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MONTHLY REPORT OF THE OPERATIONS & MAINTENANCE ACTIVITIES (JULY 2023)

**CLAREMONT POLYCHEMICAL
OPERABLE UNIT 5 GROUND
WATER TREATMENT
SYSTEM, OLD BETHPAGE, NY**

**MONTHLY REPORT OF THE OPERATIONS & MAINTENANCE
ACTIVITIES (JULY 2023)
CLAREMONT POLYCHEMICAL OPERABLE UNIT 5 GROUND
WATER TREATMENT SYSTEM, OLD BETHPAGE, NY**

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LIST OF ACRONYMS AND ABBREVIATIONS

AS	Air Stripper
A/V	Air and Vacuum
ASF	Air Stripper feed
BNA	Base Neutral & Acid Extractables
CPC	Claremont Polychemical
CSE	Confined Space Entry
DOSR	Daily Operations Summary Report
EE	Electrical Engineer
GES	Groundwater & Environmental Services, Inc.
GPM	Gallons Per Minute
GWTS	Groundwater extraction, treatment, and reinjection system
HDR	Henningson, Durham & Richardson Architecture and Engineering, P.C.
HMI	Human Machine Interface
HVAC	Heating, Ventilation, and Air Conditioning
MTBA	Tert-Butyl-Methyl ether
MW	Monitoring Well
NYSDEC	New York State Department of Environmental Conservation
O&M	Operation and Maintenance
OU4	Operable Unit 4
OU5	Operable Unit 5
PD	Plant Discharge
PDB	Passive Diffusion Bag
PFAS	Per- and polyfluoroalkyl substances
PFOS	Perfluorooctanesulfonic acid
PFOA	Perfluorooctanoic acid
PID	Photoionization Detector
PFF	Pressure Filter Feed
PLC	Programmable Logic Controller
ppm	parts per million
PW	Process Water
Ramboll	Ramboll Americas Engineering Solutions, Inc.
RW	Recovery Well, Process Well
SPEDES	State Pollutant Discharge Elimination System
SSHP	Site Safety and Health Plan
SU	Standard pH Units
SVOCs	Semi-Volatile Organic Compounds
TBA	Tert-butyl alcohol
TDS	Total Dissolved Solids
TKN	Total Kjeldahl Nitrogen
TOC	Total Organic Carbon
TSS	Total Suspended Solids
US Water	US Water Services Corporation
VOCs	Volatile Organic Compounds,

1. OPERATION AND MAINTENANCE ACTIVITIES

On behalf of Ramboll Americas Engineering Solutions, Inc. (Ramboll), Groundwater & Environmental Services, Inc. (GES) continued the daily operation and maintenance (O&M) of the Claremont Polychemical (CPC) Superfund Site Groundwater Treatment System (GWTS) Operable Unit 5 (OU5) during the month of July 2023. In addition, former Operable Unit (OU4) was inspected once per month to ensure security and building code compliance. For this report every time plant is mentioned it refers to OU5. OU4 will be referred to as such whenever discussed. This report covers the O&M activities for the system during the period defined as beginning at approximately 0800 hours, July 3, 2023, through approximately 0800 hours, July 28, 2023. O&M conducted during this reporting period was guided by the site O&M Manual.

The GWTS – treatment plant, grounds, and well systems - were maintained for the 25 days in this reporting period during which the treatment system experienced 102 minutes of downtime.

Readings of the key plant process parameters are normally recorded each workday. These readings and the Human Machine Interface (HMI) flow trend lines are used to monitor the system's performance and condition. Selected readings are recorded in the daily database which is an electronic file maintained in the monthly operating documents folder. If the plant is not occupied, the system is monitored remotely.

The treatment process control and alarm systems are functional. The recovery well pumps, process pumps, and air stripper blower are operated in the automatic mode and are normally remotely controlled and monitored. RW-3, RW-4 and RW-5 recovery wells were operational during the month of July.

1.1 Daily Operations Summary Reports

The GWTS's daily operations and maintenance activities, project tasks, and observations during this period are briefly described in the Daily Operations Summary Report (DOSR). The DOSR is based in part on the treatment system's daily operating worksheets and logs which include:

- Daily Operating Log – flow readings and calculations (Form-01)
- Daily Site and Safety Inspection – plant condition checklist (Form-02)
- Daily Plant Activity Notes – plant manager's daily summary (Form-03)
- Sign-In Sheet – GES/Ramboll employee on-site hours (Form-15)
- Daily Process Data Sheet – point process readings (Form-30)
- Logbook CPC 5-8– plant operator's daily logbook
- Daily Database – daily process readings (July 23 Database.xlsx)
- NYSDEC Log-in Sheet – Entry/Exit Log with COVID-19 Acknowledgement

1.2 Summary of Maintenance Activities

The operation and maintenance of the treatment system, facility, and associated equipment is performed in accordance with the site O&M Manual. These tasks and inspections incorporate the equipment manufacturers' recommendations, operations experience, and good engineering and maintenance practices. A detailed accounting of the July activities is further provided in the plant operator's daily logbook.

Maintenance and project activities undertaken during the July period included:

- Routine and general maintenance tasks were conducted at the plant, on the grounds, and in the well fields.
- Single Air Stripper Feed (ASF) pumps were placed into hand mode and frequently switched to cycle their activity.
- The monthly process equipment tests were conducted.
- The Operable Unit 4 (OU4) comprehensive inspections were completed.
- The monthly Process/Recovery Well (RW) system inspection was completed.
- Basin 33 was inspected.
- The ASF pumps were lubricated, and the seals tightened.
- The OU5 comprehensive inspections were completed.
- The Pressure Filter Feed (PFF) pumps were lubricated, and the seals tightened.
- The fire alarm system components were inspected.
- The monthly electrical device survey was completed.
- The SUNY wellfield was inspected.

1.3 Maintenance Logs

The following operating logbooks are currently in use and maintained at OU5:

- CL-18 OU-4 Log (at OU4)
- CL-43 General Field Support Log (truck)
- CL-47 Misc. Projects Field Notebook (Pawel Mecinski)
- CPC 5-4 Project Support Logbook (site)
- CPC 5-8 Site Supervisor's Daily Logbook (Pawel Mecinski).

Except for log CPC 5-7, the completed logbooks associated with the project have been scanned, all are in storage at OU5, and are available for review.

2. TECHNICAL SUPPORT ACTIVITIES

2.1 GES/Ramboll Personnel

- GES maintained the system throughout the period.

2.2 NYSDEC Personnel, Sub - contractors, and Other Visitors

- On July 19, 2023, Standard Fire Inspections on site to conduct fire extinguisher inspection and tagging at both OU-4 and OU-5 plants.

2.3 Deliveries

- On July 3, FedEx delivered sampling cooler upcoming quarterly groundwater system sampling event.

3. HEALTH AND SAFETY

Work at the Claremont GWTS OU5 was conducted in accordance with the approved and Ramboll adopted Site Safety and Health Plan (SSHP). Safety related activities during this period included:

- The water remained off at OU4. Both potable and non-potable lines were drained. (No sanitary water).
- Daily site safety inspections were completed as part of the routine O&M activities.

4. PLANNED ACTIVITIES AND SCHEDULES

The evaluation of the plant operating system and equipment is ongoing by GES/Ramboll. A list in the form of corrective actions or maintenance tasks has been generated as a monthly system status report. These reports are updated as needed and reviewed at least monthly. Both are electronically filed. The corrective action list is included at the end of this report as **Table 1** – Claremont Corrective Action Summary.

Upcoming tasks include:

- OU4 remains without water to the fire sprinkler system due to no heat in the building.
- OU4 potable water line was shut off due to pipe ruptures from frozen pipes.
- Air valve at MW-6 cluster in Bethpage State Park reinsertion.
- Investigate plant electric driven back-up heater failures.
- Close and exercise all globe valves at the non-operational recovery wells.

5. MONITORING WELL WATER ELEVATIONS

The monitoring well system's groundwater elevation data table was updated after the May 2023 quarterly GW elevation recording task. This database is available for review. The next set of synoptic water level measurements are scheduled for August 2023 and will be conducted by Ramboll.

6. TREATMENT SYSTEM FLOWS

During the July period, the plant continued to operate in the auto control mode. The volume of treated water discharged by the treatment system to the selected recharge basin was calculated from the plant influent and effluent flow meter readings. These readings are taken at the HMI and recorded in the daily database.

RW-5 pressure switch was replaced on January 5, 2023, and the well was successfully restarted on automatic run mode. RW-5 experienced electrical short across the motor windings on January 26, 2023, and was confirmed inoperable. The motor short circuiting was confirmed on March 13, 2023 during pump extraction and inspection activities. RW-5 motor and wiring was replaced on May 1, 2023. RW-5 has been operating since the replacement activities. RW-3 continues to function normally. RW-4 was offline from August 17, 2022 through May 2, 2023 following full

replacement of pump, pump motor and down well wiring. RW-4 has been operating normally since the replacement activities. The old RW-4 pump was inspected, and it was determined that the shaft has ceased up and broke off between the motor and pump connection.

During the month of July, the plant discharge was directed to Recharge Basin 33.

The total volume of treated water discharged from ~0800 hours July 3 to ~0800 hours July 28 was approximately 24,018,000 gallons. The data in **Table 2** is a summary of plant discharge flows.

A graphic representation of the system's daily plant discharge output is provided in **Figure 1** and the daily plant totalizer readings for July 2023 are provided in **Table 3**, both following the text of this report.

Under current conditions, the PLC and the control system are functioning as designed. Flows from the individual recovery wells are remotely read, transmitted, and totalized.

The flow summary for the individual components of the system can be found in **Table 4** at the end of this report.

7. CHEMICAL CONSUMPTION

The hydrochloric acid feed system is currently off-line, and the system is void of acid. There are four drums of virgin acid on site. No acid was used for water treatment purposes in July of 2023.

The sodium hydroxide storage system is currently not in use and the system is empty of caustic. There is no bulk sodium hydroxide on site and no caustic was used in July of 2023.

The sodium hypochlorite storage system is currently not in use and the system is empty of bleach. No bulk sodium hypochlorite is stored on site. No sodium hypochlorite was used in July of 2023.

8. WASTE DISPOSALS

Routine accumulation of waste materials continued from plant day to day operations. Waste removal is being handled by National Waste Services, LLC. Waste container was last emptied on May 17, 2023.

9. MONTHLY DISCHARGE MONITORING REPORT

The GWTS is operated under an equivalency permit from the NYSDEC. **Table 5** presents the Claremont OU5 O&M Sampling and Measurement requirements and their frequency. The analytical results for the plant discharge sampling conducted on July 5, 2023 indicate that the analyzed parameters were compliant with permit limits (**Table 6**). Monthly system sampling analytical results are provided in **Attachment 1**.

The OU5 GWTS plant's water discharge permit is in the process of being renewed by the NYSDEC.

10. PENDING ISSUES AND CONSIDERATIONS

Mechanical repairs have been made to the plant HVAC system at OU4. Upon testing, the gas supply appeared to be shut off. Ramboll is currently planning demolition of the OU4 building.

The sprinkler system at OU4 remains drained of water. The potable and non-potable water lines at OU4 have been drained.

The discrepancies/inaccuracies in the plant flow meter readings at OU5 may be due to the inappropriate configuration of the local piping. Future calibration or adjustment of pulse reading may be required.

Repairs have been made at RW-4 and RW-5. Both pumps have returned to operation.

The OU4 plant is offline and its disposition including that of the injection well system, and vapor carbon beds is pending.

The status of key aspects of OU4 are as follows:

- The plant heat is currently off, and the system is out of service.
- The fire alarm panels are off-line.
- The fire sprinkler system is currently off-line. The water has been drained from the system. An alarm system for the sprinkler has been installed with central monitoring.
- The facility is secure, and its physical monitoring continues.
- The facility and grounds are not maintained except for the facility entrance and plant egress points.
- NYSDEC plans on decommissioning and demolishing OU4. A team from Ramboll is in the process of developing bid documents for this work.

11. PLANT DOCUMENTS

Procedures and standard forms are written, reviewed, and revised as needed. As-built drawings are generated and updated as necessary.

12. MONITORING RESULTS

The CPC GWTS is monitored through the analysis of off-site laboratory analytical data and on-site field data.

