U	4.0	3.2	ug/L			04/10/20 14:49	4
Methyl acetate	10	U	10	5.2	ug/L			04/10/20 14:49	4
Methyl tert-butyl ether	4.0	U	4.0	0.64	ug/L			04/10/20 14:49	4
Methylcyclohexane	4.0	U	4.0	0.64	ug/L			04/10/20 14:49	4

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-12-040620

Lab Sample ID: 480-168281-5

Date Collected: 04/06/20 09:35

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	4.0	U	4.0	1.8	ug/L			04/10/20 14:49	4
Styrene	4.0	U	4.0	2.9	ug/L			04/10/20 14:49	4
Tetrachloroethene	4.0	U	4.0	1.4	ug/L			04/10/20 14:49	4
Toluene	4.0	U	4.0	2.0	ug/L			04/10/20 14:49	4
trans-1,2-Dichloroethene	4.0	U	4.0	3.6	ug/L			04/10/20 14:49	4
trans-1,3-Dichloropropene	4.0	U	4.0	1.5	ug/L			04/10/20 14:49	4
Trichloroethene	23		4.0	1.8	ug/L			04/10/20 14:49	4
Trichlorofluoromethane	4.0	U	4.0	3.5	ug/L			04/10/20 14:49	4
Vinyl chloride	80		4.0	3.6	ug/L			04/10/20 14:49	4
Xylenes, Total	8.0	U	8.0	2.6	ug/L			04/10/20 14:49	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		04/10/20 14:49	4
4-Bromofluorobenzene (Surr)	102		73 - 120		04/10/20 14:49	4
Dibromofluoromethane (Surr)	104		75 - 123		04/10/20 14:49	4
Toluene-d8 (Surr)	101		80 - 120		04/10/20 14:49	4

Client Sample ID: 4009-13-040620

Lab Sample ID: 480-168281-6

Date Collected: 04/06/20 11:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/09/20 22:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/09/20 22:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/09/20 22:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/09/20 22:54	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/09/20 22:54	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/09/20 22:54	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/09/20 22:54	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/09/20 22:54	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/09/20 22:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/09/20 22:54	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/09/20 22:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/09/20 22:54	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/09/20 22:54	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/09/20 22:54	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/09/20 22:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/09/20 22:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/09/20 22:54	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/09/20 22:54	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/09/20 22:54	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/09/20 22:54	1
Acetone	10	U	10	3.0	ug/L			04/09/20 22:54	1
Benzene	0.42	J	1.0	0.41	ug/L			04/09/20 22:54	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/09/20 22:54	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/09/20 22:54	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/09/20 22:54	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/09/20 22:54	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/09/20 22:54	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-13-040620

Lab Sample ID: 480-168281-6

Date Collected: 04/06/20 11:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/09/20 22:54	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/09/20 22:54	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/09/20 22:54	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/09/20 22:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/09/20 22:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/09/20 22:54	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/09/20 22:54	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/09/20 22:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/09/20 22:54	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/09/20 22:54	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/09/20 22:54	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/09/20 22:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/09/20 22:54	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/09/20 22:54	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/09/20 22:54	1
Styrene	1.0	U	1.0	0.73	ug/L			04/09/20 22:54	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/09/20 22:54	1
Toluene	1.0	U	1.0	0.51	ug/L			04/09/20 22:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/09/20 22:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/09/20 22:54	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/09/20 22:54	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/09/20 22:54	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/09/20 22:54	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/09/20 22:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		77 - 120		04/09/20 22:54	1
4-Bromofluorobenzene (Surr)	95		73 - 120		04/09/20 22:54	1
Dibromofluoromethane (Surr)	94		75 - 123		04/09/20 22:54	1
Toluene-d8 (Surr)	101		80 - 120		04/09/20 22:54	1

Client Sample ID: 4009-14-040620

Lab Sample ID: 480-168281-7

Date Collected: 04/06/20 09:25

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/09/20 23:18	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/09/20 23:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/09/20 23:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/09/20 23:18	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/09/20 23:18	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/09/20 23:18	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/09/20 23:18	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/09/20 23:18	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/09/20 23:18	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/09/20 23:18	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/09/20 23:18	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/09/20 23:18	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/09/20 23:18	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-14-040620

Lab Sample ID: 480-168281-7

Date Collected: 04/06/20 09:25

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/09/20 23:18	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/09/20 23:18	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/09/20 23:18	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/09/20 23:18	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/09/20 23:18	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/09/20 23:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/09/20 23:18	1
Acetone	10	U	10	3.0	ug/L			04/09/20 23:18	1
Benzene	1.1		1.0	0.41	ug/L			04/09/20 23:18	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/09/20 23:18	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/09/20 23:18	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/09/20 23:18	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/09/20 23:18	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/09/20 23:18	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/09/20 23:18	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/09/20 23:18	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/09/20 23:18	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/09/20 23:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/09/20 23:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/09/20 23:18	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/09/20 23:18	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/09/20 23:18	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/09/20 23:18	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/09/20 23:18	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/09/20 23:18	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/09/20 23:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/09/20 23:18	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/09/20 23:18	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/09/20 23:18	1
Styrene	1.0	U	1.0	0.73	ug/L			04/09/20 23:18	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/09/20 23:18	1
Toluene	1.0	U	1.0	0.51	ug/L			04/09/20 23:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/09/20 23:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/09/20 23:18	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/09/20 23:18	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/09/20 23:18	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/09/20 23:18	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/09/20 23:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/09/20 23:18	1
4-Bromofluorobenzene (Surr)	99		73 - 120		04/09/20 23:18	1
Dibromofluoromethane (Surr)	90		75 - 123		04/09/20 23:18	1
Toluene-d8 (Surr)	102		80 - 120		04/09/20 23:18	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-15-040620

Lab Sample ID: 480-168281-8

Date Collected: 04/06/20 09:10

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/09/20 23:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/09/20 23:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/09/20 23:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/09/20 23:42	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/09/20 23:42	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/09/20 23:42	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/09/20 23:42	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/09/20 23:42	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/09/20 23:42	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/09/20 23:42	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/09/20 23:42	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/09/20 23:42	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/09/20 23:42	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/09/20 23:42	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/09/20 23:42	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/09/20 23:42	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/09/20 23:42	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/09/20 23:42	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/09/20 23:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/09/20 23:42	1
Acetone	8.3	J	10	3.0	ug/L			04/09/20 23:42	1
Benzene	9.0		1.0	0.41	ug/L			04/09/20 23:42	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/09/20 23:42	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/09/20 23:42	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/09/20 23:42	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/09/20 23:42	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/09/20 23:42	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/09/20 23:42	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/09/20 23:42	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/09/20 23:42	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/09/20 23:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/09/20 23:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/09/20 23:42	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/09/20 23:42	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/09/20 23:42	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/09/20 23:42	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/09/20 23:42	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/09/20 23:42	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/09/20 23:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/09/20 23:42	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/09/20 23:42	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/09/20 23:42	1
Styrene	1.0	U	1.0	0.73	ug/L			04/09/20 23:42	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/09/20 23:42	1
Toluene	1.0	U	1.0	0.51	ug/L			04/09/20 23:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/09/20 23:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/09/20 23:42	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/09/20 23:42	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/09/20 23:42	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-15-040620

Lab Sample ID: 480-168281-8

Date Collected: 04/06/20 09:10

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/09/20 23:42	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/09/20 23:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		77 - 120		04/09/20 23:42	1
4-Bromofluorobenzene (Surr)	93		73 - 120		04/09/20 23:42	1
Dibromofluoromethane (Surr)	87		75 - 123		04/09/20 23:42	1
Toluene-d8 (Surr)	100		80 - 120		04/09/20 23:42	1

Client Sample ID: 4009-16-040620

Lab Sample ID: 480-168281-9

Date Collected: 04/06/20 08:50

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 00:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 00:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 00:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 00:06	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 00:06	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 00:06	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 00:06	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 00:06	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 00:06	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 00:06	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 00:06	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 00:06	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 00:06	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 00:06	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 00:06	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 00:06	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 00:06	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 00:06	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 00:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 00:06	1
Acetone	4.7	J	10	3.0	ug/L			04/10/20 00:06	1
Benzene	42		1.0	0.41	ug/L			04/10/20 00:06	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 00:06	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 00:06	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 00:06	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 00:06	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 00:06	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 00:06	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 00:06	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 00:06	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 00:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 00:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 00:06	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 00:06	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 00:06	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-16-040620

Lab Sample ID: 480-168281-9

Date Collected: 04/06/20 08:50

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 00:06	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 00:06	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 00:06	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 00:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 00:06	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 00:06	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 00:06	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 00:06	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 00:06	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 00:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 00:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 00:06	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 00:06	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 00:06	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 00:06	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 00:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120		04/10/20 00:06	1
4-Bromofluorobenzene (Surr)	89		73 - 120		04/10/20 00:06	1
Dibromofluoromethane (Surr)	88		75 - 123		04/10/20 00:06	1
Toluene-d8 (Surr)	98		80 - 120		04/10/20 00:06	1

Client Sample ID: 4009-16A-040620

Lab Sample ID: 480-168281-10

Date Collected: 04/06/20 08:55

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 00:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 00:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 00:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 00:30	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 00:30	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 00:30	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 00:30	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 00:30	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 00:30	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 00:30	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 00:30	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 00:30	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 00:30	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 00:30	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 00:30	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 00:30	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 00:30	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 00:30	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 00:30	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 00:30	1
Acetone	10	U	10	3.0	ug/L			04/10/20 00:30	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-16A-040620

Lab Sample ID: 480-168281-10

Date Collected: 04/06/20 08:55

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 00:30	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 00:30	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 00:30	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 00:30	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 00:30	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 00:30	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 00:30	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 00:30	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 00:30	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 00:30	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 00:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 00:30	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 00:30	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 00:30	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 00:30	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 00:30	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 00:30	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 00:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 00:30	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 00:30	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 00:30	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 00:30	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 00:30	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 00:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 00:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 00:30	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 00:30	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 00:30	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 00:30	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 00:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		77 - 120		04/10/20 00:30	1
4-Bromofluorobenzene (Surr)	96		73 - 120		04/10/20 00:30	1
Dibromofluoromethane (Surr)	87		75 - 123		04/10/20 00:30	1
Toluene-d8 (Surr)	97		80 - 120		04/10/20 00:30	1

Client Sample ID: 4009-18-040620

Lab Sample ID: 480-168281-11

Date Collected: 04/06/20 08:15

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 00:54	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 00:54	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 00:54	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 00:54	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 00:54	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 00:54	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 00:54	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-18-040620

Lab Sample ID: 480-168281-11

Date Collected: 04/06/20 08:15

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 00:54	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 00:54	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 00:54	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 00:54	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 00:54	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 00:54	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 00:54	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 00:54	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 00:54	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 00:54	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 00:54	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 00:54	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 00:54	1
Acetone	10	U	10	3.0	ug/L			04/10/20 00:54	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 00:54	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 00:54	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 00:54	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 00:54	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 00:54	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 00:54	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 00:54	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 00:54	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 00:54	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 00:54	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 00:54	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 00:54	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 00:54	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 00:54	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 00:54	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 00:54	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 00:54	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 00:54	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 00:54	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 00:54	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 00:54	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 00:54	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 00:54	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 00:54	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 00:54	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 00:54	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 00:54	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 00:54	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 00:54	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 00:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		04/10/20 00:54	1
4-Bromofluorobenzene (Surr)	98		73 - 120		04/10/20 00:54	1
Dibromofluoromethane (Surr)	93		75 - 123		04/10/20 00:54	1
Toluene-d8 (Surr)	99		80 - 120		04/10/20 00:54	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-19-040620

Lab Sample ID: 480-168281-12

Date Collected: 04/06/20 08:35

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 01:18	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 01:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 01:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 01:18	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 01:18	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 01:18	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 01:18	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 01:18	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 01:18	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 01:18	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 01:18	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 01:18	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 01:18	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 01:18	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 01:18	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 01:18	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 01:18	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 01:18	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 01:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 01:18	1
Acetone	10	U	10	3.0	ug/L			04/10/20 01:18	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 01:18	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 01:18	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 01:18	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 01:18	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 01:18	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 01:18	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 01:18	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 01:18	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 01:18	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 01:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 01:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 01:18	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 01:18	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 01:18	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 01:18	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 01:18	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 01:18	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 01:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 01:18	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 01:18	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 01:18	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 01:18	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 01:18	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 01:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 01:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 01:18	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 01:18	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 01:18	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-19-040620

Lab Sample ID: 480-168281-12

Date Collected: 04/06/20 08:35

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 01:18	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 01:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		04/10/20 01:18	1
4-Bromofluorobenzene (Surr)	95		73 - 120		04/10/20 01:18	1
Dibromofluoromethane (Surr)	89		75 - 123		04/10/20 01:18	1
Toluene-d8 (Surr)	96		80 - 120		04/10/20 01:18	1

Client Sample ID: 4009-21-040620

Lab Sample ID: 480-168281-13

Date Collected: 04/06/20 08:25

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 01:43	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 01:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 01:43	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 01:43	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 01:43	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 01:43	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 01:43	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 01:43	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 01:43	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 01:43	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 01:43	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 01:43	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 01:43	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 01:43	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 01:43	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 01:43	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 01:43	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 01:43	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 01:43	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 01:43	1
Acetone	10	U	10	3.0	ug/L			04/10/20 01:43	1
Benzene	7.7		1.0	0.41	ug/L			04/10/20 01:43	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 01:43	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 01:43	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 01:43	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 01:43	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 01:43	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 01:43	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 01:43	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 01:43	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 01:43	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 01:43	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 01:43	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 01:43	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 01:43	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-21-040620

Lab Sample ID: 480-168281-13

Date Collected: 04/06/20 08:25

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 01:43	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 01:43	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 01:43	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 01:43	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 01:43	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 01:43	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 01:43	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 01:43	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 01:43	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 01:43	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 01:43	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 01:43	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 01:43	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 01:43	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 01:43	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 01:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		77 - 120		04/10/20 01:43	1
4-Bromofluorobenzene (Surr)	88		73 - 120		04/10/20 01:43	1
Dibromofluoromethane (Surr)	83		75 - 123		04/10/20 01:43	1
Toluene-d8 (Surr)	93		80 - 120		04/10/20 01:43	1

Client Sample ID: 4009-26-040620

Lab Sample ID: 480-168281-14

Date Collected: 04/06/20 11:25

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	880		10	8.2	ug/L			04/10/20 15:12	10
1,1,2,2-Tetrachloroethane	10	U	10	2.1	ug/L			04/10/20 15:12	10
1,1,2-Trichloro-1,2,2-trifluoroethane	21		10	3.1	ug/L			04/10/20 15:12	10
1,1,2-Trichloroethane	10	U	10	2.3	ug/L			04/10/20 15:12	10
1,1-Dichloroethane	69		10	3.8	ug/L			04/10/20 15:12	10
1,1-Dichloroethene	50		10	2.9	ug/L			04/10/20 15:12	10
1,2,3-Trimethylbenzene	10	U	10	2.6	ug/L			04/10/20 15:12	10
1,2,4-Trichlorobenzene	10	U	10	4.1	ug/L			04/10/20 15:12	10
1,2,4-Trimethylbenzene	10	U	10	7.5	ug/L			04/10/20 15:12	10
1,2-Dibromo-3-Chloropropane	10	U	10	3.9	ug/L			04/10/20 15:12	10
1,2-Dibromoethane	10	U	10	7.3	ug/L			04/10/20 15:12	10
1,2-Dichlorobenzene	10	U	10	7.9	ug/L			04/10/20 15:12	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			04/10/20 15:12	10
1,2-Dichloropropane	10	U	10	7.2	ug/L			04/10/20 15:12	10
1,3,5-Trimethylbenzene	10	U	10	7.7	ug/L			04/10/20 15:12	10
1,3-Dichlorobenzene	10	U	10	7.8	ug/L			04/10/20 15:12	10
1,4-Dichlorobenzene	10	U	10	8.4	ug/L			04/10/20 15:12	10
2-Butanone (MEK)	100	U	100	13	ug/L			04/10/20 15:12	10
2-Hexanone	50	U	50	12	ug/L			04/10/20 15:12	10
4-Methyl-2-pentanone (MIBK)	50	U	50	21	ug/L			04/10/20 15:12	10

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-26-040620

Lab Sample ID: 480-168281-14

Date Collected: 04/06/20 11:25

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	100	U	100	30	ug/L			04/10/20 15:12	10
Benzene	10	U	10	4.1	ug/L			04/10/20 15:12	10
Bromodichloromethane	10	U	10	3.9	ug/L			04/10/20 15:12	10
Bromoform	10	U	10	2.6	ug/L			04/10/20 15:12	10
Bromomethane	10	U	10	6.9	ug/L			04/10/20 15:12	10
Carbon disulfide	10	U	10	1.9	ug/L			04/10/20 15:12	10
Carbon tetrachloride	10	U	10	2.7	ug/L			04/10/20 15:12	10
Chlorobenzene	10	U	10	7.5	ug/L			04/10/20 15:12	10
Chloroethane	10	U	10	3.2	ug/L			04/10/20 15:12	10
Chloroform	10	U	10	3.4	ug/L			04/10/20 15:12	10
Chloromethane	10	U	10	3.5	ug/L			04/10/20 15:12	10
cis-1,2-Dichloroethene	300		10	8.1	ug/L			04/10/20 15:12	10
cis-1,3-Dichloropropene	10	U	10	3.6	ug/L			04/10/20 15:12	10
Cyclohexane	10	U	10	1.8	ug/L			04/10/20 15:12	10
Dibromochloromethane	10	U	10	3.2	ug/L			04/10/20 15:12	10
Dichlorodifluoromethane	10	U	10	6.8	ug/L			04/10/20 15:12	10
Ethylbenzene	10	U	10	7.4	ug/L			04/10/20 15:12	10
Isopropylbenzene	10	U	10	7.9	ug/L			04/10/20 15:12	10
Methyl acetate	25	U	25	13	ug/L			04/10/20 15:12	10
Methyl tert-butyl ether	10	U	10	1.6	ug/L			04/10/20 15:12	10
Methylcyclohexane	10	U	10	1.6	ug/L			04/10/20 15:12	10
Methylene Chloride	10	U	10	4.4	ug/L			04/10/20 15:12	10
Styrene	10	U	10	7.3	ug/L			04/10/20 15:12	10
Tetrachloroethene	10	U	10	3.6	ug/L			04/10/20 15:12	10
Toluene	10	U	10	5.1	ug/L			04/10/20 15:12	10
trans-1,2-Dichloroethene	10	U	10	9.0	ug/L			04/10/20 15:12	10
trans-1,3-Dichloropropene	10	U	10	3.7	ug/L			04/10/20 15:12	10
Trichloroethene	230		10	4.6	ug/L			04/10/20 15:12	10
Trichlorofluoromethane	10	U	10	8.8	ug/L			04/10/20 15:12	10
Vinyl chloride	14		10	9.0	ug/L			04/10/20 15:12	10
Xylenes, Total	20	U	20	6.6	ug/L			04/10/20 15:12	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120		04/10/20 15:12	10
4-Bromofluorobenzene (Surr)	104		73 - 120		04/10/20 15:12	10
Dibromofluoromethane (Surr)	100		75 - 123		04/10/20 15:12	10
Toluene-d8 (Surr)	103		80 - 120		04/10/20 15:12	10

Client Sample ID: 4009-27S-040620

Lab Sample ID: 480-168281-15

Date Collected: 04/06/20 10:45

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	54		1.0	0.82	ug/L			04/10/20 15:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 15:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	2.2		1.0	0.31	ug/L			04/10/20 15:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 15:37	1
1,1-Dichloroethane	2.4		1.0	0.38	ug/L			04/10/20 15:37	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-27S-040620

Lab Sample ID: 480-168281-15

Date Collected: 04/06/20 10:45

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	5.5		1.0	0.29	ug/L			04/10/20 15:37	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 15:37	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 15:37	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 15:37	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 15:37	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 15:37	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 15:37	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 15:37	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 15:37	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 15:37	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 15:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 15:37	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 15:37	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 15:37	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 15:37	1
Acetone	10	U	10	3.0	ug/L			04/10/20 15:37	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 15:37	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 15:37	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 15:37	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 15:37	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 15:37	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 15:37	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 15:37	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 15:37	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 15:37	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 15:37	1
cis-1,2-Dichloroethene	19		1.0	0.81	ug/L			04/10/20 15:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 15:37	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 15:37	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 15:37	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 15:37	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 15:37	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 15:37	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 15:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 15:37	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 15:37	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 15:37	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 15:37	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 15:37	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 15:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 15:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 15:37	1
Trichloroethene	17		1.0	0.46	ug/L			04/10/20 15:37	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 15:37	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 15:37	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 15:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/10/20 15:37	1
4-Bromofluorobenzene (Surr)	100		73 - 120		04/10/20 15:37	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-27S-040620

Lab Sample ID: 480-168281-15

Date Collected: 04/06/20 10:45

Matrix: Water

Date Received: 04/08/20 08:00

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	101		75 - 123		04/10/20 15:37	1
Toluene-d8 (Surr)	98		80 - 120		04/10/20 15:37	1

Client Sample ID: 4009-27I-040620

Lab Sample ID: 480-168281-16

Date Collected: 04/06/20 10:50

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 02:56	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 02:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 02:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 02:56	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 02:56	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 02:56	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 02:56	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 02:56	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 02:56	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 02:56	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 02:56	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 02:56	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 02:56	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 02:56	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 02:56	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 02:56	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 02:56	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 02:56	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 02:56	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 02:56	1
Acetone	10	U	10	3.0	ug/L			04/10/20 02:56	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 02:56	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 02:56	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 02:56	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 02:56	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 02:56	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 02:56	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 02:56	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 02:56	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 02:56	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 02:56	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 02:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 02:56	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 02:56	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 02:56	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 02:56	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 02:56	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 02:56	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 02:56	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 02:56	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-271-040620

Lab Sample ID: 480-168281-16

Date Collected: 04/06/20 10:50

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 02:56	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 02:56	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 02:56	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 02:56	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 02:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 02:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 02:56	1
Trichloroethene	2.5		1.0	0.46	ug/L			04/10/20 02:56	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 02:56	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 02:56	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 02:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120		04/10/20 02:56	1
4-Bromofluorobenzene (Surr)	96		73 - 120		04/10/20 02:56	1
Dibromofluoromethane (Surr)	91		75 - 123		04/10/20 02:56	1
Toluene-d8 (Surr)	97		80 - 120		04/10/20 02:56	1

Client Sample ID: 4009-27D-040620

Lab Sample ID: 480-168281-17

Date Collected: 04/06/20 10:55

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 03:20	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 03:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 03:20	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 03:20	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 03:20	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 03:20	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 03:20	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 03:20	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 03:20	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 03:20	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 03:20	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 03:20	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 03:20	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 03:20	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 03:20	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 03:20	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 03:20	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 03:20	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 03:20	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 03:20	1
Acetone	10	U	10	3.0	ug/L			04/10/20 03:20	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 03:20	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 03:20	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 03:20	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 03:20	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 03:20	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-27D-040620

Lab Sample ID: 480-168281-17

Date Collected: 04/06/20 10:55

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 03:20	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 03:20	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 03:20	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 03:20	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 03:20	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 03:20	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 03:20	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 03:20	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 03:20	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 03:20	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 03:20	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 03:20	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 03:20	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 03:20	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 03:20	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 03:20	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 03:20	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 03:20	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 03:20	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 03:20	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 03:20	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 03:20	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 03:20	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 03:20	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 03:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		04/10/20 03:20	1
4-Bromofluorobenzene (Surr)	100		73 - 120		04/10/20 03:20	1
Dibromofluoromethane (Surr)	94		75 - 123		04/10/20 03:20	1
Toluene-d8 (Surr)	98		80 - 120		04/10/20 03:20	1

Client Sample ID: 4009-28-040620

Lab Sample ID: 480-168281-18

Date Collected: 04/06/20 07:35

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	2.7		1.0	0.82	ug/L			04/10/20 16:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 16:00	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 16:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 16:00	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 16:00	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 16:00	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 16:00	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 16:00	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 16:00	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 16:00	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 16:00	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 16:00	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-28-040620

