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October 17, 2023

Ms. Jenelle Gaylord, Project Manager
New York State Department of Environmental Conservation
Bureau E, Division of Remediation
625 Broadway
Albany, NY 12233-7012

Subject: **Final 2022 Annual Report**
American Thermostat Site (NYSDEC Site No. 420006)
MACTEC Engineering & Geology, P.C., Project No. 3616206098

Dear Ms. Gaylord,

MACTEC Engineering & Geology, P.C (MACTEC) is pleased to submit the Final 2022 Annual Report for the New York State Department of Environmental Conservation (NYSDEC) American Thermostat Site No. 420006 located in South Cairo, New York (hereinafter referred to as the "Site"). This Report includes a summary of the following items:

- Site History
- 2022 Activity Summary
- Institutional Controls/Engineering Controls (ICs/ECs)
- Groundwater Extraction and Treatment System (GWETS) Operation, Maintenance, and Monitoring (OM&M) Activities
- Remedial System Optimization (RSO) Extraction Well Optimization Evaluation
- Point of Entry Treatment (POET) System Activities
- Long-Term Groundwater Monitoring
- Semiannual Hydraulic Monitoring
- Sustainability and Resiliency
- Cost Control Summary
- Recommendations for the Coming Year (2023)

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Based on activities completed in 2022, the Site use and activities are in compliance with the Site Management Plan (SMP) requirements (MACTEC, 2018a); the ICs/ECs remain in-place, the GWETS is performing as designed, and Site controls are effective in protecting the public health and environment.

SITE HISTORY

The Site consists of approximately eight acres located in South Cairo, Town of Catskill, Greene County, New York (Figure 1). The Site has been remediated in accordance with the Record of Decision (ROD) for Operable Unit 1 (OU1) (potable water supply) (United States Environmental Protection Agency [USEPA], 1988) and OU2 (soil, sediment, surface water, groundwater, and building contamination) (USEPA, 1990). The Site includes an active GWETS which utilizes an air stripper unit to remove volatile organic compounds (VOCs) from groundwater and has been operational since 1998. In 2008, following 10 years of Site Management (SM) by the USEPA, the Site was transferred to the NYSDEC. The contaminants of concern (COC) are VOCs including tetrachloroethene (PCE), trichloroethene (TCE), 1,2-dichloroethene (1,2-DCE), and vinyl chloride. Remedial goals outlined in the ROD documents for the Site are instituted to ensure protection of groundwater from site contaminants in soil, to restore groundwater to drinking water standards or until a point has been reached at which contaminant concentrations in the groundwater "level off," and reduce risk to human health and the environment. Current SM requirements for monitoring the performance and effectiveness of the remedial measures completed at the Site to meet current Remedial Action Objectives (RAOs) (MACTEC, 2013c) consist of operating the groundwater extraction and treatment system to maintain hydraulic control of the bedrock source area (PCE concentrations greater than 1,000 micrograms per liter [µg/L]), routine inspection, sampling, and reporting.

2022 ACTIVITY SUMMARY

This report summarizes the SM and RSO activities completed at the Site from January 2022 through December 2022.

The following recommendations from the 2021 Annual Report (MACTEC, 2022a) were implemented in 2022 and are discussed in detail in upcoming sections of the report:

- Continued implementation, review, and evaluation of the existing ICs/ECs, Operation and Maintenance (O&M) Plan, and groundwater monitoring program, as applicable.
- Continued routine GWETS maintenance including general housekeeping, troubleshooting of well components, and semiannual air stripper cleanings.
    - Maintain air stripper efficiency through regularly scheduled (semiannual) air stripper cleaning using the washer wand. This does not require disassembly of the air stripper, rather the trays are power washed through the viewports using a washer wand.
    - Perform annual inspection of building heaters.
    - Conduct general housekeeping activities to improve work processes and eliminate general clutter.
    - Troubleshoot well components as needed to maintain normal system operation.
- Reduce sampling frequency at the three residences containing POET systems from quarterly to semiannually and to evaluate future decommissioning of the POET systems.
- Evaluate findings of the RSO for potential to continue the shutdown of EW-2 and an eventual shutdown of EW-9 to further optimize contaminant mass removal and operational efficiency of the GWETS as detailed in the Field Activities Plan – Extraction Well Optimization Evaluation and approved by the NYSDEC.

The following recommendation from the 2021 Annual Report was not implemented in 2022:

- Decommissioning of the building's septic holding tank and associated plumbing facilities to reduce costs associated with its maintenance did not occur in 2022 due to delays in responsive bids, and health and safety concerns with respect to underground and overhead utilities and structures. Decommissioning is anticipated for 2023 and is included in the recommendations section of this report.

The following additional site-related activities were conducted in 2022:

- Partial decommissioning of one residential POET system.
- Semiannual cleaning of extraction well flow meters to maintain proper function.
- Removal of expired/unnecessary flammable aerosol products by ACV Environmental Services, Inc. for off-site disposal.
- Replacement of non-functioning pumps, including pump motor leads, in extraction wells OW-3, OW-7, OW-13, and OW-16.
- The NYSDEC assumed responsibility of site snow plowing in November 2022.

The following activity unrelated to SM for the Site was conducted in 2022:

- Delivery of NYSDEC-owned used, empty, clean water supply treatment equipment tanks by US Ecology for storage in the treatment building until selected for use on other NYSDEC sites or for disposal. Twelve tanks were delivered on May 16, 2022, and three tanks were delivered on November 11, 2022.

SM requirements are summarized in Table 1. A matrix for GWETS and POET system performance sampling, long-term monitoring (LTM) sampling, and water level gauging locations is presented in Table 2. Groundwater monitoring wells and residential POET system sample locations are depicted on Figure 2.

INSTITUTIONAL CONTROLS/ENGINEERING CONTROLS

ICs/ECs provide added measures of protection for potentially exposed receptors over and above natural attenuation mechanisms and source area remedial measures. ICs for the Site in 2022 consisted of restrictions to soil excavation, groundwater use, and well installations, and a monitoring plan. Adherence to the ICs is required by and implemented under the SMP. ECs consist of the GWETS, the Site perimeter fence, monitoring wells, residential POET systems, and an alternate water supply (MACTEC, 2018a).

Groundwater is captured by the GWETS to confine the plume extent and migration and to recover contaminant mass. The Site perimeter fence prohibits unauthorized access to the GWETS building and is inspected monthly. Monitoring wells (on- and off-site) are used to verify the effectiveness of the GWETS through the collection of groundwater samples and water level measurements as part of the LTM program. POET systems for three residences without city water, directing potentially affected residential groundwater through two-stage granular activated carbon (GAC) filtration, have been monitored through routine maintenance and quarterly collection and analysis of groundwater samples. In May 2022, the NYSDEC issued letters to the three residences ending responsibility of POET system OM&M (NYSDEC, 2022a, 2022b, 2022c). It is recommended that these no longer be considered a site EC. An alternate water supply consisting of a public water supply line, extended to the vicinity of the Site from the Village of Catskill in 1992, is maintained by the Village of Catskill (MACTEC, 2018a).

At the Site transfer from USEPA to the NYSDEC in 2008, the Country Estates groundwater communal water supply treatment system was maintained and sampled by the NYSDEC. Treatment system operation and maintenance responsibilities were transferred from the NYSDEC to the Country Estates owner in April 2010 (MACTEC, 2013a). A pre-treatment sample is collected from Country Estates' primary water supply well, CE-2, as part of the Site's long-term groundwater monitoring program, which is discussed later in the report.

GWETS OM&M ACTIVITIES

The GWETS has not been staffed full-time since 2017 and can be monitored and operated remotely. Bimonthly site visits are completed as part of routine operations and include general maintenance, monitoring, inspection, and sampling activities.

A total of 11 extraction wells are active and include four bedrock wells (EWs) and seven overburden wells (OWs):

- EW-6, EW-7, EW-9, EW-16
- OW-2, OW-3, OW-5, OW-7, OW-13, OW-14, OW-16

Bedrock extraction well EW-2 has been inoperable since September 2020 due to electrical and mechanical issues including loss of power, piping repairs, and pump failure. The need to restore operation of this well to meet RAOs is currently under evaluation as part of the Field Activities Plan – Extraction Well Optimization Evaluation discussed at the end of this section (MACTEC, 2021).

Operating parameters for the GWETS include monitoring the volume of groundwater treated (gallons), flow rate (gallons per minute), system downtime (days), and total VOCs extracted from groundwater (pounds) and are summarized on Tables 3, 4 and 5. In 2022, the treatment plant processed approximately 9.9 million gallons of groundwater at an average flow rate of 20 gallons per minute and removed 161 pounds of total VOCs. System influent and effluent samples were collected and analyzed monthly for VOCs; therefore, mass removal is an approximation.

Effluent is discharged from the GWETS to a surface drainage swale which leads to Tributary A (a Class C surface water body) and discharges to Catskill Creek. Effluent samples are collected at the end of the treatment system train and compared to Class C standards and guidance values (NYSDEC, 1998) which are applicable at the point of discharge at the swale. Iron exceeded Class C criteria in July, August, and November 2022. Except for the noted iron exceedances, treated effluent water met surface discharge limits during the reporting period. System performance monitoring results for 2022 are presented in Table 6.

Site-related VOCs in the August 2022 monthly effluent samples exceeded Class C criteria. Conversely, there were no detections of site-related VOCs in the August 2022 influent samples

(collected before air stripper treatment) which is inconsistent with the conceptual site model and groundwater sampling results at the Site. The VOC concentrations observed in the effluent sample were consistent with historical influent sample results and concentrations in the influent sample were consistent with historical effluent sample results. The historical sample data and lack of a potential contributing VOC source within the GWETS treatment train indicates that mishandling or misreporting of results by the laboratory may have occurred.

During 2022, there were approximately 12 downtime days, or 3% of the year (Table 4). The GWETS was shut down on several occasions in 2022 due to system alarms, power outages, and maintenance periods. The longest shutdown occurred May 27 to June 1, 2022 (approximately 6 days) from a system power loss likely due to power loss/fluctuation from the electric utility company service line. Power losses/fluctuations from the electric utility company have historically resulted in GWETS shutdowns.

GWETS modifications and improvements implemented in 2022 include, but were not limited to:

- Replacement of level transmitter fuses in EW-16 and OW-13 to resolve inaccurate water level outputs in those wells.
- Replacement of non-functioning pumps, including pump motor leads, in extraction wells OW-3, OW-7, OW-13, and OW-16 on June 16, 2022, by Precision Environmental Services, Inc. (PES) and Claverack Pump Services, LLC.
- Replacement of flow meter O-ring at EW-16.
- Phased reductions of the pumping rate at EW-9 as part of the optimization evaluation discussed below.

Additional activities completed as part of OM&M activities at the Site include:

- Removal of expired/unnecessary flammable aerosol products on January 4, 2022, by ACV Environmental Services, Inc. for off-site disposal.
- Annual fire inspection of the treatment building by a qualified inspector with the New York State Office of Fire Prevention and Control on May 25, 2022. No violations of the New York State Uniform Fire Prevention and Building Code were identified.
- Annual inspection of three fire extinguishers in the treatment building by a qualified inspector on May 25, 2022.
- Spent ultraviolet bulbs from the residential POET systems were shipped off-site for proper disposal on September 1, 2022.
- Final inspection OM&M and sampling of three residential POET systems, and partial decommissioning of one residential POET system.

- Semiannual cleaning of extraction well flow meters implemented in 2022.
- Replacement of the Site's water meter by the Village of Catskill Water Department on September 29, 2022.
- As of November 2022, the NYSDEC has assumed responsibility for snow plowing services at the Site. Snow plowing services were previously provided by a subcontractor.

RSO EXTRACTION WELL OPTIMIZATION EVALUATION

At the request of the NYSDEC, MACTEC prepared and submitted an RSO Field Activities Plan in 2021 to evaluate if bedrock extraction wells EW-2 and EW-9 can ultimately be removed from service to further optimize contaminant mass removal and operational efficiency of the GWETS while still meeting RAOs (MACTEC, 2021). Coupled with periodic reductions in pumping rates, EW-9 groundwater samples were collected from its sample port (located approximately 315 feet north of the well in an aboveground enclosure) monthly from February 1 through August 1, 2022, for the analysis of site-specific VOCs. Water levels were measured twice per month from eight monitoring wells (EW-3, EW-4, EW-5, EW-8, IW-8, IW-9, IW-10 and M-8) and groundwater elevations were recorded from five bedrock extraction well control panels (EW-2, EW-6, EW-7, EW-9, and EW-16) to evaluate effects of pumping rate reductions on hydraulic gradients north and west of the Site. Scoped activities for EW-2, which included removal of pump equipment for unobstructed groundwater sampling via PDBs, could not be completed due to contractor unavailability for removal of pump equipment and inability to recover the PDB deployed for baseline sample collection. The optimization evaluation is discussed in detail in the field activities report (MACTEC, 2023).

POET SYSTEM ACTIVITIES

Municipal water is supplied through the town distribution system to most houses in the area. Three residences located outside the area of the municipal water supply, and within the former off-site plume footprint, were equipped with POET systems. Quarterly maintenance and monitoring of the three residential POET systems occurred in January 2022. Samples were collected before and between GAC filters, and no exceedances of NYS Class GA standards for Site-related VOCs were observed. Samples results are presented in Table 7.

On May 17, 2022, POET system cessation letters were issued to the three residences because COCs exceeding GA standards have not been detected in pre-treatment groundwater since January 2013

(NYSDEC, 2022a, 2022b, 2022c). The residences were offered the option to keep and assume all responsibility of their system or to have the NYSDEC arrange for its removal. One residence opted for partial removal of their POET system. Removal activities were summarized by MACTEC in a NYSDEC Daily Inspection Report (MACTEC, 2022b). Copies of the cessation letters are included in Attachment 1.

POET system OM&M completed by MACTEC in 2022 included the following:

- [redacted] Residence
    - Quarterly inspection of the POET system in January. Additional requested inspections in March and June.
    - Quarterly sample collection of water before and between GAC filters in January.
    - Replacement of particulate filters, GAC filters, and ultraviolet bulb, as necessary, through June 1. Filters and UV unit remain in place; owner assumed responsibility of system.
- [redacted] Residence
    - Quarterly inspection of the POET system in January.
    - Quarterly sample collection of water before and between GAC filters in January.
    - Filters remain and UV unit in place; owner assumed responsibility of system.
- [redacted] Residence
    - Quarterly inspection of the POET system in January.
    - Quarterly sample collection of water before and between GAC filters in January.
    - Modifications to the POET system in August 2022 by PES:
        - Removal of two GAC tanks from the treatment train.
        - Installation of new piping between particulate filter housing and UV unit.
        - Particulate filter and ultraviolet unit remain in place; owner assumed responsibility of system.

LONG-TERM GROUNDWATER MONITORING

The LTM program has been designed to monitor the effect of the GWETS on contaminant levels in groundwater in the vicinity of the Site, to monitor long-term trends in concentrations of contaminants in groundwater, and to evaluate the effectiveness of the remedial actions (MACTEC, 2018a). This is accomplished through groundwater sampling and analysis and water level measurement collection

from select wells to generate bedrock and overburden potentiometric surface maps. Since 2014, groundwater sampling events for the Site have been performed on a 15-month frequency.

The most recent LTM sampling event was conducted in July 2022. Country Estates could not provide access to well CE-2 for LTM sample collection in July 2022. Therefore, a sample was collected on August 1, 2022, and is considered part of the July 2022 LTM event for the purposes of this report. Groundwater samples were collected and analyzed for VOCs from 35 locations (Table 2). Figures depicting well locations, bedrock and overburden potentiometric surfaces, inferred bedrock groundwater PCE plume, and inferred overburden groundwater PCE plume are included as Figures 2, 3, 4, 5, and 6, respectively. Field records from this event are included in Attachment 2. A copy of the Category A Review validation document is provided in Attachment 3.

The July 2022 LTM results for Site COCs are summarized in Table 9. The highest concentrations of PCE in overburden groundwater were observed in OW-3 and OW-5. The highest concentrations of PCE in bedrock groundwater were observed at EW-6 and EW-16. These findings are generally consistent with results observed since the reconfiguration of the GWETS (MACTEC, 2013b). Laboratory results for samples were provided to NYSDEC in electronic document delivery format for loading into EQuIS.

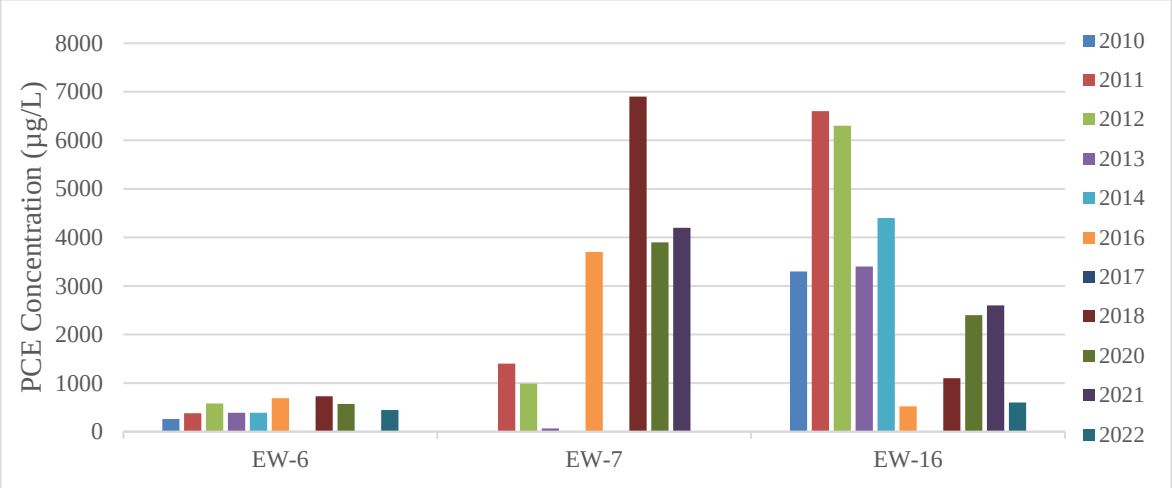
Since 2010, the nature and extent of the overburden groundwater plume has been variable with hot spots related to interpreted residual source areas with steep concentration gradients, consistent with previous sampling events at the Site. The July 2022 result for PCE of 10,400 µg/L in OW-3 suggests that residual product remains present in the overburden. However, these observations agree with the conceptual site model that: 1) overburden groundwater is not migrating horizontally beyond the influence of the overburden extraction well network, and 2) is primarily vertically flow-dominated within the fractured till.

The histogram plots below present PCE concentrations from 2010 to 2022 in bedrock extraction wells EW-2, EW-6, EW-7, EW-9, and EW-16. Bedrock source area core extraction wells EW-6, EW-7, and EW-16 wells exhibit generally higher PCE concentrations compared to bedrock extraction wells EW-2 and EW-9. PCE concentrations in wells EW-6, EW-7, and EW16 are also relatively stable or increasing due to GWETS extraction well network optimization completed in 2017 including: 1) more efficient plume capture by limiting extraction of clean water from off-site;

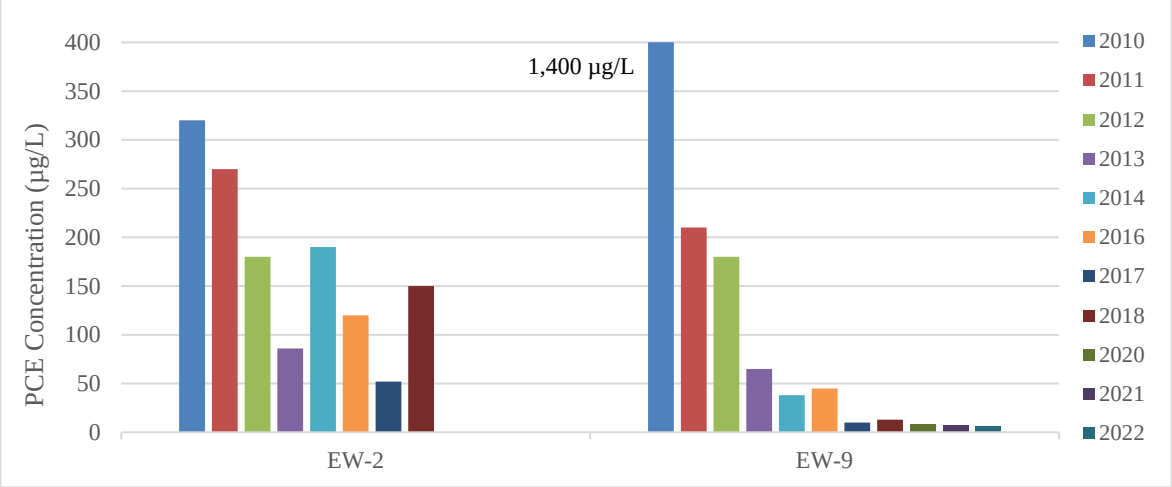
2) adjustments to bedrock extraction well pumping elevation setpoints in 2018; and 3) adjustments to pumping rates in extraction wells in 2019.

Cross-gradient bedrock source area boundary extraction wells EW-2 and EW-9 exhibit overall lower PCE concentrations with EW-9 levels declining through time. EW-2 has been inoperable since September 2020 due to electrical and mechanical issues and hasn't been sampled since 2018. Reduced pumping rate at EW-9 is being assessed under the Extraction Well Optimization Evaluation to evaluate the need to continue operating this well. Activities scoped for EW-2 under the Extraction Well Optimization Evaluation could not be completed due to presence of extraction pump equipment and contractor unavailability for its removal.

PCE Concentrations in Bedrock Source Area Core Extraction Wells



PCE Concentrations in Extraction Wells EW-2 and EW-9



Time-series plots of PCE concentrations in extraction wells OW-14, EW-7, and EW-16 and off-site monitoring wells CE-2, EW-13, and M-5 were prepared to evaluate the long-term effectiveness of extraction well network modifications completed in 2017, 2018, and 2019. Time-series plots are included in Attachment 4.

Overburden extraction well OW-14 and bedrock extraction wells EW-7 and EW-16 were selected to monitor on-site changes in groundwater quality. Wells OW-14 and EW-16 have historically shown high concentrations of PCE but have exhibited a general downward trend in PCE concentrations beginning in 2013/2014 through 2022. Current PCE levels in OW-14 and EW-16 remain elevated but continued to show a decline between 2021 and 2022. In contrast, PCE levels in EW-7 have exhibited a general upward trend from 2013 to 2021, likely a result of optimized pumping rates that have limited the overextraction of clean off-site groundwater; however, a considerable decrease occurred between 2021 (4,200 µg/L) and 2022 (6.5 µg/L). This decrease by three orders of magnitude is suspect and will be confirmed by additional sampling.

Monitoring wells CE-2, EW-13, and M-5 were selected to track progression of the residual off-site plume to the northeast towards Catskill Creek. Country Estates primary supply well, CE-2, has previously been used to track the distal end (i.e., northwest tip) of the residual, off-site plume. LTM sample results from 2014 to 2021 have demonstrated consistent PCE concentrations below the NYS Class GA Standard for PCE of 5 µg/L. However, in August 2022, PCE was detected above the standard at 10.9 µg/L. CE-2 will continue to be monitored to track plume migration from historical receptors (residential water supply wells). The highest PCE concentrations in the off-site plume, observed in EW-13 (located southeast of CE-2), have demonstrated a slow decline from 2018 to 2022. Monitoring well M-5 was selected as a sentinel well to monitor the northeastward (off-site) progression of the plume beyond EW-13. Although PCE has not been detected in M-5 since 2010, daughter compounds cis-1,2-DCE and vinyl chloride remain above applicable NYS Class GA Standards. This trend demonstrates degradation of PCE either at or upgradient of this location, as is recently evident in other locations in this area. The off-site plume is expected to continue to decrease in concentration through natural degradation processes and migrate to the northeast towards Catskill Creek.

The objective of establishing hydraulic capture of highly contaminated bedrock groundwater (>5,000 µg/L) in close proximity to the Site is being maintained while achieving improved extraction efficiency.

Per email correspondence with the NYSDEC on October 20, 2022, LTM samples will no longer be collected from the three residences with former POET systems.

The next LTM event is scheduled for October 2023.

SEMIANNUAL HYDRAULIC MONITORING

Water levels are measured semiannually, typically during the spring and fall seasons, to monitor the hydraulic gradient resulting from previous GWETS modifications (2013 to 2017, 2018 to 2019) and to evaluate hydraulic control of the bedrock groundwater plume in the vicinity of the Site. Water levels were measured in April and October 2022 from a select set of monitoring and extraction wells as part of the hydraulic monitoring program. Measurements were also collected in July 2022 as part of the LTM sampling program and include more extensive set of wells. Water levels for each event are presented in Table 8.

Bedrock potentiometric surface figures were generated for the April, July, and October 2022 events (Figures 3, 7, and 8). These figures indicate that groundwater flow of the highly contaminated bedrock groundwater in the source area remains inward toward the Site through the GWETS operation. Well IW-10 has been excluded from these maps due to it representing shallow bedrock not hydraulically connected to the bedrock aquifer monitored by the other wells. Further evaluation of the groundwater monitoring network is recommended.

An overburden potentiometric surface map was generated for the July 2022 event from well measurements collected as part of the LTM synoptic round (Figure 4). The overburden extraction wells essentially operate as sumps and do not represent the overall overburden potentiometric surface. Groundwater flow in the overburden from the Site is generally to the north and northeast in the direction of Catskill Creek.

SUSTAINABILITY AND RESILIENCY

In 2022, MACTEC submitted an updated Ground Source Heating and Solar Photovoltaic Evaluation (an update to the original document [MACTEC, 2018b]) to the NYSDEC summarizing an assessment of energy conservation measures to reduce utility expenditures as well as greenhouse gas output at the Site (MACTEC, 2022c). The evaluation proposed a ground source heat pump system to heat and cool the treatment building utilizing infrastructure already present as part of the GWETS and a solar photovoltaic system for local electric power generation. Measures proposed in the evaluation are planned for implementation in 2023.

Ongoing site activities regarding sustainability and resiliency have been evaluated and implemented to reduce energy usage, waste generation, emissions, and water usage at the Site (MACTEC, 2018a). Site activities currently implemented include the following:

- Use of PDBs for LTM groundwater sampling events. PDBs generate minimal purge water waste and do not require use of a power source, as is necessary with other sampling methods.
- Disposal of used oil from the treatment system's transfer and discharge pumps at an appropriate recycling facility.
- Utilizing local staff for routine site visits and carpooling, when possible, to minimize environmental impacts related to transportation.
- Application of window insulation film to exterior windows of the treatment building office to reduce heat loss from November to April.
- Remote monitoring of the treatment system as needed to potentially reduce non-routine visits to the Site.
- Reuse of investigation derived waste on-site, when possible, and as approved by the NYSDEC.
- Optimization of the treatment system to improve operational efficiency and cost effectiveness.

Further evaluation of energy conservation measures for the Site is proposed in the recommendations section of this report.

COST CONTROL SUMMARY

A cost summary table for 2022 SM activities is provided in Attachment 5. As shown in the table, most of the SM costs for the reporting period were incurred for operation and maintenance of the GWETS.

Optimization measures to reduce overall operating expenses have been and will continue to be implemented to provide further cost savings at the Site. Since the NYSDEC assumed responsibility from the USEPA for the Site in 2008, annual SM costs associated with reporting, LTM, and GWETS OM&M have reduced by 67 percent, and cost per pound of VOCs removed has decreased by 27 percent. Charts depicting a breakdown of annual SM costs from 2008 to 2022 and cost per pound of VOCs removed are included in Attachment 5.

RECOMMENDATIONS FOR THE COMING YEAR (2023)

As mentioned previously, the RAOs were redefined in 2012 to focus on hydraulic containment of the highly contaminated bedrock groundwater in the on-site source area. For the 2022 reporting period, inward gradients to the bedrock source area were maintained. To continue optimizing system efficiency and remedial progress, and to provide further cost savings at the Site, the following are recommended:

- Continued implementation, review, and evaluation of the existing ICs/ECs, O&M Plan, and groundwater monitoring program, as applicable.
    - Conduct an evaluation of the LTM sampling and hydraulic monitoring programs to remove wells that may no longer be required for monitoring the off-site bedrock plume.
    - Remove residential POET systems from the list of site ECs.
    - Update the SMP to reflect treatment systems and long-term monitoring plan changes.
- Continued routine GWETS maintenance.
    - Maintain air stripper efficiency through regularly scheduled (semiannual) air stripper cleaning. This does not require disassembly of the air stripper, rather the trays are washed through the viewports using a pressure washer.
    - Perform semiannual cleaning of extraction well flow meters to maintain proper function.
    - Perform annual inspection and maintenance of building heaters by a qualified contractor.