12.1 Off-site Analytical Data Results

Monthly Plant Discharge (PD) samples are taken for organic analysis in compliance with the NYSDEC discharge permit. Quarterly groundwater samples are taken for organic analysis, and quarterly process water (PW) samples are taken for organic, inorganic, and generic analysis. At the direction of the NYSDEC in an August 17, 2022 email, analysis of Per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane were added to monthly sampling for both influent and effluent for the foreseeable future. The July 2023 PFAS and 1,4-dioxane influent and effluent

results can be found in **Table 7** following the text of this report. Monthly system sampling analytical results are provided in **Attachment 1**.

The July sampling activities included:

- The July PD data was processed and submitted.
- Monthly system sampling was completed on July 5, 2023.

12.2 Field Data

12.2.1 Plant Discharge pH and Temperature

The treatment plant effluent is monitored for pH and temperature on a weekly basis to obtain a monthly average in compliance with the NYSDEC discharge permit requirements. These measurements are taken from the plant effluent at a controlled point with a calibrated portable meter. The plant discharge readings for July 2023 can be found in **Table 8** following the text of this report.

The July 2023 average pH measurement was 7.39 standard units (su). The NYSDEC discharge permit requires the plant discharge to have an average monthly pH between 6.5 and 8.5 su. The results for this month meet this requirement. Data showing the plant discharge's monthly average pH trend over several months is provided in **Table 9** following the text of this report.

12.2.2 Air Stripper (AS) Tower Air Monitoring

Using a calibrated photoionization detector (PID), the vapor discharge from the air stripper tower was monitored weekly for volatile organic compounds (VOCs). The measurements were taken from the tower's effluent air stream through Port B when the treatment system is online. The July 2023 readings from the AS tower are provided in **Table 10**.

Other routine data collected in July included:

- The electric and water meter readings at OU5 were recorded weekly.
- The plant vaults and selected areas were monitored for VOCs weekly.
- The plant sound levels were recorded bi-weekly.
- The monthly electric and gas meter readings for OU4 were recorded.
- The recharge basins were inspected weekly.
- The differential pressure readings across the AS Tower were recorded bi-weekly.

13. PROCESS ANALYSIS AND SYSTEM STATUS

The treatment system is currently operated 24/7 in the automatic mode. It is remotely monitored as necessary.

13.1 Extraction (RW) Processes

- The monthly system inspection was completed.
- The vault space heating units were deactivated on March 23, 2023.
- The recovery well pump system is remotely controlled and monitored, it operates in the auto mode.

- The pump at RW-3 is online and fully functional.
- The pump at RW-4 is online and fully functional following replacement on May 2, 2023. The pump experienced multiple random shut downs and was quickly restarted without any issues.
- The pump at RW-5 is online and fully functional following motor replacement on May 1, 2023.
- Pump flow readouts are transmitted to the plant and the totalizers for pumps RW-3 and RW-4 are fully functional. The local flow meter for RW-5 occasionally stops transmitting. The pump experienced a shut down due to pressure switch trip, following night time power loss to both the plant and recovery wells on July 26, 2026.
- Air/Vacuum (A/V) valve at station 33+96 encountered a leak in May that required the vault to be pumped out and have its air/vacuum valve removed. Currently a stopper has been fitted to the pit that allows water to flow through the system.
- The Air/Vacuum (A/V) valve at station 16+57 and 17+10 remain isolated from the transmission line.
- RW-1 and RW-2 are offline and periodically run for preventative maintenance purposes. Their flow meters are not transmitting through the PLC. When repairs were made at RW-1 in November 2021, stones were removed from the flow meterhousing. There was a thick coating of iron salt deposits on the housing and impeller. Both RW-1 and RW-2 are isolated from the process pipeline throughout the operating period. On a monthly basis, the isolation valves are actuated open and pumps are run for 5 minutes to rotate the motors. The pumps were tested operational on July 26, 2023.

13.2 AS Process

- The three OU5 ASF pumps in the AS Process are fully functional.
- Motors and seals were lubricated on a bi-weekly schedule. Seals were tightened and the drains were cleared as necessary.
- The AS tower main drain valve's manual actuator is not functional (fail open).
- The tower media appears clean as the pressure differential between the top and bottom ports remains relatively constant. The lower section of media has been visually inspected.
- The discharge valves for ASF P1 and P2 appear to be frozen in the open position.

13.3 PD Process

- The plant discharge flow is currently directed to Recharge Basin 33.
- The valve influent to Recharge Basin 1 remained closed during the July reporting period.
- Pump 1 has been taken out of service due to excessive noise and vibration. A full evaluation is required. Pumps 2 and 3 are fully functional.
- The motors and seals were lubricated as necessary.
- The discharge valve for PFF P3 has failed open.

13.4 Other

- The plant's first bank of lights is wired to the emergency-light recharging system. The circuit is kept on 24/7. The lamps appear burnt out. The second bank of lights provides sufficient lighting for general tasks. Additional work lights were installed around the plant area to further illuminate work areas.
- The potential for leaks in the water supply line running through the plant will continue to be monitored.
- The fire alarm and central monitoring systems are fully functional. A false fire alarm condition was observed on July 26, 2023, following total power loss to the plant.

14. GROUNDS

14.1 Plant Perimeter

- General outdoor clean-up tasks are on-going.
- The fencing is clear and secure.

14.2 Well Field

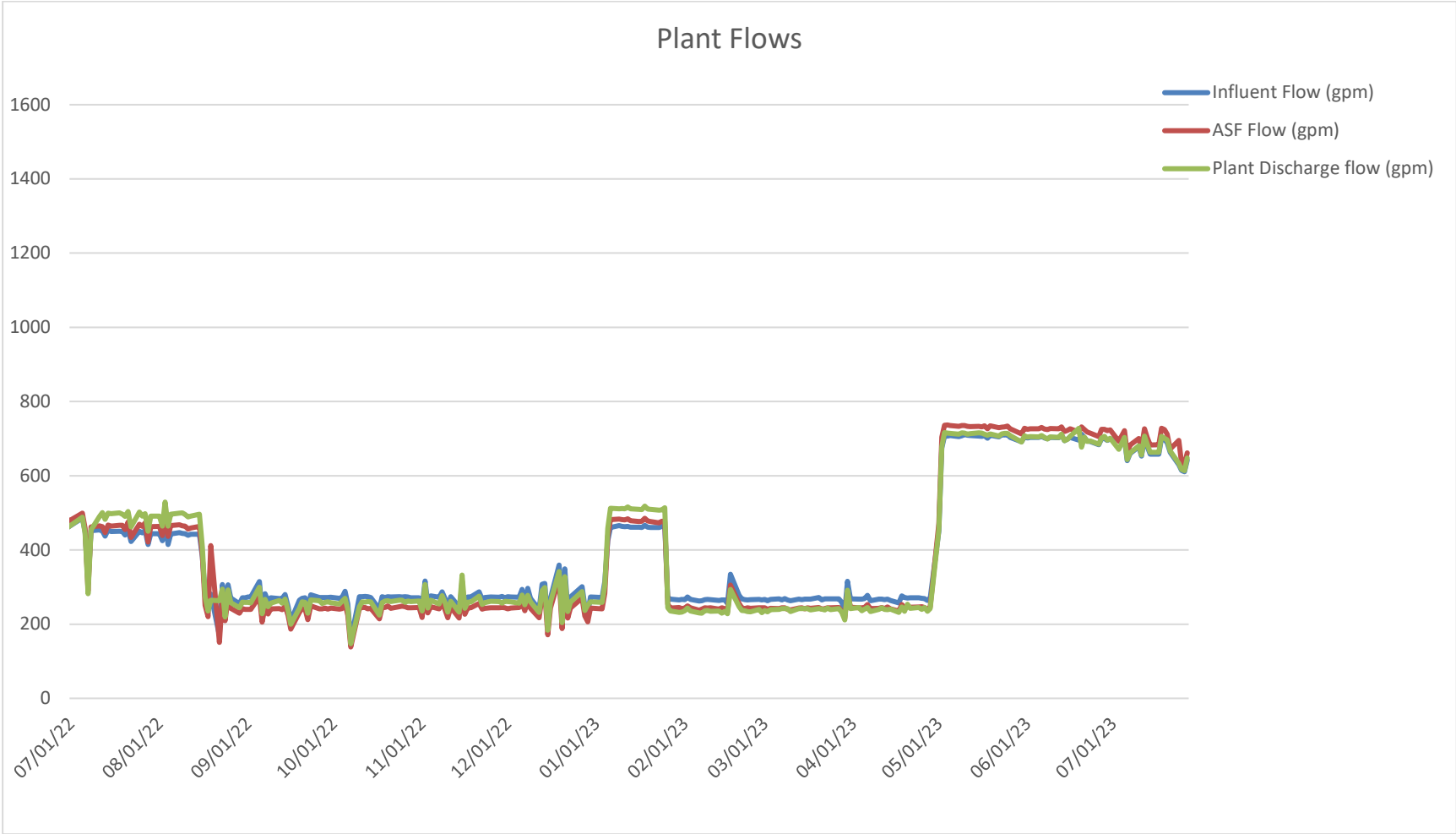
- Well field, and recharge basin inspections continue. Quarterly groundskeeping activities are performed in order to clear vegetation and poison ivy from around all well fields in anticipation of quarterly groundwater sampling event. In addition, the entrance to recharge basin #33 is maintained for ease of access.

14.3 Other

- The CPC GWTF OU4 is secure.
- The property at and around the OU4 site continues to be inspected. While the grounds are not maintained, the treatment plant's entrance and egress points are kept clear and functional.

FIGURE

Figure 1
Plant Discharge Daily Flow



TABLES

Table 1
Claremont Corrective Actions Summary

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
The RW Discharge Manifold integrity is suspect	The condition of the various devices on the RW discharge manifold are suspect. The Air Vent valve in the vault on the N-side of the 6th fairway is leaking from the influent nipple. The shut-off valve was closed and the device isolated. The air-vent valve in the vault to the east of the 6th green is leaking. The shut-off valve was closed and the device isolated. The manifold employs isolation, venting, and drain valves as well as other devices. Along the path of the manifold are vaults which house some of these devices. These vaults need to be accessed, pumped out, and the devices tested. Two isolation valves were closed between RW-1 and RW-3. These valves seemed to hold.	Plant staff and outside contractors	Possible shutdown	May require a Confined Space Entry (CSE)
AS Tower main drain valve is not controlled	The valve does not respond to manipulation of its actuator. <i>This valve should be replaced.</i> <i>No further action is planned at this time.</i>	Operator	Plant will need to be shut down to change out the valve	None

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
OU4 fire alarm system is not functioning Central monitoring of the fire alarm system or fire suppression system does not exist OU4 electrical system has been unstable	The Nassau County Fire Code indicates that the sprinkler system must have central monitoring for flow and valve tampering. The fire alarm system needs to be replaced and centrally monitored. Several contractors have been at the site to propose options for the system. BK Fire installed central monitoring on the sprinkler system. Both are offline as the sprinkler system will remain drained until the HVAC system is repaired. Certain OU4 lights currently create a large amount of noise in the fan box within the control room. The southern lights flicker and then die including the emergency system. OU4 is currently being planned for demolition.	Plant operator, Electrical Engineer (EE) and outside vender	None at this time	Fire code violations. High altitude tasks, safety code violations
Several leaks were observed in the plant overhead water supply line	Adjacent to the north door a clam-shell type clamp was applied. The second leak observed above the AS Blower is not readily accessible. It is not problematic. <i>Repair work may require evaluation and outside resources. Currently the situation is controlled.</i>	Outside plumbing contractor	None	Sanitary water may be shut off during repairs

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
The float controls for the PFF pump system have intermittently shorted out causing the system to not properly control the pumping operation	The wiring of the pump control system is connected below grade. The junction box in the wet well is thought to be filled with water creating a problem with the float switches to control relay wiring. The box cannot be opened without damage to it and the conduit. This appears to have been a longstanding problem, as when switches have been replaced in the past, they were spliced outside the box. The float switches have been replaced and spliced above the sump but there remains a problem with the L2 circuit. The output from the W-2 relay was moved to the output for the W-1 relay. This has stopped the short cycling. <i>The control wiring should be changed and moved above grade. Currently the second splices to the floats are above ground outside the vault.</i>	Plant operator and GES resources	Plant shut down is required	Possible Confined Space Entry work
PFF P1 has failed	The pump when activated immediately makes a lot of noise, and the pump drop pipe shakes. Smoke/fumes emanated at the Motor-shaft connection. The motor appears to be good. The pump was removed from service, February 24, 2020. <i>It is recommended that the motor be disconnected, lifted, and the mechanical connection checked.</i>	Outside contractors	None anticipated	To be determined