Lab Sample ID: 480-168281-18

Date Collected: 04/06/20 07:35

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 16:00	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 16:00	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 16:00	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 16:00	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 16:00	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 16:00	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 16:00	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 16:00	1
Acetone	10	U	10	3.0	ug/L			04/10/20 16:00	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 16:00	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 16:00	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 16:00	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 16:00	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 16:00	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 16:00	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 16:00	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 16:00	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 16:00	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 16:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 16:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 16:00	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 16:00	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 16:00	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 16:00	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 16:00	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 16:00	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 16:00	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 16:00	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 16:00	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 16:00	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 16:00	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 16:00	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 16:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 16:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 16:00	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 16:00	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 16:00	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 16:00	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 16:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		04/10/20 16:00	1
4-Bromofluorobenzene (Surr)	98		73 - 120		04/10/20 16:00	1
Dibromofluoromethane (Surr)	102		75 - 123		04/10/20 16:00	1
Toluene-d8 (Surr)	99		80 - 120		04/10/20 16:00	1

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-29S-040620

Lab Sample ID: 480-168281-19

Date Collected: 04/06/20 10:20

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1300		20	16	ug/L			04/10/20 16:23	20
1,1,2,2-Tetrachloroethane	20	U	20	4.2	ug/L			04/10/20 16:23	20
1,1,2-Trichloro-1,2,2-trifluoroethane	12	J	20	6.2	ug/L			04/10/20 16:23	20
1,1,2-Trichloroethane	20	U	20	4.6	ug/L			04/10/20 16:23	20
1,1-Dichloroethane	81		20	7.6	ug/L			04/10/20 16:23	20
1,1-Dichloroethene	100		20	5.8	ug/L			04/10/20 16:23	20
1,2,3-Trimethylbenzene	20	U	20	5.2	ug/L			04/10/20 16:23	20
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			04/10/20 16:23	20
1,2,4-Trimethylbenzene	20	U	20	15	ug/L			04/10/20 16:23	20
1,2-Dibromo-3-Chloropropane	20	U	20	7.8	ug/L			04/10/20 16:23	20
1,2-Dibromoethane	20	U	20	15	ug/L			04/10/20 16:23	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			04/10/20 16:23	20
1,2-Dichloroethane	20	U	20	4.2	ug/L			04/10/20 16:23	20
1,2-Dichloropropane	20	U	20	14	ug/L			04/10/20 16:23	20
1,3,5-Trimethylbenzene	20	U	20	15	ug/L			04/10/20 16:23	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			04/10/20 16:23	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			04/10/20 16:23	20
2-Butanone (MEK)	200	U	200	26	ug/L			04/10/20 16:23	20
2-Hexanone	100	U	100	25	ug/L			04/10/20 16:23	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			04/10/20 16:23	20
Acetone	200	U	200	60	ug/L			04/10/20 16:23	20
Benzene	20	U	20	8.2	ug/L			04/10/20 16:23	20
Bromodichloromethane	20	U	20	7.8	ug/L			04/10/20 16:23	20
Bromoform	20	U	20	5.2	ug/L			04/10/20 16:23	20
Bromomethane	20	U	20	14	ug/L			04/10/20 16:23	20
Carbon disulfide	20	U	20	3.8	ug/L			04/10/20 16:23	20
Carbon tetrachloride	20	U	20	5.4	ug/L			04/10/20 16:23	20
Chlorobenzene	20	U	20	15	ug/L			04/10/20 16:23	20
Chloroethane	20	U	20	6.4	ug/L			04/10/20 16:23	20
Chloroform	20	U	20	6.8	ug/L			04/10/20 16:23	20
Chloromethane	20	U	20	7.0	ug/L			04/10/20 16:23	20
cis-1,2-Dichloroethene	480		20	16	ug/L			04/10/20 16:23	20
cis-1,3-Dichloropropene	20	U	20	7.2	ug/L			04/10/20 16:23	20
Cyclohexane	20	U	20	3.6	ug/L			04/10/20 16:23	20
Dibromochloromethane	20	U	20	6.4	ug/L			04/10/20 16:23	20
Dichlorodifluoromethane	20	U	20	14	ug/L			04/10/20 16:23	20
Ethylbenzene	20	U	20	15	ug/L			04/10/20 16:23	20
Isopropylbenzene	20	U	20	16	ug/L			04/10/20 16:23	20
Methyl acetate	50	U	50	26	ug/L			04/10/20 16:23	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			04/10/20 16:23	20
Methylcyclohexane	20	U	20	3.2	ug/L			04/10/20 16:23	20
Methylene Chloride	20	U	20	8.8	ug/L			04/10/20 16:23	20
Styrene	20	U	20	15	ug/L			04/10/20 16:23	20
Tetrachloroethene	20	U	20	7.2	ug/L			04/10/20 16:23	20
Toluene	20	U	20	10	ug/L			04/10/20 16:23	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			04/10/20 16:23	20
trans-1,3-Dichloropropene	20	U	20	7.4	ug/L			04/10/20 16:23	20
Trichloroethene	250		20	9.2	ug/L			04/10/20 16:23	20
Trichlorofluoromethane	20	U	20	18	ug/L			04/10/20 16:23	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-29S-040620

Lab Sample ID: 480-168281-19

Date Collected: 04/06/20 10:20

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	88		20	18	ug/L			04/10/20 16:23	20
Xylenes, Total	40	U	40	13	ug/L			04/10/20 16:23	20
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120					04/10/20 16:23	20
4-Bromofluorobenzene (Surr)	98		73 - 120					04/10/20 16:23	20
Dibromofluoromethane (Surr)	102		75 - 123					04/10/20 16:23	20
Toluene-d8 (Surr)	98		80 - 120					04/10/20 16:23	20

Client Sample ID: 4009-29I-040620

Lab Sample ID: 480-168281-20

Date Collected: 04/06/20 10:30

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	810		20	16	ug/L			04/10/20 16:46	20
1,1,2,2-Tetrachloroethane	20	U	20	4.2	ug/L			04/10/20 16:46	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	20	6.2	ug/L			04/10/20 16:46	20
1,1,2-Trichloroethane	20	U	20	4.6	ug/L			04/10/20 16:46	20
1,1-Dichloroethane	65		20	7.6	ug/L			04/10/20 16:46	20
1,1-Dichloroethene	70		20	5.8	ug/L			04/10/20 16:46	20
1,2,3-Trimethylbenzene	20	U	20	5.2	ug/L			04/10/20 16:46	20
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			04/10/20 16:46	20
1,2,4-Trimethylbenzene	20	U	20	15	ug/L			04/10/20 16:46	20
1,2-Dibromo-3-Chloropropane	20	U	20	7.8	ug/L			04/10/20 16:46	20
1,2-Dibromoethane	20	U	20	15	ug/L			04/10/20 16:46	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			04/10/20 16:46	20
1,2-Dichloroethane	20	U	20	4.2	ug/L			04/10/20 16:46	20
1,2-Dichloropropane	20	U	20	14	ug/L			04/10/20 16:46	20
1,3,5-Trimethylbenzene	20	U	20	15	ug/L			04/10/20 16:46	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			04/10/20 16:46	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			04/10/20 16:46	20
2-Butanone (MEK)	200	U	200	26	ug/L			04/10/20 16:46	20
2-Hexanone	100	U	100	25	ug/L			04/10/20 16:46	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			04/10/20 16:46	20
Acetone	200	U	200	60	ug/L			04/10/20 16:46	20
Benzene	20	U	20	8.2	ug/L			04/10/20 16:46	20
Bromodichloromethane	20	U	20	7.8	ug/L			04/10/20 16:46	20
Bromoform	20	U	20	5.2	ug/L			04/10/20 16:46	20
Bromomethane	20	U	20	14	ug/L			04/10/20 16:46	20
Carbon disulfide	20	U	20	3.8	ug/L			04/10/20 16:46	20
Carbon tetrachloride	20	U	20	5.4	ug/L			04/10/20 16:46	20
Chlorobenzene	20	U	20	15	ug/L			04/10/20 16:46	20
Chloroethane	20	U	20	6.4	ug/L			04/10/20 16:46	20
Chloroform	20	U	20	6.8	ug/L			04/10/20 16:46	20
Chloromethane	20	U	20	7.0	ug/L			04/10/20 16:46	20
cis-1,2-Dichloroethene	290		20	16	ug/L			04/10/20 16:46	20
cis-1,3-Dichloropropene	20	U	20	7.2	ug/L			04/10/20 16:46	20
Cyclohexane	20	U	20	3.6	ug/L			04/10/20 16:46	20
Dibromochloromethane	20	U	20	6.4	ug/L			04/10/20 16:46	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-29I-040620

Lab Sample ID: 480-168281-20

Date Collected: 04/06/20 10:30

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	20	U	20	14	ug/L			04/10/20 16:46	20
Ethylbenzene	20	U	20	15	ug/L			04/10/20 16:46	20
Isopropylbenzene	20	U	20	16	ug/L			04/10/20 16:46	20
Methyl acetate	50	U	50	26	ug/L			04/10/20 16:46	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			04/10/20 16:46	20
Methylcyclohexane	20	U	20	3.2	ug/L			04/10/20 16:46	20
Methylene Chloride	20	U	20	8.8	ug/L			04/10/20 16:46	20
Styrene	20	U	20	15	ug/L			04/10/20 16:46	20
Tetrachloroethene	20	U	20	7.2	ug/L			04/10/20 16:46	20
Toluene	20	U	20	10	ug/L			04/10/20 16:46	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			04/10/20 16:46	20
trans-1,3-Dichloropropene	20	U	20	7.4	ug/L			04/10/20 16:46	20
Trichloroethene	230		20	9.2	ug/L			04/10/20 16:46	20
Trichlorofluoromethane	20	U	20	18	ug/L			04/10/20 16:46	20
Vinyl chloride	53		20	18	ug/L			04/10/20 16:46	20
Xylenes, Total	40	U	40	13	ug/L			04/10/20 16:46	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120		04/10/20 16:46	20
4-Bromofluorobenzene (Surr)	101		73 - 120		04/10/20 16:46	20
Dibromofluoromethane (Surr)	102		75 - 123		04/10/20 16:46	20
Toluene-d8 (Surr)	102		80 - 120		04/10/20 16:46	20

Client Sample ID: 4009-29D-040620

Lab Sample ID: 480-168281-21

Date Collected: 04/06/20 10:40

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	17		4.0	3.3	ug/L			04/10/20 17:55	4
1,1,1,2,2-Tetrachloroethane	4.0	U	4.0	0.84	ug/L			04/10/20 17:55	4
1,1,1,2-Trichloro-1,2,2-trifluoroethane	4.0	U	4.0	1.2	ug/L			04/10/20 17:55	4
1,1,1,2-Trichloroethane	4.0	U	4.0	0.92	ug/L			04/10/20 17:55	4
1,1-Dichloroethane	3.7	J	4.0	1.5	ug/L			04/10/20 17:55	4
1,1-Dichloroethene	1.6	J	4.0	1.2	ug/L			04/10/20 17:55	4
1,2,3-Trimethylbenzene	4.0	U	4.0	1.0	ug/L			04/10/20 17:55	4
1,2,4-Trichlorobenzene	4.0	U	4.0	1.6	ug/L			04/10/20 17:55	4
1,2,4-Trimethylbenzene	4.0	U	4.0	3.0	ug/L			04/10/20 17:55	4
1,2-Dibromo-3-Chloropropane	4.0	U	4.0	1.6	ug/L			04/10/20 17:55	4
1,2-Dibromoethane	4.0	U	4.0	2.9	ug/L			04/10/20 17:55	4
1,2-Dichlorobenzene	4.0	U	4.0	3.2	ug/L			04/10/20 17:55	4
1,2-Dichloroethane	4.0	U	4.0	0.84	ug/L			04/10/20 17:55	4
1,2-Dichloropropane	4.0	U	4.0	2.9	ug/L			04/10/20 17:55	4
1,3,5-Trimethylbenzene	4.0	U	4.0	3.1	ug/L			04/10/20 17:55	4
1,3-Dichlorobenzene	4.0	U	4.0	3.1	ug/L			04/10/20 17:55	4
1,4-Dichlorobenzene	4.0	U	4.0	3.4	ug/L			04/10/20 17:55	4
2-Butanone (MEK)	40	U	40	5.3	ug/L			04/10/20 17:55	4
2-Hexanone	20	U	20	5.0	ug/L			04/10/20 17:55	4
4-Methyl-2-pentanone (MIBK)	20	U	20	8.4	ug/L			04/10/20 17:55	4
Acetone	40	U	40	12	ug/L			04/10/20 17:55	4

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-29D-040620

Lab Sample ID: 480-168281-21

Date Collected: 04/06/20 10:40

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.0	U	4.0	1.6	ug/L			04/10/20 17:55	4
Bromodichloromethane	4.0	U	4.0	1.6	ug/L			04/10/20 17:55	4
Bromoform	4.0	U	4.0	1.0	ug/L			04/10/20 17:55	4
Bromomethane	4.0	U	4.0	2.8	ug/L			04/10/20 17:55	4
Carbon disulfide	4.0	U	4.0	0.76	ug/L			04/10/20 17:55	4
Carbon tetrachloride	4.0	U	4.0	1.1	ug/L			04/10/20 17:55	4
Chlorobenzene	4.0	U	4.0	3.0	ug/L			04/10/20 17:55	4
Chloroethane	3.3	J	4.0	1.3	ug/L			04/10/20 17:55	4
Chloroform	4.0	U	4.0	1.4	ug/L			04/10/20 17:55	4
Chloromethane	4.0	U	4.0	1.4	ug/L			04/10/20 17:55	4
cis-1,2-Dichloroethene	3.8	J	4.0	3.2	ug/L			04/10/20 17:55	4
cis-1,3-Dichloropropene	4.0	U	4.0	1.4	ug/L			04/10/20 17:55	4
Cyclohexane	4.0	U	4.0	0.72	ug/L			04/10/20 17:55	4
Dibromochloromethane	4.0	U	4.0	1.3	ug/L			04/10/20 17:55	4
Dichlorodifluoromethane	4.0	U	4.0	2.7	ug/L			04/10/20 17:55	4
Ethylbenzene	4.0	U	4.0	3.0	ug/L			04/10/20 17:55	4
Isopropylbenzene	4.0	U	4.0	3.2	ug/L			04/10/20 17:55	4
Methyl acetate	10	U	10	5.2	ug/L			04/10/20 17:55	4
Methyl tert-butyl ether	4.0	U	4.0	0.64	ug/L			04/10/20 17:55	4
Methylcyclohexane	4.0	U	4.0	0.64	ug/L			04/10/20 17:55	4
Methylene Chloride	4.0	U	4.0	1.8	ug/L			04/10/20 17:55	4
Styrene	4.0	U	4.0	2.9	ug/L			04/10/20 17:55	4
Tetrachloroethene	4.0	U	4.0	1.4	ug/L			04/10/20 17:55	4
Toluene	4.0	U	4.0	2.0	ug/L			04/10/20 17:55	4
trans-1,2-Dichloroethene	4.0	U	4.0	3.6	ug/L			04/10/20 17:55	4
trans-1,3-Dichloropropene	4.0	U	4.0	1.5	ug/L			04/10/20 17:55	4
Trichloroethene	5.3		4.0	1.8	ug/L			04/10/20 17:55	4
Trichlorofluoromethane	4.0	U	4.0	3.5	ug/L			04/10/20 17:55	4
Vinyl chloride	11		4.0	3.6	ug/L			04/10/20 17:55	4
Xylenes, Total	8.0	U	8.0	2.6	ug/L			04/10/20 17:55	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/10/20 17:55	4
4-Bromofluorobenzene (Surr)	98		73 - 120		04/10/20 17:55	4
Dibromofluoromethane (Surr)	106		75 - 123		04/10/20 17:55	4
Toluene-d8 (Surr)	100		80 - 120		04/10/20 17:55	4

Client Sample ID: 4009-30-040620

Lab Sample ID: 480-168281-22

Date Collected: 04/06/20 09:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 18:18	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 18:18	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 18:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 18:18	1
1,1-Dichloroethane	0.75	J	1.0	0.38	ug/L			04/10/20 18:18	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 18:18	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 18:18	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-30-040620

Lab Sample ID: 480-168281-22

Date Collected: 04/06/20 09:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 18:18	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 18:18	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 18:18	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 18:18	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 18:18	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 18:18	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 18:18	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 18:18	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 18:18	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 18:18	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 18:18	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 18:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 18:18	1
Acetone	10	U	10	3.0	ug/L			04/10/20 18:18	1
Benzene	1.6		1.0	0.41	ug/L			04/10/20 18:18	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 18:18	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 18:18	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 18:18	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 18:18	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 18:18	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 18:18	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 18:18	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 18:18	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 18:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 18:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 18:18	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 18:18	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 18:18	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 18:18	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 18:18	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 18:18	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 18:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 18:18	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 18:18	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 18:18	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 18:18	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 18:18	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 18:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 18:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 18:18	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 18:18	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 18:18	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 18:18	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 18:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/10/20 18:18	1
4-Bromofluorobenzene (Surr)	98		73 - 120		04/10/20 18:18	1
Dibromofluoromethane (Surr)	106		75 - 123		04/10/20 18:18	1
Toluene-d8 (Surr)	98		80 - 120		04/10/20 18:18	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: WELL 1-1-040620

Lab Sample ID: 480-168281-23

Date Collected: 04/06/20 07:25

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	230		5.0	4.1	ug/L			04/10/20 18:42	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			04/10/20 18:42	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.6	ug/L			04/10/20 18:42	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			04/10/20 18:42	5
1,1-Dichloroethane	29		5.0	1.9	ug/L			04/10/20 18:42	5
1,1-Dichloroethene	20		5.0	1.5	ug/L			04/10/20 18:42	5
1,2,3-Trimethylbenzene	5.0	U	5.0	1.3	ug/L			04/10/20 18:42	5
1,2,4-Trichlorobenzene	5.0	U	5.0	2.1	ug/L			04/10/20 18:42	5
1,2,4-Trimethylbenzene	5.0	U	5.0	3.8	ug/L			04/10/20 18:42	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.0	ug/L			04/10/20 18:42	5
1,2-Dibromoethane	5.0	U	5.0	3.7	ug/L			04/10/20 18:42	5
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			04/10/20 18:42	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			04/10/20 18:42	5
1,2-Dichloropropane	5.0	U	5.0	3.6	ug/L			04/10/20 18:42	5
1,3,5-Trimethylbenzene	5.0	U	5.0	3.9	ug/L			04/10/20 18:42	5
1,3-Dichlorobenzene	5.0	U	5.0	3.9	ug/L			04/10/20 18:42	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			04/10/20 18:42	5
2-Butanone (MEK)	50	U	50	6.6	ug/L			04/10/20 18:42	5
2-Hexanone	25	U	25	6.2	ug/L			04/10/20 18:42	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			04/10/20 18:42	5
Acetone	50	U	50	15	ug/L			04/10/20 18:42	5
Benzene	5.0	U	5.0	2.1	ug/L			04/10/20 18:42	5
Bromodichloromethane	5.0	U	5.0	2.0	ug/L			04/10/20 18:42	5
Bromoform	5.0	U	5.0	1.3	ug/L			04/10/20 18:42	5
Bromomethane	5.0	U	5.0	3.5	ug/L			04/10/20 18:42	5
Carbon disulfide	5.0	U	5.0	0.95	ug/L			04/10/20 18:42	5
Carbon tetrachloride	5.0	U	5.0	1.4	ug/L			04/10/20 18:42	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			04/10/20 18:42	5
Chloroethane	5.0	U	5.0	1.6	ug/L			04/10/20 18:42	5
Chloroform	5.0	U	5.0	1.7	ug/L			04/10/20 18:42	5
Chloromethane	5.0	U	5.0	1.8	ug/L			04/10/20 18:42	5
cis-1,2-Dichloroethene	87		5.0	4.1	ug/L			04/10/20 18:42	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.8	ug/L			04/10/20 18:42	5
Cyclohexane	5.0	U	5.0	0.90	ug/L			04/10/20 18:42	5
Dibromochloromethane	5.0	U	5.0	1.6	ug/L			04/10/20 18:42	5
Dichlorodifluoromethane	5.0	U	5.0	3.4	ug/L			04/10/20 18:42	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			04/10/20 18:42	5
Isopropylbenzene	5.0	U	5.0	4.0	ug/L			04/10/20 18:42	5
Methyl acetate	13	U	13	6.5	ug/L			04/10/20 18:42	5
Methyl tert-butyl ether	5.0	U	5.0	0.80	ug/L			04/10/20 18:42	5
Methylcyclohexane	5.0	U	5.0	0.80	ug/L			04/10/20 18:42	5
Methylene Chloride	5.0	U	5.0	2.2	ug/L			04/10/20 18:42	5
Styrene	5.0	U	5.0	3.7	ug/L			04/10/20 18:42	5
Tetrachloroethene	5.0	U	5.0	1.8	ug/L			04/10/20 18:42	5
Toluene	5.0	U	5.0	2.6	ug/L			04/10/20 18:42	5
trans-1,2-Dichloroethene	5.0	U	5.0	4.5	ug/L			04/10/20 18:42	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.9	ug/L			04/10/20 18:42	5
Trichloroethene	64		5.0	2.3	ug/L			04/10/20 18:42	5
Trichlorofluoromethane	5.0	U	5.0	4.4	ug/L			04/10/20 18:42	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: WELL 1-1-040620

Lab Sample ID: 480-168281-23

Date Collected: 04/06/20 07:25

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	5.0	U	5.0	4.5	ug/L			04/10/20 18:42	5
Xylenes, Total	10	U	10	3.3	ug/L			04/10/20 18:42	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		77 - 120					04/10/20 18:42	5
4-Bromofluorobenzene (Surr)	102		73 - 120					04/10/20 18:42	5
Dibromofluoromethane (Surr)	102		75 - 123					04/10/20 18:42	5
Toluene-d8 (Surr)	102		80 - 120					04/10/20 18:42	5

Client Sample ID: DUP 1-040620

Lab Sample ID: 480-168281-24

Date Collected: 04/06/20 09:05

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	250	E	1.0	0.82	ug/L			04/10/20 19:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 19:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	3.5		1.0	0.31	ug/L			04/10/20 19:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 19:05	1
1,1-Dichloroethane	49		1.0	0.38	ug/L			04/10/20 19:05	1
1,1-Dichloroethene	8.4		1.0	0.29	ug/L			04/10/20 19:05	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 19:05	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 19:05	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 19:05	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 19:05	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 19:05	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 19:05	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 19:05	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 19:05	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 19:05	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 19:05	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 19:05	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 19:05	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 19:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 19:05	1
Acetone	10	U	10	3.0	ug/L			04/10/20 19:05	1
Benzene	0.49	J	1.0	0.41	ug/L			04/10/20 19:05	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 19:05	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 19:05	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 19:05	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 19:05	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 19:05	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 19:05	1
Chloroethane	6.6		1.0	0.32	ug/L			04/10/20 19:05	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 19:05	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 19:05	1
cis-1,2-Dichloroethene	23		1.0	0.81	ug/L			04/10/20 19:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 19:05	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 19:05	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: DUP 1-040620