  - Conduct general housekeeping activities to improve work processes and eliminate general clutter.
  - Troubleshoot well components as needed to maintain normal system operation.
- Remove extraction pump equipment from EW-2 to implement scoped activities in the Field Activities Plan – Extraction Well Optimization Evaluation.
- Evaluate the findings of the current ongoing RSO for the potential to continue the shutdown of EW-2 and an eventual shutdown of EW-9 to further optimize contaminant mass removal and operational efficiency of the GWETS as detailed in the Field Activities Plan – Extraction Well Optimization Evaluation and approved by the NYSDEC.
- Conduct a private utility mark-out to identify the perimeter/extent and depth of the Site's septic holding tank and to identify all underground utilities and structures in the vicinity of the tank in preparation for its decommissioning. Historical documentation identifying the above is either incomplete or not available.
- Decommission the building's septic holding tank and associated plumbing facilities to reduce costs associated with its maintenance. The GWETS has not been staffed full-time since 2017 and the septic tank and plumbing facilities are no longer necessary.
- EW-16 well is located beneath vegetative growth and partially beneath vehicle on the adjacent property and could not be located on multiple occasions. Routine housekeeping and visual marking around the well are recommended.
- Replace level transducers in EW-7 and EW-16 due to repeated transducer failures.
- Install stilling tubes in bedrock extraction wells EW-6, EW-7, EW-9, and EW-16 for unobstructed, direct water level measurement for routine transducer checks and calibration.
- Implement measures proposed in the 2022 Ground Source Heating and Solar Photovoltaic Evaluation:
  - Install a ground source heat pump system to heat and cool the treatment building utilizing infrastructure already present as part of the GWETS.
  - Install a solar photovoltaic system for local electric power generation.

Please feel free to contact us at (207) 775-5401 with questions on the material provided herein.

Sincerely,

MACTEC Engineering & Geology, P.C.

Katie Amann
Assistant Project Manager

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Enclosures (22)

Figure 1	Site Location
Figure 2	Groundwater Well Locations
Figure 3	July 2022 Interpreted Bedrock Potentiometric Surface (Pumping)
Figure 4	July 2022 Interpreted Overburden Potentiometric Surface (Pumping)
Figure 5	Bedrock Groundwater PCE Plume July 2022
Figure 6	Overburden Groundwater PCE Plume July 2022
Figure 7	April 2022 Interpreted Bedrock Potentiometric Surface (Pumping)
Figure 8	October 2022 Interpreted Bedrock Potentiometric Surface (Pumping)

Table 1	Site Management Requirements
Table 2	Long-Term Monitoring and System Performance Sampling Matrix
Table 3	Groundwater Extraction and Treatment System Monthly Throughput
Table 4	Groundwater Extraction and Treatment System Operational Data
Table 5	Total VOCs Extracted from Groundwater (lbs.)
Table 6	Groundwater Extraction and Treatment System Performance Sampling Results - 2022
Table 7	Residential Point of Entry Treatment System Sampling Results - 2022
Table 8	LTM and Semiannual Groundwater Level Measurements
Table 9	Groundwater Monitoring Results – Site-Specific Contaminants of Concern

Attachment 1	NYSDEC POET System Cessation Letters
Attachment 2	Field Records
Attachment 3	Category A Review – July 2022 LTM Groundwater Sampling
Attachment 4	Time-Series Plots – OW-14, EW-16, EW-7, CE-2, EW-13, M-5
Attachment 5	Cost Control Summary Documents

cc: File

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FIGURES

Greene County digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: https://gis.ny.gov

N

0 100 200 Feet

Checked/Date: KLS 01/18/23
Checked/Date: KAA 01/19/23

2022 ANNUAL REPORT
AMERICAN THERMOSTAT SITE NO. 420006
SOUTH CAIRO, NEW YORK

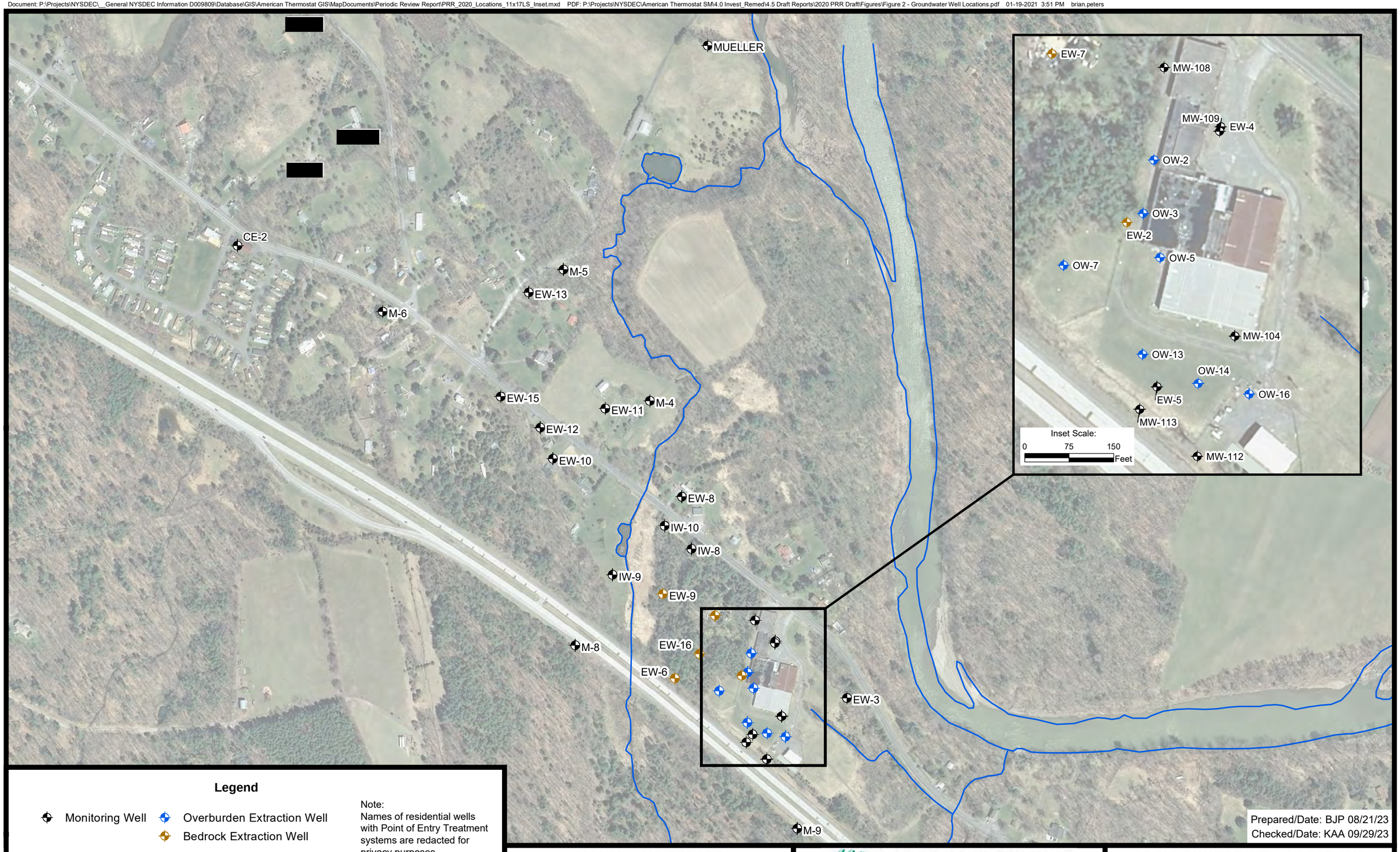
MACTEC

SITE LOCATION

Project 3616206098 Figure 1

Document: P:\Projects\nysdec1\Contract D007619\Projects\American Thermostat - SM\4.0_Deliverables\4.5_Databases\GIS\MapDocuments\AmericanThermostat_SiteLocMap.mxd
PDF: P:\Projects\nysdec1\Contract D007619\Projects\American Thermostat - SM\4.0_Deliverables\4.1_Reports\PRR(2017)\Figures\Figure 1.1 - Site Location.pdf 09/27/2017 1:36 PM brian.peters

Document: P:\Projects\NYSDEC__General NYSDEC Information D009809\Database\GIS\American Thermostat GIS\MapDocuments\Periodic Review Report\PRR_2020_Locations_11x17LS_Inset.mxd PDF: P:\Projects\NYSDEC\American Thermostat SM\4.0 Invest_Remed\4.5 Draft Reports\2020 PRR Draft\Figures\Figure 2 - Groundwater Well Locations.pdf 01-19-2021 3:51 PM brian.peters



Legend

- Monitoring Well
- Overburden Extraction Well
- Bedrock Extraction Well

Note:
Names of residential wells with Point of Entry Treatment systems are redacted for privacy purposes.

N

0 210 420
Feet

Greene County digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: https://gis.ny.gov

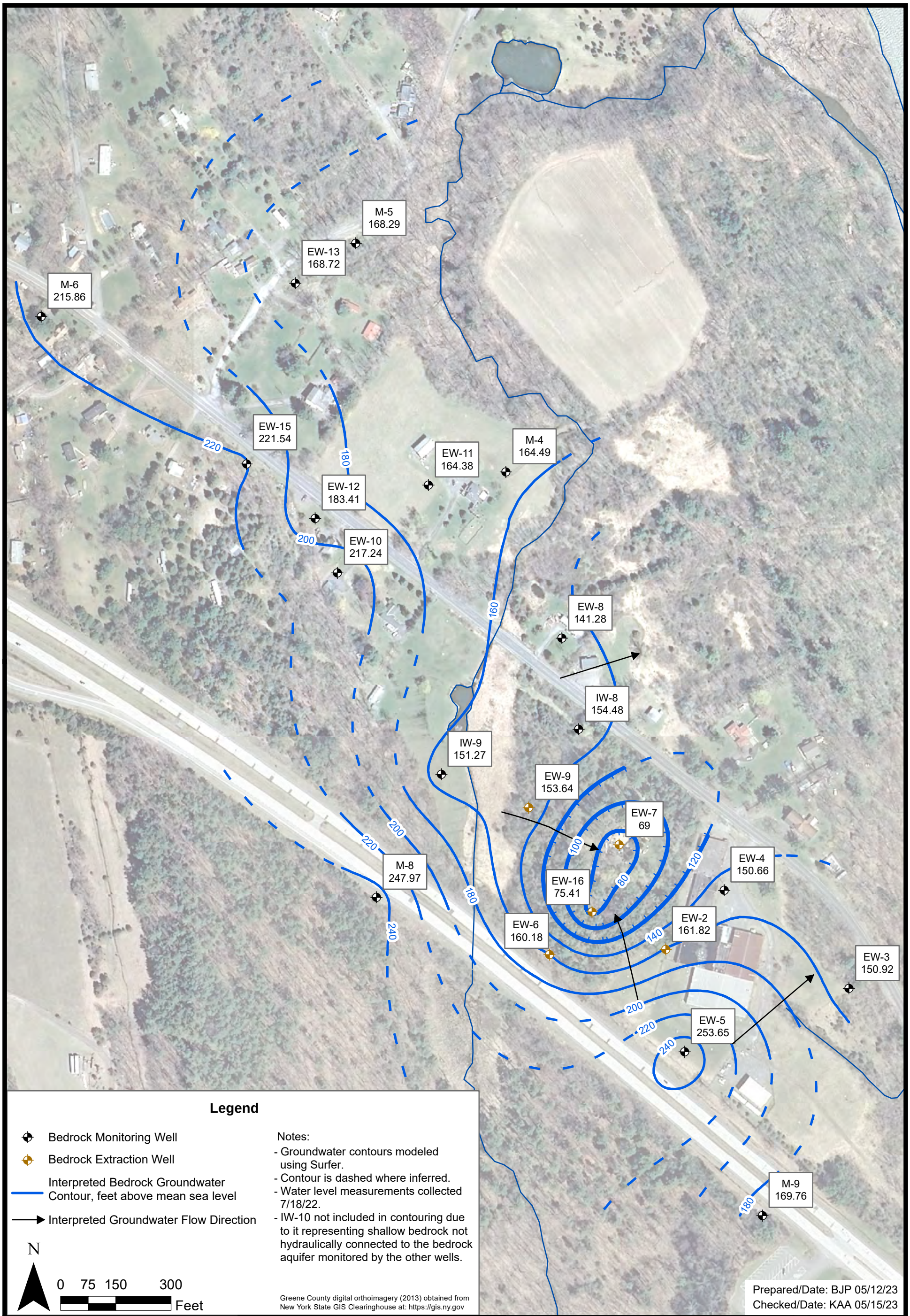
Prepared/Date: BJP 08/21/23
Checked/Date: KAA 09/29/23

2022 ANNUAL REPORT
AMERICAN THERMOSTAT SITE NO. 420006
SOUTH CAIRO, NEW YORK

MACTEC

GROUNDWATER WELL LOCATIONS

Project 3616206098 Figure 2



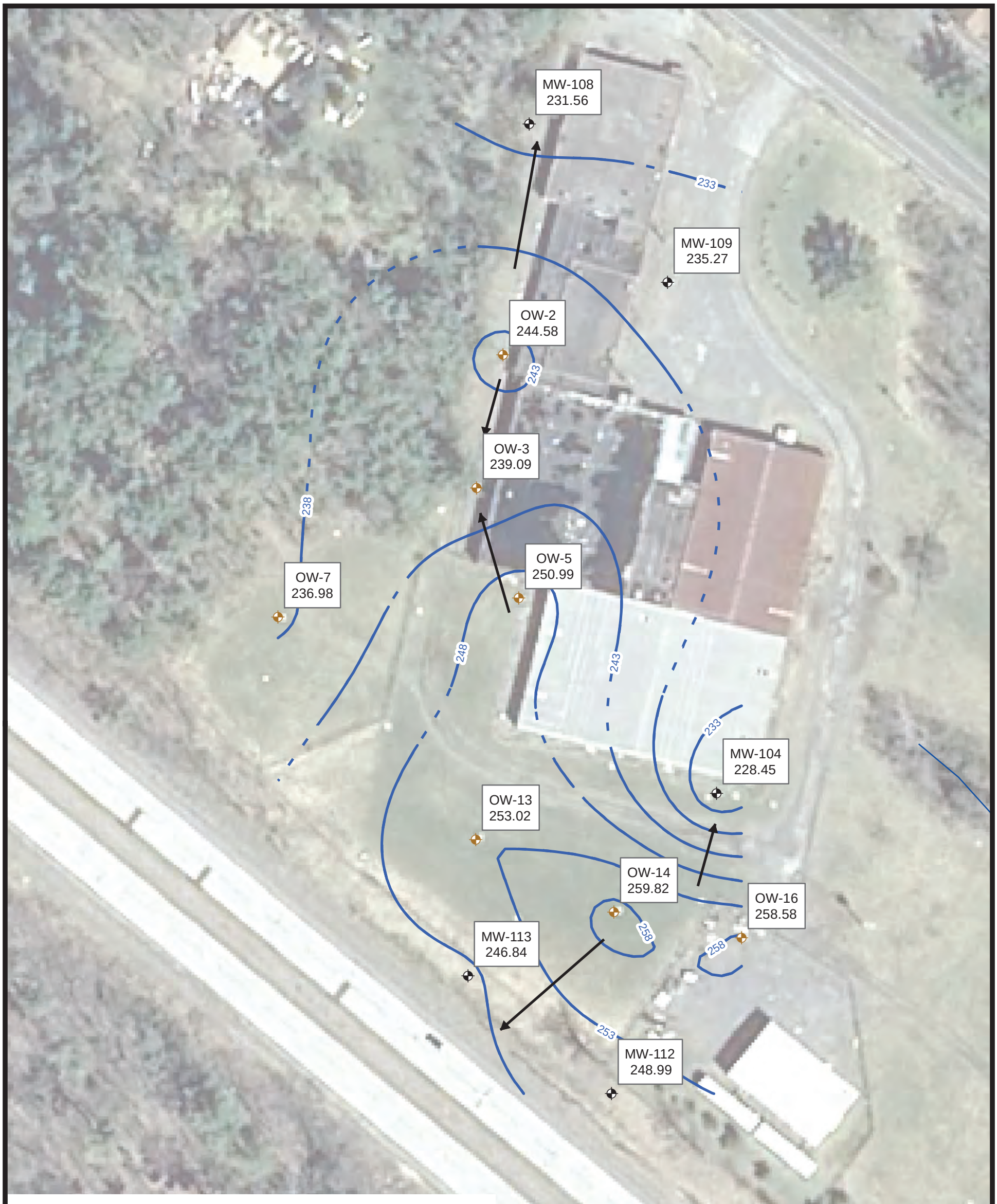
2022 ANNUAL REPORT
AMERICAN THERMOSTAT SITE NO. 420006
SOUTH CAIRO, NEW YORK

MACTEC

JULY 2022 INTERPRETED BEDROCK POTENTIOMETRIC SURFACE (PUMPING)

Project 3616206098

Figure 3



2022 ANNUAL REPORT
AMERICAN THERMOSTAT SITE NO. 420006
SOUTH CAIRO, NEW YORK

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JULY 2022 INTERPRETED OVERBURDEN POTENTIOMETRIC SURFACE (PUMPING)

Project 3616206098

Figure 4

CE-2
10.9

CE-1
NS

M-6
ND

EW-13
24.3

M-5
ND

EW-12
5.7

EW-11
ND

M-4
ND

Tributary B

EW-8
ND

IW-10
ND

IW-8
ND

IW-9
168

EW-9
6.1

EW-7
6.5

M-8
ND

EW-16
599

EW-4
ND

EW-6
446

EW-2
NS

EW-3
ND

EW-5
182

M-9
ND

10
5
100
10
400
200
5
5

Legend

- Bedrock Monitoring Well
- Bedrock Extraction Well
- Interpreted PCE Isocontour (µg/L) (contour is dashed where inferred)

Notes:
PCE = Tetrachloroethene
ND = Not detected above reporting limit
NS = Not sampled
- Samples collected 7/19/22 and 7/20/22
- CE-2 sample collected 8/1/22
- EW-2 has been inoperable since Sept. 2020
- CE-1 is a backup supply well for Country Estates and is not sampled as part of LTM

N

0 150 300 Feet

Greene County digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: https://gis.ny.gov

Prepared/Date: BRP 03/14/23
Checked/Date: KT 03/14/23

2022 ANNUAL REPORT
AMERICAN THERMOSTAT SITE NO. 420006
SOUTH CAIRO, NEW YORK

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BEDROCK GROUNDWATER PCE PLUME
JULY 2022

Project 3616206098

Figure 5

2022 ANNUAL REPORT
AMERICAN THERMOSTAT SITE NO. 420006
SOUTH CAIRO, NEW YORK

MACTEC

OVERBURDEN GROUNDWATER PCE PLUME
JULY 2022

Project 3616206098

Figure 6

EW-8
146.28

IW-8
182.01

IW-9
155.55

EW-9
158.21

EW-7
132.64

M-8
251.00

EW-16
140.16

EW-4
156.55

EW-6
164.94

EW-2
165.29

EW-3
156.72

EW-5
257.61

M-9
172.04

140

180

200

240

160

220

Legend

- Overburden Extraction Well
- Overburden Monitoring Well
- Interpreted Bedrock Groundwater Contour, feet above mean sea level
- Interpreted Groundwater Flow Direction

Notes:
- Groundwater contours modeled using Surfer.
- Contour is dashed where inferred.
- Water level measurements collected 4/18/22.

N

0 75 150 300 Feet

Greene County digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: https://gis.ny.gov

Prepared/Date: BP 03/24/23
Checked/Date: KAA 05/17/23

2022 ANNUAL REPORT
AMERICAN THERMOSTAT SITE NO. 420006
SOUTH CAIRO, NEW YORK

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APRIL 2022 INTERPRETED BEDROCK POTENTIOMETRIC SURFACE (PUMPING)

Project 3616206098

Figure 7

EW-8
141.91

IW-8
155.32

IW-9
151.17

EW-9
153.90

EW-7
69.00

M-8
250.28

EW-16
75.41

EW-4
151.39

EW-6
161.14

EW-2
162.70

EW-3
151.68

EW-5
252.70

M-9
168.82

80
100
120
140
160
180
200
220
240

Legend

- Overburden Extraction Well
- Overburden Monitoring Well
- Interpreted Bedrock Groundwater Contour, feet above mean sea level
- Interpreted Groundwater Flow Direction

Notes:
- Groundwater contours modeled using Surfer.
- Contour is dashed where inferred.
- Water level measurements collected 10/17/22.

N

0 75 150 300 Feet

Greene County digital orthoimagery (2013) obtained from New York State GIS Clearinghouse at: https://gis.ny.gov

Prepared/Date: BP 03/24/23
Checked/Date: KAA 05/17/23

2022 ANNUAL REPORT
AMERICAN THERMOSTAT SITE NO. 420006
SOUTH CAIRO, NEW YORK

MACTEC

OCTOBER 2022 INTERPRETED BEDROCK POTENTIOMETRIC SURFACE (PUMPING)

Project 3616206098

Figure 8

TABLES

Table 1: Site Management Requirements

Component	Action	Required Frequency	Comments/Recommendations
Groundwater Extraction and Treatment System (GWETS)			
GWETS Operation Checklist	Inspection	Each O&M visit	Check groundwater treatment system operation: flow rates, meter readings, system components.
Extraction Wells	Inspection	Each O&M visit	Check extraction wells, housing, control panels.
Control Panel, Heaters	Inspection	Each O&M visit	Check function of control panel indicating lights. In cold weather, verify pilot light operation of heaters.
Safety Equipment, Treatment Plant Lighting	Inspection	Monthly	Inspect safety equipment (ladders, eyewash, fire extinguishers, etc.). Inspect plant lighting for proper operation.
Site Security	Inspection	Monthly	Check treatment building door locks, fencing, and site perimeter fence for defects.
Air Stripper	Inspection/ Maintenance	Semiannually	Perform cleaning of air stripper unit trays and sump, if necessary.
Treatment Plant Heaters	Inspection/ Maintenance	Annually	Annual inspection and cleaning of heaters; to be performed by a licensed subcontractor.
Groundwater Monitoring System	Inspection	15-Month	Visually inspect well pads/locks at site wells; repair as necessary to maintain integrity and security.
System Performance Monitoring			
Influent Header (SP-1)	Plant influent water sampling	Monthly	Grab sample collected to monitor and evaluate GWETS performance.
Treatment Plant Discharge (SP-39)	Plant effluent water sampling	Monthly	Grab sample collected to monitor and evaluate GWETS performance.
Point of Entry Treatment (POET) System			
POET System	Residential water supply sampling and inspection	Quarterly [(1)]	Grab sample collected between carbon filters to monitor and evaluate water supply and GAC performace. Perform system maintenance on carbon filters and UV system as needed, annual at a minimum.
Environmental Monitoring			
Groundwater Elevation Monitoring	Groundwater elevation measurements	Semiannually (spring and fall)	Collect groundwater elevation measurements for active extraction wells and select monitoring wells to monitor hydraulic control of the plume near the site.
Environmental Groundwater Sampling	Groundwater sampling of 36 wells	15-Month sampling interval	Grab/PDB samples collected from 36 locations including: 21 monitoring wells, 12 active bedrock and overburden extraction wells, 1 private supply well (Country Estates), and 3 residential water supply wells before GAC filters.

Notes:

[(1)] Samples collected January 4, 2022. As of May 31, 2022, NYSDEC no longer responsible for maintenance and sampling of POET systems.

GAC = granular activated carbon
O&M = operation and maintenance
PDB = passive diffusion bag
UV = ultraviolet

Prepared by: KLS 01/06/2023
Checked by: KAA 05/17/2023

Table 2: Long-Term Monitoring and System Performance Sampling Matrix

Sample ID/ Location	Monitoring Interval	Water Level Measurements		Analysis	Sample Description
		Semiannual	15-Month LTM		
Monitoring Wells (15-Month LTM) [1]					
CE-1 [2]	bedrock			VOCs	Grab, before filters
CE-2	bedrock			VOCs	Grab, before filters
EW-3	bedrock	X	X	VOCs	PDB
EW-4	bedrock	X	X	VOCs	PDB
EW-5	bedrock	X	X	VOCs	PDB
EW-8	bedrock	X	X	VOCs	PDB
EW-10	unknown		X		Not Applicable
EW-11	bedrock		X	VOCs	PDB
EW-12	bedrock		X	VOCs	PDB
EW-13	bedrock		X	VOCs	PDB
EW-15	unknown		X		Not Applicable
IW-8	bedrock	X	X	VOCs	PDB
IW-9	bedrock	X	X	VOCs	PDB
IW-10	bedrock	X	X	VOCs	PDB
M-4	bedrock		X	VOCs	PDB
M-5	bedrock		X	VOCs	PDB
M-6	bedrock		X	VOCs	Grab
M-8 [3]	bedrock	X	X	VOCs	PDB
M-9 [3]	bedrock	X	X	VOCs	PDB
Mueller	bedrock		X	VOCs	PDB
MW-104 [3]	overburden		X	VOCs	PDB
MW-108	overburden		X		Not Applicable
MW-109 [3]	overburden		X	VOCs	PDB
MW-112 [3]	overburden		X	VOCs	PDB
MW-113 [3]	overburden		X	VOCs	PDB
Active Bedrock Extraction Wells (15-Month LTM) [1]					
EW-2 [4]	bedrock	X	X	VOCs	Grab
EW-6	bedrock	X	X	VOCs	Grab
EW-7	bedrock	X	X	VOCs	Grab
EW-9	bedrock	X	X	VOCs	Grab
EW-16	bedrock	X	X	VOCs	Grab
Active Overburden Extraction Wells (15-Month LTM) [1]					
OW-2	overburden	X	X	VOCs	Grab
OW-3	overburden	X	X	VOCs	Grab
OW-5	overburden	X	X	VOCs	Grab
OW-7	overburden	X	X	VOCs	Grab

Prepared by: KLS 01/06/2023
Checked by: KAA 05/17/2023

Table 2: Long-Term Monitoring and System Performance Sampling Matrix

Sample ID/ Location	Monitoring Interval	Water Level Measurements		Analysis	Sample Description
		Semiannual	15-Month LTM		
OW-13	overburden	X	X	VOCs	Grab
Active Overburden Extraction Wells (15-Month LTM) [1] (continued)					
OW-14	overburden	X	X	VOCs	Grab
OW-16	overburden	X	X	VOCs	Grab
Residential Wells (15-Month LTM) [1]					
[redacted]	bedrock			VOCs	Grab, before filters
[redacted]	bedrock			VOCs	Grab, before filters
[redacted]	bedrock			VOCs	Grab, before filters
Residential Well POET System Performance (Quarterly) [5]					
[redacted]				VOCs	Grab, before & between filters
[redacted]				VOCs	Grab, before & between filters
[redacted]				VOCs	Grab, before & between filters
GWETS Performance (Monthly)					
PS-INFLUENT				VOCs, Metals, TDS, TSS	Grab, influent water
PS-AS-EFFLUENT				VOCs	Grab, air stripper effluent water

Notes:

[1] LTM conducted on a 15-month basis. LTM event occurred July 18-20, 2022. CE-2 LTM sample collected August 1, 2022.

[2] CE-1 not in service; acts as an emergency backup well to CE-2 for Country Estates. Therefore, not sampled as part of LTM event.

[3] Well added to LTM network based on recommendation from 2018 EPA Five-Year Review for the Site.

[4] EW-2 has been inoperable since September 2020 due to electrical and mechanical issues. It cannot be sampled due to presence of extraction well equipment.

[5] Samples collected Janurary 4, 2022. As of May 31, 2022, NYSDEC no longer responsible for maintenance and sampling of POET systems.