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
As the ASF pumps cycle off/on, the check valves have started to slam closed. When reactivating, the motor starter contact is rather violent. Both actions tend to rattle the piping and fixtures	There is no available literature regarding the check valves, so the exact description of their functioning parts is to be determined. A softer start/stop control may fix this issue. <i>This will need further investigation. Soft-start equipment and variable frequency controls were discussed.</i>	Plant operator and EE support	If replacement or repairs are necessary, a plant shutdown will be required as the units can- not be isolated	To be determined
The flowmeters for system flow, ASF flow and plant discharge are out of sync with the flow meters on the recovery wells	While the ASF flow meter is the most out of line, it is plumbed correctly. The influent system flow meter and the plant discharge flow meters are piped incorrectly. The same style of relay is used to count pulses, but the meters have not been calibrated. The system needs further investigation to determine if any changes are warranted.	EE support	To be determined	none
EF-4 is not operatable	The fan is controlled through the mezzanine thermostat, but it does not appear to be operating. The fan requires electrical testing. The system was checked, it appears that the fan is not functioning. The fan should be replaced.	EE support	Only in an emergency	Only in an emergency
Wiring nests in main control console	The wiring in the main control console needs to be cleaned up and labeled, to facilitate problem troubleshooting and process improvements.	EE support	A shut down may be necessary	Electrical work

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
Pressure Filter Feed pump controls	With P1 out of service, the sequencing of pumps allows for the PFF vault to reach HHL conditions in certain circumstances. Reprogram the sequencing to eliminate the position of P1.	EE support	To be determined	To be determined
RW-5 has failed	RW-5 pump was replaced on October 10, 2022, however due to PLC signal loss, it cannot be operated in automatic mode. GES conducted troubleshooting and parts replacement without success. System controls were examined by a PLC certified technician mid-December and determined pressure switch failure. Used device has been installed while a new one has been ordered. The pump ran on auto mode from January 5, 2023 to January 26, 2023 until an electrical short at the motor disabled the safe operation of the pump. New pressure switch was installed on March 23, 2023. New pump motor installed on May 1, 2023.	Plant Operator and Ramboll.	Less water is treated	To be determined
RW-4 has failed	RW-4 started to experience possible motor thermal overload shutdowns on multiple occasions during August monitoring period. The pump motor fully shut down on August 17, 2022 and all troubleshooting/restarting attempts were unsuccessful. New pump and pump motor installed on May 2, 2023.	Plant Operator and US Water	Less water is treated	To be determined
Air vacuum valve removal	On May 22, 2022 RW-4 was shut down due to a leak detected in the field near an air/vacuum valve pit. On May 24 2022 through May 25, 2022 water was pumped out of the vault and on May 31, 2022 a confined space entry was made to attempt to tighten the valve in an effort to stop the leak. This tightening was unsuccessful, and the valve was removed entirely and replaced with a blank flange until further	GES Mechanical Support	Less water is treated	Confined space entry required to do work in vault

Condition to be Corrected	Status and Actions	Resources	Plant Ops Impact	Health & Safety Impacts
	notice.			
Plant Electric Heater UH-3 failure and HVAC system performance	During sub-20 deg.F weather, the emergency electric heater failed. The HVAC system struggled to produce heat and the plant temperatures dipped to around mid-30's during that time.	Outside contractor	Water lines freezing	Equipment damage

Other Plant Conditions of Note (no action required at this time)

- The methane detection system is offline. **To function, it will need a technical inspection and maintenance.** However, methane does not currently appear to be a hazard.
- It has been determined that intrinsically safe components are no longer required in the plant.
- There has been no need for acid washing of the AS Tower media, the hydrochloric acid feed and storage system have not been operated. The tanks have not been filled and the level monitoring system has not been operated.

As previously noted, there are pieces of equipment that are out of service and require repairs. Currently there are no plans for addressing these conditions as the operation of this equipment is not necessary or needed for the operation of the treatment system.

Equipment	Fault	Status
Plant electric heater UH-1	Needs transformer	Heater is not needed
Plant electric heater UH-2	Needs relay timer and wiring repairs	Heater is not needed
Recovery well pump pressure switch assembly	Units are unwieldy and subject to vibration, corrosion, and leaks	Each unit requires assessment and disposition
NaOH sump pump	Pump is not operating	No water or chemicals stored in vault. Portable submersible pump in sump should suffice
Plant lights are wired to the emergency light charging system	Un-segregated light cannot be shut off. Several of the lamps may have burnt out	The bank of lights appear to have failed/burnt out. The second bank of lights are sufficient
Plant exhaust fans are part of methane system	Fans cannot be manually operated	Once the methane monitoring system is online, the fans can be operated
Plant discharge drain	Leak in Victaulic fitting	Drain line on plant discharge intermittently leaks. Parts are in-house. Not pressing
ASF pump isolation valve	Valve P1 has failed open	Not needed at this time

Equipment	Fault	Status
PFF pump isolation valve	Valve P3 has vailed open	Not needed at this time
RW-1 flow meter	The meter is not operating	Pump is offline. Rocks were pulled from the housing and iron sediment was encrusting the flow meter impeller and housing
RW-2 flow meter	The meter is not transmitting	Pump is offline
Air stripper flow meter	Non-functional and removed	
AH-1 condenser	Air conditioner is non-functional	Two window AC units in place
Plant outdoor lights	9 of 12 lights not functioning	Not a security issue

Table 2
Plant Discharge Average Flow & Volume

Period	Average Flow (gpm)	Average Daily volume (gal)	Total Period Flow (gal)	Min off	Min on
Q4 2016	517	745,000	68,540,000	7,309	125,171
Q1 2017	520	748,244	67,342,000	655	128,945
Q2 2017	576	829,130	76,280,000	6,165	126,315
Q3 2017	634	913,576	84,049,000	1,110	131,370
Q4 2017	256	368,762	33,926,110	69,165	63,315
Q1 2018	53	75,989	6,839,000	118,180	11,420
Q2 2018	179	258,284	23,762,103	102,929	29,551
Q3 2018	504	725,280	66,725,717	57,416	75,064
Q4 2018	726	1,045,065	96,145,984	23,734	108,746
Q1 2019	527	758,467	68,262,000	735	128,865
Q2 2019	662	953,877	87,756,724	405	132,075
Q3 2019	685	985,802	90,693,740	108	132,372
Q4 2019	655	943,871	82,116,780	5,039	129,326
Q1 2020	480	682,527	62,110,000	1,824	129,326
Q2 2020	698	996,998	88,732,846	3,838	127,185
Q3 2020	669	955,928	87,945,333	1,099	131,401
Q4 2020	695	1,001,365	92,125,539	52	132,497
Q1 2021	708	1,019,733	91,776,000	0	129,603
Q2 2021	709	1,021,317	92,939,850	0	131,040
Q3 2021	615	884,934	81,413,897	0	132,475
Q4 2021	677	928,370	85,410,047	6,317	126,185
Q1 2022	633	1,291,661	80,082,987	5,280	124,320
Q2 2022	434	624,605	53,716,000	12,200	123,840
Q3 2022	365	514,501	46,283,000	3,004	124,994

Period	Average Flow (gpm)	Average Daily volume (gal)	Total Period Flow (gal)	Min off	Min on
Q4 2022	257	369,307	34,007,000	491	132,154
Q1 2023	305	434,900	37,841,000	323	123,817
Q2 2023	548	799,720	74,309,000	204	135,126
July 2023	668	960,720	24,018,000	102	35,958

Acronyms: gal - gallons gpm – gallons per minute

Table 3
Plant Daily Totalizer Readings

July 2023 Flows						
Plant Influent			Plant Discharge		RW Discharge	
Date	Volume	Avg. Flow	Volume	Avg. Flow	Volume	Avg. Flow
07/03/23	-	724	-	701	-	699
07/05/23	1,996,000	693	1,932,000	671	1,928,000	669
07/06/23	1,039,000	722	1,013,000	703	1,007,000	699
07/07/23	954,000	663	927,000	644	922,000	640
07/10/23	2,951,000	683	2,859,000	662	2,852,000	660
07/11/23	999,000	700	971,000	680	967,000	677
07/12/23	974,000	676	944,000	656	940,000	653
07/13/23	1,046,000	726	1,018,000	707	1,009,000	701
07/14/23	1,013,000	703	986,000	685	978,000	679
07/17/23	2,950,000	683	2,864,000	663	2,844,000	658
07/18/23	984,000	683	955,000	663	948,000	658
07/19/23	1,048,000	728	1,017,000	706	1,009,000	701
07/20/23	1,086,000	724	1,052,000	701	1,047,000	698
07/21/23	968,000	701	947,000	686	937,000	679
07/24/23	2,903,000	672	2,879,000	666	2,864,000	663
07/25/23	1,001,000	695	912,000	633	907,000	630
07/26/23	915,000	678	889,000	659	865,000	641
07/27/23	947,000	631	920,000	613	936,000	624
07/28/23	953,000	662	933,000	648	924,000	642
July Total Plant Influent (Gal)			24,727,000			
July Total Plant Effluent (Gal)			24,018,000			
July Total RW Discharge (Gal)			23,884,000			

Acronyms: gal - gallons gpm – gallons per minute

Table 4
Pump System Flow Readings

July	On-Time Minutes (actual)	Avg. Flow (gpm)	Avg. Flow (gpd)	Total Flow (gal)
RW-1*	5	149	0	745
RW-2*	5	209	0	1,045
RW-3	35,958	207	297,840	7,446,000
RW-4	35,958	223	320,680	8,017,000
RW-5	35,528	243	344,680	8,617,000
RW Totals	35,958	664	955,360	23,884,000
Plant Influent	35,958	688	989,080	24,727,000
Plant Effluent	35,958	668	960,720	24,018,000

Acronyms: gal - gallons gpm – gallons per minute gpd – gallons per day

The treatment process was online 25 days during this period with 102 minutes of downtime. The system went down on July 11, 2023 during day time power loss. The system went down due to nighttime power loss on July 26, 2023. In addition, RW-5 experienced nighttime shut down due to tripped pressure switch. Flows are taken from the HMI meter readings.

* Offline aside from monthly process equipment test to check their functionality. There are no average gallons per day.

Table 5
Claremont OU5 O&M Sampling/Measurement Program and Frequency

Measurement / Analyte	Sampling Location			
	System Influent	Plant Discharge	Recovery Wells	Monitoring Wells
Flow	Daily	Daily	Daily	NA
pH	Quarterly	Weekly	Quarterly	Quarterly
VOCs (+Tert-Butyl-Methyl ether (MTBA) & Tert-butyl alcohol (TBA))	Quarterly	Monthly	Quarterly	Quarterly
Semi-Volatile Organic Compound (SVOC) Base Neutral & Acid Extractables (BNA)	Quarterly	Monthly	NS	NS
Per- and polyfluoroalkyl substances (PFAS)	Monthly	Monthly	NS	Quarterly ⁽¹⁾
1,4-Dioxane	Monthly	Monthly	NS	Quarterly ⁽¹⁾
Total Kjeldahl Nitrogen→ (TKN)	NS	Quarterly	NS	NS
Total Suspended Solids (TSS)	Quarterly	NS	Quarterly	NS
Total Organic Carbon (TOC)	Quarterly	NS	NS	NS
Total Dissolved Solids (TDS)	NS	Quarterly	NS	NS
Cyanide	NS	Quarterly	NS	NS
Hexavalent Chromium	NS	Quarterly	NS	NS
Mercury	NS	Quarterly	NS	NS
Metals	Quarterly	Quarterly	Quarterly	NS
Anions	NS	Quarterly	NS	NS