Lab Sample ID: 480-168281-24

Date Collected: 04/06/20 09:05

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 19:05	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 19:05	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 19:05	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 19:05	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 19:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 19:05	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 19:05	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 19:05	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 19:05	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 19:05	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 19:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 19:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 19:05	1
Trichloroethene	23		1.0	0.46	ug/L			04/10/20 19:05	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 19:05	1
Vinyl chloride	89		1.0	0.90	ug/L			04/10/20 19:05	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 19:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/10/20 19:05	1
4-Bromofluorobenzene (Surr)	101		73 - 120		04/10/20 19:05	1
Dibromofluoromethane (Surr)	104		75 - 123		04/10/20 19:05	1
Toluene-d8 (Surr)	101		80 - 120		04/10/20 19:05	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	280		5.0	4.1	ug/L			04/12/20 15:01	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.1	ug/L			04/12/20 15:01	5
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	U	5.0	1.6	ug/L			04/12/20 15:01	5
1,1,2-Trichloroethane	5.0	U	5.0	1.2	ug/L			04/12/20 15:01	5
1,1-Dichloroethane	55		5.0	1.9	ug/L			04/12/20 15:01	5
1,1-Dichloroethene	5.9		5.0	1.5	ug/L			04/12/20 15:01	5
1,2,3-Trimethylbenzene	5.0	U	5.0	1.3	ug/L			04/12/20 15:01	5
1,2,4-Trichlorobenzene	5.0	U	5.0	2.1	ug/L			04/12/20 15:01	5
1,2,4-Trimethylbenzene	5.0	U	5.0	3.8	ug/L			04/12/20 15:01	5
1,2-Dibromo-3-Chloropropane	5.0	U	5.0	2.0	ug/L			04/12/20 15:01	5
1,2-Dibromoethane	5.0	U	5.0	3.7	ug/L			04/12/20 15:01	5
1,2-Dichlorobenzene	5.0	U	5.0	4.0	ug/L			04/12/20 15:01	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			04/12/20 15:01	5
1,2-Dichloropropane	5.0	U	5.0	3.6	ug/L			04/12/20 15:01	5
1,3,5-Trimethylbenzene	5.0	U	5.0	3.9	ug/L			04/12/20 15:01	5
1,3-Dichlorobenzene	5.0	U	5.0	3.9	ug/L			04/12/20 15:01	5
1,4-Dichlorobenzene	5.0	U	5.0	4.2	ug/L			04/12/20 15:01	5
2-Butanone (MEK)	50	U *	50	6.6	ug/L			04/12/20 15:01	5
2-Hexanone	25	U	25	6.2	ug/L			04/12/20 15:01	5
4-Methyl-2-pentanone (MIBK)	25	U	25	11	ug/L			04/12/20 15:01	5
Acetone	50	U	50	15	ug/L			04/12/20 15:01	5
Benzene	5.0	U	5.0	2.1	ug/L			04/12/20 15:01	5
Bromodichloromethane	5.0	U	5.0	2.0	ug/L			04/12/20 15:01	5
Bromoform	5.0	U	5.0	1.3	ug/L			04/12/20 15:01	5

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: DUP 1-040620

Lab Sample ID: 480-168281-24

Date Collected: 04/06/20 09:05

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	5.0	U	5.0	3.5	ug/L			04/12/20 15:01	5
Carbon disulfide	5.0	U	5.0	0.95	ug/L			04/12/20 15:01	5
Carbon tetrachloride	5.0	U	5.0	1.4	ug/L			04/12/20 15:01	5
Chlorobenzene	5.0	U	5.0	3.8	ug/L			04/12/20 15:01	5
Chloroethane	4.4	J	5.0	1.6	ug/L			04/12/20 15:01	5
Chloroform	5.0	U	5.0	1.7	ug/L			04/12/20 15:01	5
Chloromethane	5.0	U	5.0	1.8	ug/L			04/12/20 15:01	5
cis-1,2-Dichloroethene	26		5.0	4.1	ug/L			04/12/20 15:01	5
cis-1,3-Dichloropropene	5.0	U	5.0	1.8	ug/L			04/12/20 15:01	5
Cyclohexane	5.0	U	5.0	0.90	ug/L			04/12/20 15:01	5
Dibromochloromethane	5.0	U	5.0	1.6	ug/L			04/12/20 15:01	5
Dichlorodifluoromethane	5.0	U	5.0	3.4	ug/L			04/12/20 15:01	5
Ethylbenzene	5.0	U	5.0	3.7	ug/L			04/12/20 15:01	5
Isopropylbenzene	5.0	U	5.0	4.0	ug/L			04/12/20 15:01	5
Methyl acetate	13	U	13	6.5	ug/L			04/12/20 15:01	5
Methyl tert-butyl ether	5.0	U	5.0	0.80	ug/L			04/12/20 15:01	5
Methylcyclohexane	5.0	U	5.0	0.80	ug/L			04/12/20 15:01	5
Methylene Chloride	5.0	U	5.0	2.2	ug/L			04/12/20 15:01	5
Styrene	5.0	U	5.0	3.7	ug/L			04/12/20 15:01	5
Tetrachloroethene	5.0	U	5.0	1.8	ug/L			04/12/20 15:01	5
Toluene	5.0	U	5.0	2.6	ug/L			04/12/20 15:01	5
trans-1,2-Dichloroethene	5.0	U	5.0	4.5	ug/L			04/12/20 15:01	5
trans-1,3-Dichloropropene	5.0	U	5.0	1.9	ug/L			04/12/20 15:01	5
Trichloroethene	29		5.0	2.3	ug/L			04/12/20 15:01	5
Trichlorofluoromethane	5.0	U	5.0	4.4	ug/L			04/12/20 15:01	5
Vinyl chloride	100		5.0	4.5	ug/L			04/12/20 15:01	5
Xylenes, Total	10	U	10	3.3	ug/L			04/12/20 15:01	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		77 - 120		04/12/20 15:01	5
4-Bromofluorobenzene (Surr)	101		73 - 120		04/12/20 15:01	5
Dibromofluoromethane (Surr)	108		75 - 123		04/12/20 15:01	5
Toluene-d8 (Surr)	100		80 - 120		04/12/20 15:01	5

Client Sample ID: DUP 2--040620

Lab Sample ID: 480-168281-25

Date Collected: 04/06/20 10:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	810		20	16	ug/L			04/10/20 19:28	20
1,1,2,2-Tetrachloroethane	20	U	20	4.2	ug/L			04/10/20 19:28	20
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	20	6.2	ug/L			04/10/20 19:28	20
1,1,2-Trichloroethane	20	U	20	4.6	ug/L			04/10/20 19:28	20
1,1-Dichloroethane	69		20	7.6	ug/L			04/10/20 19:28	20
1,1-Dichloroethene	66		20	5.8	ug/L			04/10/20 19:28	20
1,2,3-Trimethylbenzene	20	U	20	5.2	ug/L			04/10/20 19:28	20
1,2,4-Trichlorobenzene	20	U	20	8.2	ug/L			04/10/20 19:28	20
1,2,4-Trimethylbenzene	20	U	20	15	ug/L			04/10/20 19:28	20
1,2-Dibromo-3-Chloropropane	20	U	20	7.8	ug/L			04/10/20 19:28	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: DUP 2--040620

Lab Sample ID: 480-168281-25

Date Collected: 04/06/20 10:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	20	U	20	15	ug/L			04/10/20 19:28	20
1,2-Dichlorobenzene	20	U	20	16	ug/L			04/10/20 19:28	20
1,2-Dichloroethane	20	U	20	4.2	ug/L			04/10/20 19:28	20
1,2-Dichloropropane	20	U	20	14	ug/L			04/10/20 19:28	20
1,3,5-Trimethylbenzene	20	U	20	15	ug/L			04/10/20 19:28	20
1,3-Dichlorobenzene	20	U	20	16	ug/L			04/10/20 19:28	20
1,4-Dichlorobenzene	20	U	20	17	ug/L			04/10/20 19:28	20
2-Butanone (MEK)	200	U	200	26	ug/L			04/10/20 19:28	20
2-Hexanone	100	U	100	25	ug/L			04/10/20 19:28	20
4-Methyl-2-pentanone (MIBK)	100	U	100	42	ug/L			04/10/20 19:28	20
Acetone	200	U	200	60	ug/L			04/10/20 19:28	20
Benzene	20	U	20	8.2	ug/L			04/10/20 19:28	20
Bromodichloromethane	20	U	20	7.8	ug/L			04/10/20 19:28	20
Bromoform	20	U	20	5.2	ug/L			04/10/20 19:28	20
Bromomethane	20	U	20	14	ug/L			04/10/20 19:28	20
Carbon disulfide	20	U	20	3.8	ug/L			04/10/20 19:28	20
Carbon tetrachloride	20	U	20	5.4	ug/L			04/10/20 19:28	20
Chlorobenzene	20	U	20	15	ug/L			04/10/20 19:28	20
Chloroethane	20	U	20	6.4	ug/L			04/10/20 19:28	20
Chloroform	20	U	20	6.8	ug/L			04/10/20 19:28	20
Chloromethane	20	U	20	7.0	ug/L			04/10/20 19:28	20
cis-1,2-Dichloroethene	310		20	16	ug/L			04/10/20 19:28	20
cis-1,3-Dichloropropene	20	U	20	7.2	ug/L			04/10/20 19:28	20
Cyclohexane	20	U	20	3.6	ug/L			04/10/20 19:28	20
Dibromochloromethane	20	U	20	6.4	ug/L			04/10/20 19:28	20
Dichlorodifluoromethane	20	U	20	14	ug/L			04/10/20 19:28	20
Ethylbenzene	20	U	20	15	ug/L			04/10/20 19:28	20
Isopropylbenzene	20	U	20	16	ug/L			04/10/20 19:28	20
Methyl acetate	50	U	50	26	ug/L			04/10/20 19:28	20
Methyl tert-butyl ether	20	U	20	3.2	ug/L			04/10/20 19:28	20
Methylcyclohexane	20	U	20	3.2	ug/L			04/10/20 19:28	20
Methylene Chloride	20	U	20	8.8	ug/L			04/10/20 19:28	20
Styrene	20	U	20	15	ug/L			04/10/20 19:28	20
Tetrachloroethene	20	U	20	7.2	ug/L			04/10/20 19:28	20
Toluene	20	U	20	10	ug/L			04/10/20 19:28	20
trans-1,2-Dichloroethene	20	U	20	18	ug/L			04/10/20 19:28	20
trans-1,3-Dichloropropene	20	U	20	7.4	ug/L			04/10/20 19:28	20
Trichloroethene	230		20	9.2	ug/L			04/10/20 19:28	20
Trichlorofluoromethane	20	U	20	18	ug/L			04/10/20 19:28	20
Vinyl chloride	62		20	18	ug/L			04/10/20 19:28	20
Xylenes, Total	40	U	40	13	ug/L			04/10/20 19:28	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120		04/10/20 19:28	20
4-Bromofluorobenzene (Surr)	104		73 - 120		04/10/20 19:28	20
Dibromofluoromethane (Surr)	102		75 - 123		04/10/20 19:28	20
Toluene-d8 (Surr)	101		80 - 120		04/10/20 19:28	20

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 480-168281-26

Date Collected: 04/06/20 00:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 19:51	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 19:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 19:51	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 19:51	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 19:51	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 19:51	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 19:51	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 19:51	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 19:51	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 19:51	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 19:51	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 19:51	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 19:51	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 19:51	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 19:51	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 19:51	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 19:51	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 19:51	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 19:51	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 19:51	1
Acetone	5.0	J	10	3.0	ug/L			04/10/20 19:51	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 19:51	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 19:51	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 19:51	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 19:51	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 19:51	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 19:51	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 19:51	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 19:51	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 19:51	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 19:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 19:51	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 19:51	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 19:51	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 19:51	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 19:51	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 19:51	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 19:51	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 19:51	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 19:51	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 19:51	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 19:51	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 19:51	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 19:51	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 19:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 19:51	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 19:51	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 19:51	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 19:51	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 480-168281-26

Date Collected: 04/06/20 00:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 19:51	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 19:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106		77 - 120		04/10/20 19:51	1
4-Bromofluorobenzene (Surr)	101		73 - 120		04/10/20 19:51	1
Dibromofluoromethane (Surr)	105		75 - 123		04/10/20 19:51	1
Toluene-d8 (Surr)	100		80 - 120		04/10/20 19:51	1

Client Sample ID: TRIP BLANK 2

Lab Sample ID: 480-168281-27

Date Collected: 04/06/20 00:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			04/10/20 20:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 20:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 20:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 20:14	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 20:14	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 20:14	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 20:14	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 20:14	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 20:14	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 20:14	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 20:14	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 20:14	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 20:14	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 20:14	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 20:14	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 20:14	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 20:14	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 20:14	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 20:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 20:14	1
Acetone	5.7	J	10	3.0	ug/L			04/10/20 20:14	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 20:14	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 20:14	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 20:14	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 20:14	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 20:14	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 20:14	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 20:14	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 20:14	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 20:14	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 20:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 20:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 20:14	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 20:14	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 20:14	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: TRIP BLANK 2

Lab Sample ID: 480-168281-27

Date Collected: 04/06/20 00:00

Matrix: Water

Date Received: 04/08/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 20:14	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 20:14	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 20:14	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 20:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 20:14	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 20:14	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 20:14	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 20:14	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 20:14	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 20:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 20:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 20:14	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 20:14	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 20:14	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 20:14	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 20:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		77 - 120		04/10/20 20:14	1
4-Bromofluorobenzene (Surr)	101		73 - 120		04/10/20 20:14	1
Dibromofluoromethane (Surr)	102		75 - 123		04/10/20 20:14	1
Toluene-d8 (Surr)	100		80 - 120		04/10/20 20:14	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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)
480-168281-1	4009-7-040620	103	99	100	100
480-168281-2	4009-8-040620	104	102	103	100
480-168281-3	4009-9-040620	99	99	102	100
480-168281-4	4009-11-040620	105	98	101	99
480-168281-5	4009-12-040620	103	102	104	101
480-168281-6	4009-13-040620	107	95	94	101
480-168281-7	4009-14-040620	104	99	90	102
480-168281-8	4009-15-040620	95	93	87	100
480-168281-9	4009-16-040620	102	89	88	98
480-168281-10	4009-16A-040620	95	96	87	97
480-168281-11	4009-18-040620	103	98	93	99
480-168281-12	4009-19-040620	106	95	89	96
480-168281-13	4009-21-040620	98	88	83	93
480-168281-14	4009-26-040620	100	104	100	103
480-168281-15	4009-27S-040620	104	100	101	98
480-168281-16	4009-27I-040620	101	96	91	97
480-168281-17	4009-27D-040620	108	100	94	98
480-168281-18	4009-28-040620	104	98	102	99
480-168281-19	4009-29S-040620	102	98	102	98
480-168281-20	4009-29I-040620	100	101	102	102
480-168281-20 MS	4009-29I-040620	105	98	103	99
480-168281-20 MSD	4009-29I-040620	102	99	103	99
480-168281-21	4009-29D-040620	105	98	106	100
480-168281-22	4009-30-040620	105	98	106	98
480-168281-23	WELL 1-1-040620	102	102	102	102
480-168281-24	DUP 1-040620	105	101	104	101
480-168281-24 - DL	DUP 1-040620	111	101	108	100
480-168281-25	DUP 2--040620	100	104	102	101
480-168281-26	TRIP BLANK 1	106	101	105	100
480-168281-27	TRIP BLANK 2	101	101	102	100
LCS 480-525112/6	Lab Control Sample	103	95	89	99
LCS 480-525255/5	Lab Control Sample	106	99	101	100
LCS 480-525488/6	Lab Control Sample	110	104	107	102
LCSD 480-525488/7	Lab Control Sample Dup	110	105	104	103
MB 480-525112/8	Method Blank	100	98	94	97
MB 480-525255/8	Method Blank	105	102	104	101
MB 480-525488/9	Method Blank	108	102	104	101

Surrogate Legend

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

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: MB 480-525112/8

Matrix: Water

Analysis Batch: 525112

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	1.0	U	1.0	0.82	ug/L			04/09/20 20:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/09/20 20:29	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/09/20 20:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/09/20 20:29	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/09/20 20:29	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/09/20 20:29	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/09/20 20:29	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/09/20 20:29	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/09/20 20:29	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/09/20 20:29	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/09/20 20:29	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/09/20 20:29	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/09/20 20:29	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/09/20 20:29	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/09/20 20:29	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/09/20 20:29	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/09/20 20:29	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/09/20 20:29	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/09/20 20:29	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/09/20 20:29	1
Acetone	10	U	10	3.0	ug/L			04/09/20 20:29	1
Benzene	1.0	U	1.0	0.41	ug/L			04/09/20 20:29	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/09/20 20:29	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/09/20 20:29	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/09/20 20:29	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/09/20 20:29	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/09/20 20:29	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/09/20 20:29	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/09/20 20:29	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/09/20 20:29	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/09/20 20:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/09/20 20:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/09/20 20:29	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/09/20 20:29	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/09/20 20:29	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/09/20 20:29	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/09/20 20:29	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/09/20 20:29	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/09/20 20:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/09/20 20:29	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/09/20 20:29	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/09/20 20:29	1
Styrene	1.0	U	1.0	0.73	ug/L			04/09/20 20:29	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/09/20 20:29	1
Toluene	1.0	U	1.0	0.51	ug/L			04/09/20 20:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/09/20 20:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/09/20 20:29	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/09/20 20:29	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: MB 480-525112/8

Matrix: Water

Analysis Batch: 525112

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/09/20 20:29	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/09/20 20:29	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/09/20 20:29	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		77 - 120					04/09/20 20:29	1
4-Bromofluorobenzene (Surr)	98		73 - 120					04/09/20 20:29	1
Dibromofluoromethane (Surr)	94		75 - 123					04/09/20 20:29	1
Toluene-d8 (Surr)	97		80 - 120					04/09/20 20:29	1

Lab Sample ID: LCS 480-525112/6

Matrix: Water

Analysis Batch: 525112

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	20.6		ug/L		83	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.9		ug/L		91	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	21.9		ug/L		88	61 - 148
1,1,2-Trichloroethane	25.0	25.2		ug/L		101	76 - 122
1,1-Dichloroethane	25.0	21.7		ug/L		87	77 - 120
1,1-Dichloroethene	25.0	19.4		ug/L		78	66 - 127
1,2,3-Trimethylbenzene	25.0	26.4		ug/L		105	78 - 120
1,2,4-Trichlorobenzene	25.0	23.9		ug/L		95	79 - 122
1,2,4-Trimethylbenzene	25.0	24.1		ug/L		96	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	22.3		ug/L		89	56 - 134
1,2-Dibromoethane	25.0	21.8		ug/L		87	77 - 120
1,2-Dichlorobenzene	25.0	22.4		ug/L		89	80 - 124
1,2-Dichloroethane	25.0	22.8		ug/L		91	75 - 120
1,2-Dichloropropane	25.0	22.4		ug/L		90	76 - 120
1,3,5-Trimethylbenzene	25.0	24.5		ug/L		98	77 - 121
1,3-Dichlorobenzene	25.0	23.7		ug/L		95	77 - 120
1,4-Dichlorobenzene	25.0	22.4		ug/L		90	80 - 120
2-Butanone (MEK)	125	142		ug/L		113	57 - 140
2-Hexanone	125	118		ug/L		94	65 - 127
4-Methyl-2-pentanone (MIBK)	125	113		ug/L		91	71 - 125
Acetone	125	144		ug/L		115	56 - 142
Benzene	25.0	22.5		ug/L		90	71 - 124
Bromodichloromethane	25.0	23.7		ug/L		95	80 - 122
Bromoform	25.0	22.4		ug/L		90	61 - 132
Bromomethane	25.0	18.8		ug/L		75	55 - 144
Carbon disulfide	25.0	19.3		ug/L		77	59 - 134
Carbon tetrachloride	25.0	21.8		ug/L		87	72 - 134
Chlorobenzene	25.0	23.5		ug/L		94	80 - 120
Chloroethane	25.0	20.1		ug/L		80	69 - 136
Chloroform	25.0	19.6		ug/L		78	73 - 127
Chloromethane	25.0	20.3		ug/L		81	68 - 124
cis-1,2-Dichloroethene	25.0	19.4		ug/L		78	74 - 124
cis-1,3-Dichloropropene	25.0	26.0		ug/L		104	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: LCS 480-525112/6

Matrix: Water

Analysis Batch: 525112

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	23.3		ug/L		93	59 - 135
Dibromochloromethane	25.0	22.6		ug/L		91	75 - 125
Dichlorodifluoromethane	25.0	23.0		ug/L		92	59 - 135
Ethylbenzene	25.0	21.8		ug/L		87	77 - 123
Isopropylbenzene	25.0	24.2		ug/L		97	77 - 122
Methyl acetate	50.0	44.8		ug/L		90	74 - 133
Methyl tert-butyl ether	25.0	20.8		ug/L		83	77 - 120
Methylcyclohexane	25.0	22.1		ug/L		89	68 - 134
Methylene Chloride	25.0	20.2		ug/L		81	75 - 124
Styrene	25.0	23.1		ug/L		92	80 - 120
Tetrachloroethene	25.0	25.1		ug/L		100	74 - 122
Toluene	25.0	22.8		ug/L		91	80 - 122
trans-1,2-Dichloroethene	25.0	19.0		ug/L		76	73 - 127
trans-1,3-Dichloropropene	25.0	26.7		ug/L		107	80 - 120
Trichloroethene	25.0	22.7		ug/L		91	74 - 123
Trichlorofluoromethane	25.0	21.1		ug/L		85	62 - 150
Vinyl chloride	25.0	20.0		ug/L		80	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	103		77 - 120
4-Bromofluorobenzene (Surr)	95		73 - 120
Dibromofluoromethane (Surr)	89		75 - 123
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: MB 480-525255/8

Matrix: Water

Analysis Batch: 525255

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	1.0	U	1.0	0.82	ug/L			04/10/20 12:16	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 12:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/10/20 12:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/10/20 12:16	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/10/20 12:16	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/10/20 12:16	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/10/20 12:16	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/10/20 12:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/10/20 12:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/10/20 12:16	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/10/20 12:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/10/20 12:16	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/10/20 12:16	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/10/20 12:16	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/10/20 12:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/10/20 12:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/10/20 12:16	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/10/20 12:16	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/10/20 12:16	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: MB 480-525255/8

Matrix: Water

Analysis Batch: 525255

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/10/20 12:16	1
Acetone	10	U	10	3.0	ug/L			04/10/20 12:16	1
Benzene	1.0	U	1.0	0.41	ug/L			04/10/20 12:16	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/10/20 12:16	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/10/20 12:16	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/10/20 12:16	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/10/20 12:16	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/10/20 12:16	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/10/20 12:16	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/10/20 12:16	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/10/20 12:16	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/10/20 12:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/10/20 12:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/10/20 12:16	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/10/20 12:16	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/10/20 12:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/10/20 12:16	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/10/20 12:16	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/10/20 12:16	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/10/20 12:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/10/20 12:16	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/10/20 12:16	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/10/20 12:16	1
Styrene	1.0	U	1.0	0.73	ug/L			04/10/20 12:16	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/10/20 12:16	1
Toluene	1.0	U	1.0	0.51	ug/L			04/10/20 12:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/10/20 12:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/10/20 12:16	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/10/20 12:16	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/10/20 12:16	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/10/20 12:16	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/10/20 12:16	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		04/10/20 12:16	1
4-Bromofluorobenzene (Surr)	102		73 - 120		04/10/20 12:16	1
Dibromofluoromethane (Surr)	104		75 - 123		04/10/20 12:16	1
Toluene-d8 (Surr)	101		80 - 120		04/10/20 12:16	1

Lab Sample ID: LCS 480-525255/5

Matrix: Water

Analysis Batch: 525255

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
1,1,1,2,2-Tetrachloroethane	25.0	24.3		ug/L		97	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	19.5		ug/L		78	61 - 148
1,1,2-Trichloroethane	25.0	23.2		ug/L		93	76 - 122