GWETS = groundwater extraction and treatment system
LTM = long-term monitoring
PDB = passive diffusion bag
POET = point of entry treatment
TDS = Total Dissolved Solids
TSS = Total Suspended Solids
VOCs = Volatile Organic Compounds

Prepared by: KLS 01/06/2023
Checked by: KAA 05/17/2023

Table 3: Groundwater Extraction and Treatment System Monthly Throughput

Year	Month												Total for Calendar Year (gallons)	Cumulative Total Throughput (gallons)
	January	February	March	April	May	June	July	August	September	October	November	December		
1998	-	-	-	-	-	-	-	1,845,307	2,326,580	2,000,099	1,387,734	1,515,814	9,075,534	9,075,534
1999	2,327,342	1,946,464	1,570,828	1,986,297	1,876,550	1,810,328	1,880,672	2,865,086	2,849,292	2,967,620	2,840,040	2,996,042	27,916,561	36,992,095
2000	2,188,662	1,828,969	2,782,069	2,625,243	2,689,205	2,515,671	2,845,066	2,656,221	2,790,754	3,191,008	2,906,470	3,089,535	32,108,873	69,100,968
2001	3,154,385	3,202,253	3,397,280	3,325,592	3,507,403	3,241,052	2,846,350	3,323,930	3,116,812	3,172,179	2,668,748	2,676,774	37,632,758	106,733,726
2002	2,643,561	2,400,906	2,581,039	3,015,136	2,827,722	3,087,176	3,109,504	2,969,001	2,826,453	3,126,848	3,151,070	3,043,354	34,781,770	141,515,496
2003	3,112,140	2,640,103	3,032,627	2,956,081	2,279,599	2,817,292	2,828,580	2,862,294	2,805,159	2,889,540	2,703,444	1,743,574	32,670,433	174,185,929
2004	1,452,060	1,323,679	1,433,444	1,621,998	1,511,813	1,378,343	1,829,427	2,488,132	2,214,838	2,016,922	2,147,628	2,218,612	21,636,896	195,822,825
2005	1,969,101	1,627,579	1,505,083	1,888,648	1,679,210	1,635,094	1,679,658	1,675,021	1,668,387	1,048,462	1,753,165	1,804,582	19,933,990	215,756,815
2006	1,850,648	1,724,943	1,726,705	1,860,726	2,038,414	2,225,379	1,700,523	1,505,840	1,573,918	2,365,602	2,542,691	1,570,319	22,685,708	238,442,523
2007	1,860,431	1,484,866	1,797,869	1,651,491	1,595,631	1,567,880	1,656,624	1,680,981	1,559,100	1,624,903	1,628,116	1,779,807	19,887,699	258,330,222
2008	1,621,909	1,661,136	1,872,515	1,922,613	1,496,402	1,519,804	1,344,964	2,366,862	2,053,268	2,649,688	2,172,569	2,466,153	23,147,883	281,478,105
2009	2,009,299	1,973,492	2,109,251	2,164,940	2,086,536	2,069,749	2,413,904	1,461,639	1,572,872	1,962,537	1,782,527	2,171,560	23,778,306	305,256,411
2010	1,715,140	1,562,130	2,144,107	1,972,606	1,692,254	1,657,835	1,710,898	1,814,591	1,502,900	1,736,300	1,505,900	1,799,400	20,814,061	326,070,472
2011	1,660,400	1,608,200	1,677,100	1,807,700	1,869,800	1,617,700	1,626,100	1,676,400	1,764,200	1,646,400	1,806,000	1,966,500	20,726,500	346,796,972
2012	1,617,600	1,592,100	1,545,800	976,300	1,050,200	655,200	435,000	1,572,000	1,098,900	1,363,800	1,223,500	1,351,200	14,481,600	361,278,572
2013	1,287,600	1,165,900	1,213,400	1,213,400	1,024,000	560,000	-	368,300	282,600	1,133,000	1,240,188	950,031	10,438,419	371,716,991
2014	605,868	537,554	828,412	1,311,895	1,181,124	1,036,409	1,101,365	968,790	516,422	771,419	643,451	804,076	10,306,785	382,023,776
2015	1,055,444	726,839	818,456	829,691	918,585	1,174,145	1,364,309	1,069,571	1,424,510	890,175	-	251,416	10,523,141	392,546,917
2016	1,028,212	1,142,661	1,197,620	1,176,265	1,105,646	1,027,389	1,159,271	1,156,925	1,179,487	1,145,887	936,208	953,286	13,208,857	405,755,774
2017	1,492,216	906,043	1,123,788	1,197,556	1,049,899	1,426,931	1,168,068	1,576,200	928,859	1,428,789	863,212	1,231,949	14,393,510	420,149,284
2018	1,225,869	1,362,944	983,689	968,599	1,548,696	1,134,499	1,470,999	97,588	287,744	1,076,410	863,088	1,227,285	12,247,410	432,396,694
2019	1,589,576	1,274,721	1,562,495	1,217,017	1,343,215	1,222,569	1,222,569	1,063,488	1,114,585	1,141,511	902,426	755,511	14,409,683	446,806,377
2020	499,106	1,258,095	679,114	720,765	523,678	409,470	731,479	860,427	1,191,122	784,850	1,149,568	1,037,075	9,844,749	456,651,126
2021	859,906	937,650	981,620	951,290	1,260,945	914,353	1,355,500	1,152,711	1,016,565	1,269,408	1,061,188	1,017,492	12,778,628	469,429,754
2022	1,010,934	860,600	934,151	1,033,360	696,112	730,950	655,937	678,561	689,057	753,523	873,911	952,235	9,869,331	479,299,085

Note:
- Treatment system modifications resulted in plant shutdown during the months of July 2013 and November 2015.

Prepared by: KLS 01/06/2023
Checked by: KAA 01/23/2023

Table 4: Groundwater Extraction and Treatment System Operational Data

Year	Reporting Month	Reporting Period Interval		System Downtime (approximate) (days)	System Runtime [(1)] (days)	Effluent Totalizer Reading (gallons)		Monthly System Throughput (gallons)	Average Flow Rate (gpm)
		Start Date	End Date			Start	End		
2022	January	1/4/2022	2/1/2022	0.1	28	94,070,046	95,080,980	1,010,934	25
	February	2/1/2022	3/1/2022	2.1	26	95,080,980	95,941,580	860,600	23
	March	3/1/2022	4/1/2022	0.2	31	95,941,580	96,875,731	934,151	21
	April	4/1/2022	5/2/2022	0.1	31	96,875,731	97,909,091	1,033,360	23
	May	5/2/2022	6/1/2022	5.8	24	97,909,091	98,605,203	696,112	20
	June	6/1/2022	7/1/2022	0.1	30	98,605,203	99,336,153	730,950	17
	July	7/1/2022	8/1/2022	0.1	31	99,336,153	99,992,090	655,937	15
	August	8/1/2022	9/1/2022	0.1	31	99,992,090	100,670,651	678,561	15
	September	9/1/2022	10/3/2022	0.1	32	100,670,651	101,359,708	689,057	15
	October	10/3/2022	11/2/2022	3.1	27	101,359,708	102,113,231	753,523	19
	November	11/2/2022	12/2/2022	0.1	30	102,113,231	102,987,142	873,911	20
	December	12/2/2022	1/3/2023	0.1	32	102,987,142	103,939,377	952,235	21

Notes:
[(1)] Calculated by subtracting system downtime in days from number of days in reporting period interval.
gpm = gallons per minute

Prepared by: KLS 01/06/2023
Checked by: KAA 05/17/2023

Table 5: Total VOCs Extracted from Groundwater (lbs.)

Year	Calendar Month												Total for Calendar Year (lbs.)	Cumulative Total VOCs (lbs.)
	January	February	March	April	May	June	July	August	September	October	November	December		
1998	-	-	-	-	-	-	-	104.7	24.5	42.4	26.6	35.0	233	233
1999	26.5	49.3	43.7	39.2	26.7	31.0	23.9	47.3	39.0	63.2	58.1	66.9	515	748
2000	57.5	47.2	62.3	58.7	43.7	50.0	40.8	41.5	33.9	34.6	42.7	49.9	563	1,311
2001	42.7	42.6	50.5	44.1	54.4	45.5	34.7	41.2	29.5	71.5	23.9	27.9	509	1,820
2002	28.1	26.0	28.3	43.4	42.5	44.8	40.5	38.5	37.3	36.9	42.3	42.8	451	2,271
2003	38.2	37.3	43.8	44.8	34.1	45.5	32.7	42.0	51.9	49.3	35.1	34.4	489	2,760
2004	29.7	31.3	39.2	42.0	34.6	32.6	32.1	31.6	26.9	36.0	26.8	34.3	397	3,157
2005	39.4	33.0	20.5	21.8	29.6	23.6	24.3	14.3	17.5	15.2	31.8	31.3	302	3,460
2006	33.8	28.5	27.2	29.0	40.2	44.1	13.1	14.1	24.4	40.1	40.4	23.1	358	3,818
2007	32.3	19.8	28.8	34.4	19.8	18.7	20.2	16.4	15.8	15.8	20.2	21.9	264	4,082
2008	23.9	24.3	34.0	30.6	22.7	14.7	11.8	24.7	21.8	24.8	24.1	25.3	283	4,364
2009	23.0	18.5	20.0	21.0	23.8	19.4	25.3	15.8	14.8	16.9	19.9	26.5	245	4,609
2010	19.0	19.4	30.6	23.6	15.1	13.9	12.0	9.8	13.7	21.8	18.0	30.4	227	4,836
2011	18.2	15.9	35.5	26.3	25.1	22.9	19.5	19.8	25.0	22.5	19.8	22.5	273	5,109
2012	18.5	18.6	18.0	18.8	24.0	5.4	27.5	39.6	12.8	29.2	23.9	17.0	253	5,363
2013	21.8	27.9	30.2	18.7	18.6	13.1	-	20.0	10.4	17.1	18.5	14.1	211	5,573
2014	7.5	11.0	25.1	18.1	26.1	15.6	13.0	40.3	7.0	8.9	14.0	10.7	197	5,770
2015	14.1	6.4	6.1	15.5	15.5	16.8	16.9	14.2	17.4	10.5	-	8.9	142	5,912
2016	24.0	19.1	18.0	32.1	14.4	17.6	14.1	9.5	9.5	13.4	8.6	16.1	196	6,109
2017	13.9	37.0	10.3	27.0	10.5	18.6	10.0	20.5	10.9	7.1	6.1	8.0	180	6,289
2018	25.1	21.5	10.8	20.6	18.1	14.1	13.5	7.8	9.2	23.9	15.5	18.7	199	6,487
2019	17.8	17.7	20.4	15.8	14.6	12.4	20.7	16.9	71.6	8.3	27.8	22.5	267	6,754
2020	9.8	23.4	10.0	20.2	13.2	22.2	20.3	7.5	14.5	9.1	25.9	14.1	190	6,944
2021	24.3	34.6	15.2	17.0	20.8	11.2	41.8	16.8	30.8	21.7	17.1	26.0	277	7,221
2022	10.4	6.9	11.3	15.9	9.4	38.0	9.8	9.4	7.4	11.8	15.3	15.3	161	7,382

Notes:

- VOCs Extracted calculated by multiplying site-specific VOC concentrations in monthly influent samples by monthly average flow rate and monthly system runtime (refer to Table 4).
- Treatment system modifications resulted in plant shutdown during the months of July 2013 and November 2015.

lbs. = pounds
VOCs = Volatile Organic Compounds

Prepared by: KLS 01/06/2023
Checked by: KAA 05/17/2023

Table 6: Groundwater Extraction and Treatment System Performance Sampling Results - 2022

Parameter				1,2-DCE (total)	PCE	TCE	Vinyl Chloride	Barium	Iron	TDS
Units				µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L
New York State Class C Criteria				-	1 (1)	40 (2)	-	-	300 (1)	-
Location	**Matrix**	**Date**	**Field Sample ID**							
PS-Influent	L	1/4/2022	PS-INFLUENT	739	**349**	**128**	17	48 J	76 J	410
PS-Influent	L	2/1/2022	PS-INFLUENT	632	**218**	**101**	9 J-	53 J+	99 J	387
PS-Influent	L	3/1/2022	PS-INFLUENT	368	**792**	**272**	14	52 J	237	373
PS-Influent	L	4/1/2022	PS-INFLUENT	652	**899**	**273**	12	50 J	246	356
PS-Influent	L	5/2/2022	PS-INFLUENT	794	**484**	**317**	16	47 J	172	366
PS-Influent	L	6/1/2022	PS-Influent	1,708 (3)	**3,300**	**1,200**	18	60	150	380
PS-Influent	L	7/1/2022	PS-Influent	825 J (3)	**640**	**270**	17 J	49 J	**330**	350
PS-Influent	L	8/1/2022(4)	PS-Influent	2 U (3)	1 U	1 U	1 U	200 U	**352**	398
PS-Influent	L	9/1/2022	PS-INFLUENT	692	**365**	**213**	15	41 J	158	410
PS-Influent	L	10/3/2022	PS-Influent	866 J (3)	**690**	**250**	26	62	300	350
PS-Influent	L	11/2/2022	PS-Influent	715 J (3)	**1,100**	**240**	12 J	58	**1,300**	190
PS-Influent	L	12/2/2022	PS-Influent	494 J (3)	**1,100**	**400**	13 J	43 J	100	250
Air Stripper Eff	L	1/4/2022	PS-AS EFFLUENT	2 U	1 U	1 U	1 U	40 J	73 J	401
Air Stripper Eff	L	2/1/2022	PS-AS EFFLUENT	2 U	1 U	1 U	1 U	53 J	167	378
Air Stripper Eff	L	3/1/2022	PS-AS EFFLUENT	2 U	1 U	1 U	1 U	53 J	231	364
Air Stripper Eff	L	4/1/2022	PS-AS-EFFLUENT	2 U	**1**	1 U	1 U	51 J	199	354
Air Stripper Eff	L	5/2/2022	PS-AS EFFLUENT	2 U	1 U	1 U	1 U	47 J	140	373
Air Stripper Eff	L	6/1/2022	PS-AS Effluent	2 U (3)	1 U	1 U	2 U	68	180	230
Air Stripper Eff	L	7/1/2022	PA-AS Effluent	2 U (3)	1 U	1 U	2 U	53	**310**	340
Air Stripper Eff	L	8/1/2022(4)	PS-AS Effluent	855 (3)	**523**	**246**	30	200 U	**308**	423
Air Stripper Eff	L	9/1/2022	PS-AS-EFFLUENT	2 U	1 U	1 U	1 U	42 J	146	362
Air Stripper Eff	L	10/3/2022	PS-AS Effluent	2 U (3)	0 J	1 U	2 U	41 J	200	370
Air Stripper Eff	L	11/2/2022	PS-AS Effluent	2 U (3)	0 J	1 U	2 U	53	**850**	250
Air Stripper Eff	L	12/2/2022	PS-AS Effluent	2 U (3)	1 U	1 U	2 U	44 J	96	270

Notes:

(1) Guidance Value

(2) Standard

(3) Result not reported by lab. Result manually calculated and recorded in applicable significant figures.

(4) Results are inconsistent with conceptual site model and groundwater sampling results at the Site. Historical sample data and lack of a potential contributing VOC source within GWETS treatment train indicates mishandling or misreporting of results by lab may have occurred.

" - " = no criteria

Gray highlight = exceedance of standard or guidance value

1,2-DCE = 1,2-Dichloroethene

µg/L = micrograms per liter

mg/L = milligrams per liter

PCE = Tetrachloroethene

TCE = Trichloroethene

TDS = Total Dissolved Solids

Qualifiers:

J = estimated value

J+ = estimated value, biased high

J- = estimated value, biased low

L = liquid

U = not detected

Prepared by: KMS 01/13/2023
Checked by: KAA 05/17/2023

Table 7: Residential Point of Entry Treatment System Sampling Results - 2022

Parameter		1,2-DCE (total)		Cis-1,2-DCE		Trans-1,2-DCE		PCE		TCE		Vinyl Chloride	
Units		µg/L		µg/L		µg/L		µg/L		µg/L		µg/L	
NYS Class GA Standard		5		5		5		5		5		2	
Location	Sample Date	Before Filtration	Between Filtration	Before Filtration	Between Filtration	Before Filtration	Between Filtration	Before Filtration	Between Filtration	Before Filtration	Between Filtration	Before Filtration	Between Filtration
[redacted]	1/4/2022	2 U [(1)]	2 U [(1)]	2.9	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
[redacted]	1/4/2022	2 U [(1)]	2 U [(1)]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
[redacted]	1/4/2022	2 U [(1)]	2 U [(1)]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

Notes:

[(1)] Result not reported by lab. Result manually calculated and recorded in applicable significant figures.

1,2-DCE = 1,2-Dichloroethene

Cis-1,2-DCE = Cis-1,2-Dichloroethene

µg/L = micrograms per liter

NYS = New York State

PCE = Tetrachloroethene

TCE = Trichloroethene

Trans-1,2-DCE = Trans-1,2-Dichloroethene

Qualifiers:

U = not detected

Prepared by: KMS 01/13/2023
Checked by: KAA 05/17/2023

Table 8: LTM and Semiannual Groundwater Level Measurements

Well ID/ Sampling Location	Measurement Point Elevation (ft. msl)	Well Depth (ft.)	Monitoring Interval	Measurement Point Reference	Depth to Water 4/18/2022 (ft. btoc)	Groundwater Elevation 4/18/2022 (ft. msl)	Depth to Water 7/18/2022 [1] (ft. btoc)	Groundwater Elevation 7/18/2022 [1] (ft. msl)	Depth to Water 10/17/2022 (ft. btoc)	Groundwater Elevation 10/17/2022 (ft. msl)
Monitoring Wells										
CE-1 [3]	224.91	535.00	bedrock	TOC	NM	NM	NM	NM	NM	NM
CE-2	224.95	287.00	bedrock	TOC	NM	NM	NM	NM	NM	NM
EW-3	259.67	295.00	bedrock	TOC	102.95	156.72	108.75	150.92	107.99	151.68
EW-4	256.01	322.00	bedrock	TOC	99.46	156.55	105.35	150.66	104.62	151.39
EW-5	259.85	235.20	bedrock	TOC	2.24	257.61	6.20	253.65	7.15	252.70
EW-8	223.93	318.00	bedrock	TOC	77.65	146.28	82.65	141.28	82.02	141.91
EW-10	234.09	225.00	unknown	TOC	NM	NM	16.85	217.24	NM	NM
EW-11	231.40	172.20	bedrock	TOC	NM	NM	67.02	164.38	NM	NM
EW-12	232.76	270.50	bedrock	TOC	NM	NM	49.35	183.41	NM	NM
EW-13	217.06	360.00	bedrock	TOC	NM	NM	48.34	168.72	NM	NM
EW-15	236.37	275.00	unknown	TOC	NM	NM	14.83	221.54	NM	NM
IW-8 [6]	239.47	391.80	bedrock	TOC	57.46	182.01	84.99	154.48	84.15	155.32
IW-9	224.37	358.10	bedrock	TOC	68.82	155.55	73.10	151.27	73.20	151.17
IW-10	235.57	176.30	bedrock	TOC	5.33	230.24	8.91	226.66	6.64	228.93
M-4	232.19	200.00	bedrock	TOC	NM	NM	67.70	164.49	NM	NM
M-5	213.88	200.00	bedrock	TOC	NM	NM	45.59	168.29	NM	NM
M-6	248.31	100.00	bedrock	TOC	NM	NM	32.45	215.86	NM	NM
M-8	261.57	200.00	bedrock	TOC	10.57	251.00	13.60	247.97	11.29	250.28
M-9	256.39	200.00	bedrock	TOC	84.35	172.04	86.63	169.76	87.57	168.82
Mueller	183.25	114.00	bedrock	TOC	NM	NM	19.43	163.82	NM	NM
MW-104	258.00	81.60	overburden	TOC	NM	NM	29.55	228.45	NM	NM
MW-108	254.72	86.10	overburden	TOC	NM	NM	23.16	231.56	NM	NM
MW-109	255.96	87.50	overburden	TOC	NM	NM	20.69	235.27	NM	NM
MW-112	256.60	25.10	overburden	TOC	NM	NM	7.61	248.99	NM	NM
MW-113	257.38	25.00	overburden	TOC	NM	NM	10.54	246.84	NM	NM
Active Bedrock Extraction Wells										
EW-2 [2]	255.29	322.00	bedrock	TOC/PLC	NM	166.57 [4]	NM	161.82 [4]	NM	162.70 [4]
EW-6	242.94	325.00	bedrock	TOC/PLC	NM	164.88 [4]	NM	160.18 [4]	NM	161.14 [4]

Prepared by: KLS 01/10/2023
Checked by: KAA 05/17/2023

Table 8: LTM and Semiannual Groundwater Level Measurements

Well ID/ Sampling Location	Measurement Point Elevation (ft. msl)	Well Depth (ft.)	Monitoring Interval	Measurement Point Reference	Depth to Water 4/18/2022 (ft. btoc)	Groundwater Elevation 4/18/2022 (ft. msl)	Depth to Water 7/18/2022 [1] (ft. btoc)	Groundwater Elevation 7/18/2022 [1] (ft. msl)	Depth to Water 10/17/2022 (ft. btoc)	Groundwater Elevation 10/17/2022 (ft. msl)
Active Bedrock Extraction Wells (continued)										
EW-7	251.64	227.00	bedrock	TOC/PLC	NM	132.64 [4]	NM	69.00 [4]	NM	69.00 [4]
EW-9	236.21	365.00	bedrock	TOC/PLC	NM	159.07 [4]	NM	153.64 [4]	NM	153.90 [4]
EW-16	248.16	417.00	bedrock	TOC/PLC	NM	134.85 [4]	NM	NM [5]	NM	NM [5]
Active Overburden Extraction Wells										
OW-2	257.03	30.00	overburden	TOC/PLC	NM	254.24 [4]	NM	244.58 [4]	NM	245.07 [4]
OW-3	256.81	25.00	overburden	TOC/PLC	NM	253.56 [4]	NM	239.09 [4]	NM	249.37 [4]
OW-5	258.20	30.00	overburden	TOC/PLC	NM	251.13 [4]	NM	250.99 [4]	NM	251.19 [4]
OW-7	254.57	25.00	overburden	TOC/PLC	NM	251.69 [4]	NM	236.98 [4]	NM	237.04 [4]
OW-13	259.95	29.50	overburden	TOC/PLC	NM	269.37 [4]	NM	253.02 [4]	NM	252.03 [4]
OW-14	261.24	30.00	overburden	TOC/PLC	NM	255.23 [4]	NM	259.82 [4]	NM	253.48 [4]
OW-16	259.81	30.00	overburden	TOC/PLC	NM	248.41 [4]	NM	258.58 [4]	NM	248.75 [4]

Notes:

[1] Water level measurements collected as part of the 15-month LTM event.

[2] Water levels were measured under pumping conditions with EW-2 offline. EW-2 has been off-line since September 2020 due to electrical and mechanical issues.

[3] CE-1 not in service; acts as emergency backup well to CE-2 for Country Estates.

[4] Measurement collected from extraction well control panel.

[5] Level transducer not working; therefore, measurement could not be collected.

[6] Measurements not included in potentiometric surface figures as it represents shallow bedrock that is not hydraulically connected to the bedrock aquifer monitored by other wells.

btoc = below top of casing

ft. = feet

msl = mean sea level

LTM = long-term monitoring

NM = not measured

PLC = programmable logic controller

TOC = top of casing

Prepared by: KLS 01/10/2023
Checked by: KAA 05/17/2023

Table 9: Groundwater Monitoring Results – Site-Specific Contaminants of Concern

		Parameter	1,2-DCE (total)	Cis-1,2-DCE	Trans-1,2-DCE	PCE	TCE	Vinyl Chloride
		Units	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
		New York State Class GA Standard	5	5	5	5	5	2
Location	**Sample Date**	**Sample ID**						
CE-2	8/1/2022	CE-2 BEF	2.7 (1)	2.7	1 U	**10.9**	3.9	1 U
EW-3	7/20/2022	EW-3	**5.3 J**	**5.3 J**	1 U	1 U	1 U	**4.8**
EW-4	7/20/2022	EW-4	**5.7**	**5.7**	1 U	1 U	1 U	1
EW-5	7/20/2022	EW-5	**260**	**258**	2.4	**182**	**67**	**8.7**
EW-6	7/20/2022	EW-6	**175**	**171**	3.3	**446**	**135**	**13.4**
EW-7	7/20/2022	EW-7	**304**	**292**	**11.7**	**6.5**	**6.4**	**9.7**
EW-8	7/20/2022	EW-8	3.8	3.8	1 U	1 U	1 U	**2.1**
EW-9	7/20/2022	EW-9	**40**	**38.6**	1.4	**6.1**	**5.4**	**16.2**
EW-11	7/20/2022	EW-11	1.2 J	1.2	1 U	1 U	1 U	1 U
EW-12	7/20/2022	EW-12	2 U	1 U	1 U	**5.7**	1 U	1 U
EW-13	7/19/2022	EW-13	3.1	3.1	1 U	**24.3**	2.5	1 U
EW-16	7/20/2022	EW-16	**1,960**	**1,940**	**23.3**	**599**	**657**	**25.6**
IW-8	7/20/2022	IW-8	2 U	1 U	1 U	1 U	1.1	1 U
IW-9	7/20/2022	IW-9	**590**	**586**	3.6	**168**	**239**	**2.1**
IW-10	7/20/2022	IW-10	3.6	3.6	1 U	1 U	1.3	1 U
[redacted]	7/19/2022	[redacted]	2 U	1 U	1 U	1 U	1 U	1 U
[redacted]	7/19/2022	[redacted]	2 U	1 U	1 U	1 U	1 U	1 U
M-4	7/20/2022	MW-4	2 U	1 U	1 U	1 U	1 U	1 U
M-5	7/19/2022	M-5	**12.7**	**12.7**	1 U	1 U	1 U	**6.7**
M-6	7/19/2022	M-6	2 U	1 U	1 U	1 U	1 U	1 U
M-8	7/19/2022	M-8	2 U	1 U	1 U	1 U	1 U	1 U
M-9	7/19/2022	M-9	2 U	1 U	1 U	1 U	1 U	1 U
MUELLER	7/19/2022	MUELLER	2 U	1 U	1 U	1 U	1 U	1 U
MW-104	7/20/2022	MW-104	2 U	1 U	1 U	1 U	1 U	1 U
MW-109	7/20/2022	MW-109	2 U	1 U	1 U	1 U	1 U	1 U
MW-112	7/19/2022	MW-112	2 U	1 U	1 U	1 U	1 U	1 U
MW-113	7/19/2022	MW-113	**24.4**	**24.4**	1 U	**1,650**	**23.1**	1 U
OW-2	7/20/2022	OW-2	**68.4**	**68.4**	1 U	**389**	**17.8**	1 U
OW-3	7/20/2022	OW-3	**221**	**217**	3.2	**10,400**	**289**	1.7
OW-5	7/20/2022	OW-5	**1,370**	**1,360**	**5.3**	**3,900**	**273**	**2.5**
OW-7	7/20/2022	OW-7	**37.6**	**37.6**	1 U	**116**	**16.1**	1 U
OW-13	7/20/2022	OW-13	**90.2**	**90.2**	1 U	**147**	**8.8**	1.2
OW-14	7/20/2022	OW-14	**1,380**	**1,370**	**7.2**	**2,420**	**584**	**134**
OW-16	7/20/2022	OW-16	**64**	**64**	1 U	**80.4**	**24.2**	1 U
[redacted]	7/19/2022	[redacted]	2 U	1 U	1 U	1 U	1 U	1 U

Notes:

(1) Result not reported by lab. Result manually calculated and recorded in applicable significant figures.

Gray highlight = exceedance of standard

1,2-DCE = 1,2-Dichloroethene

Cis-1,2-DCE = Cis-1,2-Dichloroethene

PCE = Tetrachloroethene

TCE = Trichloroethene

Trans-1,2-DCE = Trans-1,2-Dichloroethene

µg/L = micrograms per liter

Qualifiers:

J = estimated value

U = not detected

Prepared by: KMS 01/13/2023
Checked by: KAA 05/17/2023

ATTACHMENT 1

NYSDEC POET System Cessation Letters

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E
625 Broadway, 12th Floor, Albany, NY 12233-7017
P: (518) 402-9813 I F: (518) 402-9819
www.dec.ny.gov

May 17, 2022

Jane Klinke
P.O. Box 167
South Cairo, New York 12482

RE: 123 Scotch Rock Road
American Thermostat Site, Site ID: 420006
Point of Entry Treatment (POET) System Cessation

Dear Jane Klinke:

The New York State Department of Environmental Conservation (NYSDEC), under the NYS State Superfund program, provides relief to property owners when their private water supply wells become impacted by contamination from release of hazardous wastes. Initially, as an emergency measure, bottled water may be provided to the impacted residents. If required, a more permanent solution may be provided with the installation of a point of entry treatment (POET) system. This relief is provided by the NYSDEC until such a time that either a public water connection becomes available or the contamination decreases to a level determined by the New York State Department of Health (NYSDOH) to be acceptable for human consumption.

The Environmental Protection Agency (EPA) installed a granular activated carbon (GAC) POET system at your property in 2000 to treat water from your supply well contaminated with volatile organic compounds (VOCs). Since that time the levels of VOCs in the untreated water from your supply well have decreased to levels in conformance with the NYSDOH regulations for public water supply systems. Specifically, the concentrations of contaminants of concern have been non-detect or below the maximum contaminant level of 5 parts per billion dating back to January 2013.

Based on this fact NYSDEC, in concurrence with NYSDOH, will as of May 31, 2022 no longer provide for the operation, maintenance, and monitoring of the POET system at your residence. You may elect, however, to keep the POET system and assume all responsibility for the operation and maintenance of said system or NYSDEC will arrange for the removal of the POET system and provide direct connection to your water supply well. There is no charge to you for either choice. Please complete the enclosed form indicating your choice and return to me via email and/or within the enclosed self-addressed stamped envelope.

Should you have any questions, please do not hesitate to contact me; by phone at (518) 402-9791, or by email at jenelle.gaylord@dec.ny.gov. If you have any questions related to health issues or should you notice any odors or taste issues with your water in the future, please contact Angela Martin at the NYSDOH, (518) 402-7860 or angela.martin@health.ny.gov.

Sincerely,

Jenelle Gaylord
Project Manager
Remedial Section D, Remedial Bureau E
Division of Environmental Remediation

Enclosures

Ec: A. Martin, NYSDOH
J. Deming, NYSDOH
D. Chiusano, NYSDEC
C. O'Neill, NYSDEC
J. Dyber, NYSDEC
M. Cruden, NYSDEC
J. Firth/K. Amann, Wood PLC

AGREEMENT BY PROPERTY OWNER TO
ACCEPT/DECLINE TO RETAIN GAC SYSTEM

The undersigned (owner) **Jane Klinke** of property located at **123 Scotch Rock Road** in **Greene County, Town of Catskill** having been notified by the New York State Department of Environmental Conservation (the Department), in concurrence with the New York State Department of Health, that the Department will no longer monitor and maintain the Granular Activated Carbon (GAC) Point of Entry Treatment (POET) System installed at the above referenced property due to the following reason: levels of VOCs in the untreated water from the potable water supply well at this location have decreased to levels in conformance with the NYSDOH regulations for public water supply systems, does hereby select the following option: (select only one):

_____**1)** (a) I hereby agree to keep the System and accept all physical and financial responsibility for the operation, maintenance, and monitoring of said System. I accept this System as is and recognize that the Department does not warrant or otherwise guarantee its performance.

(b) I hereby release and hold harmless the Department from any and all causes of actions in law or equity, demands, payments, recoveries, arising either directly or indirectly from the operation of the System.