Notes: NA – Not applicable; NS – Not sampled. ⁽¹⁾ – CPC wells only

Table 6
Plant Discharge Analytical Results
July 5, 2023

Parameters	Discharge Limitations (SPDES)	Units	Results
<i>pH (range)</i>	6.5 – 8.5	<i>su</i>	7.39
1,1,1-Trichloroethane	5	ug/l	U
1,1-Dichloroethane	5	ug/l	U
1,1-Dichloroethylene	5	ug/l	U
1,2- Dichloroethane	0.6	ug/l	U
Benzene	0.7	ug/l	U
Chlorobenzene	5	ug/l	U
Chloroform	7	ug/l	U
CIS 1,2-Dichloroethylene	5	ug/l	U
Ethylbenzene	5	ug/l	U
Methylene Chloride	5	ug/l	U
Tert-butyl alcohol (TBA)	Not indicated	ug/l	U
Tert-Butyl-Methyl ether (MTBA)	5	ug/l	U
Tetrachloroethylene (PCE)	5	ug/l	U
Toluene	5	ug/l	U
Trans 1,2-Dichloroethylene	5	ug/l	U
Trichloroethylene (TCE)	5	ug/l	U
Bis(2-ethylhexyl) phthalate	5	ug/l	U
Di-n-butyl phthalate	50	ug/l	U
Nitro Benzene	0.4	ug/l	U
Antimony, Total recoverable	3	ug/l	NS
Arsenic, Total recoverable	50	ug/l	NS
Barium, Total recoverable	2000	ug/l	NS
Chromium, Hexavalent	100	ug/l	NS
Lead, Total recoverable	50	ug/l	NS
Iron, Total recoverable	600	ug/l	NS
Manganese, Total recoverable	600	ug/l	NS
Mercury	Not indicated	ug/l	NS
Zinc	Not indicated	mg/l	NS
Nitrogen, Total (as N)	10	mg/l	NS
Selenium, Total recoverable	40	ug/l	NS
Solids, Total Dissolved	1000	mg/l	NS
Chloride Ion	NL	mg/l	NS
Cyanide	Not indicated	ug/l	NS
Fluoride Ion	NL	mg/l	NS

Parameters	Discharge Limitations (SPDES)	Units	Results
Sulfate Ion	NL	mg/l	NS
J – Estimated value U – Analyzed but not detected NL – Monitor only NS– Not sampled SPDES – State Pollutant Discharge Elimination System ug/l – micrograms per liter ng/l – nanograms per liter mg/l – milligrams per liter Discharge limitations updates as per the water discharge permit. Note: Parameters shaded in gray are analyzed quarterly with results generally being provided March, June, October, and December.			

Table 7
Emerging Contaminant Influent & Effluent Analytical Results
July 5, 2023

Parameters	Guidance Values	Units	Influent Results	Effluent Results
Perfluorooctanoic acid (PFOA)	6.7 ¹	ng/l	32 / 32	31 / 31
Perfluorooctanesulfonic acid (PFOS)	2.7 ¹	ng/l	14 / 14	14 / 15
1,4-Dioxane	0.35 ²	ug/l	19 / 18	18 / 19
J – Estimated value U – Analyzed but not detected ug/l – micrograms per liter ng/l – nanograms per liter x / x – indicates primary/duplicate results				
¹ New York State Department of Environmental Conservation, Sampling, Analysis and Assessment of Per- and Polyfluoroalkyl Substances (PFAS), April 2023. ² NYSDEC - 2023 Addendum to June 1998 Division of Water Technical and Operational Guidance Series (TOGS) NO. 1.1.1.				

Table 8
Effluent pH and Temperature Readings

Date	pH (su)	Temp (° C)
07/03/2023	7.72	17.8
07/11/2023	7.06	18.2
07/17/2023	7.37	17.6
07/24/2023	7.41	17.5
July Average	7.39 su	17.8 °C

Table 9
Plant Discharge Monthly Average pH

Month	pH(su)
Aug '19	6.56
Sept '19	7.45
Oct '19	6.86
Nov '19	6.88
Dec '19	6.84
Jan '20	6.63
Feb '20	6.75
Mar '20	6.74
Apr '20	6.65
May '20	6.8
June '20	6.8
July '20	6.9
Aug '20	6.8
Sept '20	6.8
Oct. '20	6.95
Nov '20	6.8
Dec '20	6.64
Jan '21	6.8
Feb '21	6.75
Mar '21	6.76
Apr '21	7.28
May '21	7.53
June '21	7.44
July '21	7.41
Aug '21	7.42
Sept '21	7.13
Oct '21	7.10
Nov '21	7.09
Dec '21	7.01
Jan '22	6.90
Feb '22	6.90
Mar '22	6.80
Apr '22	6.78
May '22	6.79
June '22	6.79
July '22	7.01
Aug '22	6.99
Sept '22	7.19
Oct '22	7.62
Nov '22	7.68
Dec '22	7.52

Month	pH(su)
Jan '23	7.24
Feb '23	7.36
Mar '23	7.56
Apr '23	7.28
May '23	7.56
June '23	7.36
July '23	7.39

Plant Discharge Monthly Average pH Readings

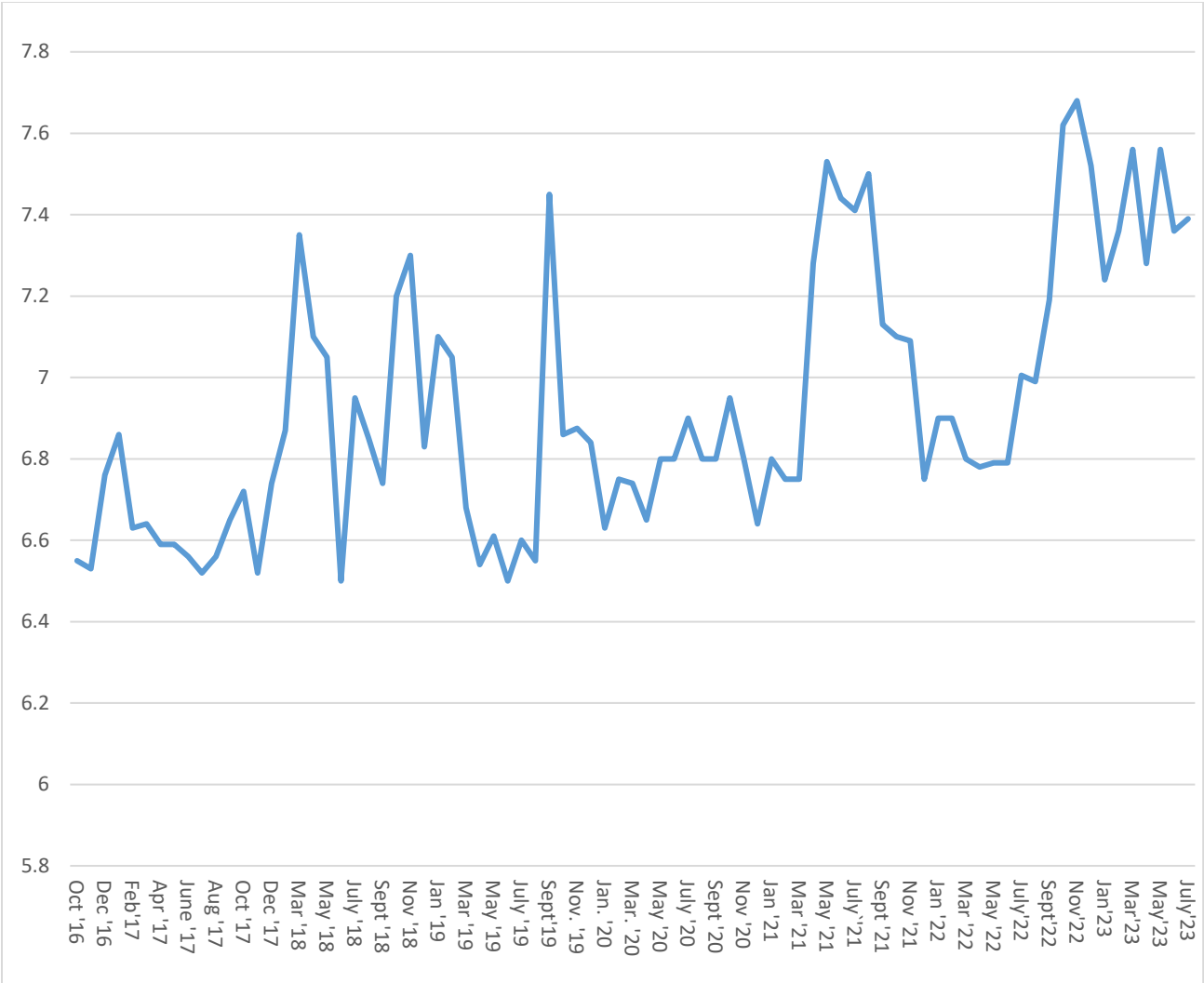


Table 10
AS Tower Air Monitoring Readings

Recorded Date	Port B (ppm)
07/03/2023	0.1
07/12/2023	0.2
07/17/2023	0.0
07/24/2023	0.0

ATTACHMENT 1
MONTHLY O&M SAMPLING ANALYTICAL RESULTS –JULY 5, 2023

July 26, 2023

Payson Long
NYDEC_Ramboll US Consulting, Inc. - Syracuse
333 West Washington Street, PO Box 4873
Syracuse, NY 13221

Project Location: Old Bethage, New York
Client Job Number:
Project Number: 130015
Laboratory Work Order Number: 23G0636

Enclosed are results of analyses for samples as received by the laboratory on July 6, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kyle A. Murray
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332NYDEC_Ramboll US Consulting, Inc. - Syracuse
333 West Washington Street, PO Box 4873
Syracuse, NY 13221
ATTN: Payson Long

REPORT DATE: 7/26/2023

PURCHASE ORDER NUMBER: 144165

PROJECT NUMBER: 130015

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23G0636

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Old Bethage, New York

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
PD-CP-00-070523	23G0636-01	Ground Water		SW-846 8260D	
				SW-846 8270E	
PD-CP-01-070523	23G0636-02	Ground Water		SW-846 8260D	
				SW-846 8270E	
ASF-CP-00-070523	23G0636-03	Ground Water		SW-846 8270E	
ASF-CP-01-070523	23G0636-04	Ground Water		SW-846 8270E	
TB-070523	23G0636-05	Trip Blank Water		SW-846 8260D	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

SW-846 8260D

Qualifications:**L-04**

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**2-Chloroethyl Vinyl Ether**

B345471-BLK1, B345471-BS1, B345471-BSD1, S090300-CCV1

trans-1,4-Dichloro-2-butene

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-05[TB-070523], B345471-BLK1, B345471-BS1, B345471-BSD1, B345471-MS1, B345471-MSD1, S090300-CCV1

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:**Ethyl Acetate**

B345471-BSD1

MS-07A

Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery.

Possibility of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.

Analyte & Samples(s) Qualified:**1,2,4-Trichlorobenzene**

23G0636-01[PD-CP-00-070523], B345471-MS1, B345471-MSD1

2,2-Dichloropropane

23G0636-01[PD-CP-00-070523], B345471-MS1, B345471-MSD1

2-Hexanone (MBK)

23G0636-01[PD-CP-00-070523], B345471-MS1, B345471-MSD1

Methyl Acetate

23G0636-01[PD-CP-00-070523], B345471-MS1, B345471-MSD1

Naphthalene

23G0636-01[PD-CP-00-070523], B345471-MS1, B345471-MSD1

tert-Butyl Alcohol (TBA)

23G0636-01[PD-CP-00-070523], B345471-MS1, B345471-MSD1

MS-09

Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

Analyte & Samples(s) Qualified:**trans-1,4-Dichloro-2-butene**

23G0636-01[PD-CP-00-070523], B345471-MS1, B345471-MSD1

MS-24

Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery.