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: LCS 480-525255/5

Matrix: Water

Analysis Batch: 525255

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	25.0	23.4		ug/L		93	77 - 120
1,1-Dichloroethene	25.0	21.3		ug/L		85	66 - 127
1,2,3-Trimethylbenzene	25.0	23.8		ug/L		95	78 - 120
1,2,4-Trichlorobenzene	25.0	23.5		ug/L		94	79 - 122
1,2,4-Trimethylbenzene	25.0	23.2		ug/L		93	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	26.2		ug/L		105	56 - 134
1,2-Dibromoethane	25.0	24.1		ug/L		97	77 - 120
1,2-Dichlorobenzene	25.0	23.2		ug/L		93	80 - 124
1,2-Dichloroethane	25.0	23.2		ug/L		93	75 - 120
1,2-Dichloropropane	25.0	22.9		ug/L		91	76 - 120
1,3,5-Trimethylbenzene	25.0	22.9		ug/L		92	77 - 121
1,3-Dichlorobenzene	25.0	23.0		ug/L		92	77 - 120
1,4-Dichlorobenzene	25.0	23.1		ug/L		92	80 - 120
2-Butanone (MEK)	125	128		ug/L		103	57 - 140
2-Hexanone	125	124		ug/L		99	65 - 127
4-Methyl-2-pentanone (MIBK)	125	126		ug/L		101	71 - 125
Acetone	125	132		ug/L		105	56 - 142
Benzene	25.0	22.7		ug/L		91	71 - 124
Bromodichloromethane	25.0	23.9		ug/L		96	80 - 122
Bromoform	25.0	25.6		ug/L		103	61 - 132
Bromomethane	25.0	22.2		ug/L		89	55 - 144
Carbon disulfide	25.0	21.0		ug/L		84	59 - 134
Carbon tetrachloride	25.0	20.7		ug/L		83	72 - 134
Chlorobenzene	25.0	23.1		ug/L		92	80 - 120
Chloroethane	25.0	24.3		ug/L		97	69 - 136
Chloroform	25.0	21.9		ug/L		88	73 - 127
Chloromethane	25.0	21.6		ug/L		86	68 - 124
cis-1,2-Dichloroethene	25.0	22.6		ug/L		90	74 - 124
cis-1,3-Dichloropropene	25.0	23.9		ug/L		95	74 - 124
Cyclohexane	25.0	18.3		ug/L		73	59 - 135
Dibromochloromethane	25.0	24.5		ug/L		98	75 - 125
Dichlorodifluoromethane	25.0	19.9		ug/L		79	59 - 135
Ethylbenzene	25.0	22.4		ug/L		90	77 - 123
Isopropylbenzene	25.0	22.6		ug/L		90	77 - 122
Methyl acetate	50.0	50.0		ug/L		100	74 - 133
Methyl tert-butyl ether	25.0	23.6		ug/L		95	77 - 120
Methylcyclohexane	25.0	18.6		ug/L		74	68 - 134
Methylene Chloride	25.0	24.9		ug/L		99	75 - 124
Styrene	25.0	23.8		ug/L		95	80 - 120
Tetrachloroethene	25.0	22.0		ug/L		88	74 - 122
Toluene	25.0	22.6		ug/L		90	80 - 122
trans-1,2-Dichloroethene	25.0	22.6		ug/L		90	73 - 127
trans-1,3-Dichloropropene	25.0	24.5		ug/L		98	80 - 120
Trichloroethene	25.0	22.1		ug/L		88	74 - 123
Trichlorofluoromethane	25.0	21.5		ug/L		86	62 - 150
Vinyl chloride	25.0	21.3		ug/L		85	65 - 133

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: LCS 480-525255/5

Matrix: Water

Analysis Batch: 525255

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120
Dibromofluoromethane (Surr)	101		75 - 123
Toluene-d8 (Surr)	100		80 - 120

Lab Sample ID: 480-168281-20 MS

Matrix: Water

Analysis Batch: 525255

Client Sample ID: 4009-291-040620

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	810		500	1130	*	ug/L		63	73 - 126
1,1,1,2,2-Tetrachloroethane	20	U	500	478		ug/L		96	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	500	428		ug/L		86	61 - 148
1,1,2-Trichloroethane	20	U	500	471		ug/L		94	76 - 122
1,1-Dichloroethane	65		500	521		ug/L		91	77 - 120
1,1-Dichloroethene	70		500	505		ug/L		87	66 - 127
1,2,4-Trichlorobenzene	20	U	500	472		ug/L		94	79 - 122
1,2,4-Trimethylbenzene	20	U	500	455		ug/L		91	76 - 121
1,2-Dibromo-3-Chloropropane	20	U	500	459		ug/L		92	56 - 134
1,2-Dibromoethane	20	U	500	482		ug/L		96	77 - 120
1,2-Dichlorobenzene	20	U	500	470		ug/L		94	80 - 124
1,2-Dichloroethane	20	U	500	470		ug/L		94	75 - 120
1,2-Dichloropropane	20	U	500	453		ug/L		91	76 - 120
1,3,5-Trimethylbenzene	20	U	500	462		ug/L		92	77 - 121
1,3-Dichlorobenzene	20	U	500	465		ug/L		93	77 - 120
1,4-Dichlorobenzene	20	U	500	463		ug/L		93	78 - 124
2-Butanone (MEK)	200	U	2500	2580		ug/L		103	57 - 140
2-Hexanone	100	U	2500	2450		ug/L		98	65 - 127
4-Methyl-2-pentanone (MIBK)	100	U	2500	2480		ug/L		99	71 - 125
Acetone	200	U	2500	2650		ug/L		106	56 - 142
Benzene	20	U	500	466		ug/L		93	71 - 124
Bromodichloromethane	20	U	500	456		ug/L		91	80 - 122
Bromoform	20	U	500	415		ug/L		83	61 - 132
Bromomethane	20	U	500	437		ug/L		87	55 - 144
Carbon disulfide	20	U	500	427		ug/L		85	59 - 134
Carbon tetrachloride	20	U	500	446		ug/L		89	72 - 134
Chlorobenzene	20	U	500	463		ug/L		93	80 - 120
Chloroethane	20	U	500	489		ug/L		98	69 - 136
Chloroform	20	U	500	454		ug/L		91	73 - 127
Chloromethane	20	U	500	432		ug/L		86	68 - 124
cis-1,2-Dichloroethene	290		500	714		ug/L		85	74 - 124
cis-1,3-Dichloropropene	20	U	500	441		ug/L		88	74 - 124
Cyclohexane	20	U	500	389		ug/L		78	59 - 135
Dibromochloromethane	20	U	500	445		ug/L		89	75 - 125
Dichlorodifluoromethane	20	U	500	384		ug/L		77	59 - 135
Ethylbenzene	20	U	500	455		ug/L		91	77 - 123
Isopropylbenzene	20	U	500	452		ug/L		90	77 - 122
Methyl acetate	50	U	1000	987		ug/L		99	74 - 133

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: 480-168281-20 MS

Client Sample ID: 4009-291-040620

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 525255

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	20	U	500	478		ug/L		96	77 - 120
Methylcyclohexane	20	U	500	417		ug/L		83	68 - 134
Methylene Chloride	20	U	500	503		ug/L		101	75 - 124
Styrene	20	U	500	479		ug/L		96	80 - 120
Tetrachloroethene	20	U	500	453		ug/L		91	74 - 122
Toluene	20	U	500	463		ug/L		93	80 - 122
trans-1,2-Dichloroethene	20	U	500	457		ug/L		91	73 - 127
trans-1,3-Dichloropropene	20	U	500	444		ug/L		89	80 - 120
Trichloroethene	230		500	633		ug/L		81	74 - 123
Trichlorofluoromethane	20	U	500	448		ug/L		90	62 - 150
Vinyl chloride	53		500	498		ug/L		89	65 - 133

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105		77 - 120
4-Bromofluorobenzene (Surr)	98		73 - 120
Dibromofluoromethane (Surr)	103		75 - 123
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: 480-168281-20 MSD

Client Sample ID: 4009-291-040620

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 525255

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	810		500	1130	*	ug/L		64	73 - 126	0	15
1,1,2,2-Tetrachloroethane	20	U	500	460		ug/L		92	76 - 120	4	15
1,1,2-Trichloro-1,2,2-trifluoroethane	20	U	500	427		ug/L		85	61 - 148	0	20
1,1,2-Trichloroethane	20	U	500	449		ug/L		90	76 - 122	5	15
1,1-Dichloroethane	65		500	524		ug/L		92	77 - 120	1	20
1,1-Dichloroethene	70		500	504		ug/L		87	66 - 127	0	16
1,2,4-Trichlorobenzene	20	U	500	483		ug/L		97	79 - 122	2	20
1,2,4-Trimethylbenzene	20	U	500	459		ug/L		92	76 - 121	1	20
1,2-Dibromo-3-Chloropropane	20	U	500	457		ug/L		91	56 - 134	0	15
1,2-Dibromoethane	20	U	500	470		ug/L		94	77 - 120	3	15
1,2-Dichlorobenzene	20	U	500	479		ug/L		96	80 - 124	2	20
1,2-Dichloroethane	20	U	500	476		ug/L		95	75 - 120	1	20
1,2-Dichloropropane	20	U	500	441		ug/L		88	76 - 120	3	20
1,3,5-Trimethylbenzene	20	U	500	456		ug/L		91	77 - 121	1	20
1,3-Dichlorobenzene	20	U	500	454		ug/L		91	77 - 120	2	20
1,4-Dichlorobenzene	20	U	500	455		ug/L		91	78 - 124	2	20
2-Butanone (MEK)	200	U	2500	2400		ug/L		96	57 - 140	7	20
2-Hexanone	100	U	2500	2320		ug/L		93	65 - 127	5	15
4-Methyl-2-pentanone (MIBK)	100	U	2500	2410		ug/L		97	71 - 125	3	35
Acetone	200	U	2500	2590		ug/L		104	56 - 142	2	15
Benzene	20	U	500	460		ug/L		92	71 - 124	1	13
Bromodichloromethane	20	U	500	460		ug/L		92	80 - 122	1	15
Bromoform	20	U	500	425		ug/L		85	61 - 132	2	15
Bromomethane	20	U	500	467		ug/L		93	55 - 144	7	15
Carbon disulfide	20	U	500	435		ug/L		87	59 - 134	2	15

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: 480-168281-20 MSD

Matrix: Water

Analysis Batch: 525255

Client Sample ID: 4009-291-040620

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Carbon tetrachloride	20	U	500	426		ug/L		85	72 - 134	5	15
Chlorobenzene	20	U	500	450		ug/L		90	80 - 120	3	25
Chloroethane	20	U	500	495		ug/L		99	69 - 136	1	15
Chloroform	20	U	500	463		ug/L		93	73 - 127	2	20
Chloromethane	20	U	500	424		ug/L		85	68 - 124	2	15
cis-1,2-Dichloroethene	290		500	706		ug/L		84	74 - 124	1	15
cis-1,3-Dichloropropene	20	U	500	450		ug/L		90	74 - 124	2	15
Cyclohexane	20	U	500	399		ug/L		80	59 - 135	3	20
Dibromochloromethane	20	U	500	447		ug/L		89	75 - 125	0	15
Dichlorodifluoromethane	20	U	500	403		ug/L		81	59 - 135	5	20
Ethylbenzene	20	U	500	445		ug/L		89	77 - 123	2	15
Isopropylbenzene	20	U	500	449		ug/L		90	77 - 122	1	20
Methyl acetate	50	U	1000	919		ug/L		92	74 - 133	7	20
Methyl tert-butyl ether	20	U	500	487		ug/L		97	77 - 120	2	37
Methylcyclohexane	20	U	500	399		ug/L		80	68 - 134	4	20
Methylene Chloride	20	U	500	501		ug/L		100	75 - 124	0	15
Styrene	20	U	500	458		ug/L		92	80 - 120	4	20
Tetrachloroethene	20	U	500	427		ug/L		85	74 - 122	6	20
Toluene	20	U	500	450		ug/L		90	80 - 122	3	15
trans-1,2-Dichloroethene	20	U	500	476		ug/L		95	73 - 127	4	20
trans-1,3-Dichloropropene	20	U	500	439		ug/L		88	80 - 120	1	15
Trichloroethene	230		500	633		ug/L		81	74 - 123	0	16
Trichlorofluoromethane	20	U	500	459		ug/L		92	62 - 150	2	20
Vinyl chloride	53		500	492		ug/L		88	65 - 133	1	15

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	102		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120
Dibromofluoromethane (Surr)	103		75 - 123
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: MB 480-525488/9

Matrix: Water

Analysis Batch: 525488

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	1.0	U	1.0	0.82	ug/L			04/12/20 13:38	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			04/12/20 13:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			04/12/20 13:38	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			04/12/20 13:38	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			04/12/20 13:38	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			04/12/20 13:38	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			04/12/20 13:38	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			04/12/20 13:38	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			04/12/20 13:38	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			04/12/20 13:38	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			04/12/20 13:38	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			04/12/20 13:38	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: MB 480-525488/9

Matrix: Water

Analysis Batch: 525488

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			04/12/20 13:38	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			04/12/20 13:38	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			04/12/20 13:38	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			04/12/20 13:38	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			04/12/20 13:38	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			04/12/20 13:38	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			04/12/20 13:38	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			04/12/20 13:38	1
Acetone	10	U	10	3.0	ug/L			04/12/20 13:38	1
Benzene	1.0	U	1.0	0.41	ug/L			04/12/20 13:38	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			04/12/20 13:38	1
Bromoform	1.0	U	1.0	0.26	ug/L			04/12/20 13:38	1
Bromomethane	1.0	U	1.0	0.69	ug/L			04/12/20 13:38	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			04/12/20 13:38	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			04/12/20 13:38	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			04/12/20 13:38	1
Chloroethane	1.0	U	1.0	0.32	ug/L			04/12/20 13:38	1
Chloroform	1.0	U	1.0	0.34	ug/L			04/12/20 13:38	1
Chloromethane	1.0	U	1.0	0.35	ug/L			04/12/20 13:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			04/12/20 13:38	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			04/12/20 13:38	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			04/12/20 13:38	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			04/12/20 13:38	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			04/12/20 13:38	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			04/12/20 13:38	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			04/12/20 13:38	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			04/12/20 13:38	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			04/12/20 13:38	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			04/12/20 13:38	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			04/12/20 13:38	1
Styrene	1.0	U	1.0	0.73	ug/L			04/12/20 13:38	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			04/12/20 13:38	1
Toluene	1.0	U	1.0	0.51	ug/L			04/12/20 13:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			04/12/20 13:38	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			04/12/20 13:38	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			04/12/20 13:38	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			04/12/20 13:38	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			04/12/20 13:38	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			04/12/20 13:38	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108		77 - 120		04/12/20 13:38	1
4-Bromofluorobenzene (Surr)	102		73 - 120		04/12/20 13:38	1
Dibromofluoromethane (Surr)	104		75 - 123		04/12/20 13:38	1
Toluene-d8 (Surr)	101		80 - 120		04/12/20 13:38	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: LCS 480-525488/6

Matrix: Water

Analysis Batch: 525488

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	25.1		ug/L		100	73 - 126
1,1,2,2-Tetrachloroethane	25.0	24.8		ug/L		99	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	28.5		ug/L		114	61 - 148
1,1,2-Trichloroethane	25.0	27.8		ug/L		111	76 - 122
1,1-Dichloroethane	25.0	28.4		ug/L		113	77 - 120
1,1-Dichloroethene	25.0	25.6		ug/L		102	66 - 127
1,2,3-Trimethylbenzene	25.0	27.4		ug/L		110	78 - 120
1,2,4-Trichlorobenzene	25.0	26.6		ug/L		106	79 - 122
1,2,4-Trimethylbenzene	25.0	26.6		ug/L		106	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	21.3		ug/L		85	56 - 134
1,2-Dibromoethane	25.0	26.3		ug/L		105	77 - 120
1,2-Dichlorobenzene	25.0	26.9		ug/L		107	80 - 124
1,2-Dichloroethane	25.0	26.8		ug/L		107	75 - 120
1,2-Dichloropropane	25.0	29.6		ug/L		118	76 - 120
1,3,5-Trimethylbenzene	25.0	26.0		ug/L		104	77 - 121
1,3-Dichlorobenzene	25.0	27.0		ug/L		108	77 - 120
1,4-Dichlorobenzene	25.0	25.8		ug/L		103	80 - 120
2-Butanone (MEK)	125	215 *		ug/L		172	57 - 140
2-Hexanone	125	122		ug/L		98	65 - 127
4-Methyl-2-pentanone (MIBK)	125	122		ug/L		98	71 - 125
Acetone	125	116		ug/L		92	56 - 142
Benzene	25.0	27.4		ug/L		110	71 - 124
Bromodichloromethane	25.0	27.8		ug/L		111	80 - 122
Bromoform	25.0	24.2		ug/L		97	61 - 132
Bromomethane	25.0	22.3		ug/L		89	55 - 144
Carbon disulfide	25.0	26.8		ug/L		107	59 - 134
Carbon tetrachloride	25.0	25.1		ug/L		100	72 - 134
Chlorobenzene	25.0	26.9		ug/L		108	80 - 120
Chloroethane	25.0	24.2		ug/L		97	69 - 136
Chloroform	25.0	25.9		ug/L		104	73 - 127
Chloromethane	25.0	23.4		ug/L		93	68 - 124
cis-1,2-Dichloroethene	25.0	26.0		ug/L		104	74 - 124
cis-1,3-Dichloropropene	25.0	29.3		ug/L		117	74 - 124
Cyclohexane	25.0	27.9		ug/L		112	59 - 135
Dibromochloromethane	25.0	26.7		ug/L		107	75 - 125
Dichlorodifluoromethane	25.0	19.2		ug/L		77	59 - 135
Ethylbenzene	25.0	26.1		ug/L		104	77 - 123
Isopropylbenzene	25.0	25.3		ug/L		101	77 - 122
Methyl acetate	50.0	48.0		ug/L		96	74 - 133
Methyl tert-butyl ether	25.0	27.6		ug/L		110	77 - 120
Methylcyclohexane	25.0	28.4		ug/L		114	68 - 134
Methylene Chloride	25.0	27.3		ug/L		109	75 - 124
Styrene	25.0	27.6		ug/L		110	80 - 120
Tetrachloroethene	25.0	27.2		ug/L		109	74 - 122
Toluene	25.0	26.4		ug/L		106	80 - 122
trans-1,2-Dichloroethene	25.0	26.0		ug/L		104	73 - 127
trans-1,3-Dichloropropene	25.0	27.4		ug/L		110	80 - 120
Trichloroethene	25.0	27.4		ug/L		110	74 - 123

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: LCS 480-525488/6

Matrix: Water

Analysis Batch: 525488

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichlorofluoromethane	25.0	22.5		ug/L		90	62 - 150
Vinyl chloride	25.0	24.2		ug/L		97	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		77 - 120
4-Bromofluorobenzene (Surr)	104		73 - 120
Dibromofluoromethane (Surr)	107		75 - 123
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 480-525488/7

Matrix: Water

Analysis Batch: 525488

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	23.1		ug/L		92	73 - 126	8	15
1,1,2,2-Tetrachloroethane	25.0	24.0		ug/L		96	76 - 120	3	15
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	27.4		ug/L		110	61 - 148	4	20
1,1,2-Trichloroethane	25.0	26.2		ug/L		105	76 - 122	6	15
1,1-Dichloroethane	25.0	26.7		ug/L		107	77 - 120	6	20
1,1-Dichloroethene	25.0	23.3		ug/L		93	66 - 127	9	16
1,2,3-Trimethylbenzene	25.0	26.6		ug/L		106	78 - 120	3	20
1,2,4-Trichlorobenzene	25.0	26.5		ug/L		106	79 - 122	0	20
1,2,4-Trimethylbenzene	25.0	25.7		ug/L		103	76 - 121	3	20
1,2-Dibromo-3-Chloropropane	25.0	22.1		ug/L		88	56 - 134	4	15
1,2-Dibromoethane	25.0	25.8		ug/L		103	77 - 120	2	15
1,2-Dichlorobenzene	25.0	26.2		ug/L		105	80 - 124	3	20
1,2-Dichloroethane	25.0	25.4		ug/L		102	75 - 120	5	20
1,2-Dichloropropane	25.0	28.5		ug/L		114	76 - 120	4	20
1,3,5-Trimethylbenzene	25.0	25.2		ug/L		101	77 - 121	3	20
1,3-Dichlorobenzene	25.0	26.0		ug/L		104	77 - 120	4	20
1,4-Dichlorobenzene	25.0	25.6		ug/L		102	80 - 120	1	20
2-Butanone (MEK)	125	208	*	ug/L		167	57 - 140	3	20
2-Hexanone	125	121		ug/L		96	65 - 127	1	15
4-Methyl-2-pentanone (MIBK)	125	121		ug/L		97	71 - 125	1	35
Acetone	125	112		ug/L		90	56 - 142	3	15
Benzene	25.0	26.1		ug/L		105	71 - 124	5	13
Bromodichloromethane	25.0	26.7		ug/L		107	80 - 122	4	15
Bromoform	25.0	24.8		ug/L		99	61 - 132	2	15
Bromomethane	25.0	19.4		ug/L		78	55 - 144	14	15
Carbon disulfide	25.0	24.7		ug/L		99	59 - 134	8	15
Carbon tetrachloride	25.0	23.0		ug/L		92	72 - 134	9	15
Chlorobenzene	25.0	25.8		ug/L		103	80 - 120	4	25
Chloroethane	25.0	22.6		ug/L		90	69 - 136	7	15
Chloroform	25.0	24.0		ug/L		96	73 - 127	8	20
Chloromethane	25.0	21.6		ug/L		87	68 - 124	8	15
cis-1,2-Dichloroethene	25.0	24.1		ug/L		96	74 - 124	8	15
cis-1,3-Dichloropropene	25.0	28.2		ug/L		113	74 - 124	4	15
Cyclohexane	25.0	26.2		ug/L		105	59 - 135	6	20

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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

Lab Sample ID: LCSD 480-525488/7

Matrix: Water

Analysis Batch: 525488

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
Dibromochloromethane	25.0	26.2		ug/L		105	75 - 125	2	15
Dichlorodifluoromethane	25.0	17.0		ug/L		68	59 - 135	12	20
Ethylbenzene	25.0	25.2		ug/L		101	77 - 123	4	15
Isopropylbenzene	25.0	24.6		ug/L		98	77 - 122	3	20
Methyl acetate	50.0	45.5		ug/L		91	74 - 133	5	20
Methyl tert-butyl ether	25.0	26.9		ug/L		108	77 - 120	2	37
Methylcyclohexane	25.0	26.3		ug/L		105	68 - 134	8	20
Methylene Chloride	25.0	26.2		ug/L		105	75 - 124	4	15
Styrene	25.0	27.3		ug/L		109	80 - 120	1	20
Tetrachloroethene	25.0	26.2		ug/L		105	74 - 122	4	20
Toluene	25.0	25.3		ug/L		101	80 - 122	4	15
trans-1,2-Dichloroethene	25.0	24.4		ug/L		98	73 - 127	6	20
trans-1,3-Dichloropropene	25.0	27.1		ug/L		108	80 - 120	1	15
Trichloroethene	25.0	25.9		ug/L		104	74 - 123	6	16
Trichlorofluoromethane	25.0	20.9		ug/L		84	62 - 150	8	20
Vinyl chloride	25.0	22.0		ug/L		88	65 - 133	9	15

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	110		77 - 120
4-Bromofluorobenzene (Surr)	105		73 - 120
Dibromofluoromethane (Surr)	104		75 - 123
Toluene-d8 (Surr)	103		80 - 120

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

GC/MS VOA

Analysis Batch: 525112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168281-6	4009-13-040620	Total/NA	Water	8260C	
480-168281-7	4009-14-040620	Total/NA	Water	8260C	
480-168281-8	4009-15-040620	Total/NA	Water	8260C	
480-168281-9	4009-16-040620	Total/NA	Water	8260C	
480-168281-10	4009-16A-040620	Total/NA	Water	8260C	
480-168281-11	4009-18-040620	Total/NA	Water	8260C	
480-168281-12	4009-19-040620	Total/NA	Water	8260C	
480-168281-13	4009-21-040620	Total/NA	Water	8260C	
480-168281-16	4009-27I-040620	Total/NA	Water	8260C	
480-168281-17	4009-27D-040620	Total/NA	Water	8260C	
MB 480-525112/8	Method Blank	Total/NA	Water	8260C	
LCS 480-525112/6	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 525255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168281-1	4009-7-040620	Total/NA	Water	8260C	
480-168281-2	4009-8-040620	Total/NA	Water	8260C	
480-168281-3	4009-9-040620	Total/NA	Water	8260C	
480-168281-4	4009-11-040620	Total/NA	Water	8260C	
480-168281-5	4009-12-040620	Total/NA	Water	8260C	
480-168281-14	4009-26-040620	Total/NA	Water	8260C	
480-168281-15	4009-27S-040620	Total/NA	Water	8260C	
480-168281-18	4009-28-040620	Total/NA	Water	8260C	
480-168281-19	4009-29S-040620	Total/NA	Water	8260C	
480-168281-20	4009-29I-040620	Total/NA	Water	8260C	
480-168281-21	4009-29D-040620	Total/NA	Water	8260C	
480-168281-22	4009-30-040620	Total/NA	Water	8260C	
480-168281-23	WELL 1-1-040620	Total/NA	Water	8260C	
480-168281-24	DUP 1-040620	Total/NA	Water	8260C	
480-168281-25	DUP 2--040620	Total/NA	Water	8260C	
480-168281-26	TRIP BLANK 1	Total/NA	Water	8260C	
480-168281-27	TRIP BLANK 2	Total/NA	Water	8260C	
MB 480-525255/8	Method Blank	Total/NA	Water	8260C	
LCS 480-525255/5	Lab Control Sample	Total/NA	Water	8260C	
480-168281-20 MS	4009-29I-040620	Total/NA	Water	8260C	
480-168281-20 MSD	4009-29I-040620	Total/NA	Water	8260C	