_____**2)** (a) I hereby request that the Department arrange for the removal of the System and hereby release and hold harmless the Department from any and all causes of action in law or equity, demands, payments, recoveries, arising either directly or indirectly from the removal of the System.

(b) I hereby grant permission to the Department and its contractor(s) to enter upon my property with equipment, personnel, and such items as are necessary to remove the System. In consideration thereof, the Department, agrees to restore said property to its previous condition, and agrees to restore and/or replace any items on the aforesaid property which are damaged as a result of the Department, and/or its contractors entering the aforesaid premises and performing the removal.

Signed: _____ Date: _____
Property Address:_____
Phone Numbers: _____
Best time to call for making arrangements to enter your property: _____

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E
625 Broadway, 12th Floor, Albany, NY 12233-7017
P: (518) 402-9813 I F: (518) 402-9819
www.dec.ny.gov

May 17, 2022

Robert Kubler
83 Scotch Rock Road
South Cairo, New York 12482

RE: 83 Scotch Rock Road
American Thermostat Site, Site ID: 420006
Point of Entry Treatment (POET) System Cessation

Dear Robert Kubler:

The New York State Department of Environmental Conservation (NYSDEC), under the NYS State Superfund program, provides relief to property owners when their private water supply wells become impacted by contamination from release of hazardous wastes. Initially, as an emergency measure, bottled water may be provided to the impacted residents. If required, a more permanent solution may be provided with the installation of a point of entry treatment (POET) system. This relief is provided by the NYSDEC until such a time that either a public water connection becomes available or the contamination decreases to a level determined by the New York State Department of Health (NYSDOH) to be acceptable for human consumption.

The Environmental Protection Agency (EPA) installed a granular activated carbon (GAC) POET system at your property in 2000 to treat water from your supply well contaminated with volatile organic compounds (VOCs). Since that time the levels of VOCs in the untreated water from your supply well have decreased to levels in conformance with the NYSDOH regulations for public water supply systems. Specifically, the concentrations of contaminants of concern have been non-detect or below the maximum contaminant level of 5 parts per billion dating back to at least January 2013.

Based on this fact NYSDEC, in concurrence with NYSDOH, will as of May 31, 2022 no longer provide for the operation, maintenance, and monitoring of the POET system at your residence. You may elect, however, to keep the POET system and assume all responsibility for the operation and maintenance of said system or NYSDEC will arrange for the removal of the POET system and provide direct connection to your water supply well. There is no charge to you for either choice. Please complete the enclosed form indicating your choice and return to me via email and/or within the enclosed self-addressed stamped envelope.

Should you have any questions, please do not hesitate to contact me; by phone at (518) 402-9791, or by email at jenelle.gaylord@dec.ny.gov. If you have any questions related to health issues or should you notice any odors or taste issues with your water in the future, please contact Angela Martin at the NYSDOH, (518) 402-7860 or angela.martin@health.ny.gov.

Sincerely,

Jenelle Gaylord
Project Manager
Remedial Section D, Remedial Bureau E
Division of Environmental Remediation

Enclosures

Ec: A. Martin, NYSDOH
J. Deming, NYSDOH
D. Chiusano, NYSDEC
C. O'Neill, NYSDEC
J. Dyber, NYSDEC
M. Cruden, NYSDEC
J. Firth/K. Amann, Wood PLC

AGREEMENT BY PROPERTY OWNER TO
ACCEPT/DECLINE TO RETAIN GAC SYSTEM

The undersigned (owner) **Robert Kubler** of property located at **83 Scotch Rock Road** in **Greene County, Town of Catskill** having been notified by the New York State Department of Environmental Conservation (the Department), in concurrence with the New York State Department of Health, that the Department will no longer monitor and maintain the Granular Activated Carbon (GAC) Point of Entry Treatment (POET) System installed at the above referenced property due to the following reason: levels of VOCs in the untreated water from the potable water supply well at this location have decreased to levels in conformance with the NYSDOH regulations for public water supply systems, does hereby select the following option: (select only one):

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Signed: _____ Date: _____
Property Address:_____
Phone Numbers: _____
Best time to call for making arrangements to enter your property: _____

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau E
625 Broadway, 12th Floor, Albany, NY 12233-7017
P: (518) 402-9813 I F: (518) 402-9819
www.dec.ny.gov

May 17, 2022

Michael Viella
P.O. Box 343
South Cairo, New York 12482

RE: 93 Scotch Rock Road
American Thermostat Site, Site ID: 420006
Point of Entry Treatment (POET) System Cessation

Dear Michael Viella:

The New York State Department of Environmental Conservation (NYSDEC), under the NYS State Superfund program, provides relief to property owners when their private water supply wells become impacted by contamination from release of hazardous wastes. Initially, as an emergency measure, bottled water may be provided to the impacted residents. If required, a more permanent solution may be provided with the installation of a point of entry treatment (POET) system. This relief is provided by the NYSDEC until such a time that either a public water connection becomes available or the contamination decreases to a level determined by the New York State Department of Health (NYSDOH) to be acceptable for human consumption.

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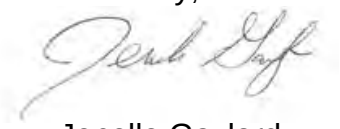
Should you have any questions, please do not hesitate to contact me; by phone at (518) 402-9791, or by email at jenelle.gaylord@dec.ny.gov. If you have any questions related to health issues or should you notice any odors or taste issues with your water in the future, please contact Angela Martin at the NYSDOH, (518) 402-7860 or angela.martin@health.ny.gov.

Sincerely,



Jenelle Gaylord
Project Manager
Remedial Section D, Remedial Bureau E
Division of Environmental Remediation

Enclosures

Ec: A. Martin, NYSDOH
J. Deming, NYSDOH
D. Chiusano, NYSDEC
C. O'Neill, NYSDEC
J. Dyber, NYSDEC
M. Cruden, NYSDEC
J. Firth/K. Amann, Wood PLC

AGREEMENT BY PROPERTY OWNER TO
ACCEPT/DECLINE TO RETAIN GAC SYSTEM

The undersigned (owner) **Michael Viella** of property located at **93 Scotch Rock Road** in **Greene County, Town of Catskill** having been notified by the New York State Department of Environmental Conservation (the Department), in concurrence with the New York State Department of Health, that the Department will no longer monitor and maintain the Granular Activated Carbon (GAC) Point of Entry Treatment (POET) System installed at the above referenced property due to the following reason: levels of VOCs in the untreated water from the potable water supply well at this location have decreased to levels in conformance with the NYSDOH regulations for public water supply systems, does hereby select the following option: (select only one):

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Signed: _____ Date: _____
Property Address:_____
Phone Numbers: _____
Best time to call for making arrangements to enter your property: _____

ATTACHMENT 2

Field Records

WATER LEVEL MONITORING AND WELL INSPECTION CHECKLIST

Site: American Thermostat NYSDEC Site No. 420006
Project #: 3616206098

Date: 7/18/2022
Name(s): Adam Norvelle, Kim Stilson

Location ID	Measurement Point Elevation (ft. above msl)	Well Depth (ft.)	Measure Point Reference	Well Diameter (in.)	Measure Point Marked (Y/N)	Protective Casing Stickup (ft.)	TOC-TOR Difference (ft.)	Depth to Water (ft. BMP)	Depth to Bottom of Well (ft. BMP)	Well ID Present (Y/N)	Well Lock/Cap (G/F/P)*	Protective Casing (G/F/P)*	Water in Annular Space (Y/N)	Concrete Pad (G/F/P)*	Well Riser/Cap (G/F/P)*	Comments
Monitoring Wells																
EW-3	259.67	295	TOR	6	N	NA	-0.50	108.75	295	Y	G	G	N	G	G	2' x 2' vault
EW-4	256.01	322	TOR	6	Y	NA	-0.17	105.35	322.5	Y	F	G	N	G	G	2' x 2' vault
EW-5	259.85	235.2	TOV	6	Y	NA	-1.00	6.20	235*	Y	F	F	N	F	F	Located in aboveground vault
EW-8	223.93	318	TOR	6	N	NA	-0.50	82.65	327.5	Y	F	G	N	F	F	15" flush-mount road box
EW-10	234.09	225	TOR	6	N	NA	-0.58	16.85	222*	Y	F	G	N	G	F	15" flush-mount road box
EW-11	231.40	172.2	TOR	6	N	NA	-0.70	67.02	173.0	Y	F	F	N	F	F	15" flush-mount road box
EW-12	232.76	270.5	TOR	6	Y	NA	-0.33	49.35	271.3	Y	G	G	N	G	G	2' x 2' vault
EW-13	217.06	360	TOR	6	N	NA	-0.83	48.34	344*	Y	F	F	N	F	F	15" flush-mount road box
EW-14	234.85	185	TOC													Well inaccessible; located under stored materials on a private property
EW-15	236.37	275	TOV	6	N	NA	-3.67	14.83	275.50	Y	G	G	N	G	NA	2' x 2' vault
IW-8	239.47	391.8	TOR	6	Y	NA	-0.42	84.99	395	Y	F	G	N	G	G	2' x 2' vault
IW-9	224.37	358.1	TOR	6	N	NA	-0.92	73.10	364*	Y	F	F	N	G	F	15" flush-mount road box
IW-10	235.57	176.3	TOR	6	N	0.50	-1.10	8.91	176.0	Y	F	F	N	G	F	Located in EW-9's aboveground vault
M-4	232.19	200	TOR	4	N	2.21	-0.5	67.70	202.5	Y	F	F	N	NA	G	4" diameter steel riser in 6" diameter steel casing
M-5	213.88	200	TOR	4	N	2.46	-1.04	45.59	202	Y	F	F	N	NA	NA	4" diameter steel riser in 6" diameter steel casing
M-6	248.31	100	TOC	6	N	NA	NA	32.45	NM	N	F	F	N	NA	NA	6" steel casing, homeowner utilizes well for yard
M-8	261.57	200	TOR	4	Y	2.33	-0.42	13.60	201.65	Y	G	G	N	G	G	4" diameter steel riser in 6" diameter steel casing
M-9	256.39	200	TOR	4	N	2.38	-0.50	86.63	205.20	Y	G	G	N	G	G	4" diameter steel riser in 6" diameter steel casing
Mueller	183.25	114	TOC	6	N	1.42	NA	19.43	113.50	Y	F	F	NA	NA	NA	6" diameter steel casing
MW-104	258.00	83.3	TOR	2	N	NA	-0.33	29.55	NM 84.50	Y	G	G	N	F	G	8" flush-mount road box, 2" PVC diameter riser
MW-108	254.72	86.1	TOR	2	~~N~~ Y	NA	-0.33	23.16	87.80	Y	F	F	N	F	F	8" flush-mount road box, 2" PVC diameter riser
MW-109	255.96	87.7	TOR	2	N	NA	-0.46	20.69	NM 86.17	Y	F	F	N	F	F	8" flush-mount road box, well ID on gripper plug, 2" PVC diameter riser
MW-112	256.60	25.3	TOR	2	N	NA	-0.42	7.61	NM 24.82	Y	G	G	N	G	G	8" flush-mount road box, 2" PVC diameter riser
MW-113	257.38	22.9	TOR	2	N	NA	-0.25	10.54	NM 22.50	Y	F	F	N	P	G	8" flush-mount road box, 2" PVC diameter riser
Extraction Wells (Values Collected From Well Panels)								**Water Elevation (ft. above msl)**								
EW-2	255.29	322	TOC/PLC	6	NA	NA	NA	161.82	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No
EW-6	242.94	325	TOC/PLC	6	NA	NA	NA	160.18	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No
EW-7	251.64	227	TOC/PLC	6	NA	NA	NA	69	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No
EW-9	236.21	365	TOC/PLC	6	NA	NA	NA	153.64	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No
EW-16	248.16	417	TOC/PLC	6	NA	NA	NA	75.41	NA	Y	G	G	N	G	NA	Was pump running at time of inspection? Yes or No
OW-2	257.03	30	TOC/PLC	8	NA	NA	NA	244.58	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No
OW-3	256.81	25	TOC/PLC	8	NA	NA	NA	239.09	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No
OW-5	258.20	30	TOC/PLC	8	NA	NA	NA	250.99	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No
OW-7	254.57	25	TOC/PLC	8	NA	NA	NA	236.98	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No
OW-13	259.95	29.5	TOC/PLC	8	NA	NA	NA	253.02	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No
OW-14	261.24	30	TOC/PLC	8	NA	NA	NA	259.82	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No
OW-16	259.81	30	TOC/PLC	8	NA	NA	NA	258.58	NA	Y	G	G	N	G	G	Was pump running at time of inspection? Yes or No

Notes:

* = poor or notable observations require input in "Comments"
BMP = below measurement point
F = fair
ft. = feet
G = good
in. = inches
msl = mean sea level
N = no
NA = not applicable
P = poor
PLC = programmable logic controller
TOC = top of casing
TOR = top of riser
TOV = top of vault
Y = yes

* - Estimated
DTB @ EW-15 & M-5 very soft

15-Month Long-Term Monitoring (LTM) Sampling

Well ID/ Sampling Location	Sample Description	Well Depth (ft)	Sample Depth (ft)	Sample ID	Sampler Initials	Sample Date	Sample Time	Comments
Monitoring Wells								
CE-1 (1)	Before filters	535	unknown	CE-1				
CE-2 *	Before filters	287	unknown	CE-2 BEF	NR	NR	NR	Owner not available.
EW-3	PDB	295	275	EW-3	AN/KS/ML	7/20/22	1135	
EW-4	PDB	322	302	EW-4	AN/KS/ML	7/20/22	1105	
EW-5	PDB	235	150	EW-5	AN/KS/ML	7/20/22	1200	
EW-8	PDB	318	200	EW-8	AN/KS	7/20/22	0915	
EW-11	PDB	172	117	EW-11	AN/KS/ML	7/20/22	1030	
EW-12	PDB	270.5	115	EW-12	AN/KS/ML	7/20/22	1050	
EW-13	PDB	360	200	EW-13	AN/KS	7/19/22	1300	
IW-8	PDB	392	339	IW-8	AN/KS	7/20/22	0955	
IW-9	PDB	358	333	IW-9	AN/KS	7/20/22	0850	
IW-10	PDB	176	40	IW-10	AN/KS	7/20/22	0950	
M-4	PDB	200	130	M-4	AN/KS/ML	7/20/22	1045	
M-5	PDB	200	129	M-5	AN/KS	7/19/22	1230	
M-6	Grab	100	pump intake	M-6	AN/KS	7/19/22	1150	
M-8	PDB	200	195	M-8	AN/KS	7/19/22	1415	
M-9	PDB	200	195	M-9	AN/KS	7/19/22	1430	
Mueller	PDB	114	69	Mueller	AN/KS	7/19/22	1205	
MW-104	PDB	83	79.40	MW-104	AN/KS/ML	7/20/22	1140	
MW-109	PDB	88	69	MW-109	AN/KS/ML	7/20/22	1130	
MW-112	PDB	25	20	MW-112	AN/KS	7/19/22	1345	
MW-113	PDB	23	20	MW-113	AN/KS	7/19/22	1330	
Active Bedrock Extraction Wells								
EW-2 (2)	Grab	322	284	EW-2				
EW-6	Grab	325	285	EW-6	AN/ML/KS	7/20/22	1320	
EW-7	Grab	227	200	EW-7	AN/ML/KS	7/20/22	1330	
EW-9	Grab	365	307	EW-9	AN/KS	7/20/22	0940	
EW-16	Grab	417	157	EW-16	AN/KS	7/20/22	1240	
Active Overburden Extraction Wells								
OW-2	Grab	30	23	OW-2	AN/ML/KS	7/20/22	1345	
OW-3	Grab	25	pump intake	OW-3	AN/ML/KS	7/20/22	1340	
OW-5	Grab	30	23	OW-5	AN/ML/KS	7/20/22	1350	
OW-7	Grab	25	23	OW-7	AN/ML	7/20/22	1245	
OW-13	Grab	29.5	23	OW-13	AN/ML/KS	7/20/22	1155	
OW-14	Grab	30	24	OW-14	AN/ML	7/20/22	1230	
OW-16	Grab	30	23	OW-16	AN/ML	7/20/22	1305	
Residential Wells								
KLINKE	Before filters	240	unknown	KLINKE-BEF	AN/KS	7/19/22	1025	
KUBLER	Before filters	300	unknown	KUBLER-BEF	AN/KS	7/19/22	0950	
VIELLA	Before filters	300	unknown	VIELLA-BEF	AN/KS	7/19/22	1000	
—	PDB	—	—	Field Blank	AN/KS/ML	7/20/22	1420	

Notes:

-Wells listed above are to be analyzed for Site-related VOCs by Method 8260

(1) = CE-1 not in service; acts as an emergency backup well to CE-2 for Country Estates and therefore does not get sampled if CE-2 is in service.

(2) = EW-2 off-line due to non-functioning pump.

PDB = passive diffusion bag

*CE-2 BEF sample collected on 8/1/22.

Checked by: KAA 10/19/22

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: American Thermostat LTM
PROJECT NUMBER: 36162206098
PROJECT LOCATION: South Cairo, N.Y.
WEATHER CONDITIONS (AM): 72°F, Cloudy/Light Rain, Calm
WEATHER CONDITIONS (PM): 80°F, Cloudy/Light Rain, Calm

TASK NO: 04 DATE: 7-18-22
MACTEC CREW: A. Norvelle, K. Stilson
SAMPLER NAME: A. Norvelle, K. Stilson
SAMPLER SIGNATURE:
CHECKED BY: K. Amann DATE: 10/19/22

MULTI-PARAMETER WATER QUALITY METER

METER TYPE
MODEL NO.
UNIT ID NO.

AM CALIBRATION — Start Time _____ /End Time _____

POST CALIBRATION CHECK — Start Time _____ /End Time _____

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4.0		+/- 0.1 pH Units			
pH (7)	SU	7.0		+/- 0.1 pH Units	7.0		+/- 0.3 pH Units
pH (10)	SU	10.0		+/- 0.1 pH Units			
Redox	+/- mV	240		+/- 10 mV	240		+/- 10 mV
Conductivity	mS/cm	1.413		+/- 0.5 % of standard	1.413		+/- 5% of standard
DO (saturated)	%	100		+/- 2% of standard			
DO (saturated)	mg/L[1] (see Chart 1)			+/- 0.2 mg/L			+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1		< 0.5 mg/L			
Temperature	°C			NA			
Baro. Press.	mmHg						

TURBIDITY METER

METER TYPE
MODEL NO.
UNIT ID NO.

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
<0.1 Standard	NTU	<0.1	A.N.	<0.1		+/- 0.3 NTU of stan.
20 Standard	NTU	20		20		+/- 5% of standard
100 Standard	NTU	100		100		+/- 5% of standard
800 Standard	NTU	800		800		+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE
MODEL NO.
UNIT ID NO.

Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE
MODEL NO.
UNIT ID NO.

Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		+/- 10% of standard
H_2S	ppmv	25		25		+/- 10% of standard
CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE Heron
MODEL NO. 500
UNIT ID NO. 32555

See Notes Below for Additional Information

☐ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
☐ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Portland FOS NA
Lot#/Date Produced:
Trip Blank Source:
Sample Preservatives Source:
Disposable Filter Type: 0.45µm cellulose
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L) Portland FOS
- Other
- Other
- Other

	Cal. Standard Lot Number	Exp. Date
pH (4)		
pH (7)		
pH (10)		
A.N. ORP		
Conductivity		
<0.1 Turb. Stan.		
20 Turb. Stan.		
100 Turb. Stan.		
800 Turb. Stan.		
PID Span Gas		
O_2-LEL Span Gas		
Other		

NOTES: None

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additonal acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

MACTEC
511 Congress Street, Portland Maine 04101

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: American Thermostat LTM
PROJECT NUMBER: 36162060 98
PROJECT LOCATION: South Cairo, N.Y.
WEATHER CONDITIONS (AM): 73°F, Sunny, Calm
WEATHER CONDITIONS (PM): 84°F, Mostly Cloudy, Calm

TASK NO: 04 DATE: 7-19-22
MACTEC CREW: A. Norvelle, K. Shilson
SAMPLER NAME: A. Norvelle, K. Shilson
SAMPLER SIGNATURE:
CHECKED BY: K. Amann DATE: 10/19/22

MULTI-PARAMETER WATER QUALITY METER

METER TYPE
MODEL NO.
UNIT ID NO.

AM CALIBRATION Start Time _____/End Time _____

POST CALIBRATION CHECK Start Time _____/End Time _____

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4.0		+/- 0.1 pH Units			
pH (7)	SU	7.0		+/- 0.1 pH Units	7.0		+/- 0.3 pH Units
pH (10)	SU	10.0		+/- 0.1 pH Units			
Redox	+/- mV	240		+/- 10 mV	240		+/- 10 mV
Conductivity	mS/cm	1.413		+/- 0.5 % of standard	1.413		+/- 5% of standard
DO (saturated)	%	100		+/- 2% of standard			
DO (saturated)	mg/L[1] (see Chart 1)			+/- 0.2 mg/L			+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1		< 0.5 mg/L			
Temperature	°C			NA			
Baro. Press.	mmHg						

TURBIDITY METER

METER TYPE
MODEL NO.
UNIT ID NO.

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
<0.1 Standard	NTU	<0.1	A.N.	<0.1		+/- 0.3 NTU of stan.
20 Standard	NTU	20		20		+/- 5% of standard
100 Standard	NTU	100		100		+/- 5% of standard
800 Standard	NTU	800		800		+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE
MODEL NO.
UNIT ID NO.

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE
MODEL NO.
UNIT ID NO.

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		+/- 10% of standard
H_2S	ppmv	25		25		+/- 10% of standard
CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE Heron
MODEL NO. 500
UNIT ID NO. 32555

See Notes Below for Additional Information

☐ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
☐ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Portland FOS NA
Lot#/Date Produced: A.N.
Trip Blank Source:
Sample Preservatives Source:
Disposable Filter Type: 0.45µm cellulose
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L) Portland FOS
- Other
- Other
- Other

Cal. Standard Lot Number	Exp. Date
pH (4)	
pH (7)	
pH (10)	
ORP	
Conductivity	
<0.1 Turb. Stan.	
20 Turb. Stan.	
100 Turb. Stan.	
800 Turb. Stan.	
PID Span Gas	
O_2-LEL Span Gas	
Other	

NOTES: None

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additional acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010.

MACTEC
511 Congress Street, Portland Maine 04101

FIELD INSTRUMENTATION CALIBRATION RECORD

PROJECT NAME: American Thermostat LTM
PROJECT NUMBER: 361620698
PROJECT LOCATION: South Cairo, N.Y.
WEATHER CONDITIONS (AM): 78°F, Sunny, Calm
WEATHER CONDITIONS (PM): 93°F, Partly Cloudy, Calm

TASK NO: 04 DATE: 7-20-22
MACTEC CREW: A. Norvelle, K. Stilson, M. Ladley
SAMPLER NAME: A. Norvelle, K. Stilson, M. Ladley
SAMPLER SIGNATURE:
CHECKED BY: K. Amann DATE: 10/19/22

MULTI-PARAMETER WATER QUALITY METER

METER TYPE
MODEL NO.
UNIT ID NO.

AM CALIBRATION Start Time _____ /End Time _____

POST CALIBRATION CHECK Start Time _____ /End Time _____

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
pH (4)	SU	4.0		+/- 0.1 pH Units			
pH (7)	SU	7.0		+/- 0.1 pH Units	7.0		+/- 0.3 pH Units
pH (10)	SU	10.0		+/- 0.1 pH Units			
Redox	+/- mV	240		+/- 10 mV	240		+/- 10 mV
Conductivity	mS/cm	1.413		+/- 0.5 % of standard	1.413		+/- 5% of standard
DO (saturated)	%	100		+/- 2% of standard			
DO (saturated)	mg/L [1 (see Chart 1)]			+/- 0.2 mg/L			+/- 0.5 mg/L of standard
DO (<0.1)	mg/L	<0.1		< 0.5 mg/L			
Temperature	°C			NA			
Baro. Press.	mmHg						

TURBIDITY METER

METER TYPE
MODEL NO.
UNIT ID NO.

	Units	Standard Value	Meter Value	*Acceptance Criteria (AM)	Standard Value	Meter Value	*Acceptance Criteria (PM)
<0.1 Standard	NTU	<0.1		A.M.	<0.1		+/- 0.3 NTU of stan.
20 Standard	NTU	20			20		+/- 5% of standard
100 Standard	NTU	100			100		+/- 5% of standard
800 Standard	NTU	800			800		+/- 5% of standard

PHOTOIONIZATION DETECTOR

METER TYPE
MODEL NO.
UNIT ID NO.

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Background	ppmv	<0.1		<0.1		within 5 ppmv of BG
Span Gas	ppmv	100		100		+/- 10% of standard

O_2-LEL 4 GAS METER

METER TYPE
MODEL NO.
UNIT ID NO.

	Units	Standard Value	Meter Value	Standard Value	Meter Value	*Acceptance Criteria (PM)
Methane	%	50		50		+/- 10% of standard
O_2	%	20.9		20.9		+/- 10% of standard
H_2S	ppmv	25		25		+/- 10% of standard
CO	ppmv	50		50		+/- 10% of standard

OTHER METER

METER TYPE Heron
MODEL NO. 500'
UNIT ID NO. 32555

See Notes Below for Additional Information

☐ Equipment calibrated within the Acceptance Criteria specified for each of the parameters listed above.
☐ Equipment (not) calibrated within the Acceptance Criteria specified for each of the parameters listed above**.

MATERIALS RECORD

Deionized Water Source: Portland FOS
Lot#/Date Produced:
Trip Blank Source: NA
Sample Preservatives Source:
Disposable Filter Type: 0.45µm cellulose
Calibration Fluids / Standard Source:
- DO Calibration Fluid (<0.1 mg/L) Portland FOS
- Other
- Other
- Other

	Cal. Standard Lot Number	Exp. Date
pH (4)		
pH (7)		
pH (10)		
ORP		
Conductivity		
<0.1 Turb. Stan.		
20 Turb. Stan.		
100 Turb. Stan.		
800 Turb. Stan.		
PID Span Gas		
O_2-LEL Span Gas		
Other		

A.M.

NOTES: None

* = Unless otherwise noted, calibration procedures and acceptance criteria are in general accordance with USEPA Region 1 SOPs for Field Instrument Calibration (EQASOP-FieldCalibrat) and Low Stress Purging and Sampling (EQASOP-GW001), each dated 1/19/2010. Additonal acceptance criteria obtained from instrument specific manufacturer recommendations.
** = If meter reading is not within acceptance criteria, clean/replace probe and re-calibrate, or use calibrated back-up meter if available. If project requirements necessitate use of the instrument, clearly document any deviations from acceptance criteria on all data sheets and log book entries.
1 = DO Saturated standard value is calculated based on Oxygen Solubility at Indicated Pressure Chart from the USEPA Region 1 SOP for Field Instrument Calibration (EQASOP-FieldCalibrat), dated 1/19/2010

MACTEC
511 Congress Street, Portland Maine 04101

MONITORING WELLS - SUBMERSIBLE PUMP
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: CE-2 A.N.

Sampling Date: 8-1-2022

Sampler Name(s): A. Norvelle

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 82 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

~~Depth to Water: _____ feet~~ ~~Depth to Bottom: _____ feet~~

~~Measurement Point Reference: TOC / TOR / TOV~~ ~~Well Diameter: _____ inches~~

(A.N.) Residential supply well; grab sample from tap at well house entry to treatment shed - active chlorine injection (1 of 2 steps) located at same tap.

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)
		NA		

Sample Method: Grab

Number of Containers: 2

Sample Collection Time: 12:04

Intended Analysis: VOCs (Method 8260)

Notes: Supply well/system for Country Estates. Met with Dominic to gain access to treatment shed. Earliest/upstream sample port is also injection point for 1 of 2 steps of chlorine treatment. Potential chlorine noted on COC. Purged for ~2 minutes and then collected sample. Sample ID: CE-2 BEF

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-3

Sampling Date: 7/20/22

Sampler Name(s): A. Norvelle K. Stilson M. ~~Landry~~ Ladny

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 108.75 feet Depth to Bottom: 295 feet

Measurement Point Reference: TOC (TOR) / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 1135 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes:

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-4

Sampling Date: 7/20/22

Sampler Name(s): Adam Norelle, M. ~~Ladney~~ Ladny K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 85 (°F)

Well Condition: (Satisfactory) Unsatisfactory (explain in notes)

Depth to Water: 105.35 feet Depth to Bottom: 322.5 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOA

Sample Collection Time: 1105 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) No

Notes:

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-5

Sampling Date: 7/20/22

Sampler Name(s): A Norwalk M ~~Ladney~~ Ladny K Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 6.20 feet Depth to Bottom: 235 feet

Measurement Point Reference: TOC / TOR / (TOV) Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH
		nd	

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 1200 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) No

Notes:

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-8

Sampling Date: 7/20/22

Sampler Name(s): Adam Norvelle Kim Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 80 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 82.65 feet Depth to Bottom: 327.50 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 0915 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: _____

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-1J

Sampling Date: 7/20/22

Sampler Name(s): Adam Norvelle Kim Stilson Mike Ladny

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 85 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 67.02 feet Depth to Bottom: 173.0 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH
		NA	

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 1030 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: _____

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-12

Sampling Date: 7/20/22

Sampler Name(s): A. Norvelle K. Stilson M. ~~Ladney~~ Ladny

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 85 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 49.35 feet Depth to Bottom: 271.3 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH
	KS		

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 1050 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes:

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units
PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-13

Sampling Date: 7/19/22

Sampler Name(s): A. Norville K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 85 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 48.34 feet Depth to Bottom: 344 feet

Measurement Point Reference: (TOC) / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH
		NA	

Sample Method: PDB Number of Containers: 3 VOAs

Sample Collection Time: 1300 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: New PDB bag deployed.