Analyte & Samples(s) Qualified:**1,2,3-Trichlorobenzene**

B345471-MS1

1,2-Dibromo-3-chloropropane (DBCP)

B345471-MS1

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:**Ethyl Acetate**

B345471-BLK1, B345471-BS1, B345471-BSD1, S090300-CCV1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:**1,2,4-Trichlorobenzene**

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-05[TB-070523], B345471-BLK1, B345471-BS1, B345471-BSD1, B345471-MS1, B345471-MSD1, S090300-CCV1

1,2-Dibromo-3-chloropropane (DBCP)

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-05[TB-070523], B345471-BLK1, B345471-BS1, B345471-BSD1, B345471-MS1, B345471-MSD1, S090300-CCV1

1,4-Dioxane

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-05[TB-070523], B345471-BLK1, B345471-BS1, B345471-BSD1, B345471-MS1, B345471-MSD1, S090300-CCV1

2-Chloroethyl Vinyl Ether

B345471-BLK1, B345471-BS1, B345471-BSD1, S090300-CCV1

2-Hexanone (MBK)

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-05[TB-070523], B345471-BLK1, B345471-BS1, B345471-BSD1, B345471-MS1, B345471-MSD1, S090300-CCV1

Bromoform

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-05[TB-070523], B345471-BLK1, B345471-BS1, B345471-BSD1, B345471-MS1, B345471-MSD1, S090300-CCV1

Ethanol

B345471-BLK1, B345471-BS1, B345471-BSD1, S090300-CCV1

Ethyl Acetate

B345471-BLK1, B345471-BS1, B345471-BSD1, S090300-CCV1

Naphthalene

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-05[TB-070523], B345471-BLK1, B345471-BS1, B345471-BSD1, B345471-MS1, B345471-MSD1, S090300-CCV1

tert-Butyl Alcohol (TBA)

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-05[TB-070523], B345471-BLK1, B345471-BS1, B345471-BSD1, B345471-MS1, B345471-MSD1, S090300-CCV1

trans-1,4-Dichloro-2-butene

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-05[TB-070523], B345471-BLK1, B345471-BS1, B345471-BSD1, B345471-MS1, B345471-MSD1, S090300-CCV1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

Analyte & Samples(s) Qualified:**Bromomethane**

B345471-BS1, B345471-BSD1, B345471-MS1, B345471-MSD1, S090300-CCV1

SW-846 8270E**Qualifications:**

H-06

Sample was extracted past the recommended holding time.

Analyte & Samples(s) Qualified:

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523]

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**1,2,4,5-Tetrachlorobenzene**

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

1,2,4-Trichlorobenzene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

1,2-Dichlorobenzene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

1,3-Dichlorobenzene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

1,4-Dichlorobenzene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

1-Methylnaphthalene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

2-Chloronaphthalene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

2-Methylnaphthalene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

Acenaphthene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

Benzidine

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], B345390-BLK1, B345390-BS1, B345390-BSD1

Hexachlorobutadiene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

Hexachlorocyclopentadiene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

Hexachloroethane

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

Naphthalene

23G0636-01RE1[PD-CP-00-070523], 23G0636-02RE1[PD-CP-01-070523], B345793-BLK1, B345793-BS1, B345793-BSD1

L-07

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

Analyte & Samples(s) Qualified:**Dibenzofuran**

B345793-BSD1

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:**1,2,4,5-Tetrachlorobenzene**

B345390-BSD1

1,2,4-Trichlorobenzene

B345390-BSD1

1,2-Dichlorobenzene

B345390-BSD1

1,2-Diphenylhydrazine/Azobenzene

B345390-BSD1

1,3-Dichlorobenzene

B345390-BSD1

1,4-Dichlorobenzene

B345390-BSD1

1-Methylnaphthalene

B345390-BSD1

2,4,5-Trichlorophenol

B345390-BSD1

2,4,6-Trichlorophenol

B345390-BSD1

2,4-Dichlorophenol

B345390-BSD1

2,4-Dimethylphenol

B345390-BSD1

2,4-Dinitrophenol

B345390-BSD1

2,4-Dinitrotoluene

B345390-BSD1

2,6-Dinitrotoluene

B345390-BSD1

2-Chloronaphthalene

B345390-BSD1

2-Chlorophenol

B345390-BSD1

2-Methylnaphthalene

B345390-BSD1

2-Methylphenol

B345390-BSD1

2-Nitroaniline

B345390-BSD1

2-Nitrophenol

B345390-BSD1

3,3-Dichlorobenzidine

B345390-BSD1

3/4-Methylphenol

B345390-BSD1

3-Nitroaniline

B345390-BSD1

4,6-Dinitro-2-methylphenol

B345390-BSD1

4-Bromophenylphenylether

B345390-BSD1

4-Chloro-3-methylphenol

B345390-BSD1

4-Chloroaniline

B345390-BSD1

4-Chlorophenylphenylether

B345390-BSD1

4-Nitroaniline

B345390-BSD1

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:**4-Nitrophenol**

B345390-BSD1

Acenaphthene

B345390-BSD1

Acenaphthylene

B345390-BSD1, B345793-BSD1

Acetophenone

B345390-BSD1

Aniline

B345390-BSD1, B345793-BS1

Anthracene

B345390-BSD1

Benzidine

B345390-BSD1

Benzo(a)anthracene

B345390-BSD1

Benzo(a)pyrene

B345390-BSD1

Benzo(b)fluoranthene

B345390-BSD1

Benzo(g,h,i)perylene

B345390-BSD1

Benzo(k)fluoranthene

B345390-BSD1

Bis(2-chloroethoxy)methane

B345390-BSD1

Bis(2-chloroethyl)ether

B345390-BSD1

Bis(2-chloroisopropyl)ether

B345390-BSD1

Bis(2-Ethylhexyl)phthalate

B345390-BSD1

Butylbenzylphthalate

B345390-BSD1

Carbazole

B345390-BSD1

Chrysene

B345390-BSD1

Dibenz(a,h)anthracene

B345390-BSD1

Dibenzofuran

B345390-BSD1

Diethylphthalate

B345390-BSD1

Dimethylphthalate

B345390-BSD1

Di-n-butylphthalate

B345390-BSD1

Di-n-octylphthalate

B345390-BSD1

Fluoranthene

B345390-BSD1

Fluorene

B345390-BSD1

Hexachlorobenzene

B345390-BSD1

Hexachlorobutadiene

B345390-BSD1

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

Analyte & Samples(s) Qualified:**Hexachlorocyclopentadiene**

B345390-BSD1

Hexachloroethane

B345390-BSD1

Indeno(1,2,3-cd)pyrene

B345390-BSD1

Isophorone

B345390-BSD1

Naphthalene

B345390-BSD1

Nitrobenzene

B345390-BSD1

N-Nitrosodimethylamine

B345390-BSD1

N-Nitrosodi-n-propylamine

B345390-BSD1

N-Nitrosodiphenylamine/Diphenylamine

B345390-BSD1

Pentachloronitrobenzene

B345390-BSD1

Pentachlorophenol

B345390-BSD1

Phenanthrene

B345390-BSD1

Phenol

B345390-BSD1

Pyrene

B345390-BSD1

Pyridine

B345390-BSD1, B345793-BS1

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:**1,2,4,5-Tetrachlorobenzene**

B345390-BS1

1,2,4-Trichlorobenzene

B345390-BS1

1,2-Dichlorobenzene

B345390-BS1

1,2-Diphenylhydrazine/Azobenzene

B345390-BS1

1,3-Dichlorobenzene

B345390-BS1, B345793-BS1, B345793-BSD1

1,4-Dichlorobenzene

B345390-BS1, B345793-BS1, B345793-BSD1

1-Methylnaphthalene

B345390-BS1

2,4,5-Trichlorophenol

B345390-BS1

2,4,6-Trichlorophenol

B345390-BS1

2,4-Dichlorophenol

B345390-BS1, B345793-BS1, B345793-BSD1

2,4-Dimethylphenol

B345390-BS1, B345793-BS1, B345793-BSD1

2,4-Dinitrophenol

B345390-BS1

2,4-Dinitrotoluene

B345390-BS1

2,6-Dinitrotoluene

B345390-BS1

2-Chloronaphthalene

B345390-BS1

2-Chlorophenol

B345390-BS1, B345793-BS1, B345793-BSD1

2-Methylnaphthalene

B345390-BS1

2-Methylphenol

B345390-BS1, B345793-BS1, B345793-BSD1

2-Nitroaniline

B345390-BS1

2-Nitrophenol

B345390-BS1, B345793-BS1, B345793-BSD1

3,3-Dichlorobenzidine

B345390-BS1

3/4-Methylphenol

B345390-BS1, B345793-BS1, B345793-BSD1

3-Nitroaniline

B345390-BS1

4,6-Dinitro-2-methylphenol

B345390-BS1

4-Bromophenylphenylether

B345390-BS1

4-Chloro-3-methylphenol

B345390-BS1, B345793-BS1, B345793-BSD1

4-Chloroaniline

B345390-BS1, B345793-BS1, B345793-BSD1

4-Chlorophenylphenylether

B345390-BS1

4-Nitroaniline

B345390-BS1

R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:**4-Nitrophenol**

B345390-BS1

Acenaphthene

B345390-BS1

Acenaphthylene

B345390-BS1

Acetophenone

B345390-BS1, B345793-BS1, B345793-BSD1

Aniline

B345390-BS1, B345793-BSD1

Anthracene

B345390-BS1

Benzidine

B345390-BS1

Benzo(a)anthracene

B345390-BS1

Benzo(a)pyrene

B345390-BS1

Benzo(b)fluoranthene

B345390-BS1

Benzo(g,h,i)perylene

B345390-BS1

Benzo(k)fluoranthene

B345390-BS1

Benzoic Acid

B345390-BS1, B345390-BSD1

Bis(2-chloroethoxy)methane

B345390-BS1, B345793-BS1, B345793-BSD1

Bis(2-chloroethyl)ether

B345390-BS1, B345793-BS1, B345793-BSD1

Bis(2-chloroisopropyl)ether

B345390-BS1, B345793-BS1, B345793-BSD1

Bis(2-Ethylhexyl)phthalate

B345390-BS1

Butylbenzylphthalate

B345390-BS1

Carbazole

B345390-BS1

Chrysene

B345390-BS1

Dibenz(a,h)anthracene

B345390-BS1

Dibenzofuran

B345390-BS1

Diethylphthalate

B345390-BS1

Dimethylphthalate

B345390-BS1

Di-n-butylphthalate

B345390-BS1

Di-n-octylphthalate

B345390-BS1

Fluoranthene

B345390-BS1

Fluorene

B345390-BS1

Hexachlorobenzene

B345390-BS1

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R-05

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

Analyte & Samples(s) Qualified:**Hexachlorobutadiene**

B345390-BS1

Hexachlorocyclopentadiene

B345390-BS1

Hexachloroethane

B345390-BS1

Indeno(1,2,3-cd)pyrene

B345390-BS1

Isophorone

B345390-BS1, B345793-BS1, B345793-BSD1

Naphthalene

B345390-BS1

Nitrobenzene

B345390-BS1, B345793-BS1, B345793-BSD1

N-Nitrosodimethylamine

B345390-BS1, B345793-BS1, B345793-BSD1

N-Nitrosodi-n-propylamine

B345390-BS1, B345793-BS1, B345793-BSD1

N-Nitrosodiphenylamine/Diphenylamine

B345390-BS1

Pentachloronitrobenzene

B345390-BS1

Pentachlorophenol

B345390-BS1

Phenanthrene

B345390-BS1

Phenol

B345390-BS1, B345793-BS1, B345793-BSD1

Pyrene

B345390-BS1

PyridineB345390-BS1, B345793-BS1, B345793-BSD1

S-07

One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.

Analyte & Samples(s) Qualified:**2,4,6-Tribromophenol**B345390-BS1

S-26

Surrogate outside of control limits.

Analyte & Samples(s) Qualified:**2-Fluorobiphenyl**

B345390-BSD1

2-Fluorophenol

B345390-BSD1

Nitrobenzene-d5

B345390-BSD1

Phenol-d6

B345390-BSD1

p-Terphenyl-d14

B345390-BSD1

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V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:**2,4-Dinitrophenol**

23G0636-01[PD-CP-00-070523], 23G0636-01RE1[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-02RE1[PD-CP-01-070523], B345390-BLK1, B345390-BS1, B345390-BSD1, B345793-BLK1, B345793-BS1, B345793-BSD1, S090267-CCV1, S090565-CCV1, S090718-CCV1

4,6-Dinitro-2-methylphenol

23G0636-01[PD-CP-00-070523], 23G0636-01RE1[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-02RE1[PD-CP-01-070523], B345390-BLK1, B345390-BS1, B345390-BSD1, B345793-BLK1, B345793-BS1, B345793-BSD1, S090267-CCV1, S090565-CCV1, S090718-CCV1

Benzidine

23G0636-01[PD-CP-00-070523], 23G0636-01RE1[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-02RE1[PD-CP-01-070523], B345390-BLK1, B345390-BS1, B345390-BSD1, B345793-BLK1, B345793-BS1, B345793-BSD1, S090267-CCV1, S090565-CCV1, S090718-CCV1

Bis(2-Ethylhexyl)phthalate

23G0636-01[PD-CP-00-070523], 23G0636-01RE1[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-02RE1[PD-CP-01-070523], B345390-BLK1, B345390-BS1, B345390-BSD1, B345793-BLK1, B345793-BS1, B345793-BSD1, S090267-CCV1, S090565-CCV1, S090718-CCV1

Di-n-octylphthalate

23G0636-01[PD-CP-00-070523], 23G0636-01RE1[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-02RE1[PD-CP-01-070523], B345390-BLK1, B345390-BS1, B345390-BSD1, B345793-BLK1, B345793-BS1, B345793-BSD1, S090267-CCV1, S090565-CCV1, S090718-CCV1

V-05

Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.