Analysis Batch: 525488

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-168281-24 - DL	DUP 1-040620	Total/NA	Water	8260C	
MB 480-525488/9	Method Blank	Total/NA	Water	8260C	
LCS 480-525488/6	Lab Control Sample	Total/NA	Water	8260C	
LCSD 480-525488/7	Lab Control Sample Dup	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-7-040620

Lab Sample ID: 480-168281-1

Date Collected: 04/06/20 11:30

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525255	04/10/20 13:16	LCH	TAL BUF

Client Sample ID: 4009-8-040620

Lab Sample ID: 480-168281-2

Date Collected: 04/06/20 11:20

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	525255	04/10/20 13:39	LCH	TAL BUF

Client Sample ID: 4009-9-040620

Lab Sample ID: 480-168281-3

Date Collected: 04/06/20 11:10

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525255	04/10/20 14:02	LCH	TAL BUF

Client Sample ID: 4009-11-040620

Lab Sample ID: 480-168281-4

Date Collected: 04/06/20 11:15

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		2	525255	04/10/20 14:26	LCH	TAL BUF

Client Sample ID: 4009-12-040620

Lab Sample ID: 480-168281-5

Date Collected: 04/06/20 09:35

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	525255	04/10/20 14:49	LCH	TAL BUF

Client Sample ID: 4009-13-040620

Lab Sample ID: 480-168281-6

Date Collected: 04/06/20 11:00

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525112	04/09/20 22:54	CRL	TAL BUF

Client Sample ID: 4009-14-040620

Lab Sample ID: 480-168281-7

Date Collected: 04/06/20 09:25

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525112	04/09/20 23:18	CRL	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-15-040620

Lab Sample ID: 480-168281-8

Date Collected: 04/06/20 09:10

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525112	04/09/20 23:42	CRL	TAL BUF

Client Sample ID: 4009-16-040620

Lab Sample ID: 480-168281-9

Date Collected: 04/06/20 08:50

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525112	04/10/20 00:06	CRL	TAL BUF

Client Sample ID: 4009-16A-040620

Lab Sample ID: 480-168281-10

Date Collected: 04/06/20 08:55

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525112	04/10/20 00:30	CRL	TAL BUF

Client Sample ID: 4009-18-040620

Lab Sample ID: 480-168281-11

Date Collected: 04/06/20 08:15

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525112	04/10/20 00:54	CRL	TAL BUF

Client Sample ID: 4009-19-040620

Lab Sample ID: 480-168281-12

Date Collected: 04/06/20 08:35

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525112	04/10/20 01:18	CRL	TAL BUF

Client Sample ID: 4009-21-040620

Lab Sample ID: 480-168281-13

Date Collected: 04/06/20 08:25

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525112	04/10/20 01:43	CRL	TAL BUF

Client Sample ID: 4009-26-040620

Lab Sample ID: 480-168281-14

Date Collected: 04/06/20 11:25

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	525255	04/10/20 15:12	LCH	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-27S-040620

Lab Sample ID: 480-168281-15

Date Collected: 04/06/20 10:45

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525255	04/10/20 15:37	LCH	TAL BUF

Client Sample ID: 4009-27I-040620

Lab Sample ID: 480-168281-16

Date Collected: 04/06/20 10:50

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525112	04/10/20 02:56	CRL	TAL BUF

Client Sample ID: 4009-27D-040620

Lab Sample ID: 480-168281-17

Date Collected: 04/06/20 10:55

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525112	04/10/20 03:20	CRL	TAL BUF

Client Sample ID: 4009-28-040620

Lab Sample ID: 480-168281-18

Date Collected: 04/06/20 07:35

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525255	04/10/20 16:00	LCH	TAL BUF

Client Sample ID: 4009-29S-040620

Lab Sample ID: 480-168281-19

Date Collected: 04/06/20 10:20

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	525255	04/10/20 16:23	LCH	TAL BUF

Client Sample ID: 4009-29I-040620

Lab Sample ID: 480-168281-20

Date Collected: 04/06/20 10:30

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	525255	04/10/20 16:46	LCH	TAL BUF

Client Sample ID: 4009-29D-040620

Lab Sample ID: 480-168281-21

Date Collected: 04/06/20 10:40

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	525255	04/10/20 17:55	LCH	TAL BUF

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Client Sample ID: 4009-30-040620

Lab Sample ID: 480-168281-22

Date Collected: 04/06/20 09:00

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525255	04/10/20 18:18	LCH	TAL BUF

Client Sample ID: WELL 1-1-040620

Lab Sample ID: 480-168281-23

Date Collected: 04/06/20 07:25

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	525255	04/10/20 18:42	LCH	TAL BUF

Client Sample ID: DUP 1-040620

Lab Sample ID: 480-168281-24

Date Collected: 04/06/20 09:05

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525255	04/10/20 19:05	LCH	TAL BUF
Total/NA	Analysis	8260C	DL	5	525488	04/12/20 15:01	RJF	TAL BUF

Client Sample ID: DUP 2--040620

Lab Sample ID: 480-168281-25

Date Collected: 04/06/20 10:00

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	525255	04/10/20 19:28	LCH	TAL BUF

Client Sample ID: TRIP BLANK 1

Lab Sample ID: 480-168281-26

Date Collected: 04/06/20 00:00

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525255	04/10/20 19:51	LCH	TAL BUF

Client Sample ID: TRIP BLANK 2

Lab Sample ID: 480-168281-27

Date Collected: 04/06/20 00:00

Matrix: Water

Date Received: 04/08/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	525255	04/10/20 20:14	LCH	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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	04-02-21

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-168281-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-168281-1	4009-7-040620	Water	04/06/20 11:30	04/08/20 08:00	
480-168281-2	4009-8-040620	Water	04/06/20 11:20	04/08/20 08:00	
480-168281-3	4009-9-040620	Water	04/06/20 11:10	04/08/20 08:00	
480-168281-4	4009-11-040620	Water	04/06/20 11:15	04/08/20 08:00	
480-168281-5	4009-12-040620	Water	04/06/20 09:35	04/08/20 08:00	
480-168281-6	4009-13-040620	Water	04/06/20 11:00	04/08/20 08:00	
480-168281-7	4009-14-040620	Water	04/06/20 09:25	04/08/20 08:00	
480-168281-8	4009-15-040620	Water	04/06/20 09:10	04/08/20 08:00	
480-168281-9	4009-16-040620	Water	04/06/20 08:50	04/08/20 08:00	
480-168281-10	4009-16A-040620	Water	04/06/20 08:55	04/08/20 08:00	
480-168281-11	4009-18-040620	Water	04/06/20 08:15	04/08/20 08:00	
480-168281-12	4009-19-040620	Water	04/06/20 08:35	04/08/20 08:00	
480-168281-13	4009-21-040620	Water	04/06/20 08:25	04/08/20 08:00	
480-168281-14	4009-26-040620	Water	04/06/20 11:25	04/08/20 08:00	
480-168281-15	4009-27S-040620	Water	04/06/20 10:45	04/08/20 08:00	
480-168281-16	4009-27I-040620	Water	04/06/20 10:50	04/08/20 08:00	
480-168281-17	4009-27D-040620	Water	04/06/20 10:55	04/08/20 08:00	
480-168281-18	4009-28-040620	Water	04/06/20 07:35	04/08/20 08:00	
480-168281-19	4009-29S-040620	Water	04/06/20 10:20	04/08/20 08:00	
480-168281-20	4009-29I-040620	Water	04/06/20 10:30	04/08/20 08:00	
480-168281-21	4009-29D-040620	Water	04/06/20 10:40	04/08/20 08:00	
480-168281-22	4009-30-040620	Water	04/06/20 09:00	04/08/20 08:00	
480-168281-23	WELL 1-1-040620	Water	04/06/20 07:25	04/08/20 08:00	
480-168281-24	DUP 1-040620	Water	04/06/20 09:05	04/08/20 08:00	
480-168281-25	DUP 2--040620	Water	04/06/20 10:00	04/08/20 08:00	
480-168281-26	TRIP BLANK 1	Water	04/06/20 00:00	04/08/20 08:00	
480-168281-27	TRIP BLANK 2	Water	04/06/20 00:00	04/08/20 08:00	

Chain of Custody Record

eurofins

Client Information		Sampler: <u>LW/KS</u>		Lab PM: <u>Stone, Judy L</u>		Carrier Tracking No(s):		COC No: <u>480-143331-27171.1</u>	
Client Contact: <u>Aubrey Thomas</u>		Phone:		E-Mail: <u>judy.stone@testamericainc.com</u>		Page 1 of 3		Job #:	
Company: <u>ARCADIS U.S. Inc</u>		Due Date Requested:		Analysis Requested		Preservation Codes:		Special Instructions/Note:	
Address: <u>855 Route 146 Suite 210</u>		TAT Requested (days):		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of Containers	
City: <u>Clifton Park</u>		PO #:		Matrix (W=Water, S=Solid, O=Other)		Preservation Code:			
State, Zip: <u>NY, 12065</u>		WO #:		Sample Type (C=Comp, G=Grab)		Sample Time		Sample Date	
Phone: <u>518-250-7300(Tel)</u>		Contract D007618		Sample Date		Sample Time		Sample Date	
Email: <u>Aubrey.Thomas@arcadis.com</u>		Project #:		Sample Date		Sample Time		Sample Date	
Project Name: <u>NYSDEC-Standby VESTAL</u>		SSOW#:		Sample Date		Sample Time		Sample Date	
Site: <u>Vestal</u>				Sample Date		Sample Time		Sample Date	
Sample Identification		Sample Date		Sample Time		Sample Date		Sample Time	
4009-7 -040620		4/6/2020		1130		G		Water	
4009-8 -040620		4/6/2020		1120		G		Water	
4009-9 -040620		4/6/2020		1110		G		Water	
4009-10 -040620		4/6/2020		1115		G		Water	
4009-11 -040620		4/6/2020		1115		G		Water	
4009-12 -040620		4/6/2020		0935		G		Water	
4009-13 -040620		4/6/2020		1100		G		Water	
4009-14 -040620		4/6/2020		0925		G		Water	
4009-15 -040620		4/6/2020		0910		G		Water	
Possible Hazard Identification		Non-Hazard		Flammable		Skin Irritant		Poison B	
Deliverable Requested: I, II, III, IV, Other (specify)		Category A Report		Unknown		Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Empty Kit Relinquished by:		Date:		Time:		Special Instructions/QC Requirements: <u>NYSDEC Equis</u>		Return To Client	
Relinquished by: <u>K. Hiltner</u>		Date/Time: <u>4/6/2020 1600</u>		Company: <u>ARCADIS</u>		Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Relinquished by:		Date/Time:	
Custody Seals Intact: <u>Δ Yes Δ No</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		Ver: 01/16/2019			

Chain of Custody Record



Client Information		Sampler: <u>Stone, Judy L</u>		Carrier Tracking No(s): <u>480-143331-27171.3</u>				
Client Contact: <u>Aubrey Thomas</u>		Phone: <u></u>		Page: <u>3 of 3</u>				
Company: <u>ARCADIS U.S. Inc</u>		Lab PM: <u>Stone, Judy L</u>		Job #: <u></u>				
Address: <u>855 Route 146 Suite 210</u>		Analysis Requested Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2OAS E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecylhydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other: <u></u>						
City: <u>Clifton Park</u>								
State, Zip: <u>NY, 12065</u>								
Phone: <u>518-250-7300(Tel)</u>								
Email: <u>Aubrey.Thomas@arcadis.com</u>								
Project Name: <u>NYSDEC-Standby VESTAL</u>		Due Date Requested: <u></u>		Total Number of containers: <u></u> Special Instructions/Note: <u></u>				
Contract #: <u>007618</u>		TAT Requested (days): <u>Standard ..</u>						
Project #: <u>48005198</u>		PO #: <u>Project 00266401.0000 30001348</u>						
SSOW#: <u></u>		WO #: <u></u>						
Site: <u>Vestal</u>		Contract D007618						
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=organic, B=biological)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) TCL list VOA w/TMBs	8260C - (MOD) TCL list of HMTs
4009-29S - 040620	4/6/2020	1020	G	Water	N	N		
4009-29I - 040620		1030	I	Water	N	N		
4009-29D - 040620		1040	I	Water	N	N		
4009-30 - 040620		0900	I	Water	N	N		
4009-30A				Water				
Well 1-1 - 040620	4/6/2020	0925	G	Water	N	N		
DUP 1 - 040620		0905	I	Water	N	N		
DUP 2 - 040620		1000	I	Water	N	N		
Trip Blank 1 - 040620			I	Water	N	N		
Trip Blank 2 - 040620			I	Water	N	N		
Possible Hazard Identification		☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Unknown ☐ Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return to Client ☒ Disposal By Lab ☐ Archive For <u>Months</u>				
Deliverable Requested: I, II, III, IV, Other (specify) <u>Category A Report</u>		Date: <u>4/6/2020 1600</u>		Special Instructions/QC Requirements: <u>NYSDEC LEAD</u>				
Empty Kit Relinquished by: <u></u>		Date: <u>4/6/2020 1600</u>		Method of Shipment: <u></u>				
Relinquished by: <u></u>		Date/Time: <u>4/6/2020 1600</u>		Received by: <u></u>				
Relinquished by: <u></u>		Date/Time: <u></u>		Received by: <u></u>				
Relinquished by: <u></u>		Date/Time: <u></u>		Received by: <u></u>				
Custody Seals Intact: <u>Yes</u>		Custody Seal No.: <u></u>		Cooler Temperature(s) °C and Other Remarks: <u></u>				

Chain of Custody Record



Client Information Client Contact: Aubrey Thomas Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State, Zip: NY, 12065 Phone: 518-250-7300(Tel) Email: Aubrey.Thomas@arcadis.com Project Name: NYSDEC-Standby VESTAL Site: Vestal		Sampler: Lw/KS Lab PM: Stone, Judy L E-Mail: judy.stone@testamericainc.com Carrier Tracking No(s): COC No: 480-143331-27171.2 Page: Page 2 of 3 Job #:
Analysis Requested Due Date Requested: TAT Requested (days): PO #: Project 00266401.0000 30001348 WO #: Contract D007618 Project #: 48005198 SSOW#:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)
Sample Identification Sample Date Sample Time Sample Type (C=comp, G=grab) Matrix (W=water, S=solid, O=overfill, B=brine, A=air) Preservation Code: Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8280C - (MOD) TCL list VOA w/TMBs 8280C - (MOD) TCL list-QLM42	Total Number of containers Special Instructions/Note:	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: NYS DEC Equis
4009-16 -040620 4009-16A -040620 4009-18 -040620 4009-19 -040620 4009-21 -040620 4009-22 -040620 4009-26 -040620 4009-27S -040620 4009-27I -040620 4009-27D -040620 4009-28 -040620	4/6/2020 0850 0855 0815 0835 0825 0745 1125 1045 1050 1055 0735	Water Water 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) Category A Report Empty Kit Relinquished by:		
Relinquished by: [Signature] Relinquished by: [Signature] Relinquished by: [Signature] Custody Seal No.: Delta Yes Delta No		

Albany

#224

Chain of Custody Record



Client Information		Sampler: <u>LW/KS</u>		Lab PM: <u>Stone, Judy L</u>		Carrier Tracking No(s):		COC No: <u>480-143331-27171.1</u>	
Client Contact: <u>Aubrey Thomas</u>		Phone:		E-Mail: <u>judy.stone@testamerica.com</u>		Page: <u>Page 1 of 3</u>		Job #:	
Company: <u>ARCADIS U.S. Inc</u>		Address: <u>855 Route 146 Suite 210</u>		City: <u>Clifton Park</u>		State, Zip: <u>NY, 12065</u>		Phone: <u>518-250-7300(Tel)</u>	
Email: <u>Aubrey.Thomas@arcadis.com</u>		Project #:		Contract #:		Project #:		SSOW#:	
Project Name: <u>NYSDEC-Standby VESTAL</u>		Siler: <u>Vestal</u>		Due Date Requested:		TAT Requested (days): <u>Standard</u>		PO #: <u>Project 00266401.0000 30001348</u>	
WO #: <u>Contract D007618</u>		Project #:		Project #:		Project #:		Project #:	
SSOW#:		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (Water, Soil, Sludge, Other)	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (Water, Soil, Sludge, Other)	
4009-7 -040620		4/6/2020		1130		G		Water	
4009-8 -040620		4/6/2020		1120		G		Water	
4009-9 -040620		4/6/2020		1110		G		Water	
4009-10 -040620		4/6/2020		1105		G		Water	
4009-11 -040620		4/6/2020		1105		G		Water	
4009-12 -040620		4/6/2020		0935		G		Water	
4009-13 -040620		4/6/2020		1100		G		Water	
4009-14 -040620		4/6/2020		0925		G		Water	
4009-15 -040620		4/6/2020		0916		G		Water	
Possible Hazard Identification		Non-Hazard		Flammable		Skin Irritant		Poison B	
Deliverable Requested: I, II, III, IV, Other (specify)		Empty Kit Relinquished by:		Date:		Time:		Company:	
Relinquished by: <u>K. Hatcher</u>		Date: <u>4/6/2020</u>		Time: <u>1600</u>		Company: <u>ARCADIS</u>		Relinquished by: <u>K. Hatcher</u>	
Relinquished by: <u>T. Hatcher</u>		Date: <u>4-7-20</u>		Time: <u>1700</u>		Company: <u>Eurofins</u>		Relinquished by: <u>T. Hatcher</u>	
Relinquished by: <u>T. Hatcher</u>		Date: <u>4-7-20</u>		Time: <u>1700</u>		Company: <u>Eurofins</u>		Relinquished by: <u>T. Hatcher</u>	
Custody Seals Intact: <u>Yes</u>		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: <u>#2 2.0</u>		Ver: 01/16/2019			

Albany #224

Chain of Custody Record



Client Information		Lab PM: Stone, Judy L		Carrier Tracking No(s):		COC No: 480-143331-27171.2	
Client Contact: Aubrey Thomas		Phone: 616 1KS		E-Mail: judy.stone@testamerica.com		Page: 2 of 3	
Company: ARCADIS U.S. Inc		Address: 855 Route 146 Suite 210		City: Clifton Park		State, Zip: NY, 12065	
Phone: 518-250-7300 (Tel)		Project #:		Contract #:		SSOW#:	
Email: Aubrey.Thomas@arcadis.com		Project Name: NYSDEC-Standby VESTAL		Site: Vestal			
Due Date Requested:		TAT Requested (days):		PO #:		Project 00266401.0000 30001348	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
4009-16 - 040620		4/6/2020		0850		G	
4009-16A - 040620				0855		Water	
4009-18 - 040620				0815		Water	
4009-19 - 040620				0835		Water	
4009-21 - 040620				0825		Water	
4009-22 - 040620				0745		Water	
4009-26 - 040620				1125		Water	
4009-27S - 040620				1045		Water	
4009-27I - 040620				1050		Water	
4009-27D - 040620				1055		Water	
4009-28 - 040620				0735		Water	
Possible Hazard Identification		Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological ☐		Empty Kit Relinquished by:		Date/Time: 4/6/2020 1600	
Deliverable Requested: I, II, III, IV, Other (specify)		Category A Report		Date/Time: 4-7-2020 1700		Date/Time: 4-6-20 1600	
Relinquished by: [Signature]		Date/Time: 4-7-2020 1700		Date/Time: 4-6-20 1600		Date/Time: 4-6-20 1600	
Relinquished by: [Signature]		Date/Time: 4-7-2020 1700		Date/Time: 4-6-20 1600		Date/Time: 4-6-20 1600	
Relinquished by: [Signature]		Date/Time: 4-7-2020 1700		Date/Time: 4-6-20 1600		Date/Time: 4-6-20 1600	
Custody Seals Intact: ☐ Yes ☒ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: #2 2.0		Company: EDA	

Chain of Custody Record

Albany
#224

Client Information		Sampler:		Lab Pkt:		Carrier Tracking No(s):		COC No:		
Client Contact: Aubrey Thomas		Phone:		Stone, Judy L				480-143331-27171.3		
Company: ARCADIS U.S. Inc		E-Mail: judy.stone@testamerica.com						Page: 3 of 3		
Address: 855 Route 146 Suite 210		Due Date Requested:		Analysis Requested		Job #:		Preservation Codes:		
City: Clifton Park		TAT Requested (days): standard						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:		
State, Zip: NY, 12065		PO #: Project 00266401.0000 30001348						M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)		
Phone: 518-250-7300(Tel)		WO #: Contract D007618								
Email: Aubrey.Thomas@arcadis.com		Project #: 48005198								
Project Name: NYSDC-Standby VESTAL		SSOW#:								
Site: Vestal										
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, W; Acid, A; Other, O)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - (MOD) TCL list of VOA w/TMBs	8260C - (MOD) TCL list of PAHs	Total Number of Containers	Special Instructions/Note:
4009-29S - 040620	4/6/2020	1020	G	Water	N	N			3	
4009-29I - 040620		1030	I	Water	N	N			3	
4009-29D - 040620		1040	I	Water	N	N			3	
4009-30 - 040620		0900	I	Water	N	N			3	
4009-30A - 040620				Water	N	N			3	
Well 1-1 - 040620	4/6/2020	0925	G	Water	N	N			3	
DUP 1 - 040620		0905	I	Water	N	N			3	
DUP 2 - 040620		1000	I	Water	N	N			3	
Trip Blank 1 - 040620			I	Water	N	N			2	
Trip Blank 2 - 040620			I	Water	N	N			2	

Possible Hazard Identification		Poison B		Unknown		Radiological	
☒ Non-Hazard	☐ Flammable	☐ Skin Irritant	☐ Other (specify)	☐ Empty Kit Relinquished by:	☐ Return To Client	☐ Disposal By Lab	☐ Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)				Special Instructions/OC Requirements: NYSDC CLEVIS			
Empty Kit Relinquished by:				Method of Shipment:			
Relinquished by: <i>[Signature]</i>				Date/Time: 4-6-20 1600			
Relinquished by: <i>[Signature]</i>				Date/Time: 4-7-2020 1700			
Relinquished by: <i>[Signature]</i>				Date/Time: 4/8/20 0800			
Custody Seals Intact: ☐ Yes ☐ No				Cooler Temperature(s) °C and Other Remarks:			

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-168281-1

Login Number: 168281

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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	



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0D1042

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: 04/28/2020
Reported: 05/12/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0D1042-01

Collected By: Thomas Webster
Collection Date: 04/28/2020 13:15

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			05/04/20 2138	JAN
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Bromodichloromethane	<0.50		0.50	ug/L			05/04/20 2138	JAN
Bromoform	<0.50		0.50	ug/L			05/04/20 2138	JAN
Bromomethane	<0.50		0.50	ug/L			05/04/20 2138	JAN
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Chloroform	<0.50		0.50	ug/L			05/04/20 2138	JAN
Chloromethane	<0.50		0.50	ug/L			05/04/20 2138	JAN
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Dibromochloromethane	<0.50		0.50	ug/L			05/04/20 2138	JAN
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN

Microbac Laboratories, Inc.