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: MW-8

Sampling Date: 7/20/22

Sampler Name(s): Adam Norvelle Kim Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 85 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 84.99 feet Depth to Bottom: 395 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 0955 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: _____

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: IW-9

Sampling Date: 7-20-22

Sampler Name(s): Adam Norvelle, Kim Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 80 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 73.10 feet Depth to Bottom: 364.0 feet

Measurement Point Reference: TOC (TOR) / TOV Well Diameter: 6" inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH
		NA	

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 0850 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) No

Notes:

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units
PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: IW-10

Sampling Date: 7/20/22

Sampler Name(s): Adam Norvelle

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 85 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 8.91 feet Depth to Bottom: 176.0 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 0952 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes:

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: M-4

Sampling Date: 7/20/22

Sampler Name(s): Adam Norvelle Kim Stilson Mike Ladny

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 85 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 67.70 feet Depth to Bottom: 202.5 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 4 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH
	KA		

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 1045 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: _____

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units
PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: M-5

Sampling Date: 7-19-22

Sampler Name(s): A. Norvelle K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 85 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 45.59 feet Depth to Bottom: 202 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 4 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH
	KA		

Sample Method: PDB Number of Containers: 3 VOAs

Sample Collection Time: 1230 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: New PDB bag deployed.

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - SUBMERSIBLE PUMP
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: M-6

Sampling Date: 7/19/22

Sampler Name(s): A. Norvelle K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 81 (°F)

Well Condition: (Satisfactory) Unsatisfactory (explain in notes)

Depth to Water: 32.45 feet Depth to Bottom: ~100 feet

Measurement Point Reference: (TOC) TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Sample Method: Grab Number of Containers: 3 VOAs

Sample Collection Time: 1150 Intended Analysis: VOCs (Method 8260)

Notes: Sample taken from hose. Purge 20 ~~45~~ gallons of water before sampled.

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: M-8

Sampling Date: 7/19/22

Sampler Name(s): A. Norelle K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) Unsatisfactory (explain in notes)

Depth to Water: 13.60 feet Depth to Bottom: 201.65 feet

Measurement Point Reference: TOC (TOR) TOV Well Diameter: 4 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 3 VOAs

Sample Collection Time: 1415 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) No

Notes: _____

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: M-9

Sampling Date: 7/19/22

Sampler Name(s): A. Norvelle K. Wilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 86.63 feet Depth to Bottom: 205.20 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 4 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH
		KA	

Sample Method: PDB Number of Containers: 3 VOAs

Sample Collection Time: 1430 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: _____

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: Mueller

Sampling Date: 7/19/22

Sampler Name(s): A. Norvelle K Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 85 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 19.43 feet Depth to Bottom: 113.50 feet

Measurement Point Reference: (TOC) / TOR / TOV Well Diameter: 6 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 3 VOAs

Sample Collection Time: 1205 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: New PDB bag deployed.

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: MW-104

Sampling Date: 7/20/22

Sampler Name(s): A. Novelle, M. Lacny, ~~M. Bradley~~ K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 29.55 feet Depth to Bottom: 84.50 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 2 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH
		KA	

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 1140 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: Sample depth - (bottom of bag) - 79.40
-0.50
79.90

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: MW-109

Sampling Date: 7/20/22

Sampler Name(s): A. Norvelle K. Stilson M. ~~Ladney~~ Ladny

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 20.69 feet Depth to Bottom: 86.17 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 2 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH
		KA	

Sample Method: PDB Number of Containers: 2 VOAs

Sample Collection Time: 1130 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: Bottom of bag - 69.00'
Bottom of weight - 71.2'

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: MW-11Z

Sampling Date: 7/19/22

Sampler Name(s): A. Norville K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 87 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 7.61 feet Depth to Bottom: 24.82 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 2" inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 3 VOAs

Sample Collection Time: 1345 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) No

Notes: _____

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - PASSIVE DIFFUSION BAG
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: MW-113

Sampling Date: 7/19/22

Sampler Name(s): A. Norwelle K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 87 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: 10.54 feet Depth to Bottom: 22.50 feet

Measurement Point Reference: TOC / (TOR) / TOV Well Diameter: 2 inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH

Sample Method: PDB Number of Containers: 3 VOAs

Sample Collection Time: 1330 Intended Analysis: VOCs (Method 8260)

New PDB Deployed?: (Yes) / No

Notes: _____

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units
PDB = passive diffusion bag
TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - SUBMERSIBLE PUMP
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: KUBLER-BGF

Sampling Date: 7-19-22

Sampler Name(s): Adam Norvelle, Kim Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 78 (°F)

Well Condition: (Satisfactory) Unsatisfactory (explain in notes)

Depth to Water: NM* feet Depth to Bottom: ~~NM~~ 300 feet (historical)

Measurement Point Reference: ~~TOC / TOR / TOV~~ unknown Well Diameter: ~~NM~~ unknown inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Sample Method: Grab Number of Containers: 3 VOAs

Sample Collection Time: 0950 Intended Analysis: VOCs (Method 8260)

Notes: Sample taken before POET system, system purged 2 gallons before sampled.

*Water level measurements are not collected from this well as of the long-term monitoring program.

NM = not measured

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - SUBMERSIBLE PUMP
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: VIELLA-BEF

Sampling Date: 7-19-22

Sampler Name(s): Adam Narvelle, K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 78 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: NM* feet Depth to Bottom: ~~NM~~ 300 feet (historical)

Measurement Point Reference: ~~TOC / TOR / TOV~~ unknown Well Diameter: ~~NM~~ unknown inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Sample Method: Grab Number of Containers: 3 VOAs

Sample Collection Time: 1000 Intended Analysis: VOCs (Method 8260)

Notes: Samples taken before POET system. System purged 2 gallons before sampled.

*Water level measurements are not collected from this well as of the long-term monitoring program.
NM = not measured

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

MONITORING WELLS - SUBMERSIBLE PUMP
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: Klinke-BEF

Sampling Date: 7-19-22

Sampler Name(s): Adam Norvelle, Kim Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: ~~78~~ (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Depth to Water: NA* feet Depth to Bottom: ~~NA~~ 240 feet (historical)

Measurement Point Reference: ~~TOC / TOR / TOV~~ unknown Well Diameter: ~~NA~~ unknown inches

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Sample Method: Grab Number of Containers: 3 VOAs

Sample Collection Time: 1025 Intended Analysis: VOCs (Method 8260)

Notes: Samples taken before POET systems. System purged 2 gallons of water before sampled.
*Water level measurements are not collected from this well as of the long-term monitoring program.
NA = not applicable

°C = degrees Celcius
°F = Fahrenheit
mS/cm = millisiemens per centimeter
NTU = nephelometric turbidity units

TOC = top of casing
TOR = top of riser
TOV = top of vault

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-2

Sampling Date: 7/20/22

Sampler Name(s): A. Norvelle K. Stilson M. Lodge

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Initial Water Level: 255.45 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: 234.03* ft. / (ft. above msl) Pump Operation: (Auto) / Manual

Depth to Water: Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: clear Odor: No odor

Other: NA NAPL present? Yes / ~~No~~

Sample Method: Grab Number of Containers: 2 VOAs

Sample Collection Time: 1345 Intended Analysis: VOCs (Method 8260)

Final Water Level: 255.45 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Notes: *Fixed depth; from SOP-15 in 2018 Site Management Plan.
NA = not applicable

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-3

Sampling Date: 7/20/22

Sampler Name(s): A. Norvelle M. ~~Lady~~ Ladny K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Initial Water Level: 249.40 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: Not available ~~ft. / ft. above msl~~ Pump Operation: (Auto) / Manual

Depth to Water: Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: Clear Odor: no odor

Other: NA NAPL present? Yes / (No)

Sample Method: Grab Number of Containers: 2 VOAs

Sample Collection Time: 1340 Intended Analysis: VOCs (Method 8260)

Final Water Level: 249.40 ft. / (ft. above msl) Reading (Transducer) / Manual DTW

Notes: NA = not applicable

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-5

Sampling Date: 7/20/22

Sampler Name(s): A. Norvelle K. Stilson M. Ladny

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Initial Water Level: 251.12 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: 235.2* ft. / (ft. above msl) Pump Operation: (Auto) / Manual

Depth to Water: Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: clear Odor: No odor

Other: NA NAPL present? Yes / (No)

Sample Method: Grab Number of Containers: 2 VOAs

Sample Collection Time: 1350 Intended Analysis: VOCs (Method 8260)

Final Water Level: 248.29 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Notes: Pump control showing no flow "red pump" but water level dropping and vibration to tubing while running. Monitoring.

*Fixed depth; from SOP-15 in 2018 Site Management Plan.

NA = not applicable

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-7

Sampling Date: 7-20-2022

Sampler Name(s): A. Norvelle, M. Ladny

Weather Conditions: Rain Snow (Sun) Cloudy Dry (Humid) Temperature: 91 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Initial Water Level: 237.00 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: 231.37* ft. / (ft. above msl) Pump Operation: Auto / (Manual)

Depth to Water: Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: Clear Odor: None

Other: NA NAPL present? Yes / (No)

Sample Method: Grab Number of Containers: 2 VOAs

Sample Collection Time: 1245 Intended Analysis: VOCs (Method 8260)

Final Water Level: 235.16 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Notes: *Fixed depth; from SOP-15 in 2018 Site Management Plan.
NA = not applicable

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-13

Sampling Date: 7/20/22

Sampler Name(s): A. Norvelle, M. ~~Ladney~~ Ladny K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Initial Water Level: 253.02 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: 236.95* ft. / (ft. above msl) Pump Operation: Auto / Manual

Depth to Water: Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: clear Odor: none noted

Other: NA NAPL present? Yes / (No)

Sample Method: Grab Number of Containers: 2 VOAs

Sample Collection Time: 1155 Intended Analysis: VOCs (Method 8260)

Final Water Level: Not recorded ~~ft. / ft. above msl~~ Reading: (Transducer) / Manual DTW

Notes: *Fixed depth; from SOP-15 in 2018 Site Management Plan.
NA = not applicable

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-14

Sampling Date: 7-20-2022

Sampler Name(s): A. Norville, M. Ladny

Weather Conditions: Rain Snow (Sun) Cloudy Dry (Humid) Temperature: 91 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Initial Water Level: 256.53 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: 237.24* ft. / (ft. above msl) Pump Operation: Auto / (Manual)

Depth to Water: Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: Clear Odor: None

Other: NA NAPL present? Yes / (No)

Sample Method: Grab Number of Containers: 2

Sample Collection Time: 1230 Intended Analysis: VOCs (Method 8260)

Final Water Level: 256.23 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Notes: *Fixed depth; from SOP-15 in 2018 Site Management Plan.
NA = not applicable

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: OW-16

Sampling Date: 7-20-2022

Sampler Name(s): A. Norvelle M Ladny

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Initial Water Level: 249.00 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: 236.81* ft. / (ft. above msl) Pump Operation: Auto / (Manual)

Depth to Water: ~~N~~ Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)
				NA

Purge Water Description: Color: clear Odor: no odor

Other: NA NAPL present? Yes / (No)

Sample Method: Grab Number of Containers: 2 VOAs

Sample Collection Time: 1305 Intended Analysis: VOCs (Method 8260)

Final Water Level: 247.17 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Notes: *Fixed depth; from SOP-15 in 2018 Site Management Plan.
NA = not applicable

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-6

Sampling Date: 7/20/22

Sampler Name(s): A. Narvelle, K. Stilson, M. Lavay

Weather Conditions: Rain Snow (Sun) Cloudy Dry (Humid) Temperature: 90 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Initial Water Level: 160.91 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: -42.06 ft. / (ft. above msl) Pump Operation: (Auto) / Manual

Depth to Water: Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: ~~No Color~~ Clear Odor: None

Other: NA NAPL present? Yes / (No)

Sample Method: Grab Number of Containers: 2

Sample Collection Time: 1320 Intended Analysis: VOCs (Method 8260)

Final Water Level: 160.91 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Notes: *Fixed depth; from SOP-15 in 2018 Site Management Plan.
NA = not applicable

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-7

Sampling Date: 7-20-2022

Sampler Name(s): M. Ladny, K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry (Humid) Temperature: 90 (°F)

Well Condition: (Satisfactory) Unsatisfactory (explain in notes)

Initial Water Level: 71 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: 51.64* ft. / (ft. above msl) Pump Operation: (Auto) / Manual

Depth to Water: Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: Cloudy Odor: None

Other: NA NAPL present? Yes (No)

Sample Method: Grab Number of Containers: 2

Sample Collection Time: 1330 Intended Analysis: VOCs (Method 8260)

Final Water Level: 70 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Notes: *Fixed depth; from SOP-15 in 2018 Site Management Plan.
NA = not applicable

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-9

Sampling Date: 7/20/22

Sampler Name(s): Adam Norvelle K. Stilson

Weather Conditions: Rain Snow (Sun) Cloudy Dry Humid Temperature: 85 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Initial Water Level: 153.64 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: -70.79* ft. / (ft. above msl) Pump Operation: Auto / Manual

Depth to Water: Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: Clear Odor: None noted

Other: NA NAPL present? Yes / (No)

Sample Method: Grab Number of Containers: 2 VOAs

Sample Collection Time: 0940 Intended Analysis: VOCs (Method 8260)

Final Water Level: Not recorded ~~ft. / ft. above msl~~ Reading: Transducer / Manual DTW

Notes: *Fixed depth; from SOP-15 in 2018 Site Management Plan.
NA = not applicable

Checked by: KAA 10/19/22

ACTIVE EXTRACTION WELLS
SAMPLING RECORD

AMERICAN THERMOSTAT
ROUTE 23B, SOUTH CAIRO, NEW YORK

Well ID: EW-16

Sampling Date: 7-20-2022

Sampler Name(s): A. Norvelle, M. Ladny

Weather Conditions: Rain Snow (Sun) Cloudy Dry (Humid) Temperature: 91 (°F)

Well Condition: (Satisfactory) / Unsatisfactory (explain in notes)

Initial Water Level: 75.41 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Pump Intake Depth: 91.16* ft. / (ft. above msl) Pump Operation: Auto / Manual

Depth to Water: Not measured ~~ft. / ft. above msl~~

Field Measurements

Time	Temperature (°C)	Conductivity (mS/cm)	pH	Turbidity (NTU)

Purge Water Description: Color: Clear Odor: None

Other: NA NAPL present? Yes / (No)

Sample Method: Grab Number of Containers: 2

Sample Collection Time: 1240 Intended Analysis: VOCs (Method 8260)

Final Water Level: 75.41 ft. / (ft. above msl) Reading: (Transducer) / Manual DTW

Notes: *Fixed depth; from SOP-15 in 2018 Site Management Plan.
NA = not applicable

Checked by: KAA 10/19/22

ATTACHMENT 3

Category A Review – July 2022 LTM Groundwater Sampling

CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

1.0 INTRODUCTION

This validation report was revised to correct the concentration of total 1,2-dichloroethene initially reported by the laboratory. See Section 3.0 for more information.

Groundwater samples were collected in July 2022 at the American Thermostat Site in South Cairo, New York, and shipped to Pace Analytical Laboratory located in Melville, New York and Pace Analytical Laboratory in Longmeadow, Massachusetts for analysis. Samples were analyzed by the following United States Environmental Protection Agency (USEPA) method:

- Project List Volatile Organic Compounds (VOCs) by Method 8260C

Results were reported in the following sample delivery group (SDG):

- 70223061 – Pace Melville
- 22H0077 – Pace Longmeadow

Sample event information included in this chemistry review is presented in the following Tables:

- Table 1 – Summary of Samples and Analytical Methods
- Table 2 – Summary of Analytical Results
- Table 3 – Summary of Qualification Actions

Laboratory deliverables included:

- Chain of custody documentation plus batch quality control results.

The Category A review included the following evaluations. Data review checklists are provided as Attachment A.

- Lab Report Narrative Review
- Data Package Completeness and COC records (Table 1 verification)
- Sample Preservation and Holding Times
- QC Blanks
- Laboratory Control Samples (LCS)
- Field Duplicate Evaluation (none collected)
- Matrix spike and Matrix Spike Duplicate (MS/MSD) Evaluation
- Surrogates (if applicable)
- Reporting Limits

- Electronic Data Qualification and Verification

The following laboratory data qualifiers or data review qualifiers are used in the final data presentation:

U = target analyte is not detected at or above the reporting limit
J = concentration is estimated
J+ = Concentration is estimated with high bias

Results are interpreted to be usable as reported by the laboratory or as qualified in the following sections.

2.0 POTENTIAL DATA LIMITATIONS

Based on the Category A Review the majority of data meet the quality objectives; however, the following potential limitations were identified:

The relative percent difference (RPD) between results for 1,2-dichloroethene (total) and cis-1,2-dichloroethene in the laboratory duplicate associated with sample EW-3 exceeded the project goal of 20. Results for 1,2-dichloroethene (total) and cis-1,2-dichloroethene in sample EW-3 were qualified estimated (J). Qualified results are summarized in Table 3 with reason code LD.

Acetone (34.6 ug/L) and toluene (1.3 ug/L) were detected above the reporting limit in the field blank associated with a subset of samples. Acetone results in a subset of samples were qualified as non-detect (U) at the reporting limit or the reported sample result. Acetone results in EW-13, MW-113, and EW-8 were qualified as estimated with high bias (J+). The toluene result in sample M-8 was qualified as non-detect (U) at the reported sample concentration. All qualified results are summarized in Table 3 with reason code BL2.

3.0 ADDITIONAL QC EXCEEDANCES AND OBSERVATIONS

Additional observations and quality control exceedances not specifically addressed above (Section 2.0) or included in Table 3 are summarized below. Unless presented in Table 3, sample results are interpreted to be usable as reported by the laboratory.

Sample OW-14 was analyzed at a dilution to obtain a result for cis-1,2-dichloroethene within the instrument calibration range. Sample OW-14 was also analyzed without dilution to obtain a result for trans-1,2-dichloroethene. The lab reported total 1,2-dichloroethene (sum of cis- and trans-1,2-dichloroethene) using the diluted analysis for which trans-1,2-dichloroethene was diluted out. In the final data set, the reported result for total 1,2-dichloroethene in sample OW-14 was calculated by summing the reported results for cis-1,2-dichloroethene (from the diluted analysis) and trans-1,2-dichloroethene (from the undiluted analysis).

Reference:

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

Data Validator: Kassidy Patoine

Date: September 30, 2022

Reviewed by: Julie Ricardi

Date: October 18, 2022

Revised by: Amber Jones

Date: May 22, 2023

Reviewed by: Julie Ricardi

Date: May 22, 2023

Standard Table Notes:

Sample Type (QC Code)

FS – field sample

FD – field duplicate

TB – trip blank

EB – equipment blank

FB – field blank

Matrix

GW – ground water

BW – blank water

TW – tap water

SV – soil vapor

SED - sediment

Units

mg/L – milligrams per liter

ng/L – nanograms per liter

µg/L – micrograms per liter

mg/kg – milligrams per kilogram

µg/kg – micrograms per kilogram

µg/m^3 – micrograms per cubic meter

Qualifiers

U – not detected above quantitation limit

J – estimated quantity

J+ - estimated quantity, biased high

J- - estimated quantity, biased low

R – data unusable

Fraction

T – total

D – dissolved

N – normal

Qualification Reason Codes

BL1 – method blank qualifier

BL2 – field or trip blank qualifier

CCV – continuing calibration verification recovery outside limits

CCV%D – continuing calibration verification percent difference exceeds goal

CCVRRF – continuing calibration relative response factor low

CI – chromatographic interference present

DCPD – dual column percent difference exceeds limit

E – result exceeds calibration range

FD – field duplicate precision goal exceeded

FP – false positive interference

HT – holding time for prep or analysis exceeded

HTG – holding time for prep or analysis grossly exceeded

ICV – initial calibration verification recovery outside limit

ICVRRF – initial calibration verification relative response factor low

ICVRSD – initial calibration verification % relative standard deviation exceeds goal

ISH – internal standard response greater than limit

ISL – internal standard response less than limit

LCSH – laboratory control sample recovery high

LCSL – laboratory control sample recovery low

LCSRPD – laboratory control sample/duplicate relative % difference precision goal exceeded

LD – lab duplicate precision goal exceeded

MSH – matrix spike and/or MS duplicate recovery high

MSL – matrix spike and/or MS duplicate recovery low

MSRPD – matrix spike/duplicate relative % difference precision goal exceeded

N – analyte identification is not certain

PEM – performance evaluation mixture exceeds limit

PM – sample percent moisture exceeds EPA guideline

SD – serial dilution result exceeds percent difference limit

SP – sample preservation/collection does not meet method requirement

SSH – surrogate recovery high

SSL – surrogate recovery low

TD – dissolved concentration exceeds total

TABLE 1 - SUMMARY OF SAMPLES AND ANALYTICAL METHODS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

						Lab Id	PACE_LI	PACE_MEL
						Method Class	VOCs	VOCs
						Analysis Method	8260C	8260C
						Fraction	N	N
Lab SDG	**Media**	**Location**	**Field Sample ID**	**Sample Date**	**Qc Code**		Parameters	Parameters
22H0077	GW	CE-2	CE-2 BEF	8/1/2022	FS		18	
70223061	GW	EW-11	EW-11	7/20/2022	FS			19
70223061	GW	EW-12	EW-12	7/20/2022	FS			19
70223061	GW	EW-13	EW-13	7/19/2022	FS			19
70223061	GW	EW-16	EW-16	7/20/2022	FS			19
70223061	GW	EW-3	EW-3	7/20/2022	FS			19
70223061	GW	EW-4	EW-4	7/20/2022	FS			19
70223061	GW	EW-5	EW-5	7/20/2022	FS			19
70223061	GW	EW-6	EW-6	7/20/2022	FS			19
70223061	GW	EW-7	EW-7	7/20/2022	FS			19
70223061	GW	EW-8	EW-8	7/20/2022	FS			19
70223061	GW	EW-9	EW-9	7/20/2022	FS			19
70223061	GW	IW-10	IW-10	7/20/2022	FS			19
70223061	GW	IW-8	IW-8	7/20/2022	FS			19
70223061	GW	IW-9	IW-9	7/20/2022	FS			19
70223061	GW	KLINKE	KLINKE-BEF	7/19/2022	FS			19
70223061	GW	KUBLER	KUBLER-BEF	7/19/2022	FS			19
70223061	GW	M-4	MW-4	7/20/2022	FS			19
70223061	GW	M-5	M-5	7/19/2022	FS			19
70223061	GW	M-6	M-6	7/19/2022	FS			19
70223061	GW	M-8	M-8	7/19/2022	FS			19
70223061	GW	M-9	M-9	7/19/2022	FS			19
70223061	GW	MUELLER	MUELLER	7/19/2022	FS			19
70223061	GW	MW-104	MW-104	7/20/2022	FS			19
70223061	GW	MW-109	MW-109	7/20/2022	FS			19
70223061	GW	MW-112	MW-112	7/19/2022	FS			19
70223061	GW	MW-113	MW-113	7/19/2022	FS			19
70223061	GW	OW-13	OW-13	7/20/2022	FS			19
70223061	GW	OW-14	OW-14	7/20/2022	FS			19
70223061	GW	OW-16	OW-16	7/20/2022	FS			19
70223061	GW	OW-2	OW-2	7/20/2022	FS			19
70223061	GW	OW-3	OW-3	7/20/2022	FS			19
70223061	GW	OW-5	OW-5	7/20/2022	FS			19
70223061	GW	OW-7	OW-7	7/20/2022	FS			19
70223061	GW	VIELLA	VIELLA-BEF	7/19/2022	FS			19
70223061	BW	QC	FIELD BLANK	7/20/2022	FB			19
70223061	BW	QC	TRIP BLANK	7/20/2022	TB			19

Created by: KLD 9/27/22
Checked by: KRP 9/30/2022

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

				Location		CE-2		EW-11		EW-12	
				Lab Sample Delivery Group		22H0077		70223061		70223061	
				Field Sample Date		8/1/2022		7/20/2022		7/20/2022	
				Field Sample ID		CE-2 BEF		EW-11		EW-12	
				Qc Code		FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L			1.2	J	2	U
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	5	U	37.3	U	5	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	2.7		1.2		1	U
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	10.9		1	U	5.7	
L	VOCs	8260C	N	Toluene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Trichloroethene	UG/L	3.9		1	U	1	U
L	VOCs	8260C	N	Vinyl chloride	UG/L	1	U	1	U	1	U

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
Checked by: KRP 10/17/22
Revised by: ALJ 5/22/23
Checked by: JAR 5/22/23

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

				Location	EW-13		EW-16		EW-3	
				Lab Sample Delivery Group	70223061		70223061		70223061	
				Field Sample Date	7/19/2022		7/20/2022		7/20/2022	
				Field Sample ID	EW-13		EW-16		EW-3	
				Qc Code	FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	4.8		1	U
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	3.1		1960		5.3	J
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	140	J+	5	U	29.6	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	3.1		1940		5.3	J
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	24.3		599		1	U
L	VOCs	8260C	N	Toluene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1	U	23.3		1	U
L	VOCs	8260C	N	Trichloroethene	UG/L	2.5		657		1	U
L	VOCs	8260C	N	Vinyl chloride	UG/L	1	U	25.6		4.8	

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
Checked by: KRP 10/17/22
Revised by: ALJ 5/22/23
Checked by: JAR 5/22/23

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

				Location	EW-4		EW-5		EW-6	
				Lab Sample Delivery Group	70223061		70223061		70223061	
				Field Sample Date	7/20/2022		7/20/2022		7/20/2022	
				Field Sample ID	EW-4		EW-5		EW-6	
				Qc Code	FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	5.7		260		175	
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	27.5	U	28.7	U	5	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	5.7		258		171	
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	1	U	182		446	
L	VOCs	8260C	N	Toluene	UG/L	1	U	50.5		1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1	U	2.4		3.3	
L	VOCs	8260C	N	Trichloroethene	UG/L	1	U	67		135	
L	VOCs	8260C	N	Vinyl chloride	UG/L	1		8.7		13.4	

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
Checked by: KRP 10/17/22
Revised by: ALJ 5/22/23
Checked by: JAR 5/22/23

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

					Location	EW-7		EW-8		EW-9	
					Lab Sample Delivery Group	70223061		70223061		70223061	
					Field Sample Date	7/20/2022		7/20/2022		7/20/2022	
					Field Sample ID	EW-7		EW-8		EW-9	
					Qc Code	FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	304		3.8		40	
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	5	U	81.5	J+	5	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	292		3.8		38.6	
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	6.5		1	U	6.1	
L	VOCs	8260C	N	Toluene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	11.7		1	U	1.4	
L	VOCs	8260C	N	Trichloroethene	UG/L	6.4		1	U	5.4	
L	VOCs	8260C	N	Vinyl chloride	UG/L	9.7		2.1		16.2	

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
Checked by: KRP 10/17/22
Revised by: ALJ 5/22/23
Checked by: JAR 5/22/23

TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

					Location	IW-10		IW-8		IW-9	
					Lab Sample Delivery Group	70223061		70223061		70223061	
					Field Sample Date	7/20/2022		7/20/2022		7/20/2022	
					Field Sample ID	IW-10		IW-8		IW-9	
					Qc Code	FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	1	U	1.4	
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	3.6		2	U	590	
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	29.9	U	68.3	U	34.5	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	3.6		1	U	586	
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	1	U	1	U	168	
L	VOCs	8260C	N	Toluene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1	U	1	U	3.6	
L	VOCs	8260C	N	Trichloroethene	UG/L	1.3		1.1		239	
L	VOCs	8260C	N	Vinyl chloride	UG/L	1	U	1	U	2.1	

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
Checked by: KRP 10/17/22
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

				Location	KLINKE		KUBLER		VIELLA	
				Lab Sample Delivery Group	70223061		70223061		70223061	
				Field Sample Date	7/19/2022		7/19/2022		7/19/2022	
				Field Sample ID	KLINKE-BEF		KUBLER-BEF		VIELLA-BEF	
				Qc Code	FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	2	U	2	U	2	U
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Toluene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Trichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Vinyl chloride	UG/L	1	U	1	U	1	U

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
Checked by: KRP 10/17/22
Revised by: ALJ 5/22/23
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

				Location	M-4		M-5		M-6	
				Lab Sample Delivery Group	70223061		70223061		70223061	
				Field Sample Date	7/20/2022		7/19/2022		7/19/2022	
				Field Sample ID	MW-4		M-5		M-6	
				Qc Code	FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	2	U	12.7		2	U
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	30.5	U	37.9	U	5	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	1	U	12.7		1	U
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Toluene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Trichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Vinyl chloride	UG/L	1	U	6.7		1	U

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
Checked by: KRP 10/17/22
Revised by: ALJ 5/22/23
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

				Location		M-8		M-9		MUELLER	
				Lab Sample Delivery Group		70223061		70223061		70223061	
				Field Sample Date		7/19/2022		7/19/2022		7/19/2022	
				Field Sample ID		M-8		M-9		MUELLER	
				Qc Code		FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	2	U	2	U	2	U
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	27.4	U	37.3	U	29.1	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Toluene	UG/L	2.3	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Trichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Vinyl chloride	UG/L	1	U	1	U	1	U