Analyte & Samples(s) Qualified:**Aniline**

23G0636-01[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], B345390-BLK1, B345390-BS1, B345390-BSD1, S090267-CCV1

Benzidine

23G0636-01[PD-CP-00-070523], 23G0636-01RE1[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-02RE1[PD-CP-01-070523], B345390-BLK1, B345390-BS1, B345390-BSD1, B345793-BLK1, B345793-BS1, B345793-BSD1, S090267-CCV1, S090565-CCV1, S090718-CCV1

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:**Di-n-octylphthalate**

B345793-BLK1, B345793-BS1, B345793-BSD1, S090565-CCV1

V-35

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

Analyte & Samples(s) Qualified:**Benzidine**

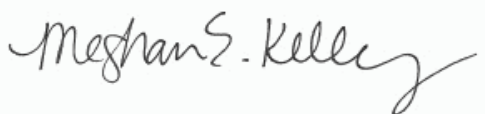
23G0636-01[PD-CP-00-070523], 23G0636-01RE1[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-02RE1[PD-CP-01-070523], B345390-BLK1, B345390-BS1, B345390-BSD1, B345793-BLK1, B345793-BS1, B345793-BSD1, S090267-CCV1, S090565-CCV1, S090718-CCV1

Butylbenzylphthalate

23G0636-01[PD-CP-00-070523], 23G0636-01RE1[PD-CP-00-070523], 23G0636-02[PD-CP-01-070523], 23G0636-02RE1[PD-CP-01-070523], B345390-BLK1, B345390-BS1, B345390-BSD1, B345793-BLK1, B345793-BS1, B345793-BSD1, S090267-CCV1, S090565-CCV1, S090718-CCV1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Meghan E. Kelley
Reporting Specialist

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-00-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Bromoform	ND	1.0	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	MS-07A, V-05	SW-846 8260D	7/10/23	7/12/23 3:07	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1	L-04, MS-09, V-05	SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1	MS-07A	SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-00-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,4-Dioxane	ND	50	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
2-Hexanone (MBK)	ND	10	µg/L	1	MS-07A, V-05	SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Methyl Acetate	ND	1.0	µg/L	1	MS-07A	SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Naphthalene	ND	2.0	µg/L	1	MS-07A, V-05	SW-846 8260D	7/10/23	7/12/23 3:07	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	MS-07A, V-05	SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:07	MFF
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	98.7	70-130							
Toluene-d8	91.4	70-130							
4-Bromofluorobenzene	83.0	70-130							

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-00-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-01

Sample Matrix: Ground Water

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Acenaphthene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Acenaphthylene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Acenaphthylene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Acetophenone	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Acetophenone	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Aniline	ND	18	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Aniline	ND	18	µg/L	1	V-05	SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Anthracene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Anthracene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Benzidine	ND	18	µg/L	1	V-04, V-05, L-04, V-35	SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Benzidine	ND	18	µg/L	1	V-04, V-05, V-35	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Benzo(a)anthracene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Benzo(a)anthracene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Benzo(a)pyrene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Benzo(a)pyrene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Benzo(b)fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Benzo(b)fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Benzo(g,h,i)perylene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Benzo(g,h,i)perylene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Benzo(k)fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Benzo(k)fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Benzoic Acid	ND	18	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Benzoic Acid	ND	18	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Bis(2-chloroethoxy)methane	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Bis(2-chloroethoxy)methane	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Bis(2-chloroethyl)ether	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Bis(2-chloroethyl)ether	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Bis(2-chloroisopropyl)ether	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Bis(2-chloroisopropyl)ether	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.0	µg/L	1	V-04	SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.1	µg/L	1	V-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
4-Bromophenylphenylether	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
4-Bromophenylphenylether	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Butylbenzylphthalate	ND	9.0	µg/L	1	V-35	SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Butylbenzylphthalate	ND	9.1	µg/L	1	V-35	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Carbazole	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Carbazole	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
4-Chloroaniline	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
4-Chloroaniline	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
4-Chloro-3-methylphenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
4-Chloro-3-methylphenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2-Chloronaphthalene	ND	9.1	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-00-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Chloronaphthalene	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2-Chlorophenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2-Chlorophenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
4-Chlorophenylphenylether	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
4-Chlorophenylphenylether	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Chrysene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Chrysene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Dibenz(a,h)anthracene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Dibenz(a,h)anthracene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Dibenzofuran	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Dibenzofuran	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Di-n-butylphthalate	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Di-n-butylphthalate	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
1,2-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
1,2-Dichlorobenzene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
1,3-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
1,3-Dichlorobenzene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
1,4-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
1,4-Dichlorobenzene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
3,3-Dichlorobenzidine	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
3,3-Dichlorobenzidine	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2,4-Dichlorophenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2,4-Dichlorophenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Diethylphthalate	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Diethylphthalate	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2,4-Dimethylphenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2,4-Dimethylphenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Dimethylphthalate	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Dimethylphthalate	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
4,6-Dinitro-2-methylphenol	ND	18	µg/L	1	V-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
4,6-Dinitro-2-methylphenol	ND	18	µg/L	1	V-04	SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2,4-Dinitrophenol	ND	9.1	µg/L	1	V-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2,4-Dinitrophenol	ND	9.0	µg/L	1	V-04	SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2,4-Dinitrotoluene	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2,4-Dinitrotoluene	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2,6-Dinitrotoluene	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2,6-Dinitrotoluene	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Di-n-octylphthalate	ND	9.0	µg/L	1	V-04	SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Di-n-octylphthalate	ND	9.1	µg/L	1	V-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Fluorene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-00-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Fluorene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Hexachlorobenzene	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Hexachlorobenzene	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Hexachlorobutadiene	ND	9.1	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Hexachlorobutadiene	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Hexachlorocyclopentadiene	ND	9.1	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Hexachlorocyclopentadiene	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Hexachloroethane	ND	9.1	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Hexachloroethane	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Indeno(1,2,3-cd)pyrene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Indeno(1,2,3-cd)pyrene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Isophorone	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Isophorone	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
1-Methylnaphthalene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
1-Methylnaphthalene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2-Methylnaphthalene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2-Methylnaphthalene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2-Methylphenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2-Methylphenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
3/4-Methylphenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
3/4-Methylphenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Naphthalene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Naphthalene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2-Nitroaniline	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2-Nitroaniline	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
3-Nitroaniline	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
3-Nitroaniline	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
4-Nitroaniline	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
4-Nitroaniline	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Nitrobenzene	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Nitrobenzene	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2-Nitrophenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2-Nitrophenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
4-Nitrophenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
4-Nitrophenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
N-Nitrosodimethylamine	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
N-Nitrosodimethylamine	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
N-Nitrosodi-n-propylamine	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
N-Nitrosodi-n-propylamine	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Pentachloronitrobenzene	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Pentachloronitrobenzene	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Pentachlorophenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-00-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Pentachlorophenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Phenanthrene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Phenanthrene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Phenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Phenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Pyrene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Pyrene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
Pyridine	ND	18	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
Pyridine	ND	18	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.1	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
1,2,4-Trichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 12:47	BGL
1,2,4-Trichlorobenzene	ND	4.5	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2,4,5-Trichlorophenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2,4,5-Trichlorophenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL
2,4,6-Trichlorophenol	ND	9.1	µg/L	1		SW-846 8270E	7/12/23	7/19/23 12:47	BGL
2,4,6-Trichlorophenol	ND	9.0	µg/L	1		SW-846 8270E	7/7/23	7/11/23 14:50	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	64.7	15-110	7/19/23 12:47
2-Fluorophenol	41.9	15-110	7/11/23 14:50
Phenol-d6	44.9	15-110	7/19/23 12:47
Phenol-d6	28.0	15-110	7/11/23 14:50
Nitrobenzene-d5	95.1	30-130	7/19/23 12:47
Nitrobenzene-d5	70.4	30-130	7/11/23 14:50
2-Fluorobiphenyl	76.7	30-130	7/19/23 12:47
2-Fluorobiphenyl	77.5	30-130	7/11/23 14:50
2,4,6-Tribromophenol	98.6	15-110	7/19/23 12:47
2,4,6-Tribromophenol	84.4	15-110	7/11/23 14:50
p-Terphenyl-d14	116	30-130	7/19/23 12:47
p-Terphenyl-d14	92.2	30-130	7/11/23 14:50

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-00-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-01

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	18	0.20	µg/L	1		SW-846 8270E	7/12/23	7/25/23 16:32	CJM
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
1,4-Dioxane-d8	30.6	15-110						7/25/23 16:32	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-01-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Bromoform	ND	1.0	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 3:33	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1	L-04, V-05	SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-01-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,4-Dioxane	ND	50	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
2-Hexanone (MBK)	ND	10	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 3:33	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 3:33	MFF
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	97.8	70-130							
Toluene-d8	93.5	70-130							
4-Bromofluorobenzene	83.0	70-130							

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-01-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Acenaphthene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Acenaphthylene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Acenaphthylene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Acetophenone	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Acetophenone	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Aniline	ND	19	µg/L	1	V-05	SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Aniline	ND	18	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Anthracene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Anthracene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Benzidine	ND	19	µg/L	1	L-04, V-04, V-05, V-35	SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Benzidine	ND	18	µg/L	1	V-04, V-05, V-35	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Benzo(a)anthracene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Benzo(a)anthracene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Benzo(a)pyrene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Benzo(a)pyrene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Benzo(b)fluoranthene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Benzo(b)fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Benzo(g,h,i)perylene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Benzo(g,h,i)perylene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Benzo(k)fluoranthene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Benzo(k)fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Benzoic Acid	ND	19	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Benzoic Acid	ND	18	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Bis(2-chloroethoxy)methane	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Bis(2-chloroethoxy)methane	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Bis(2-chloroethyl)ether	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Bis(2-chloroethyl)ether	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Bis(2-chloroisopropyl)ether	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Bis(2-chloroisopropyl)ether	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.3	µg/L	1	V-04	SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Bis(2-Ethylhexyl)phthalate	ND	9.0	µg/L	1	V-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
4-Bromophenylphenylether	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
4-Bromophenylphenylether	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Butylbenzylphthalate	ND	9.3	µg/L	1	V-35	SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Butylbenzylphthalate	ND	9.0	µg/L	1	V-35	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Carbazole	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Carbazole	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
4-Chloroaniline	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
4-Chloroaniline	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
4-Chloro-3-methylphenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
4-Chloro-3-methylphenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2-Chloronaphthalene	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-01-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-02