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0D1042

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0D1042-01

Collected By: Thomas Webster
Collection Date: 04/28/2020 13:15

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/04/20 2138	JAN
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2138	JAN
Surrogate: 4-Bromofluorobenzene	88.8	Limit: 70-130		% Rec			05/04/20 2138	JAN
Surrogate: 1,2-Dichlorobenzene-d4	82.4	Limit: 70-130		% Rec			05/04/20 2138	JAN



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0D1042

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0D1042-02

Collected By: Thomas Webster
Collection Date: 04/28/2020 13:20

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			05/04/20 2204	JAN
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Bromodichloromethane	<0.50		0.50	ug/L			05/04/20 2204	JAN
Bromoform	<0.50		0.50	ug/L			05/04/20 2204	JAN
Bromomethane	<0.50		0.50	ug/L			05/04/20 2204	JAN
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Chloroform	<0.50		0.50	ug/L			05/04/20 2204	JAN
Chloromethane	<0.50		0.50	ug/L			05/04/20 2204	JAN
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Dibromochloromethane	<0.50		0.50	ug/L			05/04/20 2204	JAN
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0D1042

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0D1042-02

Collected By: Thomas Webster
Collection Date: 04/28/2020 13:20

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/04/20 2204	JAN
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2204	JAN
Surrogate: 4-Bromofluorobenzene	74.2	Limit: 70-130		% Rec			05/04/20 2204	JAN
Surrogate: 1,2-Dichlorobenzene-d4	71.2	Limit: 70-130		% Rec			05/04/20 2204	JAN



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0D1042

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0D1042-03

Collected By: Thomas Webster
Collection Date: 04/28/2020 13:25

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			05/04/20 2229	JAN
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Bromodichloromethane	<0.50		0.50	ug/L			05/04/20 2229	JAN
Bromoform	<0.50		0.50	ug/L			05/04/20 2229	JAN
Bromomethane	<0.50		0.50	ug/L			05/04/20 2229	JAN
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Chloroform	<0.50		0.50	ug/L			05/04/20 2229	JAN
Chloromethane	<0.50		0.50	ug/L			05/04/20 2229	JAN
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Dibromochloromethane	<0.50		0.50	ug/L			05/04/20 2229	JAN
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0D1042

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0D1042-03

Collected By: Thomas Webster
Collection Date: 04/28/2020 13:25

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/04/20 2229	JAN
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2229	JAN
Surrogate: 4-Bromofluorobenzene	79.0	Limit: 70-130		% Rec			05/04/20 2229	JAN
Surrogate: 1,2-Dichlorobenzene-d4	76.2	Limit: 70-130		% Rec			05/04/20 2229	JAN



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0D1042

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0D1042-04

Collected By: Thomas Webster
Collection Date: 04/28/2020 13:30

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			05/04/20 2255	JAN
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Bromodichloromethane	<0.50		0.50	ug/L			05/04/20 2255	JAN
Bromoform	<0.50		0.50	ug/L			05/04/20 2255	JAN
Bromomethane	<0.50		0.50	ug/L			05/04/20 2255	JAN
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Chloroform	<0.50		0.50	ug/L			05/04/20 2255	JAN
Chloromethane	<0.50		0.50	ug/L			05/04/20 2255	JAN
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Dibromochloromethane	<0.50		0.50	ug/L			05/04/20 2255	JAN
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0D1042

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0D1042-04

Collected By: Thomas Webster
Collection Date: 04/28/2020 13:30

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/04/20 2255	JAN
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/04/20 2255	JAN
Surrogate: 4-Bromofluorobenzene	73.8	Limit: 70-130		% Rec			05/04/20 2255	JAN
Surrogate: 1,2-Dichlorobenzene-d4	79.4	Limit: 70-130		% Rec			05/04/20 2255	JAN



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0D1042

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0D1042-07

Collected By: Thomas Webster
Collection Date: 04/24/2020 15:00

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			05/08/20 1835	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Bromodichloromethane	<0.50		0.50	ug/L			05/08/20 1835	RSD
Bromoform	<0.50		0.50	ug/L			05/08/20 1835	RSD
Bromomethane	<0.50		0.50	ug/L			05/08/20 1835	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Chloroform	<0.50		0.50	ug/L			05/08/20 1835	RSD
Chloromethane	<0.50		0.50	ug/L			05/08/20 1835	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Dibromochloromethane	<0.50		0.50	ug/L			05/08/20 1835	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0D1042

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0D1042-07

Collected By: Thomas Webster
Collection Date: 04/24/2020 15:00

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Styrene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			05/08/20 1835	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			05/08/20 1835	RSD
Surrogate: 4-Bromofluorobenzene	95.8	Limit: 70-130		% Rec			05/08/20 1835	RSD
Surrogate: 1,2-Dichlorobenzene-d4	89.8	Limit: 70-130		% Rec			05/08/20 1835	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: 05/12/2020 16:24

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Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0D1042

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: 4/27/2020
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J0D1042-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 4-28-2020/1315

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: J0D1042-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 4-28-2020/1320

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: J0D1042-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 4-28-2020/1325

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: J0D1042-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 4-28-2020/1330



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0D1042

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: 4/27/2020
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: J0D1042-05

Matrix: Drinking Water

Sampled Date & Time: 4-28-2020 / 1345

Type: Grab

<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: J0D1042-06

Matrix: Drinking Water

Sampled Date & Time: 4-28-2020 / 1350

Type: Grab

<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: J0D1042-07

Matrix: Drinking Water

Sampled Date & Time: 04/24/2020 15:00

Type: Trip Blank

<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



J0D1042

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: 4/27/2020
Route: NY-Route 1 Bing

Sampled/Relinquished by: <i>Theresa Webster</i>	Date/Time: <i>4-28-2020 1530</i>	Received by: <i>[Signature]</i>
Printed Name: Bethany Robinson <i>Theresa Webster</i>		Printed Name: <i>Kylea Conner</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: 2-7 °C IR Device 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:

ANALYTICAL REPORT

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

Laboratory Job ID: 480-170039-1

Client Project/Site: NYSDEC-Standby VESTAL

For:

ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Mr. Jeremy Wyckoff



Authorized for release by:
5/22/2020 5:08:21 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 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.

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	Surrogate is outside acceptance limits.
J	Indicates an estimated value.
U	Analyzed for but not detected.

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
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
DL C	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Case Narrative

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Job ID: 480-170039-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-170039-1

Receipt

The samples were received on 5/16/2020 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4° C.

GC/MS VOA

Method 8260C: Surrogate recovery for the following sample was outside the upper control limit: 4009- 22 (480-170039-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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 532681. The following samples were affected : WELL 1-2A (480-170039-1), WELL 1-3 (480-170039-2), WELL 1-3 POST (480-170039-3), 4009- 22 (480-170039-4) and TRIP BLANK (480-170039-5).

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

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-170039-1

No Detections.

Client Sample ID: WELL 1-3

Lab Sample ID: 480-170039-2

No Detections.

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-170039-3

No Detections.

Client Sample ID: 4009- 22

Lab Sample ID: 480-170039-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
2-Hexanone	1.5	J	5.0	1.2	ug/L	1			8260C	Total/NA
Benzene	0.97	J	1.0	0.41	ug/L	1			8260C	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-170039-5

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-170039-1

Date Collected: 05/15/20 10:55

Matrix: Water

Date Received: 05/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			05/21/20 00:01	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			05/21/20 00:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/21/20 00:01	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			05/21/20 00:01	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			05/21/20 00:01	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			05/21/20 00:01	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			05/21/20 00:01	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			05/21/20 00:01	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			05/21/20 00:01	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			05/21/20 00:01	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			05/21/20 00:01	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			05/21/20 00:01	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/21/20 00:01	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			05/21/20 00:01	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			05/21/20 00:01	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			05/21/20 00:01	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			05/21/20 00:01	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			05/21/20 00:01	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			05/21/20 00:01	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			05/21/20 00:01	1
Acetone	10	U	10	3.0	ug/L			05/21/20 00:01	1
Benzene	1.0	U	1.0	0.41	ug/L			05/21/20 00:01	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			05/21/20 00:01	1
Bromoform	1.0	U	1.0	0.26	ug/L			05/21/20 00:01	1
Bromomethane	1.0	U	1.0	0.69	ug/L			05/21/20 00:01	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			05/21/20 00:01	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			05/21/20 00:01	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			05/21/20 00:01	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/21/20 00:01	1
Chloroform	1.0	U	1.0	0.34	ug/L			05/21/20 00:01	1
Chloromethane	1.0	U	1.0	0.35	ug/L			05/21/20 00:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			05/21/20 00:01	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			05/21/20 00:01	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			05/21/20 00:01	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			05/21/20 00:01	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			05/21/20 00:01	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			05/21/20 00:01	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			05/21/20 00:01	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			05/21/20 00:01	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			05/21/20 00:01	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			05/21/20 00:01	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			05/21/20 00:01	1
Styrene	1.0	U	1.0	0.73	ug/L			05/21/20 00:01	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			05/21/20 00:01	1
Toluene	1.0	U	1.0	0.51	ug/L			05/21/20 00:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			05/21/20 00:01	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			05/21/20 00:01	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			05/21/20 00:01	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			05/21/20 00:01	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-170039-1

Date Collected: 05/15/20 10:55

Matrix: Water

Date Received: 05/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			05/21/20 00:01	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			05/21/20 00:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	119		77 - 120					05/21/20 00:01	1
4-Bromofluorobenzene (Surr)	97		73 - 120					05/21/20 00:01	1
Dibromofluoromethane (Surr)	111		75 - 123					05/21/20 00:01	1
Toluene-d8 (Surr)	105		80 - 120					05/21/20 00:01	1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-170039-2

Date Collected: 05/15/20 11:00

Matrix: Water

Date Received: 05/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			05/21/20 00:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			05/21/20 00:26	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/21/20 00:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			05/21/20 00:26	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			05/21/20 00:26	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			05/21/20 00:26	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			05/21/20 00:26	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			05/21/20 00:26	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			05/21/20 00:26	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			05/21/20 00:26	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			05/21/20 00:26	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			05/21/20 00:26	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/21/20 00:26	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			05/21/20 00:26	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			05/21/20 00:26	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			05/21/20 00:26	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			05/21/20 00:26	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			05/21/20 00:26	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			05/21/20 00:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			05/21/20 00:26	1
Acetone	10	U	10	3.0	ug/L			05/21/20 00:26	1
Benzene	1.0	U	1.0	0.41	ug/L			05/21/20 00:26	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			05/21/20 00:26	1
Bromoform	1.0	U	1.0	0.26	ug/L			05/21/20 00:26	1
Bromomethane	1.0	U	1.0	0.69	ug/L			05/21/20 00:26	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			05/21/20 00:26	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			05/21/20 00:26	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			05/21/20 00:26	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/21/20 00:26	1
Chloroform	1.0	U	1.0	0.34	ug/L			05/21/20 00:26	1
Chloromethane	1.0	U	1.0	0.35	ug/L			05/21/20 00:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			05/21/20 00:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			05/21/20 00:26	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			05/21/20 00:26	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			05/21/20 00:26	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-170039-2

Date Collected: 05/15/20 11:00

Matrix: Water

Date Received: 05/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			05/21/20 00:26	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			05/21/20 00:26	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			05/21/20 00:26	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			05/21/20 00:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			05/21/20 00:26	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			05/21/20 00:26	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			05/21/20 00:26	1
Styrene	1.0	U	1.0	0.73	ug/L			05/21/20 00:26	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			05/21/20 00:26	1
Toluene	1.0	U	1.0	0.51	ug/L			05/21/20 00:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			05/21/20 00:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			05/21/20 00:26	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			05/21/20 00:26	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			05/21/20 00:26	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			05/21/20 00:26	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			05/21/20 00:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		77 - 120		05/21/20 00:26	1
4-Bromofluorobenzene (Surr)	111		73 - 120		05/21/20 00:26	1
Dibromofluoromethane (Surr)	109		75 - 123		05/21/20 00:26	1
Toluene-d8 (Surr)	111		80 - 120		05/21/20 00:26	1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-170039-3

Date Collected: 05/15/20 11:05

Matrix: Water

Date Received: 05/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			05/21/20 00:51	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			05/21/20 00:51	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/21/20 00:51	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			05/21/20 00:51	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			05/21/20 00:51	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			05/21/20 00:51	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			05/21/20 00:51	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			05/21/20 00:51	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			05/21/20 00:51	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			05/21/20 00:51	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			05/21/20 00:51	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			05/21/20 00:51	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/21/20 00:51	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			05/21/20 00:51	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			05/21/20 00:51	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			05/21/20 00:51	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			05/21/20 00:51	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			05/21/20 00:51	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			05/21/20 00:51	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			05/21/20 00:51	1
Acetone	10	U	10	3.0	ug/L			05/21/20 00:51	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-170039-3

Date Collected: 05/15/20 11:05

Matrix: Water

Date Received: 05/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			05/21/20 00:51	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			05/21/20 00:51	1
Bromoform	1.0	U	1.0	0.26	ug/L			05/21/20 00:51	1
Bromomethane	1.0	U	1.0	0.69	ug/L			05/21/20 00:51	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			05/21/20 00:51	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			05/21/20 00:51	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			05/21/20 00:51	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/21/20 00:51	1
Chloroform	1.0	U	1.0	0.34	ug/L			05/21/20 00:51	1
Chloromethane	1.0	U	1.0	0.35	ug/L			05/21/20 00:51	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			05/21/20 00:51	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			05/21/20 00:51	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			05/21/20 00:51	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			05/21/20 00:51	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			05/21/20 00:51	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			05/21/20 00:51	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			05/21/20 00:51	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			05/21/20 00:51	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			05/21/20 00:51	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			05/21/20 00:51	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			05/21/20 00:51	1
Styrene	1.0	U	1.0	0.73	ug/L			05/21/20 00:51	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			05/21/20 00:51	1
Toluene	1.0	U	1.0	0.51	ug/L			05/21/20 00:51	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			05/21/20 00:51	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			05/21/20 00:51	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			05/21/20 00:51	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			05/21/20 00:51	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			05/21/20 00:51	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			05/21/20 00:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		77 - 120		05/21/20 00:51	1
4-Bromofluorobenzene (Surr)	107		73 - 120		05/21/20 00:51	1
Dibromofluoromethane (Surr)	106		75 - 123		05/21/20 00:51	1
Toluene-d8 (Surr)	109		80 - 120		05/21/20 00:51	1

Client Sample ID: 4009- 22

Lab Sample ID: 480-170039-4

Date Collected: 05/15/20 10:40

Matrix: Water

Date Received: 05/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			05/21/20 01:16	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			05/21/20 01:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/21/20 01:16	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			05/21/20 01:16	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			05/21/20 01:16	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			05/21/20 01:16	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			05/21/20 01:16	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Client Sample ID: 4009- 22

Lab Sample ID: 480-170039-4

Date Collected: 05/15/20 10:40

Matrix: Water

Date Received: 05/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			05/21/20 01:16	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			05/21/20 01:16	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			05/21/20 01:16	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			05/21/20 01:16	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			05/21/20 01:16	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/21/20 01:16	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			05/21/20 01:16	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			05/21/20 01:16	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			05/21/20 01:16	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			05/21/20 01:16	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			05/21/20 01:16	1
2-Hexanone	1.5	J	5.0	1.2	ug/L			05/21/20 01:16	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			05/21/20 01:16	1
Acetone	10	U	10	3.0	ug/L			05/21/20 01:16	1
Benzene	0.97	J	1.0	0.41	ug/L			05/21/20 01:16	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			05/21/20 01:16	1
Bromoform	1.0	U	1.0	0.26	ug/L			05/21/20 01:16	1
Bromomethane	1.0	U	1.0	0.69	ug/L			05/21/20 01:16	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			05/21/20 01:16	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			05/21/20 01:16	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			05/21/20 01:16	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/21/20 01:16	1
Chloroform	1.0	U	1.0	0.34	ug/L			05/21/20 01:16	1
Chloromethane	1.0	U	1.0	0.35	ug/L			05/21/20 01:16	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			05/21/20 01:16	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			05/21/20 01:16	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			05/21/20 01:16	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			05/21/20 01:16	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			05/21/20 01:16	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			05/21/20 01:16	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			05/21/20 01:16	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			05/21/20 01:16	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			05/21/20 01:16	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			05/21/20 01:16	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			05/21/20 01:16	1
Styrene	1.0	U	1.0	0.73	ug/L			05/21/20 01:16	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			05/21/20 01:16	1
Toluene	1.0	U	1.0	0.51	ug/L			05/21/20 01:16	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			05/21/20 01:16	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			05/21/20 01:16	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			05/21/20 01:16	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			05/21/20 01:16	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			05/21/20 01:16	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			05/21/20 01:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	127	*	77 - 120		05/21/20 01:16	1
4-Bromofluorobenzene (Surr)	109		73 - 120		05/21/20 01:16	1
Dibromofluoromethane (Surr)	111		75 - 123		05/21/20 01:16	1
Toluene-d8 (Surr)	109		80 - 120		05/21/20 01:16	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-170039-5

Date Collected: 05/15/20 00:00

Matrix: Water

Date Received: 05/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			05/21/20 01:41	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			05/21/20 01:41	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/21/20 01:41	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			05/21/20 01:41	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			05/21/20 01:41	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			05/21/20 01:41	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			05/21/20 01:41	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			05/21/20 01:41	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			05/21/20 01:41	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			05/21/20 01:41	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			05/21/20 01:41	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			05/21/20 01:41	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/21/20 01:41	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			05/21/20 01:41	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			05/21/20 01:41	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			05/21/20 01:41	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			05/21/20 01:41	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			05/21/20 01:41	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			05/21/20 01:41	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			05/21/20 01:41	1
Acetone	10	U	10	3.0	ug/L			05/21/20 01:41	1
Benzene	1.0	U	1.0	0.41	ug/L			05/21/20 01:41	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			05/21/20 01:41	1
Bromoform	1.0	U	1.0	0.26	ug/L			05/21/20 01:41	1
Bromomethane	1.0	U	1.0	0.69	ug/L			05/21/20 01:41	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			05/21/20 01:41	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			05/21/20 01:41	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			05/21/20 01:41	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/21/20 01:41	1
Chloroform	1.0	U	1.0	0.34	ug/L			05/21/20 01:41	1
Chloromethane	1.0	U	1.0	0.35	ug/L			05/21/20 01:41	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			05/21/20 01:41	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			05/21/20 01:41	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			05/21/20 01:41	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			05/21/20 01:41	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			05/21/20 01:41	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			05/21/20 01:41	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			05/21/20 01:41	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			05/21/20 01:41	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			05/21/20 01:41	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			05/21/20 01:41	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			05/21/20 01:41	1
Styrene	1.0	U	1.0	0.73	ug/L			05/21/20 01:41	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			05/21/20 01:41	1
Toluene	1.0	U	1.0	0.51	ug/L			05/21/20 01:41	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			05/21/20 01:41	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			05/21/20 01:41	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			05/21/20 01:41	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			05/21/20 01:41	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-170039-5

Date Collected: 05/15/20 00:00

Matrix: Water

Date Received: 05/16/20 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			05/21/20 01:41	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			05/21/20 01:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	117		77 - 120					05/21/20 01:41	1
4-Bromofluorobenzene (Surr)	99		73 - 120					05/21/20 01:41	1
Dibromofluoromethane (Surr)	108		75 - 123					05/21/20 01:41	1
Toluene-d8 (Surr)	105		80 - 120					05/21/20 01:41	1

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

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)
480-170039-1	WELL 1-2A	119	97	111	105
480-170039-2	WELL 1-3	118	111	109	111
480-170039-3	WELL 1-3 POST	117	107	106	109
480-170039-4	4009- 22	127 *	109	111	109
480-170039-5	TRIP BLANK	117	99	108	105
LCS 480-532681/6	Lab Control Sample	107	97	97	104
MB 480-532681/8	Method Blank	118	107	111	109

Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

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

Lab Sample ID: MB 480-532681/8

Matrix: Water

Analysis Batch: 532681

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	1.0	U	1.0	0.82	ug/L			05/20/20 23:37	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			05/20/20 23:37	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			05/20/20 23:37	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			05/20/20 23:37	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			05/20/20 23:37	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			05/20/20 23:37	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			05/20/20 23:37	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			05/20/20 23:37	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			05/20/20 23:37	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			05/20/20 23:37	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			05/20/20 23:37	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			05/20/20 23:37	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/20/20 23:37	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			05/20/20 23:37	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			05/20/20 23:37	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			05/20/20 23:37	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			05/20/20 23:37	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			05/20/20 23:37	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			05/20/20 23:37	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			05/20/20 23:37	1
Acetone	10	U	10	3.0	ug/L			05/20/20 23:37	1
Benzene	1.0	U	1.0	0.41	ug/L			05/20/20 23:37	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			05/20/20 23:37	1
Bromoform	1.0	U	1.0	0.26	ug/L			05/20/20 23:37	1
Bromomethane	1.0	U	1.0	0.69	ug/L			05/20/20 23:37	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			05/20/20 23:37	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			05/20/20 23:37	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			05/20/20 23:37	1
Chloroethane	1.0	U	1.0	0.32	ug/L			05/20/20 23:37	1
Chloroform	1.0	U	1.0	0.34	ug/L			05/20/20 23:37	1
Chloromethane	1.0	U	1.0	0.35	ug/L			05/20/20 23:37	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			05/20/20 23:37	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			05/20/20 23:37	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			05/20/20 23:37	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			05/20/20 23:37	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			05/20/20 23:37	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			05/20/20 23:37	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			05/20/20 23:37	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			05/20/20 23:37	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			05/20/20 23:37	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			05/20/20 23:37	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			05/20/20 23:37	1
Styrene	1.0	U	1.0	0.73	ug/L			05/20/20 23:37	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			05/20/20 23:37	1
Toluene	1.0	U	1.0	0.51	ug/L			05/20/20 23:37	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			05/20/20 23:37	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			05/20/20 23:37	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			05/20/20 23:37	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

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

Lab Sample ID: MB 480-532681/8

Matrix: Water

Analysis Batch: 532681

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			05/20/20 23:37	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			05/20/20 23:37	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			05/20/20 23:37	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	118		77 - 120					05/20/20 23:37	1
4-Bromofluorobenzene (Surr)	107		73 - 120					05/20/20 23:37	1
Dibromofluoromethane (Surr)	111		75 - 123					05/20/20 23:37	1
Toluene-d8 (Surr)	109		80 - 120					05/20/20 23:37	1

Lab Sample ID: LCS 480-532681/6

Matrix: Water

Analysis Batch: 532681

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	23.0		ug/L		92	73 - 126
1,1,2,2-Tetrachloroethane	25.0	25.6		ug/L		102	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	23.2		ug/L		93	61 - 148
1,1,2-Trichloroethane	25.0	25.5		ug/L		102	76 - 122
1,1-Dichloroethane	25.0	23.5		ug/L		94	77 - 120
1,1-Dichloroethene	25.0	23.2		ug/L		93	66 - 127
1,2,3-Trimethylbenzene	25.0	26.0		ug/L		104	78 - 120
1,2,4-Trichlorobenzene	25.0	24.4		ug/L		98	79 - 122
1,2,4-Trimethylbenzene	25.0	25.7		ug/L		103	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	25.7		ug/L		103	56 - 134
1,2-Dibromoethane	25.0	26.7		ug/L		107	77 - 120
1,2-Dichlorobenzene	25.0	24.5		ug/L		98	80 - 124
1,2-Dichloroethane	25.0	24.6		ug/L		98	75 - 120
1,2-Dichloropropane	25.0	24.5		ug/L		98	76 - 120
1,3,5-Trimethylbenzene	25.0	25.4		ug/L		102	77 - 121
1,3-Dichlorobenzene	25.0	24.7		ug/L		99	77 - 120
1,4-Dichlorobenzene	25.0	24.7		ug/L		99	80 - 120
2-Butanone (MEK)	125	232	*	ug/L		186	57 - 140
2-Hexanone	125	135		ug/L		108	65 - 127
4-Methyl-2-pentanone (MIBK)	125	130		ug/L		104	71 - 125
Acetone	125	132		ug/L		105	56 - 142
Benzene	25.0	23.0		ug/L		92	71 - 124
Bromodichloromethane	25.0	25.3		ug/L		101	80 - 122
Bromoform	25.0	26.5		ug/L		106	61 - 132
Bromomethane	25.0	24.2		ug/L		97	55 - 144
Carbon disulfide	25.0	21.6		ug/L		86	59 - 134
Carbon tetrachloride	25.0	24.2		ug/L		97	72 - 134
Chlorobenzene	25.0	24.9		ug/L		100	80 - 120
Chloroethane	25.0	25.5		ug/L		102	69 - 136
Chloroform	25.0	22.5		ug/L		90	73 - 127
Chloromethane	25.0	24.3		ug/L		97	68 - 124
cis-1,2-Dichloroethene	25.0	22.6		ug/L		90	74 - 124
cis-1,3-Dichloropropene	25.0	26.4		ug/L		106	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