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
Checked by: KRP 10/17/22
Revised by: ALJ 5/22/23
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

					Location	MW-104		MW-109		MW-112	
					Lab Sample Delivery Group	70223061		70223061		70223061	
					Field Sample Date	7/20/2022		7/20/2022		7/19/2022	
					Field Sample ID	MW-104		MW-109		MW-112	
					Qc Code	FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	2	U	2	U	2	U
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	39.1	U	12.2	U	28.2	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Toluene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Trichloroethene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Vinyl chloride	UG/L	1	U	1	U	1	U

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
Checked by: KRP 10/17/22
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

				Location	MW-113		OW-13		OW-14	
				Lab Sample Delivery Group	70223061		70223061		70223061	
				Field Sample Date	7/19/2022		7/20/2022		7/20/2022	
				Field Sample ID	MW-113		OW-13		OW-14	
				Qc Code	FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	1	U	5.1	
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	24.4		90.2		1380	
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	115	J+	5	U	5	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	24.4		90.2		1370	
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	1650		147		2420	
L	VOCs	8260C	N	Toluene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1	U	1	U	7.2	
L	VOCs	8260C	N	Trichloroethene	UG/L	23.1		8.8		584	
L	VOCs	8260C	N	Vinyl chloride	UG/L	1	U	1.2		134	

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

				Location	OW-16		OW-2		OW-3	
				Lab Sample Delivery Group	70223061		70223061		70223061	
				Field Sample Date	7/20/2022		7/20/2022		7/20/2022	
				Field Sample ID	OW-16		OW-2		OW-3	
				Qc Code	FS		FS		FS	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1	U	1	U	1.9	
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	64		68.4		221	
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1.1	
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	64		68.4		217	
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	80.4		389		10400	
L	VOCs	8260C	N	Toluene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1	U	1	U	3.2	
L	VOCs	8260C	N	Trichloroethene	UG/L	24.2		17.8		289	
L	VOCs	8260C	N	Vinyl chloride	UG/L	1	U	1	U	1.7	

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

					Location	OW-5		OW-7		QC	
					Lab Sample Delivery Group	70223061		70223061		70223061	
					Field Sample Date	7/20/2022		7/20/2022		7/20/2022	
					Field Sample ID	OW-5		OW-7		TRIP BLANK	
					Qc Code	FS		FS		TB	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result	Qualifier	Result	Qualifier	Result	Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	2		1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	1370		37.6		2	U
L	VOCs	8260C	N	2-Hexanone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Acetone	UG/L	5	U	5	U	5	U
L	VOCs	8260C	N	Carbon disulfide	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloroform	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Chloromethane	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	1360		37.6		1	U
L	VOCs	8260C	N	Methylene chloride	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	3900		116		1	U
L	VOCs	8260C	N	Toluene	UG/L	1	U	1	U	1	U
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	5.3		1	U	1	U
L	VOCs	8260C	N	Trichloroethene	UG/L	273		16.1		1	U
L	VOCs	8260C	N	Vinyl chloride	UG/L	2.5		1	U	1	U

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
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TABLE 2 - SUMMARY OF ANALYTICAL RESULTS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

				Location	QC	
				Lab Sample Delivery Group	70223061	
				Field Sample Date	7/20/2022	
				Field Sample ID	FIELD BLANK	
				Qc Code	FB	
Matrix	**Method Class**	**Method**	**Fraction**	**Parameter**	**Units**	Result Qualifier
L	VOCs	8260C	N	1,1,1-Trichloroethane	UG/L	1 U
L	VOCs	8260C	N	1,1,2,2-Tetrachloroethane	UG/L	1 U
L	VOCs	8260C	N	1,1,2-Trichloroethane	UG/L	1 U
L	VOCs	8260C	N	1,1-Dichloroethene	UG/L	1 U
L	VOCs	8260C	N	1,2-Dichloroethane	UG/L	1 U
L	VOCs	8260C	N	1,2-Dichloroethene (total)	UG/L	2 U
L	VOCs	8260C	N	2-Hexanone	UG/L	5 U
L	VOCs	8260C	N	Acetone	UG/L	34.6
L	VOCs	8260C	N	Carbon disulfide	UG/L	1 U
L	VOCs	8260C	N	Carbon tetrachloride	UG/L	1 U
L	VOCs	8260C	N	Chloroform	UG/L	1 U
L	VOCs	8260C	N	Chloromethane	UG/L	1 U
L	VOCs	8260C	N	cis-1,2-Dichloroethene	UG/L	1 U
L	VOCs	8260C	N	Methylene chloride	UG/L	1 U
L	VOCs	8260C	N	Tetrachloroethene	UG/L	1 U
L	VOCs	8260C	N	Toluene	UG/L	1.3
L	VOCs	8260C	N	trans-1,2-Dichloroethene	UG/L	1 U
L	VOCs	8260C	N	Trichloroethene	UG/L	1 U
L	VOCs	8260C	N	Vinyl chloride	UG/L	1 U

Note:
Total 1,2-dichloroethene in sample OW-14 was calculated by summing the results
for cis- and trans-1,2-dichloroethene

Created by: KLD 10/17/22
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TABLE 3 - SUMMARY OF QUALIFICATION ACTIONS
CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

Lab SDG	Lab Sample ID	Field Sample ID	Method	Fraction	Parameter	Lab Result	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Units
70223061	70223061004	EW-13	8260C	N	Acetone	140	IH,v1	140	J+	BL2	UG/L
70223061	70223061005	M-5	8260C	N	Acetone	37.9	IH,v1	37.9	U	BL2	UG/L
70223061	70223061007	M-8	8260C	N	Acetone	27.4	IH,v1	27.4	U	BL2	UG/L
70223061	70223061007	M-8	8260C	N	Toluene	2.3		2.3	U	BL2	UG/L
70223061	70223061008	M-9	8260C	N	Acetone	37.3	IH,v1	37.3	U	BL2	UG/L
70223061	70223061009	MUELLER	8260C	N	Acetone	29.1	IH	29.1	U	BL2	UG/L
70223061	70223061010	MW-112	8260C	N	Acetone	28.2	IH	28.2	U	BL2	UG/L
70223061	70223061011	MW-113	8260C	N	Acetone	115	IH	115	J+	BL2	UG/L
70223061	70223061012	EW-3	8260C	N	cis-1,2-Dichloroethene	5.3	D6	5.3	J	LD	UG/L
70223061	70223061012	EW-3	8260C	N	1,2-Dichloroethene (total)	5.3		5.3	J	LD	UG/L
70223061	70223061012	EW-3	8260C	N	Acetone	29.6	IH	29.6	U	BL2	UG/L
70223061	70223061013	EW-4	8260C	N	Acetone	27.5	IH	27.5	U	BL2	UG/L
70223061	70223061014	EW-5	8260C	N	Acetone	28.7	IH	28.7	U	BL2	UG/L
70223061	70223061015	EW-8	8260C	N	Acetone	81.5	IH	81.5	J+	BL2	UG/L
70223061	70223061016	EW-11	8260C	N	Acetone	37.3	IH	37.3	U	BL2	UG/L
70223061	70223061017	EW-12	8260C	N	Acetone	3.2	J,IH	5	U	BL2	UG/L
70223061	70223061018	IW-8	8260C	N	Acetone	68.3	IH	68.3	U	BL2	UG/L
70223061	70223061019	IW-9	8260C	N	Acetone	34.5	IH	34.5	U	BL2	UG/L
70223061	70223061020	IW-10	8260C	N	Acetone	29.9	IH	29.9	U	BL2	UG/L
70223061	70223061021	M-4	8260C	N	Acetone	30.5	IH	30.5	U	BL2	UG/L
70223061	70223061022	MW-104	8260C	N	Acetone	39.1	IH	39.1	U	BL2	UG/L
70223061	70223061023	MW-109	8260C	N	Acetone	12.2	IH	12.2	U	BL2	UG/L

Created by: KLD 10/17/22
Checked by: KRP 10/17/22

CATEGORY A REVIEW
JULY 2022 LTM GROUNDWATER SAMPLING
AMERICAN THERMOSTAT SITE
SOUTH CAIRO, NEW YORK

ATTACHMENT A

VOCs

PROJECT CATEGORY A REVIEW RECORD
Project: American Thermostat
Method : SW-846 8260C
Laboratory & SDGs: Pace - Melville, NY (70223061) & Pace - Longmeadow, MA (22H0077)
Date: 09-22-2022
Reviewer: Kassidy Patoine
Review Level [X] CATEGORY A

1. ☑ Case **Narrative Review and COC/Data Package Completeness** COMMENTS
   Were problems noted? No

   Were all the samples on the COC analyzed for the requested analyses? YES NO (circle one)

   Are Field Sample IDs and Locations assigned correctly? YES NO (circle one)

2. ☑ **Holding time and Sample Collection**
   All samples were analyzed within the 14 day holding time. YES NO (circle one)

3. ☑ **QC Blanks**
   Are method blanks free of contamination? YES NO (circle one)

   Are Trip blanks free of contamination? YES NO (circle one)

   Are Rinse blanks free of contamination? YES NO NA (circle one)

   The FB associated with a subset of samples in SDG 70223061 had detects for acetone (34.6 ug/L) and toluene (1.3 ug/L). See QC backup for quals

4. ☑ **Matrix Spike** - Region II limits (water and soil 70-130%, water RPD 20, soil RPD 35)
   Were MS/MSDs submitted/analyzed? YES NO

   Were all results within the Region II limits? YES NO NA (circle one)

5. ☑ **Laboratory Control Sample Results** - Region II (Water and soil 70-130%)

   Were all results were within Region II control limits? YES NO (circle one)

6. ☑ **Surrogate Recovery** - Region II limits (water 80-120%, soil 70-130%)

   Were all results within Region II limits? YES NO (circle one)

7. ☑ **Field Duplicates** - Region II Limits (water RPD 50, soil RPD 100)
   Were Field Duplicates submitted/analyzed? YES NO

   Were all results within Region II Limits? YES NO NA (circle one)

   A laboratory duplicate was submitted for sample EW-3. Cis-1,2-DCE and 1,2-DCE (total) were qualified J LD due to RPD

8. ☑ **Reporting Limits:** Were samples analyzed at a dilution? YES NO (circle one)

9. ☑ **Electronic Data Review and Edits**
   Does the EDD match the Form Is? YES NO (circle one)

10. ☑ **Table Review**
    Table 1 (Samples and Analytical Methods)
    Table 2 (Analytical Results)
    Table 3 (Qualification Actions)
    Were all tables produced and reviewed? YES NO (circle one)

    Table 4 (TICs) Did lab report TICs? YES NO (circle one)

Pace Analytical Services, LLC
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(631)694-3040

PROJECT NARRATIVE

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: NYDEC_Wood Plc-Clifton Park, NY
Date: August 02, 2022

General Information:
36 samples were analyzed for EPA 8260C/5030C by Pace Analytical Services Melville. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

QC Batch: 266379

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- EW-13 (Lab ID: 70223061004)
  - Acetone
- LCS (Lab ID: 1345764)
  - Acetone
- M-5 (Lab ID: 70223061005)
  - Acetone
- M-8 (Lab ID: 70223061007)
  - Acetone
- M-9 (Lab ID: 70223061008)
  - Acetone
- MS (Lab ID: 1345933)
  - Acetone
- MSD (Lab ID: 1345934)
  - Acetone

QC Batch: 266544

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- DUP (Lab ID: 1347963)
  - Acetone
- EW-11 (Lab ID: 70223061016)
  - Acetone
- EW-12 (Lab ID: 70223061017)
  - Acetone
- EW-3 (Lab ID: 70223061012)
  - Acetone
- EW-4 (Lab ID: 70223061013)
  - Acetone
- EW-5 (Lab ID: 70223061014)
  - Acetone
- EW-8 (Lab ID: 70223061015)
  - Acetone
- IW-10 (Lab ID: 70223061020)

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PROJECT NARRATIVE

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: NYDEC_Wood Plc-Clifton Park, NY
Date: August 02, 2022

QC Batch: 266544

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- Acetone
- IW-8 (Lab ID: 70223061018)
  - Acetone
- IW-9 (Lab ID: 70223061019)
  - Acetone
- LCS (Lab ID: 1346372)
  - Acetone
- MS (Lab ID: 1347964)
  - Acetone
- MUELLER (Lab ID: 70223061009)
  - Acetone
- MW-104 (Lab ID: 70223061022)
  - Acetone
- MW-109 (Lab ID: 70223061023)
  - Acetone
- MW-112 (Lab ID: 70223061010)
  - Acetone
- MW-113 (Lab ID: 70223061011)
  - Acetone
- MW-4 (Lab ID: 70223061021)
  - Acetone

QC Batch: 266971

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- FIELD BLANK (Lab ID: 70223061036)
  - Acetone
- LCS (Lab ID: 1348831)
  - Acetone
- MS (Lab ID: 1349538)
  - Acetone

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

QC Batch: 266379

v1: The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

- EW-13 (Lab ID: 70223061004)
  - Acetone
- LCS (Lab ID: 1345764)
  - Acetone
- M-5 (Lab ID: 70223061005)
  - Acetone

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PROJECT NARRATIVE

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: NYDEC_Wood Plc-Clifton Park, NY
Date: August 02, 2022

QC Batch: 266379

v1: The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

- M-8 (Lab ID: 70223061007)
  - Acetone
- M-9 (Lab ID: 70223061008)
  - Acetone
- MS (Lab ID: 1345933)
  - Acetone
- MSD (Lab ID: 1345934)
  - Acetone

QC Batch: 266971

v1: The continuing calibration verification was above the method acceptance limit. Any detection for the analyte in the associated samples may have a high bias.

- FIELD BLANK (Lab ID: 70223061036)
  - Acetone
- LCS (Lab ID: 1348831)
  - 1,1-Dichloroethene
  - Acetone
- MS (Lab ID: 1349538)
  - 1,1-Dichloroethene
  - Acetone
- OW-14 (Lab ID: 70223061033)
  - 1,1-Dichloroethene
- OW-3 (Lab ID: 70223061030)
  - 1,1-Dichloroethene
- OW-5 (Lab ID: 70223061031)
  - 1,1-Dichloroethene

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

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PROJECT NARRATIVE

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Method: **EPA 8260C/5030C**
Description: 8260C Volatile Organics
Client: NYDEC_Wood Plc-Clifton Park, NY
Date: August 02, 2022

Duplicate Sample:
All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 266544

D6: The precision between the sample and sample duplicate exceeded laboratory control limits.
- DUP (Lab ID: 1347963)
  - cis-1,2-Dichloroethene

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: EW-13 **Lab ID: 70223061004** Collected: 07/19/22 13:00 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 22:03	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/25/22 22:03	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 22:03	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 22:03	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 22:03	107-06-2	
1,2-Dichloroethene (Total)	**3.1**	ug/L	2.0	1		07/25/22 22:03	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/25/22 22:03	591-78-6	
Acetone J+ BL2	**140**	ug/L	5.0	1		07/25/22 22:03	67-64-1	IH,v1
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/25/22 22:03	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/25/22 22:03	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/25/22 22:03	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/25/22 22:03	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/25/22 22:03	75-09-2	
Tetrachloroethene	**24.3**	ug/L	1.0	1		07/25/22 22:03	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/25/22 22:03	108-88-3	
Trichloroethene	**2.5**	ug/L	1.0	1		07/25/22 22:03	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/25/22 22:03	75-01-4	
cis-1,2-Dichloroethene	**3.1**	ug/L	1.0	1		07/25/22 22:03	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 22:03	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%	81-122	1		07/25/22 22:03	17060-07-0	
4-Bromofluorobenzene (S)	98	%	79-118	1		07/25/22 22:03	460-00-4	
Toluene-d8 (S)	100	%	82-122	1		07/25/22 22:03	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: M-5 **Lab ID: 70223061005** Collected: 07/19/22 12:30 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 22:24	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/25/22 22:24	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 22:24	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 22:24	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 22:24	107-06-2	
1,2-Dichloroethene (Total)	**12.7**	ug/L	2.0	1		07/25/22 22:24	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/25/22 22:24	591-78-6	
Acetone U @ sample result, BL2	**37.9**	ug/L	5.0	1		07/25/22 22:24	67-64-1	IH,v1
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/25/22 22:24	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/25/22 22:24	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/25/22 22:24	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/25/22 22:24	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/25/22 22:24	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/25/22 22:24	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/25/22 22:24	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 22:24	79-01-6	
Vinyl chloride	**6.7**	ug/L	1.0	1		07/25/22 22:24	75-01-4	
cis-1,2-Dichloroethene	**12.7**	ug/L	1.0	1		07/25/22 22:24	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 22:24	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	103	%	81-122	1		07/25/22 22:24	17060-07-0	
4-Bromofluorobenzene (S)	98	%	79-118	1		07/25/22 22:24	460-00-4	
Toluene-d8 (S)	99	%	82-122	1		07/25/22 22:24	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: M-8 **Lab ID: 70223061007** Collected: 07/19/22 14:15 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 23:05	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/25/22 23:05	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 23:05	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 23:05	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 23:05	107-06-2	
1,2-Dichloroethene (Total)	**<2.0**	ug/L	2.0	1		07/25/22 23:05	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/25/22 23:05	591-78-6	
Acetone U @ sample result, BL2	**27.4**	ug/L	5.0	1		07/25/22 23:05	67-64-1	IH,v1
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/25/22 23:05	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/25/22 23:05	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/25/22 23:05	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/25/22 23:05	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/25/22 23:05	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/25/22 23:05	127-18-4	
Toluene U @ sample result, BL2	**2.3**	ug/L	1.0	1		07/25/22 23:05	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 23:05	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/25/22 23:05	75-01-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 23:05	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 23:05	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	105	%	81-122	1		07/25/22 23:05	17060-07-0	
4-Bromofluorobenzene (S)	99	%	79-118	1		07/25/22 23:05	460-00-4	
Toluene-d8 (S)	101	%	82-122	1		07/25/22 23:05	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: M-9 **Lab ID: 70223061008** Collected: 07/19/22 14:30 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 23:26	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/25/22 23:26	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 23:26	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 23:26	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/25/22 23:26	107-06-2	
1,2-Dichloroethene (Total)	**<2.0**	ug/L	2.0	1		07/25/22 23:26	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/25/22 23:26	591-78-6	
Acetone U @ sample result, BL2	**37.3**	ug/L	5.0	1		07/25/22 23:26	67-64-1	IH,v1
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/25/22 23:26	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/25/22 23:26	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/25/22 23:26	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/25/22 23:26	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/25/22 23:26	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/25/22 23:26	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/25/22 23:26	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 23:26	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/25/22 23:26	75-01-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 23:26	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/25/22 23:26	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	102	%	81-122	1		07/25/22 23:26	17060-07-0	
4-Bromofluorobenzene (S)	98	%	79-118	1		07/25/22 23:26	460-00-4	
Toluene-d8 (S)	101	%	82-122	1		07/25/22 23:26	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: MUELLER **Lab ID: 70223061009** Collected: 07/19/22 12:05 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 18:24	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 18:24	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 18:24	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 18:24	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 18:24	107-06-2	
1,2-Dichloroethene (Total)	**<2.0**	ug/L	2.0	1		07/26/22 18:24	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 18:24	591-78-6	
Acetone U @ sample result, BL2	**29.1**	ug/L	5.0	1		07/26/22 18:24	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 18:24	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 18:24	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 18:24	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 18:24	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 18:24	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/26/22 18:24	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 18:24	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 18:24	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/26/22 18:24	75-01-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 18:24	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 18:24	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	81-122	1		07/26/22 18:24	17060-07-0	
4-Bromofluorobenzene (S)	99	%	79-118	1		07/26/22 18:24	460-00-4	
Toluene-d8 (S)	100	%	82-122	1		07/26/22 18:24	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: MW-112 **Lab ID: 70223061010** Collected: 07/19/22 13:45 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 18:45	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 18:45	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 18:45	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 18:45	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 18:45	107-06-2	
1,2-Dichloroethene (Total)	**<2.0**	ug/L	2.0	1		07/26/22 18:45	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 18:45	591-78-6	
Acetone U @ sample result, BL2	**28.2**	ug/L	5.0	1		07/26/22 18:45	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 18:45	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 18:45	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 18:45	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 18:45	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 18:45	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/26/22 18:45	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 18:45	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 18:45	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/26/22 18:45	75-01-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 18:45	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 18:45	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	81-122	1		07/26/22 18:45	17060-07-0	
4-Bromofluorobenzene (S)	97	%	79-118	1		07/26/22 18:45	460-00-4	
Toluene-d8 (S)	98	%	82-122	1		07/26/22 18:45	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: MW-113 **Lab ID: 70223061011** Collected: 07/19/22 13:30 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 19:05	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 19:05	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 19:05	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 19:05	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 19:05	107-06-2	
1,2-Dichloroethene (Total)	**24.4**	ug/L	2.0	1		07/26/22 19:05	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 19:05	591-78-6	
Acetone J+ BL2	**115**	ug/L	5.0	1		07/26/22 19:05	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 19:05	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 19:05	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 19:05	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 19:05	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 19:05	75-09-2	
Tetrachloroethene	**1650**	ug/L	20.0	20		07/27/22 21:04	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 19:05	108-88-3	
Trichloroethene	**23.1**	ug/L	1.0	1		07/26/22 19:05	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/26/22 19:05	75-01-4	
cis-1,2-Dichloroethene	**24.4**	ug/L	1.0	1		07/26/22 19:05	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 19:05	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	100	%	81-122	1		07/26/22 19:05	17060-07-0	
4-Bromofluorobenzene (S)	99	%	79-118	1		07/26/22 19:05	460-00-4	
Toluene-d8 (S)	96	%	82-122	1		07/26/22 19:05	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: EW-3 **Lab ID: 70223061012** Collected: 07/20/22 11:35 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/27/22 01:17	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/27/22 01:17	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/27/22 01:17	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/27/22 01:17	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/27/22 01:17	107-06-2	
1,2-Dichloroethene (Total)	**5.3**	ug/L	2.0	1		07/27/22 01:17	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/27/22 01:17	591-78-6	
Acetone U @ sample result, BL2	**29.6**	ug/L	5.0	1		07/27/22 01:17	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/27/22 01:17	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/27/22 01:17	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/27/22 01:17	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/27/22 01:17	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/27/22 01:17	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/27/22 01:17	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/27/22 01:17	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/27/22 01:17	79-01-6	
Vinyl chloride	**4.8**	ug/L	1.0	1		07/27/22 01:17	75-01-4	
cis-1,2-Dichloroethene	**5.3**	ug/L	1.0	1		07/27/22 01:17	156-59-2	D6
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/27/22 01:17	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	81-122	1		07/27/22 01:17	17060-07-0	
4-Bromofluorobenzene (S)	99	%	79-118	1		07/27/22 01:17	460-00-4	
Toluene-d8 (S)	97	%	82-122	1		07/27/22 01:17	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: EW-4 **Lab ID: 70223061013** Collected: 07/20/22 11:05 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 19:47	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 19:47	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 19:47	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 19:47	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 19:47	107-06-2	
1,2-Dichloroethene (Total)	**5.7**	ug/L	2.0	1		07/26/22 19:47	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 19:47	591-78-6	
Acetone U @ sample result, BL2	**27.5**	ug/L	5.0	1		07/26/22 19:47	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 19:47	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 19:47	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 19:47	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 19:47	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 19:47	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/26/22 19:47	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 19:47	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 19:47	79-01-6	
Vinyl chloride	**1.0**	ug/L	1.0	1		07/26/22 19:47	75-01-4	
cis-1,2-Dichloroethene	**5.7**	ug/L	1.0	1		07/26/22 19:47	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 19:47	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	81-122	1		07/26/22 19:47	17060-07-0	
4-Bromofluorobenzene (S)	98	%	79-118	1		07/26/22 19:47	460-00-4	
Toluene-d8 (S)	97	%	82-122	1		07/26/22 19:47	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: EW-5 **Lab ID: 70223061014** Collected: 07/20/22 12:00 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:07	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:07	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:07	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 20:07	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:07	107-06-2	
1,2-Dichloroethene (Total)	**260**	ug/L	10.0	5		07/27/22 21:24	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 20:07	591-78-6	
Acetone U @ sample result, BL2	**28.7**	ug/L	5.0	1		07/26/22 20:07	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 20:07	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 20:07	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 20:07	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 20:07	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 20:07	75-09-2	
Tetrachloroethene	**182**	ug/L	1.0	1		07/26/22 20:07	127-18-4	
Toluene	**50.5**	ug/L	1.0	1		07/26/22 20:07	108-88-3	
Trichloroethene	**67.0**	ug/L	1.0	1		07/26/22 20:07	79-01-6	
Vinyl chloride	**8.7**	ug/L	1.0	1		07/26/22 20:07	75-01-4	
cis-1,2-Dichloroethene	**258**	ug/L	5.0	5		07/27/22 21:24	156-59-2	
trans-1,2-Dichloroethene	**2.4**	ug/L	1.0	1		07/26/22 20:07	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	81-122	1		07/26/22 20:07	17060-07-0	
4-Bromofluorobenzene (S)	98	%	79-118	1		07/26/22 20:07	460-00-4	
Toluene-d8 (S)	97	%	82-122	1		07/26/22 20:07	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: EW-8 **Lab ID: 70223061015** Collected: 07/20/22 09:15 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:28	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:28	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:28	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 20:28	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:28	107-06-2	
1,2-Dichloroethene (Total)	**3.8**	ug/L	2.0	1		07/26/22 20:28	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 20:28	591-78-6	
Acetone J+ BL2	**81.5**	ug/L	5.0	1		07/26/22 20:28	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 20:28	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 20:28	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 20:28	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 20:28	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 20:28	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/26/22 20:28	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 20:28	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 20:28	79-01-6	
Vinyl chloride	**2.1**	ug/L	1.0	1		07/26/22 20:28	75-01-4	
cis-1,2-Dichloroethene	**3.8**	ug/L	1.0	1		07/26/22 20:28	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 20:28	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	81-122	1		07/26/22 20:28	17060-07-0	
4-Bromofluorobenzene (S)	99	%	79-118	1		07/26/22 20:28	460-00-4	
Toluene-d8 (S)	97	%	82-122	1		07/26/22 20:28	2037-26-5	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: EW-11 **Lab ID: 70223061016** Collected: 07/20/22 10:30 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:49	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:49	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:49	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 20:49	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 20:49	107-06-2	
1,2-Dichloroethene (Total)	**1.2J**	ug/L	2.0	1		07/26/22 20:49	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 20:49	591-78-6	
Acetone U @ sample result, BL2	**37.3**	ug/L	5.0	1		07/26/22 20:49	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 20:49	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 20:49	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 20:49	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 20:49	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 20:49	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/26/22 20:49	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 20:49	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 20:49	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/26/22 20:49	75-01-4	
cis-1,2-Dichloroethene	**1.2**	ug/L	1.0	1		07/26/22 20:49	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 20:49	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	81-122	1		07/26/22 20:49	17060-07-0	
4-Bromofluorobenzene (S)	98	%	79-118	1		07/26/22 20:49	460-00-4	
Toluene-d8 (S)	99	%	82-122	1		07/26/22 20:49	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: EW-12 **Lab ID: 70223061017** Collected: 07/20/22 10:50 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:09	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:09	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:09	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 21:09	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:09	107-06-2	
1,2-Dichloroethene (Total)	**<2.0**	ug/L	2.0	1		07/26/22 21:09	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 21:09	591-78-6	
Acetone U @ RL BL2	**3.2J**	ug/L	5.0	1		07/26/22 21:09	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 21:09	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 21:09	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 21:09	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 21:09	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 21:09	75-09-2	
Tetrachloroethene	**5.7**	ug/L	1.0	1		07/26/22 21:09	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 21:09	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 21:09	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/26/22 21:09	75-01-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 21:09	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 21:09	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	81-122	1		07/26/22 21:09	17060-07-0	
4-Bromofluorobenzene (S)	98	%	79-118	1		07/26/22 21:09	460-00-4	
Toluene-d8 (S)	96	%	82-122	1		07/26/22 21:09	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: IW-8 **Lab ID: 70223061018** Collected: 07/20/22 09:55 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:30	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:30	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:30	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 21:30	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:30	107-06-2	
1,2-Dichloroethene (Total)	**<2.0**	ug/L	2.0	1		07/26/22 21:30	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 21:30	591-78-6	
Acetone U @ sample result, BL2	**68.3**	ug/L	5.0	1		07/26/22 21:30	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 21:30	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 21:30	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 21:30	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 21:30	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 21:30	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/26/22 21:30	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 21:30	108-88-3	
Trichloroethene	**1.1**	ug/L	1.0	1		07/26/22 21:30	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/26/22 21:30	75-01-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 21:30	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 21:30	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%	81-122	1		07/26/22 21:30	17060-07-0	
4-Bromofluorobenzene (S)	100	%	79-118	1		07/26/22 21:30	460-00-4	
Toluene-d8 (S)	99	%	82-122	1		07/26/22 21:30	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: IW-9 **Lab ID: 70223061019** Collected: 07/20/22 08:50 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:51	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:51	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:51	79-00-5	
1,1-Dichloroethene	**1.4**	ug/L	1.0	1		07/26/22 21:51	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 21:51	107-06-2	
1,2-Dichloroethene (Total)	**590**	ug/L	20.0	10		07/27/22 21:45	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 21:51	591-78-6	
Acetone U @ sample result, BL2	**34.5**	ug/L	5.0	1		07/26/22 21:51	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 21:51	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 21:51	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 21:51	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 21:51	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 21:51	75-09-2	
Tetrachloroethene	**168**	ug/L	1.0	1		07/26/22 21:51	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 21:51	108-88-3	
Trichloroethene	**239**	ug/L	10.0	10		07/27/22 21:45	79-01-6	
Vinyl chloride	**2.1**	ug/L	1.0	1		07/26/22 21:51	75-01-4	
cis-1,2-Dichloroethene	**586**	ug/L	10.0	10		07/27/22 21:45	156-59-2	
trans-1,2-Dichloroethene	**3.6**	ug/L	1.0	1		07/26/22 21:51	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	89	%	81-122	1		07/26/22 21:51	17060-07-0	
4-Bromofluorobenzene (S)	100	%	79-118	1		07/26/22 21:51	460-00-4	
Toluene-d8 (S)	105	%	82-122	1		07/26/22 21:51	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: IW-10 **Lab ID: 70223061020** Collected: 07/20/22 09:50 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:11	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:11	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:11	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:11	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:11	107-06-2	
1,2-Dichloroethene (Total)	**3.6**	ug/L	2.0	1		07/26/22 22:11	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 22:11	591-78-6	
Acetone U @ sample result, BL2	**29.9**	ug/L	5.0	1		07/26/22 22:11	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 22:11	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 22:11	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 22:11	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 22:11	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 22:11	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:11	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 22:11	108-88-3	
Trichloroethene	**1.3**	ug/L	1.0	1		07/26/22 22:11	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/26/22 22:11	75-01-4	
cis-1,2-Dichloroethene	**3.6**	ug/L	1.0	1		07/26/22 22:11	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:11	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	98	%	81-122	1		07/26/22 22:11	17060-07-0	
4-Bromofluorobenzene (S)	98	%	79-118	1		07/26/22 22:11	460-00-4	
Toluene-d8 (S)	97	%	82-122	1		07/26/22 22:11	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: MW-4 **Lab ID: 70223061021** Collected: 07/20/22 10:45 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:32	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:32	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:32	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:32	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:32	107-06-2	
1,2-Dichloroethene (Total)	**<2.0**	ug/L	2.0	1		07/26/22 22:32	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 22:32	591-78-6	
Acetone U @ sample result, BL2	**30.5**	ug/L	5.0	1		07/26/22 22:32	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 22:32	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 22:32	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 22:32	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 22:32	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 22:32	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:32	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 22:32	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:32	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/26/22 22:32	75-01-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:32	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:32	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	97	%	81-122	1		07/26/22 22:32	17060-07-0	
4-Bromofluorobenzene (S)	99	%	79-118	1		07/26/22 22:32	460-00-4	
Toluene-d8 (S)	97	%	82-122	1		07/26/22 22:32	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: MW-104 **Lab ID: 70223061022** Collected: 07/20/22 11:40 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:53	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:53	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:53	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:53	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 22:53	107-06-2	
1,2-Dichloroethene (Total)	**<2.0**	ug/L	2.0	1		07/26/22 22:53	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 22:53	591-78-6	
Acetone U @ sample result, BL2	**39.1**	ug/L	5.0	1		07/26/22 22:53	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 22:53	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 22:53	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 22:53	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 22:53	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 22:53	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:53	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 22:53	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:53	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/26/22 22:53	75-01-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:53	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 22:53	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	81-122	1		07/26/22 22:53	17060-07-0	
4-Bromofluorobenzene (S)	98	%	79-118	1		07/26/22 22:53	460-00-4	
Toluene-d8 (S)	96	%	82-122	1		07/26/22 22:53	2037-26-5	