Sample Matrix: Ground Water

Sample Flags: H-06

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Chloronaphthalene	ND	9.0	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2-Chlorophenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2-Chlorophenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
4-Chlorophenylphenylether	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
4-Chlorophenylphenylether	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Chrysene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Chrysene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Dibenz(a,h)anthracene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Dibenz(a,h)anthracene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Dibenzofuran	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Dibenzofuran	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Di-n-butylphthalate	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Di-n-butylphthalate	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
1,2-Dichlorobenzene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
1,2-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
1,3-Dichlorobenzene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
1,3-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
1,4-Dichlorobenzene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
1,4-Dichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
3,3-Dichlorobenzidine	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
3,3-Dichlorobenzidine	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2,4-Dichlorophenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2,4-Dichlorophenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Diethylphthalate	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Diethylphthalate	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2,4-Dimethylphenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2,4-Dimethylphenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Dimethylphthalate	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Dimethylphthalate	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
4,6-Dinitro-2-methylphenol	ND	19	µg/L	1	V-04	SW-846 8270E	7/7/23	7/11/23 15:12	BGL
4,6-Dinitro-2-methylphenol	ND	18	µg/L	1	V-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2,4-Dinitrophenol	ND	9.3	µg/L	1	V-04	SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2,4-Dinitrophenol	ND	9.0	µg/L	1	V-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2,4-Dinitrotoluene	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2,4-Dinitrotoluene	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2,6-Dinitrotoluene	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2,6-Dinitrotoluene	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Di-n-octylphthalate	ND	9.3	µg/L	1	V-04	SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Di-n-octylphthalate	ND	9.0	µg/L	1	V-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
1,2-Diphenylhydrazine/Azobenzene	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Fluoranthene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Fluoranthene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Fluorene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-01-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Fluorene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Hexachlorobenzene	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Hexachlorobenzene	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Hexachlorobutadiene	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Hexachlorobutadiene	ND	9.0	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Hexachlorocyclopentadiene	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Hexachlorocyclopentadiene	ND	9.0	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Hexachloroethane	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Hexachloroethane	ND	9.0	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Indeno(1,2,3-cd)pyrene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Indeno(1,2,3-cd)pyrene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Isophorone	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Isophorone	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
1-Methylnaphthalene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
1-Methylnaphthalene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2-Methylnaphthalene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2-Methylnaphthalene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2-Methylphenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2-Methylphenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
3/4-Methylphenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
3/4-Methylphenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Naphthalene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Naphthalene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2-Nitroaniline	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2-Nitroaniline	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
3-Nitroaniline	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
3-Nitroaniline	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
4-Nitroaniline	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
4-Nitroaniline	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Nitrobenzene	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Nitrobenzene	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2-Nitrophenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2-Nitrophenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
4-Nitrophenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
4-Nitrophenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
N-Nitrosodimethylamine	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
N-Nitrosodimethylamine	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
N-Nitrosodiphenylamine/Diphenylamine	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
N-Nitrosodi-n-propylamine	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
N-Nitrosodi-n-propylamine	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Pentachloronitrobenzene	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Pentachloronitrobenzene	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Pentachlorophenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-01-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Pentachlorophenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Phenanthrene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Phenanthrene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Phenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Phenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Pyrene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Pyrene	ND	4.5	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
Pyridine	ND	19	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
Pyridine	ND	18	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
1,2,4,5-Tetrachlorobenzene	ND	9.0	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
1,2,4-Trichlorobenzene	ND	4.6	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
1,2,4-Trichlorobenzene	ND	4.5	µg/L	1	L-04	SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2,4,5-Trichlorophenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2,4,5-Trichlorophenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL
2,4,6-Trichlorophenol	ND	9.3	µg/L	1		SW-846 8270E	7/7/23	7/11/23 15:12	BGL
2,4,6-Trichlorophenol	ND	9.0	µg/L	1		SW-846 8270E	7/12/23	7/19/23 13:09	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	50.1	15-110	7/11/23 15:12
2-Fluorophenol	15.7	15-110	7/19/23 13:09
Phenol-d6	32.9	15-110	7/11/23 15:12
Phenol-d6	35.0	15-110	7/19/23 13:09
Nitrobenzene-d5	75.5	30-130	7/11/23 15:12
Nitrobenzene-d5	80.1	30-130	7/19/23 13:09
2-Fluorobiphenyl	82.6	30-130	7/11/23 15:12
2-Fluorobiphenyl	67.8	30-130	7/19/23 13:09
2,4,6-Tribromophenol	88.5	15-110	7/11/23 15:12
2,4,6-Tribromophenol	32.2	15-110	7/19/23 13:09
p-Terphenyl-d14	96.2	30-130	7/11/23 15:12
p-Terphenyl-d14	110	30-130	7/19/23 13:09

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: PD-CP-01-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0636-02

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	19	0.20	µg/L	1		SW-846 8270E	7/12/23	7/25/23 16:52	CJM
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
1,4-Dioxane-d8	30.2	15-110						7/25/23 16:52	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: ASF-CP-00-070523

Sampled: 7/5/2023 10:45

Sample ID: 23G0636-03

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	19	0.20	µg/L	1		SW-846 8270E	7/12/23	7/25/23 17:11	CJM
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
1,4-Dioxane-d8	28.8	15-110						7/25/23 17:11	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: ASF-CP-01-070523

Sampled: 7/5/2023 10:45

Sample ID: 23G0636-04

Sample Matrix: Ground Water

1,4-Dioxane by isotope dilution GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,4-Dioxane	18	0.19	µg/L	1		SW-846 8270E	7/12/23	7/25/23 17:31	CJM
Surrogates	% Recovery	Recovery Limits			Flag/Qual				
1,4-Dioxane-d8	30.0	15-110						7/25/23 17:31	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: TB-070523

Sampled: 7/5/2023 11:00

Sample ID: 23G0636-05

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	ND	50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Acrylonitrile	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Bromodichloromethane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Bromoform	ND	1.0	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Bromomethane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
2-Butanone (MEK)	ND	20	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 0:00	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Carbon Disulfide	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Carbon Tetrachloride	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L	1	L-04, V-05	SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,1-Dichloropropene	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
cis-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
trans-1,3-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF

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Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0636

Date Received: 7/6/2023

Field Sample #: TB-070523

Sampled: 7/5/2023 11:00

Sample ID: 23G0636-05

Sample Matrix: Trip Blank Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,4-Dioxane	ND	50	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
2-Hexanone (MBK)	ND	10	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Methyl Acetate	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Methyl Cyclohexane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Methylene Chloride	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 0:00	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Tetrahydrofuran	ND	10	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,2,3-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1	V-05	SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,3,5-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260D	7/10/23	7/12/23 0:00	MFF
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	97.7	70-130							
Toluene-d8	89.3	70-130							
4-Bromofluorobenzene	85.2	70-130							

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Sample Extraction Data**Prep Method:SW-846 5030B Analytical Method:SW-846 8260D**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23G0636-01 [PD-CP-00-070523]	B345471	5	5.00	07/10/23
23G0636-02 [PD-CP-01-070523]	B345471	5	5.00	07/10/23
23G0636-05 [TB-070523]	B345471	5	5.00	07/10/23

Prep Method:SW-846 3510C Analytical Method:SW-846 8270E

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23G0636-01 [PD-CP-00-070523]	B345390	111	1.00	07/07/23
23G0636-02 [PD-CP-01-070523]	B345390	108	1.00	07/07/23

Prep Method:SW-846 3510C Analytical Method:SW-846 8270E

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23G0636-01 [PD-CP-00-070523]	B345722	1010	1.00	07/12/23
23G0636-02 [PD-CP-01-070523]	B345722	1020	1.00	07/12/23
23G0636-03 [ASF-CP-00-070523]	B345722	1000	1.00	07/12/23
23G0636-04 [ASF-CP-01-070523]	B345722	1030	1.00	07/12/23

Prep Method:SW-846 3510C Analytical Method:SW-846 8270E

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23G0636-01RE1 [PD-CP-00-070523]	B345793	110	1.00	07/12/23
23G0636-02RE1 [PD-CP-01-070523]	B345793	111	1.00	07/12/23

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
Batch B345471 - SW-846 5030B									
Blank (B345471-BLK1)									
Prepared: 07/10/23 Analyzed: 07/11/23									
Acetone	ND	50	µg/L						
Acrolein	ND	10	µg/L						
Acrylonitrile	ND	5.0	µg/L						
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L						
Benzene	ND	1.0	µg/L						
Bromobenzene	ND	1.0	µg/L						
Bromochloromethane	ND	1.0	µg/L						
Bromodichloromethane	ND	0.50	µg/L						
Bromoform	ND	1.0	µg/L						V-05
Bromomethane	ND	2.0	µg/L						
2-Butanone (MEK)	ND	20	µg/L						
tert-Butyl Alcohol (TBA)	ND	20	µg/L						V-05
n-Butylbenzene	ND	1.0	µg/L						
sec-Butylbenzene	ND	1.0	µg/L						
tert-Butylbenzene	ND	1.0	µg/L						
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L						
Carbon Disulfide	ND	5.0	µg/L						
Carbon Tetrachloride	ND	5.0	µg/L						
Chlorobenzene	ND	1.0	µg/L						
Chlorodibromomethane	ND	0.50	µg/L						
Chloroethane	ND	2.0	µg/L						
2-Chloroethyl Vinyl Ether	ND	10	µg/L						L-04, V-05
Chloroform	ND	2.0	µg/L						
Chloromethane	ND	2.0	µg/L						
2-Chlorotoluene	ND	1.0	µg/L						
4-Chlorotoluene	ND	1.0	µg/L						
Cyclohexane	ND	5.0	µg/L						
1,2-Dibromo-3-chloropropane (DBCP)	ND	5.0	µg/L						V-05
1,2-Dibromoethane (EDB)	ND	0.50	µg/L						
Dibromomethane	ND	1.0	µg/L						
1,2-Dichlorobenzene	ND	1.0	µg/L						
1,3-Dichlorobenzene	ND	1.0	µg/L						
1,4-Dichlorobenzene	ND	1.0	µg/L						
trans-1,4-Dichloro-2-butene	ND	2.0	µg/L						L-04, V-05
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L						
1,1-Dichloroethane	ND	1.0	µg/L						
1,2-Dichloroethane	ND	1.0	µg/L						
1,1-Dichloroethylene	ND	1.0	µg/L						
cis-1,2-Dichloroethylene	ND	1.0	µg/L						
trans-1,2-Dichloroethylene	ND	1.0	µg/L						
Dichlorofluoromethane (Freon 21)	ND	1.0	µg/L						
1,2-Dichloropropane	ND	1.0	µg/L						
1,3-Dichloropropane	ND	0.50	µg/L						
2,2-Dichloropropane	ND	1.0	µg/L						
1,1-Dichloropropene	ND	2.0	µg/L						
cis-1,3-Dichloropropene	ND	0.50	µg/L						
trans-1,3-Dichloropropene	ND	0.50	µg/L						
Diethyl Ether	ND	2.0	µg/L						
Difluorochloromethane (Freon 22)	ND	1.0	µg/L						
Diisopropyl Ether (DIPE)	ND	0.50	µg/L						
1,4-Dioxane	ND	50	µg/L						V-05
Ethanol	ND	50	µg/L						V-05

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B345471 - SW-846 5030B
Blank (B345471-BLK1)

Prepared: 07/10/23 Analyzed: 07/11/23

Ethyl Acetate	ND	10	µg/L							R-05, V-05
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							V-05
Iodomethane	ND	20	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl Acetate	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methyl Cyclohexane	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	µg/L							V-05
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	10	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							V-05
1,3,5-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND	1.0	µg/L							
1,2,3-Trimethylbenzene	ND	0.50	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Acetate	ND	20	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	24.3		µg/L	25.0		97.3	70-130			
Surrogate: Toluene-d8	22.3		µg/L	25.0		89.2	70-130			
Surrogate: 4-Bromofluorobenzene	21.1		µg/L	25.0		84.6	70-130			

LCS (B345471-BS1)

Prepared: 07/10/23 Analyzed: 07/11/23

Acetone	87.0	50	µg/L	100		87.0	70-160			†
Acrolein	118	10	µg/L	100		118	70-130			
Acrylonitrile	9.78	5.0	µg/L	10.0		97.8	70-130			
tert-Amyl Methyl Ether (TAME)	9.22	0.50	µg/L	10.0		92.2	70-130			
Benzene	10.8	1.0	µg/L	10.0		108	70-130			
Bromobenzene	9.28	1.0	µg/L	10.0		92.8	70-130			
Bromochloromethane	11.5	1.0	µg/L	10.0		115	70-130			
Bromodichloromethane	10.1	0.50	µg/L	10.0		101	70-130			
Bromoform	7.82	1.0	µg/L	10.0		78.2	70-130			V-05
Bromomethane	12.8	2.0	µg/L	10.0		128	40-160			V-20
2-Butanone (MEK)	97.0	20	µg/L	100		97.0	40-160			†