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

Lab Sample ID: LCS 480-532681/6

Matrix: Water

Analysis Batch: 532681

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	22.2		ug/L		89	59 - 135
Dibromochloromethane	25.0	27.4		ug/L		110	75 - 125
Dichlorodifluoromethane	25.0	24.9		ug/L		100	59 - 135
Ethylbenzene	25.0	24.8		ug/L		99	77 - 123
Isopropylbenzene	25.0	25.2		ug/L		101	77 - 122
Methyl acetate	50.0	46.1		ug/L		92	74 - 133
Methyl tert-butyl ether	25.0	23.1		ug/L		92	77 - 120
Methylcyclohexane	25.0	22.7		ug/L		91	68 - 134
Methylene Chloride	25.0	23.2		ug/L		93	75 - 124
Styrene	25.0	25.6		ug/L		102	80 - 120
Tetrachloroethene	25.0	29.5		ug/L		118	74 - 122
Toluene	25.0	24.9		ug/L		100	80 - 122
trans-1,2-Dichloroethene	25.0	22.8		ug/L		91	73 - 127
trans-1,3-Dichloropropene	25.0	27.6		ug/L		110	80 - 120
Trichloroethene	25.0	24.6		ug/L		98	74 - 123
Trichlorofluoromethane	25.0	25.4		ug/L		101	62 - 150
Vinyl chloride	25.0	25.0		ug/L		100	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		77 - 120
4-Bromofluorobenzene (Surr)	97		73 - 120
Dibromofluoromethane (Surr)	97		75 - 123
Toluene-d8 (Surr)	104		80 - 120

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

GC/MS VOA

Analysis Batch: 532681

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170039-1	WELL 1-2A	Total/NA	Water	8260C	
480-170039-2	WELL 1-3	Total/NA	Water	8260C	
480-170039-3	WELL 1-3 POST	Total/NA	Water	8260C	
480-170039-4	4009- 22	Total/NA	Water	8260C	
480-170039-5	TRIP BLANK	Total/NA	Water	8260C	
MB 480-532681/8	Method Blank	Total/NA	Water	8260C	
LCS 480-532681/6	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-170039-1

Date Collected: 05/15/20 10:55

Matrix: Water

Date Received: 05/16/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	532681	05/21/20 00:01	CRL	TAL BUF

Client Sample ID: WELL 1-3

Lab Sample ID: 480-170039-2

Date Collected: 05/15/20 11:00

Matrix: Water

Date Received: 05/16/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	532681	05/21/20 00:26	CRL	TAL BUF

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-170039-3

Date Collected: 05/15/20 11:05

Matrix: Water

Date Received: 05/16/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	532681	05/21/20 00:51	CRL	TAL BUF

Client Sample ID: 4009- 22

Lab Sample ID: 480-170039-4

Date Collected: 05/15/20 10:40

Matrix: Water

Date Received: 05/16/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	532681	05/21/20 01:16	CRL	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-170039-5

Date Collected: 05/15/20 00:00

Matrix: Water

Date Received: 05/16/20 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	532681	05/21/20 01:41	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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

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	04-02-21

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170039-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-170039-1	WELL 1-2A	Water	05/15/20 10:55	05/16/20 08:00	
480-170039-2	WELL 1-3	Water	05/15/20 11:00	05/16/20 08:00	
480-170039-3	WELL 1-3 POST	Water	05/15/20 11:05	05/16/20 08:00	
480-170039-4	4009- 22	Water	05/15/20 10:40	05/16/20 08:00	
480-170039-5	TRIP BLANK	Water	05/15/20 00:00	05/16/20 08:00	

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-170039-1

Login Number: 170039

List Source: Eurofins TestAmerica, Buffalo

List Number: 1

Creator: Yeager, Brian A

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.4 #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	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	



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0E1538

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: 05/29/2020
Reported: 06/09/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0E1538-01

Collected By: Thomas Webster
Collection Date: 05/29/2020 9:35

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			06/05/20 1623	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Bromodichloromethane	<0.50		0.50	ug/L			06/05/20 1623	RSD
Bromoform	<0.50		0.50	ug/L			06/05/20 1623	RSD
Bromomethane	<0.50		0.50	ug/L			06/05/20 1623	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Chloroform	<0.50		0.50	ug/L			06/05/20 1623	RSD
Chloromethane	<0.50		0.50	ug/L			06/05/20 1623	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Dibromochloromethane	<0.50		0.50	ug/L			06/05/20 1623	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0E1538

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0E1538-01

Collected By: Thomas Webster
Collection Date: 05/29/2020 9:35

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			06/05/20 1623	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1623	RSD
Surrogate: 4-Bromofluorobenzene	94.8	Limit: 70-130		% Rec			06/05/20 1623	RSD
Surrogate: 1,2-Dichlorobenzene-d4	85.6	Limit: 70-130		% Rec			06/05/20 1623	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0E1538

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0E1538-02

Collected By: Thomas Webster
Collection Date: 05/29/2020 9:40

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			06/05/20 1649	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Bromodichloromethane	<0.50		0.50	ug/L			06/05/20 1649	RSD
Bromoform	<0.50		0.50	ug/L			06/05/20 1649	RSD
Bromomethane	<0.50		0.50	ug/L			06/05/20 1649	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Chloroform	<0.50		0.50	ug/L			06/05/20 1649	RSD
Chloromethane	<0.50		0.50	ug/L			06/05/20 1649	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Dibromochloromethane	<0.50		0.50	ug/L			06/05/20 1649	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0E1538

Client Sample ID: 1-2A Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0E1538-02

Collected By: Thomas Webster
Collection Date: 05/29/2020 9:40

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			06/05/20 1649	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			06/05/20 1649	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1649	RSD
Surrogate: 4-Bromofluorobenzene	88.4	Limit: 70-130		% Rec			06/05/20 1649	RSD
Surrogate: 1,2-Dichlorobenzene-d4	86.4	Limit: 70-130		% Rec			06/05/20 1649	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0E1538

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0E1538-03

Collected By: Thomas Webster
Collection Date: 05/29/2020 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			06/05/20 1714	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Bromodichloromethane	<0.50		0.50	ug/L			06/05/20 1714	RSD
Bromoform	<0.50		0.50	ug/L			06/05/20 1714	RSD
Bromomethane	<0.50		0.50	ug/L			06/05/20 1714	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Chloroform	<0.50		0.50	ug/L			06/05/20 1714	RSD
Chloromethane	<0.50		0.50	ug/L			06/05/20 1714	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Dibromochloromethane	<0.50		0.50	ug/L			06/05/20 1714	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD

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Page 5 of 17



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0E1538

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0E1538-03

Collected By: Thomas Webster
Collection Date: 05/29/2020 9:45

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			06/05/20 1714	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			06/05/20 1714	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1714	RSD
Surrogate: 4-Bromofluorobenzene	92.0	Limit: 70-130		% Rec			06/05/20 1714	RSD
Surrogate: 1,2-Dichlorobenzene-d4	86.2	Limit: 70-130		% Rec			06/05/20 1714	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0E1538

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0E1538-04

Collected By: Thomas Webster
Collection Date: 05/29/2020 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			06/05/20 1740	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Bromodichloromethane	<0.50		0.50	ug/L			06/05/20 1740	RSD
Bromoform	<0.50		0.50	ug/L			06/05/20 1740	RSD
Bromomethane	<0.50		0.50	ug/L			06/05/20 1740	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Chloroform	<0.50		0.50	ug/L			06/05/20 1740	RSD
Chloromethane	<0.50		0.50	ug/L			06/05/20 1740	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Dibromochloromethane	<0.50		0.50	ug/L			06/05/20 1740	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0E1538

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0E1538-04

Collected By: Thomas Webster
Collection Date: 05/29/2020 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			06/05/20 1740	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			06/05/20 1740	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1740	RSD
Surrogate: 4-Bromofluorobenzene	92.4	Limit: 70-130		% Rec			06/05/20 1740	RSD
Surrogate: 1,2-Dichlorobenzene-d4	84.0	Limit: 70-130		% Rec			06/05/20 1740	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0E1538

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0E1538-07

Collected By: Thomas Webster
Collection Date: 05/29/2020 8:00

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			06/05/20 1857	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Bromodichloromethane	<0.50		0.50	ug/L			06/05/20 1857	RSD
Bromoform	<0.50		0.50	ug/L			06/05/20 1857	RSD
Bromomethane	<0.50		0.50	ug/L			06/05/20 1857	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Chloroform	<0.50		0.50	ug/L			06/05/20 1857	RSD
Chloromethane	<0.50		0.50	ug/L			06/05/20 1857	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Dibromochloromethane	<0.50		0.50	ug/L			06/05/20 1857	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0E1538

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0E1538-07

Collected By: Thomas Webster
Collection Date: 05/29/2020 8:00

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			06/05/20 1857	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			06/05/20 1857	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			06/05/20 1857	RSD
Surrogate: 4-Bromofluorobenzene	89.4	Limit: 70-130		% Rec			06/05/20 1857	RSD
Surrogate: 1,2-Dichlorobenzene-d4	85.0	Limit: 70-130		% Rec			06/05/20 1857	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: 06/09/2020 19:36

Microbac Laboratories, Inc.

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Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0E1538

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: 5/12/2020
Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J0E1538-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 5-29-2020 / 935

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: J0E1538-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 5-29-2020 / 940

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: J0E1538-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 5-29-2020 / 945

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: J0E1538-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 5-29-2020 / 950



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0E1538

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: 5/12/2020
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: J0E1538-05

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 5/29/2020 / 1017

<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: J0E1538-06

Matrix: Drinking Water
Type: Grab

Sampled Date & Time: 5/29/2020 / 1022

<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: J0E1538-07

Matrix: Drinking Water
Type: Trip Blank

Sampled Date & Time: 5-29-2020 / 800

<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



J0E1538

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: 5/12/2020
Route: NY-Route 1 Bing

Sampled/Relinquished by: <i>Thom</i>	Date/Time: <i>5-29-2020</i>	Received by: <i>OK</i>
Printed Name: <i>Bethany Robinson</i>	<i>1635</i>	Printed Name: <i>Cayla Conway</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: ☒ / No Temp: 4.7 °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:

ANALYTICAL REPORT

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

Laboratory Job ID: 480-170922-1

Client Project/Site: NYSDEC-Standby VESTAL

For:

ARCADIS U.S. Inc
855 Route 146
Suite 210
Clifton Park, New York 12065

Attn: Mr. Jeremy Wyckoff



Authorized for release by:
6/17/2020 5:06:03 PM

Judy Stone, Senior Project Manager
(484)685-0868
judy.stone@testamericainc.com

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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.

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Definitions/Glossary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
U	Analyzed for but not detected.

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Job ID: 480-170922-1

Laboratory: Eurofins TestAmerica, Buffalo

Narrative

Job Narrative 480-170922-1

Receipt

The samples were received on 6/9/2020 10:00 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.1° C.

GC/MS VOA

Method 8260C: The continuing calibration verification (CCV) associated with batch 480-536186 recovered above the upper control limit for Cyclohexane, Vinyl chloride, and Chloromethane. 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 (480-170922-1), WELL 1-3 (480-170922-2), WELL 1-3 POST (480-170922-3) and TRIP BLANK (480-170922-4).

Method 8260C: The laboratory control sample (LCS) for analytical batch 480-536186 recovered outside control limits for the following analyte: Chloromethane. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

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 480-536186. The following samples were affected : WELL 1-2A (480-170922-1), WELL 1-3 (480-170922-2), WELL 1-3 POST (480-170922-3) and TRIP BLANK (480-170922-4).

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

Detection Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-170922-1

No Detections.

Client Sample ID: WELL 1-3

Lab Sample ID: 480-170922-2

No Detections.

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-170922-3

No Detections.

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-170922-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-170922-1

Date Collected: 06/08/20 08:20

Matrix: Water

Date Received: 06/09/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			06/15/20 09:38	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			06/15/20 09:38	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			06/15/20 09:38	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			06/15/20 09:38	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			06/15/20 09:38	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			06/15/20 09:38	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			06/15/20 09:38	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			06/15/20 09:38	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			06/15/20 09:38	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			06/15/20 09:38	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			06/15/20 09:38	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			06/15/20 09:38	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/15/20 09:38	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			06/15/20 09:38	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			06/15/20 09:38	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			06/15/20 09:38	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			06/15/20 09:38	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			06/15/20 09:38	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			06/15/20 09:38	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			06/15/20 09:38	1
Acetone	10	U	10	3.0	ug/L			06/15/20 09:38	1
Benzene	1.0	U	1.0	0.41	ug/L			06/15/20 09:38	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			06/15/20 09:38	1
Bromoform	1.0	U	1.0	0.26	ug/L			06/15/20 09:38	1
Bromomethane	1.0	U	1.0	0.69	ug/L			06/15/20 09:38	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			06/15/20 09:38	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			06/15/20 09:38	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			06/15/20 09:38	1
Chloroethane	1.0	U	1.0	0.32	ug/L			06/15/20 09:38	1
Chloroform	1.0	U	1.0	0.34	ug/L			06/15/20 09:38	1
Chloromethane	1.0	U *	1.0	0.35	ug/L			06/15/20 09:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			06/15/20 09:38	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			06/15/20 09:38	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			06/15/20 09:38	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			06/15/20 09:38	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			06/15/20 09:38	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			06/15/20 09:38	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			06/15/20 09:38	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			06/15/20 09:38	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			06/15/20 09:38	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			06/15/20 09:38	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			06/15/20 09:38	1
Styrene	1.0	U	1.0	0.73	ug/L			06/15/20 09:38	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			06/15/20 09:38	1
Toluene	1.0	U	1.0	0.51	ug/L			06/15/20 09:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			06/15/20 09:38	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			06/15/20 09:38	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			06/15/20 09:38	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			06/15/20 09:38	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-170922-1

Date Collected: 06/08/20 08:20

Matrix: Water

Date Received: 06/09/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	1.0	U	1.0	0.90	ug/L			06/15/20 09:38	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			06/15/20 09:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	90		77 - 120					06/15/20 09:38	1
4-Bromofluorobenzene (Surr)	99		73 - 120					06/15/20 09:38	1
Dibromofluoromethane (Surr)	99		75 - 123					06/15/20 09:38	1
Toluene-d8 (Surr)	96		80 - 120					06/15/20 09:38	1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-170922-2

Date Collected: 06/08/20 08:25

Matrix: Water

Date Received: 06/09/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			06/15/20 10:01	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			06/15/20 10:01	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			06/15/20 10:01	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			06/15/20 10:01	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			06/15/20 10:01	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			06/15/20 10:01	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			06/15/20 10:01	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			06/15/20 10:01	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			06/15/20 10:01	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			06/15/20 10:01	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			06/15/20 10:01	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			06/15/20 10:01	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/15/20 10:01	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			06/15/20 10:01	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			06/15/20 10:01	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			06/15/20 10:01	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			06/15/20 10:01	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			06/15/20 10:01	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			06/15/20 10:01	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			06/15/20 10:01	1
Acetone	10	U	10	3.0	ug/L			06/15/20 10:01	1
Benzene	1.0	U	1.0	0.41	ug/L			06/15/20 10:01	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			06/15/20 10:01	1
Bromoform	1.0	U	1.0	0.26	ug/L			06/15/20 10:01	1
Bromomethane	1.0	U	1.0	0.69	ug/L			06/15/20 10:01	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			06/15/20 10:01	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			06/15/20 10:01	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			06/15/20 10:01	1
Chloroethane	1.0	U	1.0	0.32	ug/L			06/15/20 10:01	1
Chloroform	1.0	U	1.0	0.34	ug/L			06/15/20 10:01	1
Chloromethane	1.0	U *	1.0	0.35	ug/L			06/15/20 10:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			06/15/20 10:01	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			06/15/20 10:01	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			06/15/20 10:01	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			06/15/20 10:01	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Client Sample ID: WELL 1-3

Lab Sample ID: 480-170922-2

Date Collected: 06/08/20 08:25

Matrix: Water

Date Received: 06/09/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			06/15/20 10:01	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			06/15/20 10:01	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			06/15/20 10:01	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			06/15/20 10:01	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			06/15/20 10:01	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			06/15/20 10:01	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			06/15/20 10:01	1
Styrene	1.0	U	1.0	0.73	ug/L			06/15/20 10:01	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			06/15/20 10:01	1
Toluene	1.0	U	1.0	0.51	ug/L			06/15/20 10:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			06/15/20 10:01	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			06/15/20 10:01	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			06/15/20 10:01	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			06/15/20 10:01	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			06/15/20 10:01	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			06/15/20 10:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		77 - 120		06/15/20 10:01	1
4-Bromofluorobenzene (Surr)	104		73 - 120		06/15/20 10:01	1
Dibromofluoromethane (Surr)	100		75 - 123		06/15/20 10:01	1
Toluene-d8 (Surr)	98		80 - 120		06/15/20 10:01	1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-170922-3

Date Collected: 06/08/20 08:30

Matrix: Water

Date Received: 06/09/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			06/15/20 10:24	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			06/15/20 10:24	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			06/15/20 10:24	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			06/15/20 10:24	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			06/15/20 10:24	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			06/15/20 10:24	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			06/15/20 10:24	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			06/15/20 10:24	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			06/15/20 10:24	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			06/15/20 10:24	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			06/15/20 10:24	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			06/15/20 10:24	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/15/20 10:24	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			06/15/20 10:24	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			06/15/20 10:24	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			06/15/20 10:24	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			06/15/20 10:24	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			06/15/20 10:24	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			06/15/20 10:24	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			06/15/20 10:24	1
Acetone	10	U	10	3.0	ug/L			06/15/20 10:24	1

Eurofins TestAmerica, Buffalo



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0F1599

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: 06/26/2020
Reported: 07/08/2020

Analytical Testing Parameters

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0F1599-01

Collected By: Michael Emm
Collection Date: 06/26/2020 12:50

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			07/06/20 2016	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Bromodichloromethane	<0.50		0.50	ug/L			07/06/20 2016	RSD
Bromoform	<0.50		0.50	ug/L			07/06/20 2016	RSD
Bromomethane	<0.50		0.50	ug/L			07/06/20 2016	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Chloroform	<0.50		0.50	ug/L			07/06/20 2016	RSD
Chloromethane	<0.50		0.50	ug/L			07/06/20 2016	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Dibromochloromethane	<0.50		0.50	ug/L			07/06/20 2016	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0F1599

Client Sample ID: 1-2A Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0F1599-01

Collected By: Michael Emm
Collection Date: 06/26/2020 12:50

Volatile Organic Compounds by GCMS	Result	Limit(s)	RL	Units	Note	Prepared	Analyzed	Analyst
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,1,1,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			07/06/20 2016	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2016	RSD
Surrogate: 4-Bromofluorobenzene	103	Limit: 70-130		% Rec			07/06/20 2016	RSD
Surrogate: 1,2-Dichlorobenzene-d4	95.4	Limit: 70-130		% Rec			07/06/20 2016	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0F1599

Client Sample ID: 1-2A Finished

Sample Matrix: Drinking Water

Lab Sample ID: J0F1599-02

Collected By: Michael Emm

Collection Date: 06/26/2020 12:55

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			07/06/20 2041	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Bromodichloromethane	<0.50		0.50	ug/L			07/06/20 2041	RSD
Bromoform	<0.50		0.50	ug/L			07/06/20 2041	RSD
Bromomethane	<0.50		0.50	ug/L			07/06/20 2041	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Chloroform	<0.50		0.50	ug/L			07/06/20 2041	RSD
Chloromethane	<0.50		0.50	ug/L			07/06/20 2041	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Dibromochloromethane	<0.50		0.50	ug/L			07/06/20 2041	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD

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Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0F1599

Client Sample ID: 1-2A Finished

Sample Matrix: Drinking Water

Lab Sample ID: J0F1599-02

Collected By: Michael Emm

Collection Date: 06/26/2020 12:55

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			07/06/20 2041	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			07/06/20 2041	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2041	RSD
Surrogate: 4-Bromofluorobenzene	101	Limit: 70-130		% Rec			07/06/20 2041	RSD
Surrogate: 1,2-Dichlorobenzene-d4	96.6	Limit: 70-130		% Rec			07/06/20 2041	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0F1599

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0F1599-03

Collected By: Michael Emm
Collection Date: 06/26/2020 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			07/06/20 2107	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Bromodichloromethane	<0.50		0.50	ug/L			07/06/20 2107	RSD
Bromoform	<0.50		0.50	ug/L			07/06/20 2107	RSD
Bromomethane	<0.50		0.50	ug/L			07/06/20 2107	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Chloroform	<0.50		0.50	ug/L			07/06/20 2107	RSD
Chloromethane	<0.50		0.50	ug/L			07/06/20 2107	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Dibromochloromethane	<0.50		0.50	ug/L			07/06/20 2107	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0F1599

Client Sample ID: 1-3 Raw
Sample Matrix: Drinking Water
Lab Sample ID: J0F1599-03

Collected By: Michael Emm
Collection Date: 06/26/2020 13:00

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			07/06/20 2107	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			07/06/20 2107	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			07/06/20 2107	RSD
Surrogate: 4-Bromofluorobenzene	103	Limit: 70-130		% Rec			07/06/20 2107	RSD
Surrogate: 1,2-Dichlorobenzene-d4	92.2	Limit: 70-130		% Rec			07/06/20 2107	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0F1599

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0F1599-04

Collected By: Michael Emm
Collection Date: 06/26/2020 13:05

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			07/07/20 1437	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Bromodichloromethane	<0.50		0.50	ug/L			07/07/20 1437	RSD
Bromoform	<0.50		0.50	ug/L			07/07/20 1437	RSD
Bromomethane	<0.50		0.50	ug/L			07/07/20 1437	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Chloroform	<0.50		0.50	ug/L			07/07/20 1437	RSD
Chloromethane	<0.50		0.50	ug/L			07/07/20 1437	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Dibromochloromethane	<0.50		0.50	ug/L			07/07/20 1437	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0F1599

Client Sample ID: 1-3 Finished
Sample Matrix: Drinking Water
Lab Sample ID: J0F1599-04

Collected By: Michael Emm
Collection Date: 06/26/2020 13:05

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			07/07/20 1437	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			07/07/20 1437	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1437	RSD
Surrogate: 4-Bromofluorobenzene	101	Limit: 70-130		% Rec			07/07/20 1437	RSD
Surrogate: 1,2-Dichlorobenzene-d4	96.6	Limit: 70-130		% Rec			07/07/20 1437	RSD



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0F1599

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0F1599-07

Collected By: Michael Emm
Collection Date: 06/26/2020 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			07/07/20 1554	RSD
Bromobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Bromochloromethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Bromodichloromethane	<0.50		0.50	ug/L			07/07/20 1554	RSD
Bromoform	<0.50		0.50	ug/L			07/07/20 1554	RSD
Bromomethane	<0.50		0.50	ug/L			07/07/20 1554	RSD
tert-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
sec-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
n-Butylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Carbon tetrachloride	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Chlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Chloroethane (Ethyl chloride)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Chloroform	<0.50		0.50	ug/L			07/07/20 1554	RSD
Chloromethane	<0.50		0.50	ug/L			07/07/20 1554	RSD
2-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
4-Chlorotoluene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Dibromochloromethane	<0.50		0.50	ug/L			07/07/20 1554	RSD
Dibromomethane (Methylene bromide)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,4-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,2-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,3-Dichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Dichlorodifluoromethane (Freon-12)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,2-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,1-Dichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
trans-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
cis-1,2-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,1-Dichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,3-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
2,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,2-Dichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,1-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
trans-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
cis-1,3-Dichloropropene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Ethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Hexachlorobutadiene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Isopropylbenzene (Cumene)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
4-Isopropyltoluene (p-Isopropyltoluene)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Methyl tert-butyl ether (MTBE)	<0.50	10 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Methylene chloride (Dichloromethane)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Naphthalene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
n-Propylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Styrene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD

Microbac Laboratories, Inc.