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ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: MW-109 **Lab ID: 70223061023** Collected: 07/20/22 11:30 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 23:13	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/26/22 23:13	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 23:13	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 23:13	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/26/22 23:13	107-06-2	
1,2-Dichloroethene (Total)	**<2.0**	ug/L	2.0	1		07/26/22 23:13	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/26/22 23:13	591-78-6	
Acetone U @ sample result, BL2	**12.2**	ug/L	5.0	1		07/26/22 23:13	67-64-1	IH
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/26/22 23:13	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/26/22 23:13	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/26/22 23:13	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/26/22 23:13	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/26/22 23:13	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/26/22 23:13	127-18-4	
Toluene	**<1.0**	ug/L	1.0	1		07/26/22 23:13	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 23:13	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/26/22 23:13	75-01-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 23:13	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/26/22 23:13	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	96	%	81-122	1		07/26/22 23:13	17060-07-0	
4-Bromofluorobenzene (S)	99	%	79-118	1		07/26/22 23:13	460-00-4	
Toluene-d8 (S)	98	%	82-122	1		07/26/22 23:13	2037-26-5	

CLC
10/19/2022

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: AMERICAN THERMOSTAT 7/20
Pace Project No.: 70223061

Sample: FIELD BLANK **Lab ID: 70223061036** Collected: 07/20/22 14:20 Received: 07/22/22 10:50 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C Volatile Organics	Analytical Method: EPA 8260C/5030C Pace Analytical Services - Melville							
1,1,1-Trichloroethane	**<1.0**	ug/L	1.0	1		07/28/22 19:39	71-55-6	
1,1,2,2-Tetrachloroethane	**<1.0**	ug/L	1.0	1		07/28/22 19:39	79-34-5	
1,1,2-Trichloroethane	**<1.0**	ug/L	1.0	1		07/28/22 19:39	79-00-5	
1,1-Dichloroethene	**<1.0**	ug/L	1.0	1		07/28/22 19:39	75-35-4	
1,2-Dichloroethane	**<1.0**	ug/L	1.0	1		07/28/22 19:39	107-06-2	
1,2-Dichloroethene (Total)	**<2.0**	ug/L	2.0	1		07/28/22 19:39	540-59-0	
2-Hexanone	**<5.0**	ug/L	5.0	1		07/28/22 19:39	591-78-6	
Acetone	**34.6**	ug/L	5.0	1		07/28/22 19:39	67-64-1	IH,v1
Carbon disulfide	**<1.0**	ug/L	1.0	1		07/28/22 19:39	75-15-0	
Carbon tetrachloride	**<1.0**	ug/L	1.0	1		07/28/22 19:39	56-23-5	
Chloroform	**<1.0**	ug/L	1.0	1		07/28/22 19:39	67-66-3	
Chloromethane	**<1.0**	ug/L	1.0	1		07/28/22 19:39	74-87-3	
Methylene Chloride	**<1.0**	ug/L	1.0	1		07/28/22 19:39	75-09-2	
Tetrachloroethene	**<1.0**	ug/L	1.0	1		07/28/22 19:39	127-18-4	
Toluene	**1.3**	ug/L	1.0	1		07/28/22 19:39	108-88-3	
Trichloroethene	**<1.0**	ug/L	1.0	1		07/28/22 19:39	79-01-6	
Vinyl chloride	**<1.0**	ug/L	1.0	1		07/28/22 19:39	75-01-4	
cis-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/28/22 19:39	156-59-2	
trans-1,2-Dichloroethene	**<1.0**	ug/L	1.0	1		07/28/22 19:39	156-60-5	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%	81-122	1		07/28/22 19:39	17060-07-0	
4-Bromofluorobenzene (S)	98	%	79-118	1		07/28/22 19:39	460-00-4	
Toluene-d8 (S)	93	%	82-122	1		07/28/22 19:39	2037-26-5	

REPORT OF LABORATORY ANALYSIS

SAMPLE NO.

17076247CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - New York Calibration Date: 07/29/2022 Time: 15:31

Instrument ID: 70MSVB GC Column: Col 1 Init. Calib. Date(s): 07/22/2022 07/22/2022

Lab File ID: 072922.B\M2166.D Init. Calib. Time(s): 15:32 18:49

SDG No.: 70223061

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Averaged	0.10924	0.15694	0.0100	43.6676*	20.0000
Carbon disulfide	Averaged	1.21685	1.28572	0.1000	5.6592	20.0000
Carbon tetrachloride	Averaged	0.38238	0.31991	0.1000	-16.3363	20.0000
Chloroform	Averaged	0.91887	1.01745	0.3000	10.7286	20.0000
Chloromethane	Averaged	0.48050	0.42497	0.0100	-11.5563	20.0000
1,2-Dichloroethane	Averaged	0.62269	0.66722	0.0700	7.1502	20.0000
1,1-Dichloroethene	Averaged	0.37939	0.46517	0.0600	22.6101*	20.0000
cis-1,2-Dichloroethene	Averaged	0.56018	0.61490	0.2000	9.7673	20.0000
trans-1,2-Dichloroethene	Averaged	0.46793	0.54283	0.1000	16.0047	20.0000
2-Hexanone	Averaged	0.31551	0.28145	0.0100	-10.7948	20.0000
Methylene Chloride	Averaged	0.47875	0.49921	0.0100	4.2750	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.72387	0.61759	0.2000	-14.6828	20.0000
Tetrachloroethene	Averaged	0.62614	0.63514	0.1000	1.4368	20.0000
Toluene	Averaged	1.33878	1.44900	0.3000	8.2328	20.0000
1,1,1-Trichloroethane	Averaged	0.50311	0.49828	0.0500	-0.9591	20.0000
1,1,2-Trichloroethane	Averaged	0.23462	0.23014	0.2000	-1.9062	20.0000
Trichloroethene	Averaged	0.32824	0.34610	0.2000	5.4409	20.0000
Vinyl chloride	Averaged	0.52327	0.53658	0.0100	2.5444	20.0000
4-Bromofluorobenzene (S)	Averaged	0.89672	0.90607	0.0100	1.0432	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.37166	0.34466	0.0100	-7.2653	20.0000
Toluene-d8 (S)	Averaged	2.17704	2.07753	0.0100	-4.5710	20.0000

outside of scope
KRP

* - Value lies outside of established control limits.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/02/2022 3:09 10/18/22

SAMPLE NO.

17069110CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - New York Calibration Date: 07/28/2022 Time: 14:29

Instrument ID: 70MSVB GC Column: Col 1 Init. Calib. Date(s): 07/22/2022 07/22/2022

Lab File ID: 072822.B\M2138.D Init. Calib. Time(s): 15:32 18:49

SDG No.: 70223061

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Averaged	0.10924	0.14121	0.0100	29.2636*	20.0000
Carbon disulfide	Averaged	1.21685	1.32251	0.1000	8.6826	20.0000
Carbon tetrachloride	Averaged	0.38238	0.33082	0.1000	-13.4832	20.0000
Chloroform	Averaged	0.91887	1.02899	0.3000	11.9838	20.0000
Chloromethane	Averaged	0.48050	0.45283	0.0100	-5.7584	20.0000
1,2-Dichloroethane	Averaged	0.62269	0.67548	0.0700	8.4777	20.0000
1,1-Dichloroethene	Averaged	0.37939	0.48020	0.0600	26.5709*	20.0000
cis-1,2-Dichloroethene	Averaged	0.56018	0.63370	0.2000	13.1240	20.0000
trans-1,2-Dichloroethene	Averaged	0.46793	0.55676	0.1000	18.9825	20.0000
2-Hexanone	Averaged	0.31551	0.28130	0.0100	-10.8423	20.0000
Methylene Chloride	Averaged	0.47875	0.52003	0.0100	8.6222	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.72387	0.65520	0.2000	-9.4866	20.0000
Tetrachloroethene	Averaged	0.62614	0.67390	0.1000	7.6270	20.0000
Toluene	Averaged	1.33878	1.47839	0.3000	10.4284	20.0000
1,1,1-Trichloroethane	Averaged	0.50311	0.51355	0.0500	2.0749	20.0000
1,1,2-Trichloroethane	Averaged	0.23462	0.23692	0.2000	0.9840	20.0000
Trichloroethene	Averaged	0.32824	0.35666	0.2000	8.6590	20.0000
Vinyl chloride	Averaged	0.52327	0.55877	0.0100	6.7853	20.0000
4-Bromofluorobenzene (S)	Averaged	0.89672	0.90047	0.0100	0.4185	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.37166	0.35275	0.0100	-5.0889	20.0000
Toluene-d8 (S)	Averaged	2.17704	2.07829	0.0100	-4.5362	20.0000

outside of scope KRP

* - Value lies outside of established control limits.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/02/2022 3:09 10/18/22

SAMPLE NO.

17063254CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - New York Calibration Date: 07/27/2022 Time: 14:52

Instrument ID: 70MSVB GC Column: Col 1 Init. Calib. Date(s): 07/22/2022 07/22/2022

Lab File ID: 072722.B\M2111.D Init. Calib. Time(s): 15:32 18:49

SDG No.: 70223061

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D	
Acetone	Averaged	0.10924	0.12910	0.0100	18.1813	20.0000	
Carbon disulfide	Averaged	1.21685	1.32748	0.1000	9.0910	20.0000	
Carbon tetrachloride	Averaged	0.38238	0.36540	0.1000	-4.4402	20.0000	
Chloroform	Averaged	0.91887	1.03264	0.3000	12.3812	20.0000	
Chloromethane	Averaged	0.48050	0.44831	0.0100	-6.7000	20.0000	
1,2-Dichloroethane	Averaged	0.62269	0.67193	0.0700	7.9073	20.0000	
1,1-Dichloroethene	Averaged	0.37939	0.47724	0.0600	25.7909*	20.0000	outside of scope KRP
cis-1,2-Dichloroethene	Averaged	0.56018	0.63262	0.2000	12.9302	20.0000	
trans-1,2-Dichloroethene	Averaged	0.46793	0.54150	0.1000	15.7217	20.0000	
2-Hexanone	Averaged	0.31551	0.27671	0.0100	-12.2988	20.0000	
Methylene Chloride	Averaged	0.47875	0.51578	0.0100	7.7347	20.0000	
1,1,2,2-Tetrachloroethane	Averaged	0.72387	0.64042	0.2000	-11.5286	20.0000	
Tetrachloroethene	Averaged	0.62614	0.69962	0.1000	11.7352	20.0000	
Toluene	Averaged	1.33878	1.48429	0.3000	10.8687	20.0000	
1,1,1-Trichloroethane	Averaged	0.50311	0.53191	0.0500	5.7245	20.0000	
1,1,2-Trichloroethane	Averaged	0.23462	0.23956	0.2000	2.1074	20.0000	
Trichloroethene	Averaged	0.32824	0.35897	0.2000	9.3614	20.0000	
Vinyl chloride	Averaged	0.52327	0.56248	0.0100	7.4939	20.0000	
4-Bromofluorobenzene (S)	Averaged	0.89672	0.90126	0.0100	0.5067	20.0000	
1,2-Dichloroethane-d4 (S)	Averaged	0.37166	0.34339	0.0100	-7.6063	20.0000	
Toluene-d8 (S)	Averaged	2.17704	2.11909	0.0100	-2.6621	20.0000	

* - Value lies outside of established control limits.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/02/2022 3:09 10/18/22

SAMPLE NO.

17047960CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - New York Calibration Date: 07/25/2022 Time: 14:39

Instrument ID: 70MSVB GC Column: Col 1 Init. Calib. Date(s): 07/22/2022 07/22/2022

Lab File ID: 072522.B\M2055.D Init. Calib. Time(s): 15:32 18:49

SDG No.: 70223061

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Averaged	0.10924	0.14650	0.0100	34.1101*	20.0000
Carbon disulfide	Averaged	1.21685	1.30935	0.1000	7.6012	20.0000
Carbon tetrachloride	Averaged	0.38238	0.44261	0.1000	15.7505	20.0000
Chloroform	Averaged	0.91887	0.97596	0.3000	6.2131	20.0000
Chloromethane	Averaged	0.48050	0.46972	0.0100	-2.2431	20.0000
1,2-Dichloroethane	Averaged	0.62269	0.64183	0.0700	3.0732	20.0000
1,1-Dichloroethene	Averaged	0.37939	0.44302	0.0600	16.7708	20.0000
cis-1,2-Dichloroethene	Averaged	0.56018	0.58900	0.2000	5.1446	20.0000
trans-1,2-Dichloroethene	Averaged	0.46793	0.50600	0.1000	8.1344	20.0000
2-Hexanone	Averaged	0.31551	0.37442	0.0100	18.6710	20.0000
Methylene Chloride	Averaged	0.47875	0.46109	0.0100	-3.6889	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.72387	0.75459	0.2000	4.2438	20.0000
Tetrachloroethene	Averaged	0.62614	0.72057	0.1000	15.0810	20.0000
Toluene	Averaged	1.33878	1.46473	0.3000	9.4077	20.0000
1,1,1-Trichloroethane	Averaged	0.50311	0.56103	0.0500	11.5132	20.0000
1,1,2-Trichloroethane	Averaged	0.23462	0.23965	0.2000	2.1473	20.0000
Trichloroethene	Averaged	0.32824	0.34948	0.2000	6.4707	20.0000
Vinyl chloride	Averaged	0.52327	0.55001	0.0100	5.1110	20.0000
4-Bromofluorobenzene (S)	Averaged	0.89672	0.90323	0.0100	0.7263	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.37166	0.35689	0.0100	-3.9736	20.0000
Toluene-d8 (S)	Averaged	2.17704	2.21736	0.0100	1.8518	20.0000

outside of scope KRP

* - Value lies outside of established control limits.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/02/2022 3:09 10/18/22

SAMPLE NO.

17044291ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - New York Calibration Date: 07/22/2022 Time: 20:26

Instrument ID: 70MSVB GC Column: Col 1 Init. Calib. Date(s): 07/22/2022 07/22/2022

Lab File ID: 072222.B\M2053.D Init. Calib. Time(s): 15:32 18:49

SDG No.: 70223061

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Averaged	0.10924	0.15097	0.0100	38.2047*	30.0000
Carbon disulfide	Averaged	1.21685	1.29054	0.1000	6.0551	30.0000
Carbon tetrachloride	Averaged	0.38238	0.38728	0.1000	1.2828	30.0000
Chloroform	Averaged	0.91887	0.91291	0.3000	-0.6486	30.0000
Chloromethane	Averaged	0.48050	0.52615	0.0100	9.5001	30.0000
1,2-Dichloroethane	Averaged	0.62269	0.60960	0.0700	-2.1031	30.0000
1,1-Dichloroethene	Averaged	0.37939	0.42575	0.0600	12.2186	30.0000
cis-1,2-Dichloroethene	Averaged	0.56018	0.53730	0.2000	-4.0845	30.0000
trans-1,2-Dichloroethene	Averaged	0.46793	0.45476	0.1000	-2.8155	30.0000
2-Hexanone	Averaged	0.31551	0.35874	0.0100	13.6998	30.0000
Methylene Chloride	Averaged	0.47875	0.47405	0.0100	-0.9804	30.0000
1,1,2,2-Tetrachloroethane	Averaged	0.72387	0.65218	0.2000	-9.9035	30.0000
Tetrachloroethene	Averaged	0.62614	0.60706	0.1000	-3.0475	30.0000
Toluene	Averaged	1.33878	1.35115	0.3000	0.9242	30.0000
1,1,1-Trichloroethane	Averaged	0.50311	0.50174	0.0500	-0.2722	30.0000
1,1,2-Trichloroethane	Averaged	0.23462	0.21586	0.2000	-7.9926	30.0000
Trichloroethene	Averaged	0.32824	0.32187	0.2000	-1.9396	30.0000
Vinyl chloride	Averaged	0.52327	0.57055	0.0100	9.0369	30.0000
4-Bromofluorobenzene (S)	Averaged	0.89672	0.88692	0.0100	-1.0925	30.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.37166	0.36802	0.0100	-0.9791	30.0000
Toluene-d8 (S)	Averaged	2.17704	2.18581	0.0100	0.4028	30.0000

outside of scope KRP

* - Value lies outside of established control limits.

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

08/02/2022 3:09 10/18/22

MSV - FORM III VOA-1

WATER VOLATILE SAMPLE/DUPLICATE RECOVERY

Lab Name: Pace Analytical - New York
Duplicate Sample No: 70223061012DUP
Date Extracted: 07/26/2022
Date Analyzed: 07/26/2022
Instrument: 70MSVB
Lab File ID: 072622.B\M2091.D
Lab Sample ID: EW-3
SDG No.: 70223061

COMPOUND	SAMPLE CONCENTRATION (ug/L)	DUPLICATE CONCENTRATION (ug/L)	RPD	RPD LIMITS	
1,1,1-Trichloroethane	<1.0	<1.0		0-20	
1,1,2,2-Tetrachloroethane	<1.0	<1.0		0-20	
1,1,2-Trichloroethane	<1.0	<1.0		0-20	
1,1-Dichloroethene	<1.0	<1.0		0-20	
1,2-Dichloroethane	<1.0	<1.0		0-20	
1,2-Dichloroethene (Total)	5.3	2.2	83	0-20	J, LD KRP
2-Hexanone	<5.0	<5.0		0-20	
Acetone	29.6	28.7	3	0-20	
Carbon disulfide	<1.0	<1.0		0-20	
Carbon tetrachloride	<1.0	<1.0		0-20	
Chloroform	<1.0	<1.0		0-20	
Chloromethane	<1.0	<1.0		0-20	
Methylene Chloride	<1.0	<1.0		0-20	
Tetrachloroethene	<1.0	1.2		0-20	
Toluene	<1.0	<1.0		0-20	
Trichloroethene	<1.0	<1.0		0-20	
Vinyl chloride	4.8	4.5	6	0-20	
cis-1,2-Dichloroethene	5.3	2.2	83	0-20	J, LD KRP
trans-1,2-Dichloroethene	<1.0	<1.0		0-20	

RPD: 2 out of 4 outside limits.

SAMPLE NO.

17069110CCV

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - New York Calibration Date: 07/28/2022 Time: 14:29

Instrument ID: 70MSVB GC Column: Col 1 Init. Calib. Date(s): 07/22/2022 07/22/2022

Lab File ID: 072822.B\M2138.D Init. Calib. Time(s): 15:32 18:49

SDG No.: 70223061

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Averaged	0.10924	0.14121	0.0100	29.2636*	20.0000
Carbon disulfide	Averaged	1.21685	1.32251	0.1000	8.6826	20.0000
Carbon tetrachloride	Averaged	0.38238	0.33082	0.1000	-13.4832	20.0000
Chloroform	Averaged	0.91887	1.02899	0.3000	11.9838	20.0000
Chloromethane	Averaged	0.48050	0.45283	0.0100	-5.7584	20.0000
1,2-Dichloroethane	Averaged	0.62269	0.67548	0.0700	8.4777	20.0000
1,1-Dichloroethene	Averaged	0.37939	0.48020	0.0600	26.5709*	20.0000
cis-1,2-Dichloroethene	Averaged	0.56018	0.63370	0.2000	13.1240	20.0000
trans-1,2-Dichloroethene	Averaged	0.46793	0.55676	0.1000	18.9825	20.0000
2-Hexanone	Averaged	0.31551	0.28130	0.0100	-10.8423	20.0000
Methylene Chloride	Averaged	0.47875	0.52003	0.0100	8.6222	20.0000
1,1,2,2-Tetrachloroethane	Averaged	0.72387	0.65520	0.2000	-9.4866	20.0000
Tetrachloroethene	Averaged	0.62614	0.67390	0.1000	7.6270	20.0000
Toluene	Averaged	1.33878	1.47839	0.3000	10.4284	20.0000
1,1,1-Trichloroethane	Averaged	0.50311	0.51355	0.0500	2.0749	20.0000
1,1,2-Trichloroethane	Averaged	0.23462	0.23692	0.2000	0.9840	20.0000
Trichloroethene	Averaged	0.32824	0.35666	0.2000	8.6590	20.0000
Vinyl chloride	Averaged	0.52327	0.55877	0.0100	6.7853	20.0000
4-Bromofluorobenzene (S)	Averaged	0.89672	0.90047	0.0100	0.4185	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.37166	0.35275	0.0100	-5.0889	20.0000
Toluene-d8 (S)	Averaged	2.17704	2.07829	0.0100	-4.5362	20.0000

Outside of scope KRP

* - Value lies outside of established control limits.

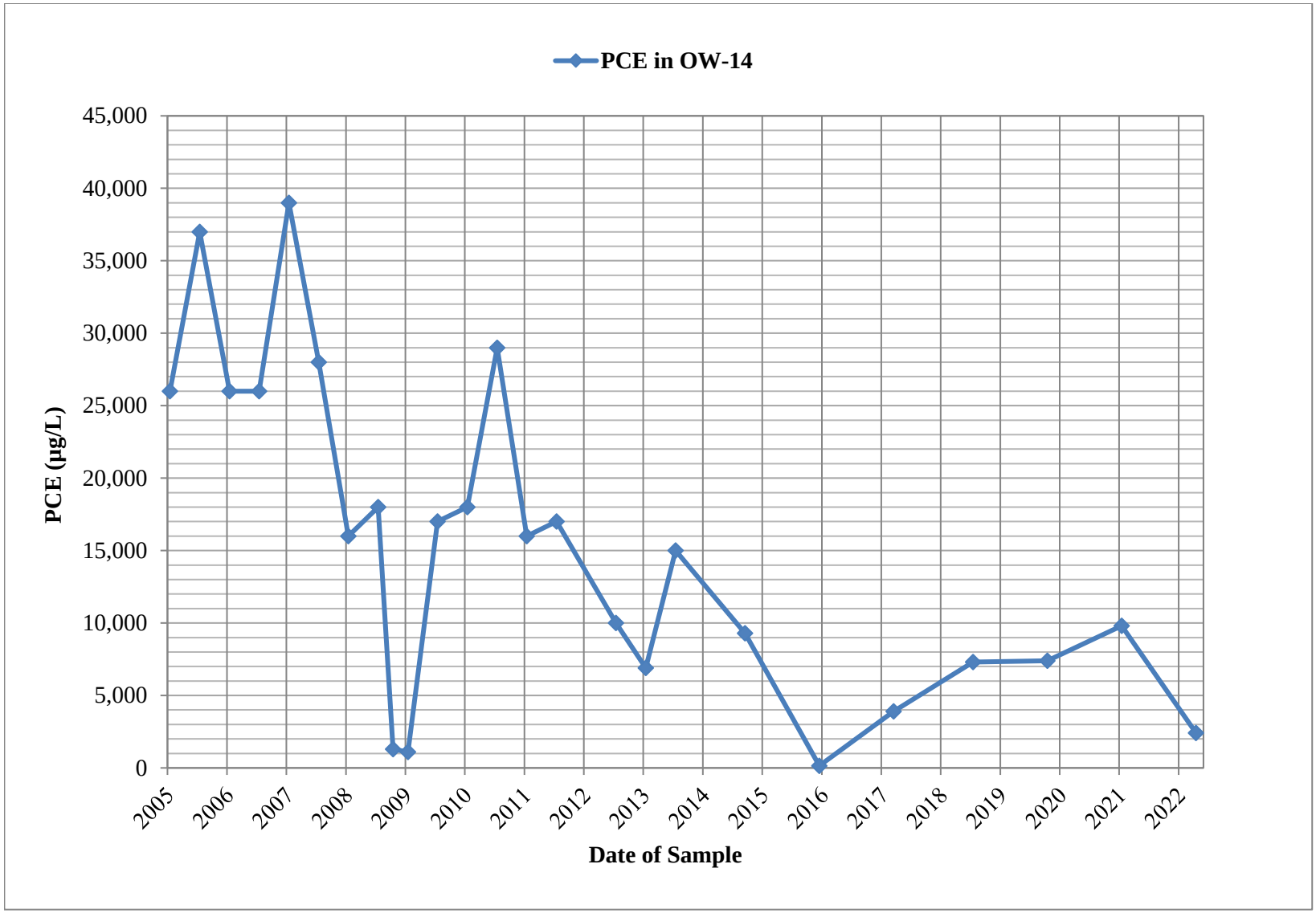
The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

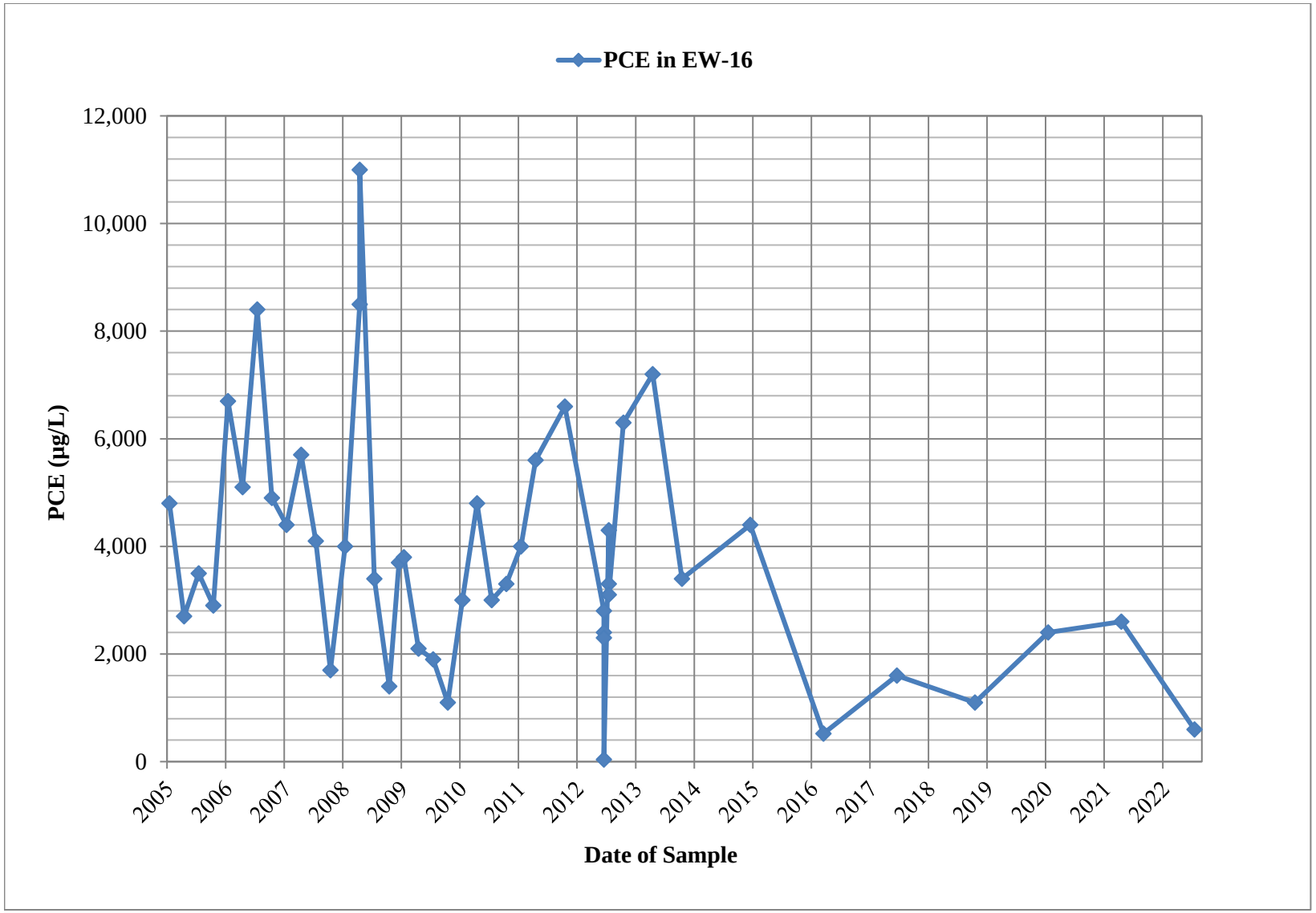
08/02/2022 3:09 10/18/22

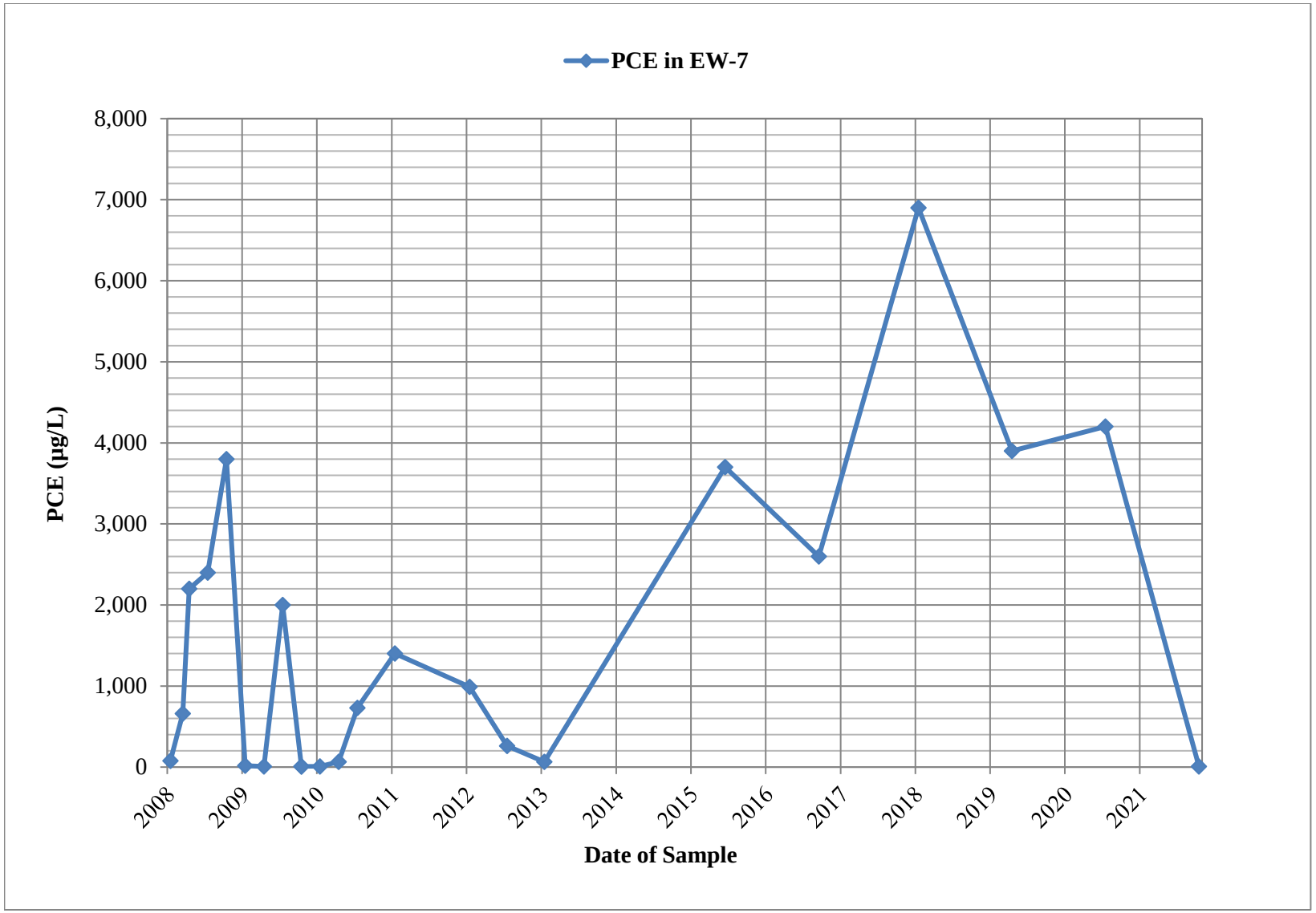
ATTACHMENT 4

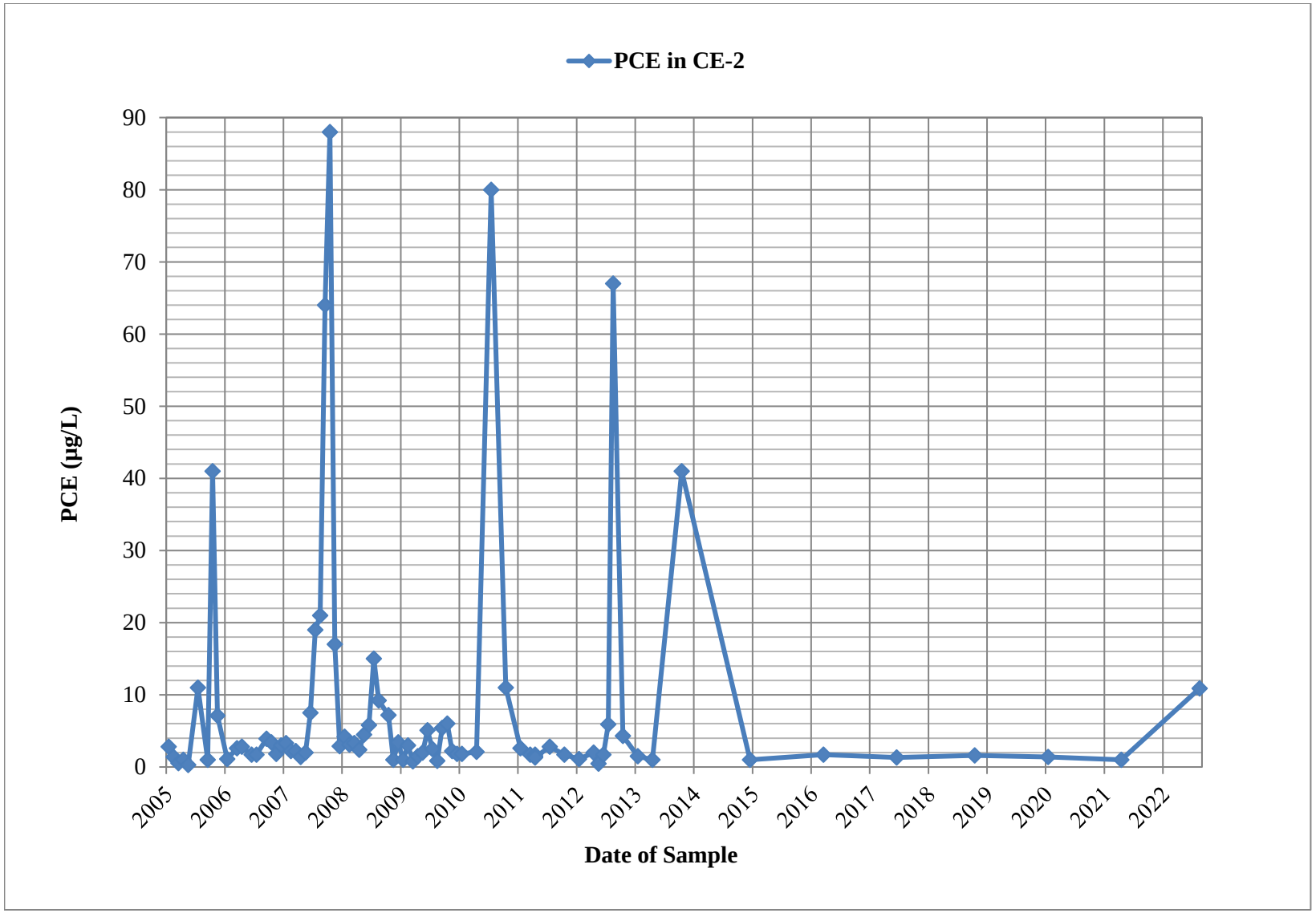
Time-Series Plots

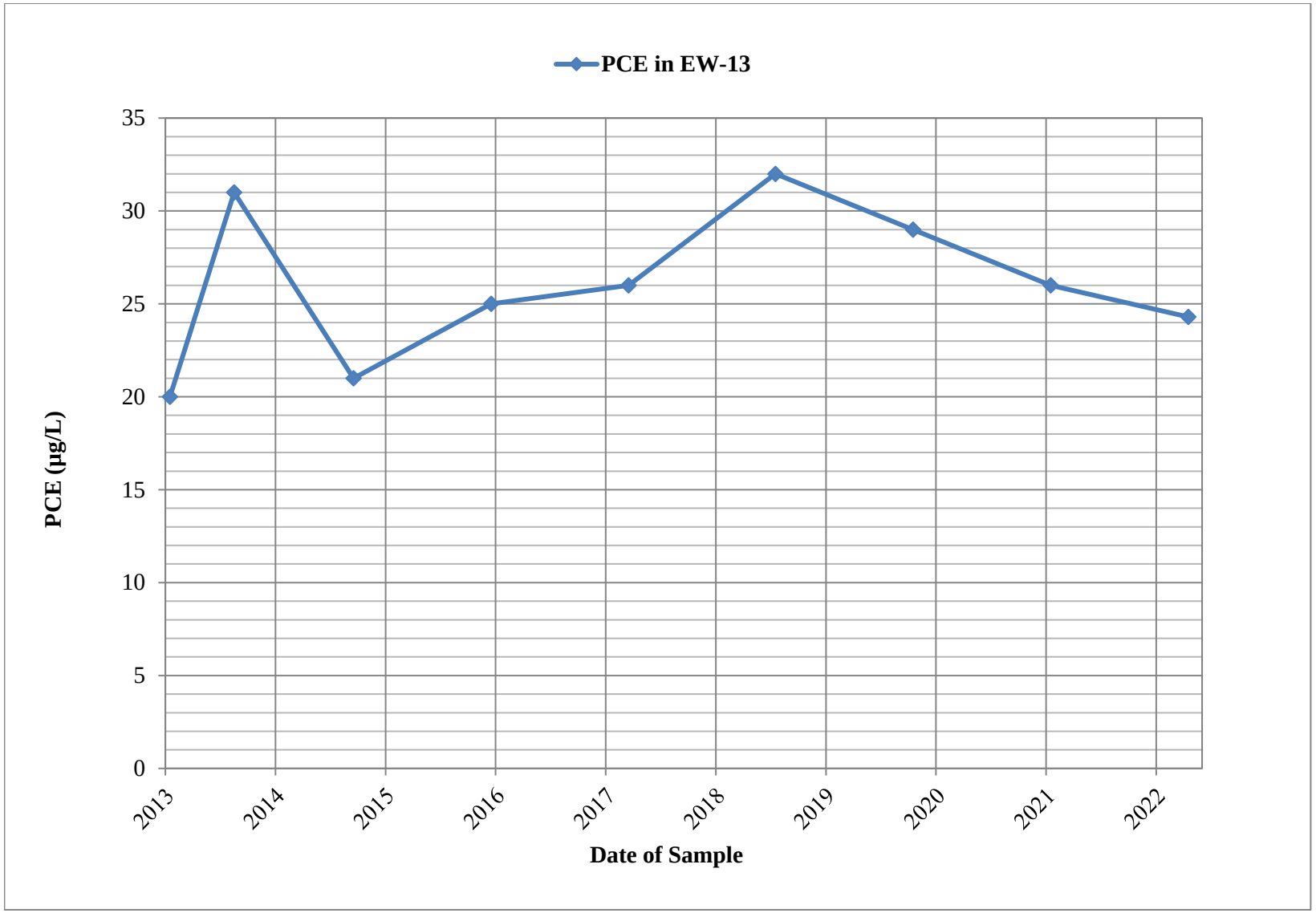
OW-14, EW-16, EW-7, CE-2, EW-13, M-5

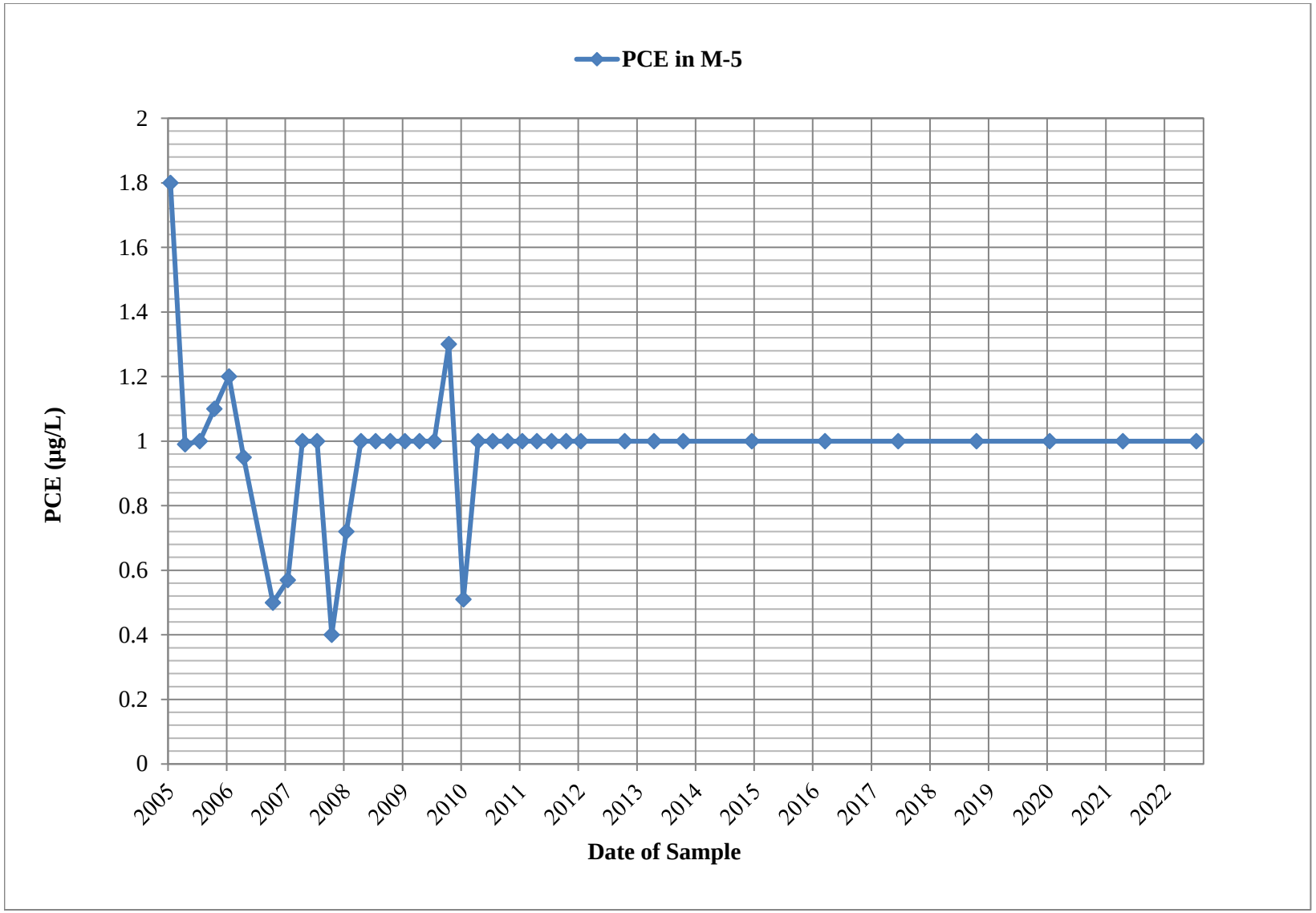

PCE in OW-14
45,000
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
PCE (µg/L)
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Date of Sample


PCE in EW-16
12,000
10,000
8,000
6,000
4,000
2,000
0
PCE (µg/L)
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Date of Sample


PCE in EW-7
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
0
PCE (µg/L)
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
Date of Sample


PCE in CE-2
PCE (µg/L)
0
10
20
30
40
50
60
70
80
90
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Date of Sample


PCE in EW-13
PCE (µg/L)
35
30
25
20
15
10
5
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Date of Sample


PCE in M-5
PCE (µg/L)
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
Date of Sample

ATTACHMENT 5

Cost Control Summary Documents

2022 Cost Summary Table

Task 1 (Preliminary Activities)	
Labor	$19,101
Task 2 (Site Management Plan)	
Labor	$1,828
Task 3 (Operation and Maintenance) [(a)]	
Labor	$97,849
Lodging, Travel, and M&IE	$5,322
Waste Disposal	$451
Internet	$1,855
Plowing	$2,419
Supplies & Equipment	$12,443
Subcontractors	$460
Electricity*	$14,298
Propane*	$5,114
Water*	$328
Laboratory Services* [(b)]	$3,293
	$143,832
Task 4 (Monitoring and Reporting)	
Labor [(c)]	$96,996
Lodging, Travel, and M&IE	$786
Supplies & Equipment	$762
Laboratory Services* [(b)]	$2,750
	$101,294
Task 5 (Periodic Review and Reporting)	
Labor	$12,576
Annual Total:	**$278,631**

Notes:

[(a)] Includes routine and non-routine OM&M, residential POET system OM&M, POET system decommissioning and reporting, and costs for new pumps and motor leads for OW-3, OW-7, OW-13, and OW-16 and oversight during replacement.

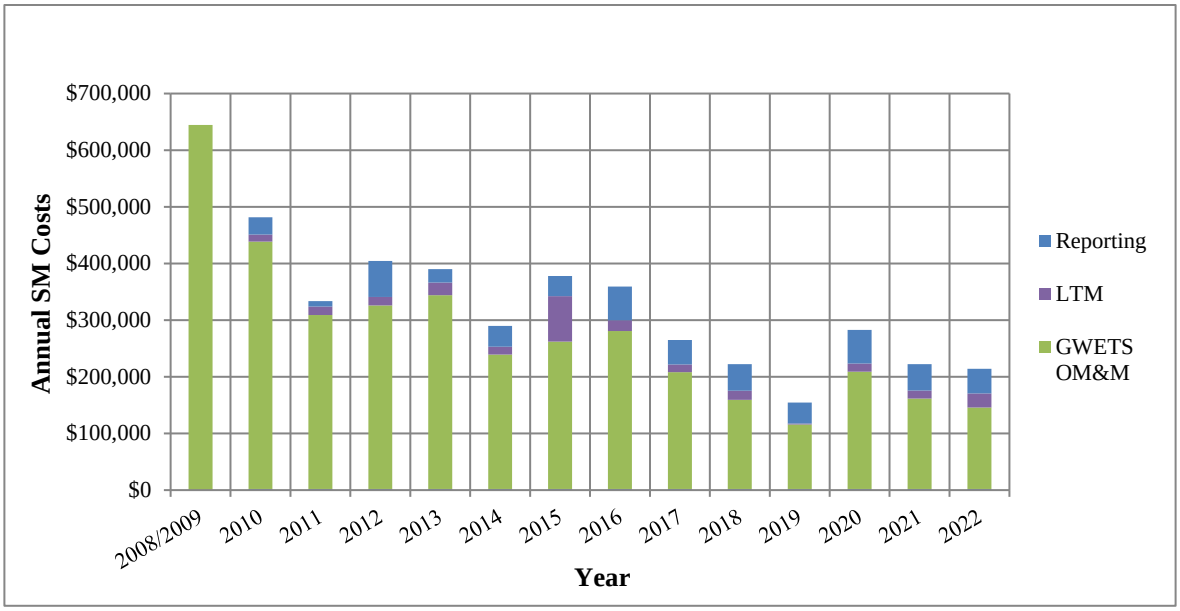
[(b)] Costs for Laboratory Services under Tasks 3 and 4 were estimated using the total laboratory services cost provided by the NYSDEC for 2022. Monthly treatment system performance samples and quarterly residential POET samples represent Task 3 laboratory costs. July 2022 LTM samples and EW-9 samples collected under the optimization evaluation represent Task 4 laboratory costs.

[(c)] Labor costs included LTM; semiannual hydraulic monitoring; analytical data validation and management; compilation, review, and evaluation of monthly system performance data; monthly reporting and invoicing; sustainability and resiliency presentation with the NYSDEC; an updated Ground Source Heating and Solar Photovoltaic Evaluation; extraction well optimization evaluation reporting.

* NYSDEC direct expense

M&IE = Meals and incidental expenses

Annual SM Costs 2008/2009-2022



Notes:

GWETS OM&M includes Country Estates (thru Q2 2013) and residential GAC system OM&M (thru 6/1/2022). After Q2 2013, OM&M of Country Estates treatment system(s) became owner's responsibility. OM&M of three residential GAC systems ceased after 6/1/2022.

2008/2009: Costs from 10/1/2008 through 12/31/2009.

2010: GWETS OM&M includes Country Estates & residential GAC system OM&M. Reporting includes preparation of 2008/2009 PRR.

2011: GWETS OM&M includes Country Estates & residential GAC system OM&M.

2012: GWETS OM&M includes Country Estates & residential GAC system OM&M, preparation of detailed design drawings for GWETS improvements; Reporting includes preparation of SMP and 2010/2011 PRR.

2013: OM&M does not include preparation of detailed design drawings for GWTS improvements or implementation of RSO improvements. LTM includes conducting hydraulic effectiveness monitoring and EW-9 step test.

2014: OM&M does not include GWETS modifications; Reporting includes 2014 PRR, drafting SMP update.

2015: GWETS OM&M includes oversight/coordination of GWETS upgrades/modifications; LTM reflects quarterly residential POET system OM&M, extraction well decommissioning, EW-5 over drilling/MW conversion, EW-5 investigation derived waste disposal.

2016/2017: GWETS OM&M includes modifications, GWETS commissioning; Reporting includes PRR preparation, SMP updates.

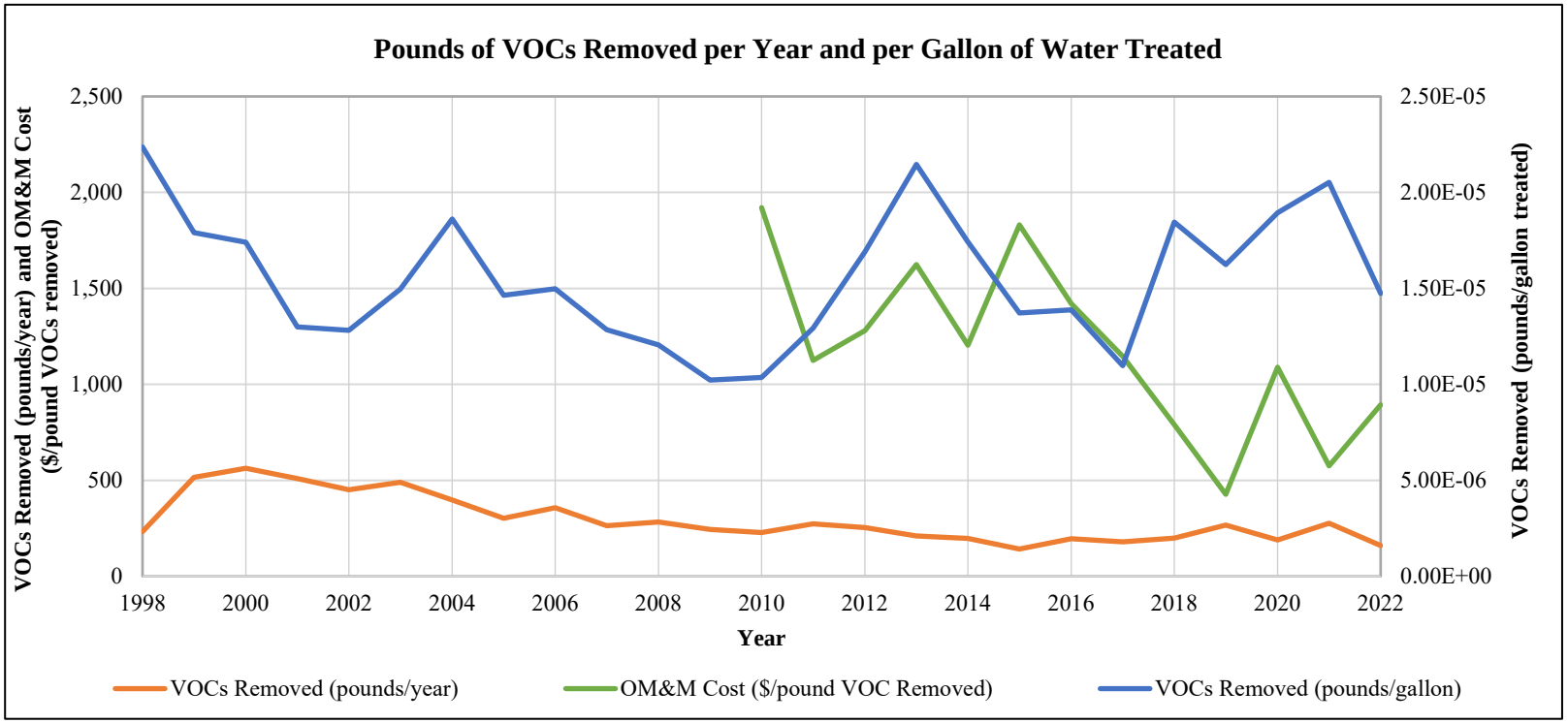
2018: GWETS OM&M includes GWETS commissioning/optimization & monitoring well decommissioning inventory; Reporting includes annual report preparation, SMP updates.

2019: GWETS OM&M includes regular inspections/maintenance; LTM reflects quarterly residential POET system OM&M, semiannual hydraulic monitoring; Reporting includes annual report preparation.

2020: GWETS OM&M includes routine/non-routine inspections/maintenance, replacement of two effluent discharge pumps, quarterly residential POET system OM&M; LTM reflects January/July 2020 groundwater monitoring/sampling events, semiannual hydraulic monitoring, October 2020 emerging contaminants sampling; Reporting includes 2019 Annual Report, initial 2020 PRR preparation, 2020 MPRs.

2021: GWETS OM&M includes routine/non-routine inspections/maintenance, quarterly residential POET system OM&M, well decommissioning event; LTM reflects April 2021 groundwater monitoring/sampling event, semiannual hydraulic monitoring; Reporting includes 2020 Periodic Review Report edits, 2021 MPRs, Field Activities Plans for Well Decommissioning and Extraction Well Optimization Evaluation, Well Decommissioning Field Activities Report, annual report preparation, data management/validation.

2022: GWETS OM&M includes routine/non-routine inspection/maintenance, waste disposal, residential POET system OM&M through June 1st, partial decommissioning of one residential POET system, OW-3, OW-7, OW-13, OW-16 pump replacements; LTM includes July 2022 groundwater monitoring/sampling event, semiannual hydraulic monitoring; Reporting includes 2021 Annual Report, MPRs, Extraction Well Optimization Evaluation Field Activities Report, updated Ground Source Heating and Solar Photovoltaic Evaluation, data management/validation.



	2008/2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
GWETS OM&M Cost	$644,463	$436,679	$307,055	$323,996	$341,910	$237,347	$260,109	$278,887	$206,121	$157,316	$113,866	$206,964	$159,592	$143,832
VOCs Removed (pounds/year)	527	227	273	253	211	197	142	196	180	199	267	190	277	161
$/pound VOCs Removed	$1,222	$1,921	$1,125	$1,280	$1,624	$1,204	$1,830	$1,421	$1,145	$791	$427	$1,089	$575	$894