Microbac Laboratories, Inc., New York Division

CERTIFICATE OF ANALYSIS

J0F1599

Client Sample ID: Trip Blank
Sample Matrix: Drinking Water
Lab Sample ID: J0F1599-07

Collected By: Michael Emm
Collection Date: 06/26/2020 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			07/07/20 1554	RSD
1,1,2,2-Tetrachloroethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Tetrachloroethene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Toluene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,2,4-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,2,3-Trichlorobenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,1,1-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,1,2-Trichloroethane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Trichloroethene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Trichlorofluoromethane (Freon 11)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,2,3-Trichloropropane	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,2,4-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
1,3,5-Trimethylbenzene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Vinyl chloride	<0.50	2 NYVOA	0.50	ug/L			07/07/20 1554	RSD
m,p-Xylene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
o-Xylene	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Xylenes (total)	<0.50	5 NYVOA	0.50	ug/L			07/07/20 1554	RSD
Surrogate: 4-Bromofluorobenzene	102	Limit: 70-130		% Rec			07/07/20 1554	RSD
Surrogate: 1,2-Dichlorobenzene-d4	99.2	Limit: 70-130		% Rec			07/07/20 1554	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: 07/08/2020 19:18

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



J0F1599

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: 6/9/2020

Route: NY-Route 1 Bing

Client Sample ID: 1-2A Raw

Lab Sample ID: J0F1599-01

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 06/26/2020 12:50

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-HCL

A

40ml-Vial-HCL

B

Client Sample ID: 1-2A Finished

Lab Sample ID: J0F1599-02

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 6/26/2020 12:55

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-Ascorbic, HCL

A

40ml-Vial-Ascorbic, HCL

B

Client Sample ID: 1-3 Raw

Lab Sample ID: J0F1599-03

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 6/26/2020 13:00

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: J0F1599-04

Matrix: Drinking Water

Type: Grab

Sampled Date & Time: 6/26/2020 13:05



Chain of Custody

Microbac Laboratories, Inc., New York Division

Lab Manager: Renee Lantz



J0F1599

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: 6/9/2020
Route: NY-Route 1 Bing

Sampled/Relinquished by: <u>Michael Emm</u>	Date/Time: <u>6-26-2020</u> <u>16:15</u>	Received by: <u>[Signature]</u>
Printed Name: <u>Bethany Robinson</u> <u>Michael Emm</u>		Printed Name: <u>Kayla Conway</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: 3.6 °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:

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-170922-3

Date Collected: 06/08/20 08:30

Matrix: Water

Date Received: 06/09/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1.0	U	1.0	0.41	ug/L			06/15/20 10:24	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			06/15/20 10:24	1
Bromoform	1.0	U	1.0	0.26	ug/L			06/15/20 10:24	1
Bromomethane	1.0	U	1.0	0.69	ug/L			06/15/20 10:24	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			06/15/20 10:24	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			06/15/20 10:24	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			06/15/20 10:24	1
Chloroethane	1.0	U	1.0	0.32	ug/L			06/15/20 10:24	1
Chloroform	1.0	U	1.0	0.34	ug/L			06/15/20 10:24	1
Chloromethane	1.0	U *	1.0	0.35	ug/L			06/15/20 10:24	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			06/15/20 10:24	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			06/15/20 10:24	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			06/15/20 10:24	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			06/15/20 10:24	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			06/15/20 10:24	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			06/15/20 10:24	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			06/15/20 10:24	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			06/15/20 10:24	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			06/15/20 10:24	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			06/15/20 10:24	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			06/15/20 10:24	1
Styrene	1.0	U	1.0	0.73	ug/L			06/15/20 10:24	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			06/15/20 10:24	1
Toluene	1.0	U	1.0	0.51	ug/L			06/15/20 10:24	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			06/15/20 10:24	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			06/15/20 10:24	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			06/15/20 10:24	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			06/15/20 10:24	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			06/15/20 10:24	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			06/15/20 10:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	88		77 - 120		06/15/20 10:24	1
4-Bromofluorobenzene (Surr)	102		73 - 120		06/15/20 10:24	1
Dibromofluoromethane (Surr)	98		75 - 123		06/15/20 10:24	1
Toluene-d8 (Surr)	95		80 - 120		06/15/20 10:24	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-170922-4

Date Collected: 06/08/20 00:00

Matrix: Water

Date Received: 06/09/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.0	U	1.0	0.82	ug/L			06/15/20 10:47	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			06/15/20 10:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			06/15/20 10:47	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			06/15/20 10:47	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			06/15/20 10:47	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			06/15/20 10:47	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			06/15/20 10:47	1

Eurofins TestAmerica, Buffalo

Client Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-170922-4

Date Collected: 06/08/20 00:00

Matrix: Water

Date Received: 06/09/20 10:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			06/15/20 10:47	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			06/15/20 10:47	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			06/15/20 10:47	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			06/15/20 10:47	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			06/15/20 10:47	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/15/20 10:47	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			06/15/20 10:47	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			06/15/20 10:47	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			06/15/20 10:47	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			06/15/20 10:47	1
2-Butanone (MEK)	10	U *	10	1.3	ug/L			06/15/20 10:47	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			06/15/20 10:47	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			06/15/20 10:47	1
Acetone	10	U	10	3.0	ug/L			06/15/20 10:47	1
Benzene	1.0	U	1.0	0.41	ug/L			06/15/20 10:47	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			06/15/20 10:47	1
Bromoform	1.0	U	1.0	0.26	ug/L			06/15/20 10:47	1
Bromomethane	1.0	U	1.0	0.69	ug/L			06/15/20 10:47	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			06/15/20 10:47	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			06/15/20 10:47	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			06/15/20 10:47	1
Chloroethane	1.0	U	1.0	0.32	ug/L			06/15/20 10:47	1
Chloroform	1.0	U	1.0	0.34	ug/L			06/15/20 10:47	1
Chloromethane	1.0	U *	1.0	0.35	ug/L			06/15/20 10:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			06/15/20 10:47	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			06/15/20 10:47	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			06/15/20 10:47	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			06/15/20 10:47	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			06/15/20 10:47	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			06/15/20 10:47	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			06/15/20 10:47	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			06/15/20 10:47	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			06/15/20 10:47	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			06/15/20 10:47	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			06/15/20 10:47	1
Styrene	1.0	U	1.0	0.73	ug/L			06/15/20 10:47	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			06/15/20 10:47	1
Toluene	1.0	U	1.0	0.51	ug/L			06/15/20 10:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			06/15/20 10:47	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			06/15/20 10:47	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			06/15/20 10:47	1
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			06/15/20 10:47	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			06/15/20 10:47	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			06/15/20 10:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		77 - 120		06/15/20 10:47	1
4-Bromofluorobenzene (Surr)	105		73 - 120		06/15/20 10:47	1
Dibromofluoromethane (Surr)	98		75 - 123		06/15/20 10:47	1
Toluene-d8 (Surr)	99		80 - 120		06/15/20 10:47	1

Eurofins TestAmerica, Buffalo

Surrogate Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

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)
480-170922-1	WELL 1-2A	90	99	99	96
480-170922-2	WELL 1-3	89	104	100	98
480-170922-3	WELL 1-3 POST	88	102	98	95
480-170922-4	TRIP BLANK	91	105	98	99
LCS 480-536186/5	Lab Control Sample	99	99	96	93
MB 480-536186/7	Method Blank	89	100	96	91

Surrogate Legend

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

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

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

Lab Sample ID: MB 480-536186/7

Matrix: Water

Analysis Batch: 536186

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	1.0	U	1.0	0.82	ug/L			06/15/20 09:06	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.21	ug/L			06/15/20 09:06	1
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U	1.0	0.31	ug/L			06/15/20 09:06	1
1,1,2-Trichloroethane	1.0	U	1.0	0.23	ug/L			06/15/20 09:06	1
1,1-Dichloroethane	1.0	U	1.0	0.38	ug/L			06/15/20 09:06	1
1,1-Dichloroethene	1.0	U	1.0	0.29	ug/L			06/15/20 09:06	1
1,2,3-Trimethylbenzene	1.0	U	1.0	0.26	ug/L			06/15/20 09:06	1
1,2,4-Trichlorobenzene	1.0	U	1.0	0.41	ug/L			06/15/20 09:06	1
1,2,4-Trimethylbenzene	1.0	U	1.0	0.75	ug/L			06/15/20 09:06	1
1,2-Dibromo-3-Chloropropane	1.0	U	1.0	0.39	ug/L			06/15/20 09:06	1
1,2-Dibromoethane	1.0	U	1.0	0.73	ug/L			06/15/20 09:06	1
1,2-Dichlorobenzene	1.0	U	1.0	0.79	ug/L			06/15/20 09:06	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/15/20 09:06	1
1,2-Dichloropropane	1.0	U	1.0	0.72	ug/L			06/15/20 09:06	1
1,3,5-Trimethylbenzene	1.0	U	1.0	0.77	ug/L			06/15/20 09:06	1
1,3-Dichlorobenzene	1.0	U	1.0	0.78	ug/L			06/15/20 09:06	1
1,4-Dichlorobenzene	1.0	U	1.0	0.84	ug/L			06/15/20 09:06	1
2-Butanone (MEK)	10	U	10	1.3	ug/L			06/15/20 09:06	1
2-Hexanone	5.0	U	5.0	1.2	ug/L			06/15/20 09:06	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	2.1	ug/L			06/15/20 09:06	1
Acetone	10	U	10	3.0	ug/L			06/15/20 09:06	1
Benzene	1.0	U	1.0	0.41	ug/L			06/15/20 09:06	1
Bromodichloromethane	1.0	U	1.0	0.39	ug/L			06/15/20 09:06	1
Bromoform	1.0	U	1.0	0.26	ug/L			06/15/20 09:06	1
Bromomethane	1.0	U	1.0	0.69	ug/L			06/15/20 09:06	1
Carbon disulfide	1.0	U	1.0	0.19	ug/L			06/15/20 09:06	1
Carbon tetrachloride	1.0	U	1.0	0.27	ug/L			06/15/20 09:06	1
Chlorobenzene	1.0	U	1.0	0.75	ug/L			06/15/20 09:06	1
Chloroethane	1.0	U	1.0	0.32	ug/L			06/15/20 09:06	1
Chloroform	1.0	U	1.0	0.34	ug/L			06/15/20 09:06	1
Chloromethane	1.0	U	1.0	0.35	ug/L			06/15/20 09:06	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.81	ug/L			06/15/20 09:06	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.36	ug/L			06/15/20 09:06	1
Cyclohexane	1.0	U	1.0	0.18	ug/L			06/15/20 09:06	1
Dibromochloromethane	1.0	U	1.0	0.32	ug/L			06/15/20 09:06	1
Dichlorodifluoromethane	1.0	U	1.0	0.68	ug/L			06/15/20 09:06	1
Ethylbenzene	1.0	U	1.0	0.74	ug/L			06/15/20 09:06	1
Isopropylbenzene	1.0	U	1.0	0.79	ug/L			06/15/20 09:06	1
Methyl acetate	2.5	U	2.5	1.3	ug/L			06/15/20 09:06	1
Methyl tert-butyl ether	1.0	U	1.0	0.16	ug/L			06/15/20 09:06	1
Methylcyclohexane	1.0	U	1.0	0.16	ug/L			06/15/20 09:06	1
Methylene Chloride	1.0	U	1.0	0.44	ug/L			06/15/20 09:06	1
Styrene	1.0	U	1.0	0.73	ug/L			06/15/20 09:06	1
Tetrachloroethene	1.0	U	1.0	0.36	ug/L			06/15/20 09:06	1
Toluene	1.0	U	1.0	0.51	ug/L			06/15/20 09:06	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.90	ug/L			06/15/20 09:06	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.37	ug/L			06/15/20 09:06	1
Trichloroethene	1.0	U	1.0	0.46	ug/L			06/15/20 09:06	1

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

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

Lab Sample ID: MB 480-536186/7

Matrix: Water

Analysis Batch: 536186

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	1.0	U	1.0	0.88	ug/L			06/15/20 09:06	1
Vinyl chloride	1.0	U	1.0	0.90	ug/L			06/15/20 09:06	1
Xylenes, Total	2.0	U	2.0	0.66	ug/L			06/15/20 09:06	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		77 - 120					06/15/20 09:06	1
4-Bromofluorobenzene (Surr)	100		73 - 120					06/15/20 09:06	1
Dibromofluoromethane (Surr)	96		75 - 123					06/15/20 09:06	1
Toluene-d8 (Surr)	91		80 - 120					06/15/20 09:06	1

Lab Sample ID: LCS 480-536186/5

Matrix: Water

Analysis Batch: 536186

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	24.9		ug/L		99	73 - 126
1,1,2,2-Tetrachloroethane	25.0	23.3		ug/L		93	76 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	28.9		ug/L		115	61 - 148
1,1,2-Trichloroethane	25.0	24.2		ug/L		97	76 - 122
1,1-Dichloroethane	25.0	27.2		ug/L		109	77 - 120
1,1-Dichloroethene	25.0	28.7		ug/L		115	66 - 127
1,2,3-Trimethylbenzene	25.0	25.7		ug/L		103	78 - 120
1,2,4-Trichlorobenzene	25.0	29.5		ug/L		118	79 - 122
1,2,4-Trimethylbenzene	25.0	25.8		ug/L		103	76 - 121
1,2-Dibromo-3-Chloropropane	25.0	23.9		ug/L		96	56 - 134
1,2-Dibromoethane	25.0	24.8		ug/L		99	77 - 120
1,2-Dichlorobenzene	25.0	25.3		ug/L		101	80 - 124
1,2-Dichloroethane	25.0	21.9		ug/L		88	75 - 120
1,2-Dichloropropane	25.0	28.0		ug/L		112	76 - 120
1,3,5-Trimethylbenzene	25.0	25.0		ug/L		100	77 - 121
1,3-Dichlorobenzene	25.0	25.3		ug/L		101	77 - 120
1,4-Dichlorobenzene	25.0	24.4		ug/L		98	80 - 120
2-Butanone (MEK)	125	242	*	ug/L		194	57 - 140
2-Hexanone	125	122		ug/L		98	65 - 127
4-Methyl-2-pentanone (MIBK)	125	127		ug/L		102	71 - 125
Acetone	125	123		ug/L		98	56 - 142
Benzene	25.0	27.0		ug/L		108	71 - 124
Bromodichloromethane	25.0	24.4		ug/L		98	80 - 122
Bromoform	25.0	25.4		ug/L		102	61 - 132
Bromomethane	25.0	25.5		ug/L		102	55 - 144
Carbon disulfide	25.0	28.9		ug/L		116	59 - 134
Carbon tetrachloride	25.0	25.1		ug/L		101	72 - 134
Chlorobenzene	25.0	24.7		ug/L		99	80 - 120
Chloroethane	25.0	26.1		ug/L		104	69 - 136
Chloroform	25.0	24.3		ug/L		97	73 - 127
Chloromethane	25.0	33.2	*	ug/L		133	68 - 124
cis-1,2-Dichloroethene	25.0	28.8		ug/L		115	74 - 124
cis-1,3-Dichloropropene	25.0	28.0		ug/L		112	74 - 124

Eurofins TestAmerica, Buffalo

QC Sample Results

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

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

Lab Sample ID: LCS 480-536186/5

Matrix: Water

Analysis Batch: 536186

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	30.0		ug/L		120	59 - 135
Dibromochloromethane	25.0	24.9		ug/L		100	75 - 125
Dichlorodifluoromethane	25.0	31.9		ug/L		128	59 - 135
Ethylbenzene	25.0	24.9		ug/L		99	77 - 123
Isopropylbenzene	25.0	26.1		ug/L		105	77 - 122
Methyl acetate	50.0	56.1		ug/L		112	74 - 133
Methyl tert-butyl ether	25.0	28.3		ug/L		113	77 - 120
Methylcyclohexane	25.0	29.9		ug/L		120	68 - 134
Methylene Chloride	25.0	29.1		ug/L		116	75 - 124
Styrene	25.0	26.5		ug/L		106	80 - 120
Tetrachloroethene	25.0	26.0		ug/L		104	74 - 122
Toluene	25.0	26.1		ug/L		104	80 - 122
trans-1,2-Dichloroethene	25.0	28.8		ug/L		115	73 - 127
trans-1,3-Dichloropropene	25.0	24.7		ug/L		99	80 - 120
Trichloroethene	25.0	26.0		ug/L		104	74 - 123
Trichlorofluoromethane	25.0	26.5		ug/L		106	62 - 150
Vinyl chloride	25.0	32.8		ug/L		131	65 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		77 - 120
4-Bromofluorobenzene (Surr)	99		73 - 120
Dibromofluoromethane (Surr)	96		75 - 123
Toluene-d8 (Surr)	93		80 - 120

QC Association Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

GC/MS VOA

Analysis Batch: 536186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-170922-1	WELL 1-2A	Total/NA	Water	8260C	
480-170922-2	WELL 1-3	Total/NA	Water	8260C	
480-170922-3	WELL 1-3 POST	Total/NA	Water	8260C	
480-170922-4	TRIP BLANK	Total/NA	Water	8260C	
MB 480-536186/7	Method Blank	Total/NA	Water	8260C	
LCS 480-536186/5	Lab Control Sample	Total/NA	Water	8260C	

Lab Chronicle

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Client Sample ID: WELL 1-2A

Lab Sample ID: 480-170922-1

Date Collected: 06/08/20 08:20

Matrix: Water

Date Received: 06/09/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	536186	06/15/20 09:38	AMM	TAL BUF

Client Sample ID: WELL 1-3

Lab Sample ID: 480-170922-2

Date Collected: 06/08/20 08:25

Matrix: Water

Date Received: 06/09/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	536186	06/15/20 10:01	AMM	TAL BUF

Client Sample ID: WELL 1-3 POST

Lab Sample ID: 480-170922-3

Date Collected: 06/08/20 08:30

Matrix: Water

Date Received: 06/09/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	536186	06/15/20 10:24	AMM	TAL BUF

Client Sample ID: TRIP BLANK

Lab Sample ID: 480-170922-4

Date Collected: 06/08/20 00:00

Matrix: Water

Date Received: 06/09/20 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	536186	06/15/20 10:47	AMM	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Laboratory: Eurofins TestAmerica, Buffalo

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

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

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Method Summary

Client: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

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: ARCADIS U.S. Inc
Project/Site: NYSDEC-Standby VESTAL

Job ID: 480-170922-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-170922-1	WELL 1-2A	Water	06/08/20 08:20	06/09/20 10:00	
480-170922-2	WELL 1-3	Water	06/08/20 08:25	06/09/20 10:00	
480-170922-3	WELL 1-3 POST	Water	06/08/20 08:30	06/09/20 10:00	
480-170922-4	TRIP BLANK	Water	06/08/20 00:00	06/09/20 10:00	

Client Information Client Contact: Ms. Katie Bidwell Company: ARCADIS U.S. Inc. Address: 855 Route 146 Suite 210 City: Clifton Park State, Zip: NY, 12065 Phone: 518-250-7300(Tel) Email: katie.bidwell@arcadis.com Project Name: NYSDEC-Standby VESTAL Site: Town of Vestal Water Supply		Lab PM: Stone, Judy L E-Mail: judy.stone@testamericainc.com Job #: 436-5041		Carrier Tracking No(s): 480-146592-28509.1 Page: Page 1 of 1		CQC No: 480-146592-28509.1	
Due Date Requested: TAT Requested (days): PO #: WO #: Contract D007618 Project #: 48005198 SSOW#:		Analysis Requested					
Preservation Codes: 2M - Hexane 2N - 2O - 2P - 2Q - 2R - 2S - 2T - 2U - 2V - 2W - 2X - 2Y - 2Z - 2AA - 2AB - 2AC - 2AD - 2AE - 2AF - 2AG - 2AH - 2AI - 2AJ - 2AK - 2AL - 2AM - 2AN - 2AO - 2AP - 2AQ - 2AR - 2AS - 2AT - 2AU - 2AV - 2AW - 2AX - 2AY - 2AZ - 2BA - 2BB - 2BC - 2BD - 2BE - 2BF - 2BG - 2BH - 2BI - 2BJ - 2BK - 2BL - 2BM - 2BN - 2BO - 2BP - 2BQ - 2BR - 2BS - 2BT - 2BU - 2BV - 2BW - 2BX - 2BY - 2BZ - 2CA - 2CB - 2CC - 2CD - 2CE - 2CF - 2CG - 2CH - 2CI - 2CJ - 2CK - 2CL - 2CM - 2CN - 2CO - 2CP - 2CQ - 2CR - 2CS - 2CT - 2CU - 2CV - 2CW - 2CX - 2CY - 2CZ - 2DA - 2DB - 2DC - 2DD - 2DE - 2DF - 2DG - 2DH - 2DI - 2DJ - 2DK - 2DL - 2DM - 2DN - 2DO - 2DP - 2DQ - 2DR - 2DS - 2DT - 2DU - 2DV - 2DW - 2DX - 2DY - 2DZ - 2EA - 2EB - 2EC - 2ED - 2EE - 2EF - 2EG - 2EH - 2EI - 2EJ - 2EK - 2EL - 2EM - 2EN - 2EO - 2EP - 2EQ - 2ER - 2ES - 2ET - 2EU - 2EV - 2EW - 2EX - 2EY - 2EZ - 2FA - 2FB - 2FC - 2FD - 2FE - 2FF - 2FG - 2FH - 2FI - 2FJ - 2FK - 2FL - 2FM - 2FN - 2FO - 2FP - 2FQ - 2FR - 2FS - 2FT - 2FU - 2FV - 2FW - 2FX - 2FY - 2FZ - 2GA - 2GB - 2GC - 2GD - 2GE - 2GF - 2GG - 2GH - 2GI - 2GJ - 2GK - 2GL - 2GM - 2GN - 2GO - 2GP - 2GQ - 2GR - 2GS - 2GT - 2GU - 2GV - 2GW - 2GX - 2GY - 2GZ - 2HA - 2HB - 2HC - 2HD - 2HE - 2HF - 2HG - 2HH - 2HI - 2HJ - 2HK - 2HL - 2HM - 2HN - 2HO - 2HP - 2HQ - 2HR - 2HS - 2HT - 2HU - 2HV - 2HW - 2HX - 2HY - 2HZ - 2IA - 2IB - 2IC - 2ID - 2IE - 2IF - 2IG - 2IH - 2II - 2IJ - 2IK - 2IL - 2IM - 2IN - 2IO - 2IP - 2IQ - 2IR - 2IS - 2IT - 2IU - 2IV - 2IW - 2IX - 2IY - 2IZ - 2JA - 2JB - 2JC - 2JD - 2JE - 2JF - 2JG - 2JH - 2JI - 2JJ - 2JK - 2JL - 2JM - 2JN - 2JO - 2JP - 2JQ - 2JR - 2JS - 2JT - 2JU - 2JV - 2JW - 2JX - 2JY - 2JZ - 2KA - 2KB - 2KC - 2KD - 2KE - 2KF - 2KG - 2KH - 2KI - 2KJ - 2KK - 2KL - 2KM - 2KN - 2KO - 2KP - 2KQ - 2KR - 2KS - 2KT - 2KU - 2KV - 2KW - 2KX - 2KY - 2KZ - 2LA - 2LB - 2LC - 2LD - 2LE - 2LF - 2LG - 2LH - 2LI - 2LJ - 2LK - 2LL - 2LM - 2LN - 2LO - 2LP - 2LQ - 2LR - 2LS - 2LT - 2LU - 2LV - 2LW - 2LX - 2LY - 2LZ - 2MA - 2MB - 2MC - 2MD - 2ME - 2MF - 2MG - 2MH - 2MI - 2MJ - 2MK - 2ML - 2MM - 2MN - 2MO - 2MP - 2MQ - 2MR - 2MS - 2MT - 2MU - 2MV - 2MW - 2MX - 2MY - 2MZ - 2NA - 2NB - 2NC - 2ND - 2NE - 2NF - 2NG - 2NH - 2NI - 2NJ - 2NK - 2NL - 2NM - 2NN - 2NO - 2NP - 2NQ - 2NR - 2NS - 2NT - 2NU - 2NV - 2NW - 2NX - 2NY - 2NZ - 2OA - 2OB - 2OC - 2OD - 2OE - 2OF - 2OG - 2OH - 2OI - 2OJ - 2OK -<							

Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 480-170922-1

Login Number: 170922

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	

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