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345471 - SW-846 5030B										
LCS (B345471-BS1)										
Prepared: 07/10/23 Analyzed: 07/11/23										
tert-Butyl Alcohol (TBA)	64.5	20	µg/L	100		64.5	40-160			V-05 †
n-Butylbenzene	8.99	1.0	µg/L	10.0		89.9	70-130			
sec-Butylbenzene	9.12	1.0	µg/L	10.0		91.2	70-130			
tert-Butylbenzene	9.04	1.0	µg/L	10.0		90.4	70-130			
tert-Butyl Ethyl Ether (TBEE)	9.46	0.50	µg/L	10.0		94.6	70-130			
Carbon Disulfide	97.6	5.0	µg/L	100		97.6	70-130			
Carbon Tetrachloride	8.07	5.0	µg/L	10.0		80.7	70-130			
Chlorobenzene	10.4	1.0	µg/L	10.0		104	70-130			
Chlorodibromomethane	9.34	0.50	µg/L	10.0		93.4	70-130			
Chloroethane	9.29	2.0	µg/L	10.0		92.9	70-130			
2-Chloroethyl Vinyl Ether	10.7	10	µg/L	100		10.7	* 70-130			L-04, V-05
Chloroform	10.2	2.0	µg/L	10.0		102	70-130			
Chloromethane	9.33	2.0	µg/L	10.0		93.3	40-160			†
2-Chlorotoluene	9.16	1.0	µg/L	10.0		91.6	70-130			
4-Chlorotoluene	9.02	1.0	µg/L	10.0		90.2	70-130			
Cyclohexane	10.2	5.0	µg/L	10.0		102	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	8.29	5.0	µg/L	10.0		82.9	70-130			V-05
1,2-Dibromoethane (EDB)	10.2	0.50	µg/L	10.0		102	70-130			
Dibromomethane	10.3	1.0	µg/L	10.0		103	70-130			
1,2-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130			
1,3-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130			
1,4-Dichlorobenzene	10.0	1.0	µg/L	10.0		100	70-130			
trans-1,4-Dichloro-2-butene	6.79	2.0	µg/L	10.0		67.9	* 70-130			L-04, V-05
Dichlorodifluoromethane (Freon 12)	10.4	2.0	µg/L	10.0		104	40-160			†
1,1-Dichloroethane	10.3	1.0	µg/L	10.0		103	70-130			
1,2-Dichloroethane	9.81	1.0	µg/L	10.0		98.1	70-130			
1,1-Dichloroethylene	9.60	1.0	µg/L	10.0		96.0	70-130			
cis-1,2-Dichloroethylene	9.80	1.0	µg/L	10.0		98.0	70-130			
trans-1,2-Dichloroethylene	9.49	1.0	µg/L	10.0		94.9	70-130			
Dichlorofluoromethane (Freon 21)	9.77	1.0	µg/L	10.0		97.7	70-130			
1,2-Dichloropropane	10.2	1.0	µg/L	10.0		102	70-130			
1,3-Dichloropropane	10.4	0.50	µg/L	10.0		104	70-130			
2,2-Dichloropropane	8.06	1.0	µg/L	10.0		80.6	40-130			†
1,1-Dichloropropene	10.2	2.0	µg/L	10.0		102	70-130			
cis-1,3-Dichloropropene	10.1	0.50	µg/L	10.0		101	70-130			
trans-1,3-Dichloropropene	9.79	0.50	µg/L	10.0		97.9	70-130			
Diethyl Ether	9.95	2.0	µg/L	10.0		99.5	70-130			
Difluorochloromethane (Freon 22)	10.4	1.0	µg/L	10.0		104	70-130			
Diisopropyl Ether (DIPE)	10.1	0.50	µg/L	10.0		101	70-130			
1,4-Dioxane	74.7	50	µg/L	100		74.7	40-130			V-05 †
Ethanol	75.9	50	µg/L	100		75.9	40-160			V-05
Ethyl Acetate	8.54	10	µg/L	10.0		85.4	70-130			R-05, V-05
Ethylbenzene	10.0	1.0	µg/L	10.0		100	70-130			
Hexachlorobutadiene	11.3	0.60	µg/L	10.0		113	70-130			
2-Hexanone (MBK)	86.0	10	µg/L	100		86.0	70-160			V-05 †
Iodomethane	97.1	20	µg/L	100		97.1	70-130			
Isopropylbenzene (Cumene)	9.25	1.0	µg/L	10.0		92.5	70-130			
p-Isopropyltoluene (p-Cymene)	8.93	1.0	µg/L	10.0		89.3	70-130			
Methyl Acetate	9.11	1.0	µg/L	10.0		91.1	70-130			
Methyl tert-Butyl Ether (MTBE)	9.12	1.0	µg/L	10.0		91.2	70-130			
Methyl Cyclohexane	11.1	1.0	µg/L	10.0		111	70-130			
Methylene Chloride	9.79	5.0	µg/L	10.0		97.9	70-130			

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345471 - SW-846 5030B										
LCS (B345471-BS1)										
Prepared: 07/10/23 Analyzed: 07/11/23										
4-Methyl-2-pentanone (MIBK)	87.0	10	µg/L	100		87.0	70-160			†
Naphthalene	6.65	2.0	µg/L	10.0		66.5	40-130			V-05 †
n-Propylbenzene	8.90	1.0	µg/L	10.0		89.0	70-130			
Styrene	9.28	1.0	µg/L	10.0		92.8	70-130			
1,1,1,2-Tetrachloroethane	10.3	1.0	µg/L	10.0		103	70-130			
1,1,2,2-Tetrachloroethane	9.22	0.50	µg/L	10.0		92.2	70-130			
Tetrachloroethylene	10.7	1.0	µg/L	10.0		107	70-130			
Tetrahydrofuran	9.16	10	µg/L	10.0		91.6	70-130			
Toluene	10.3	1.0	µg/L	10.0		103	70-130			
1,2,3-Trichlorobenzene	8.15	5.0	µg/L	10.0		81.5	70-130			
1,2,4-Trichlorobenzene	7.71	1.0	µg/L	10.0		77.1	70-130			V-05
1,3,5-Trichlorobenzene	9.58	1.0	µg/L	10.0		95.8	70-130			
1,1,1-Trichloroethane	10.1	1.0	µg/L	10.0		101	70-130			
1,1,2-Trichloroethane	10.6	1.0	µg/L	10.0		106	70-130			
Trichloroethylene	10.4	1.0	µg/L	10.0		104	70-130			
Trichlorofluoromethane (Freon 11)	9.76	2.0	µg/L	10.0		97.6	70-130			
1,2,3-Trichloropropane	11.1	2.0	µg/L	10.0		111	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.2	1.0	µg/L	10.0		102	70-130			
1,2,3-Trimethylbenzene	9.29	0.50	µg/L	10.0		92.9	70-130			
1,2,4-Trimethylbenzene	9.10	1.0	µg/L	10.0		91.0	70-130			
1,3,5-Trimethylbenzene	8.69	1.0	µg/L	10.0		86.9	70-130			
Vinyl Acetate	94.5	20	µg/L	100		94.5	70-130			
Vinyl Chloride	10.2	2.0	µg/L	10.0		102	40-160			†
m+p Xylene	19.5	2.0	µg/L	20.0		97.7	70-130			
o-Xylene	9.51	1.0	µg/L	10.0		95.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	23.6		µg/L	25.0		94.6	70-130			
Surrogate: Toluene-d8	24.7		µg/L	25.0		98.7	70-130			
Surrogate: 4-Bromofluorobenzene	21.8		µg/L	25.0		87.2	70-130			
LCS Dup (B345471-BSD1)										
Prepared: 07/10/23 Analyzed: 07/11/23										
Acetone	91.0	50	µg/L	100		91.0	70-160	4.49	25	†
Acrolein	119	10	µg/L	100		119	70-130	0.750	25	
Acrylonitrile	9.45	5.0	µg/L	10.0		94.5	70-130	3.43	25	
tert-Amyl Methyl Ether (TAME)	9.22	0.50	µg/L	10.0		92.2	70-130	0.00	25	
Benzene	11.1	1.0	µg/L	10.0		111	70-130	1.92	25	
Bromobenzene	9.15	1.0	µg/L	10.0		91.5	70-130	1.41	25	
Bromochloromethane	11.5	1.0	µg/L	10.0		115	70-130	0.435	25	
Bromodichloromethane	10.4	0.50	µg/L	10.0		104	70-130	2.84	25	
Bromoform	7.66	1.0	µg/L	10.0		76.6	70-130	2.07	25	V-05
Bromomethane	12.7	2.0	µg/L	10.0		127	40-160	0.471	25	V-20 †
2-Butanone (MEK)	98.4	20	µg/L	100		98.4	40-160	1.39	25	†
tert-Butyl Alcohol (TBA)	66.3	20	µg/L	100		66.3	40-160	2.77	25	V-05 †
n-Butylbenzene	9.41	1.0	µg/L	10.0		94.1	70-130	4.57	25	
sec-Butylbenzene	9.01	1.0	µg/L	10.0		90.1	70-130	1.21	25	
tert-Butylbenzene	8.99	1.0	µg/L	10.0		89.9	70-130	0.555	25	
tert-Butyl Ethyl Ether (TBEE)	9.28	0.50	µg/L	10.0		92.8	70-130	1.92	25	
Carbon Disulfide	98.7	5.0	µg/L	100		98.7	70-130	1.17	25	
Carbon Tetrachloride	7.95	5.0	µg/L	10.0		79.5	70-130	1.50	25	
Chlorobenzene	10.4	1.0	µg/L	10.0		104	70-130	0.288	25	
Chlorodibromomethane	9.20	0.50	µg/L	10.0		92.0	70-130	1.51	25	
Chloroethane	9.49	2.0	µg/L	10.0		94.9	70-130	2.13	25	
2-Chloroethyl Vinyl Ether	12.4	10	µg/L	100		12.4	* 70-130	14.3	25	L-04, V-05

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345471 - SW-846 5030B										
LCS Dup (B345471-BS1)										
Prepared: 07/10/23 Analyzed: 07/11/23										
Chloroform	10.4	2.0	µg/L	10.0		104	70-130	1.75	25	
Chloromethane	9.09	2.0	µg/L	10.0		90.9	40-160	2.61	25	†
2-Chlorotoluene	8.65	1.0	µg/L	10.0		86.5	70-130	5.73	25	
4-Chlorotoluene	8.77	1.0	µg/L	10.0		87.7	70-130	2.81	25	
Cyclohexane	10.2	5.0	µg/L	10.0		102	70-130	0.491	25	
1,2-Dibromo-3-chloropropane (DBCP)	8.63	5.0	µg/L	10.0		86.3	70-130	4.02	25	V-05
1,2-Dibromoethane (EDB)	10.3	0.50	µg/L	10.0		103	70-130	0.681	25	
Dibromomethane	10.1	1.0	µg/L	10.0		101	70-130	1.57	25	
1,2-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130	0.874	25	
1,3-Dichlorobenzene	10.5	1.0	µg/L	10.0		105	70-130	2.50	25	
1,4-Dichlorobenzene	9.98	1.0	µg/L	10.0		99.8	70-130	0.699	25	
trans-1,4-Dichloro-2-butene	6.46	2.0	µg/L	10.0		64.6	* 70-130	4.98	25	L-04, V-05
Dichlorodifluoromethane (Freon 12)	10.6	2.0	µg/L	10.0		106	40-160	2.09	25	†
1,1-Dichloroethane	10.4	1.0	µg/L	10.0		104	70-130	0.964	25	
1,2-Dichloroethane	9.85	1.0	µg/L	10.0		98.5	70-130	0.407	25	
1,1-Dichloroethylene	9.74	1.0	µg/L	10.0		97.4	70-130	1.45	25	
cis-1,2-Dichloroethylene	9.87	1.0	µg/L	10.0		98.7	70-130	0.712	25	
trans-1,2-Dichloroethylene	9.69	1.0	µg/L	10.0		96.9	70-130	2.09	25	
Dichlorofluoromethane (Freon 21)	9.83	1.0	µg/L	10.0		98.3	70-130	0.612	25	
1,2-Dichloropropane	10.9	1.0	µg/L	10.0		109	70-130	6.76	25	
1,3-Dichloropropane	10.4	0.50	µg/L	10.0		104	70-130	0.192	25	
2,2-Dichloropropane	8.15	1.0	µg/L	10.0		81.5	40-130	1.11	25	†
1,1-Dichloropropene	10.2	2.0	µg/L	10.0		102	70-130	0.882	25	
cis-1,3-Dichloropropene	10.3	0.50	µg/L	10.0		103	70-130	1.77	25	
trans-1,3-Dichloropropene	9.89	0.50	µg/L	10.0		98.9	70-130	1.02	25	
Diethyl Ether	9.88	2.0	µg/L	10.0		98.8	70-130	0.706	25	
Difluorochloromethane (Freon 22)	10.5	1.0	µg/L	10.0		105	70-130	1.06	25	
Diisopropyl Ether (DIPE)	10.2	0.50	µg/L	10.0		102	70-130	0.296	25	
1,4-Dioxane	85.6	50	µg/L	100		85.6	40-130	13.6	50	V-05 † ‡
Ethanol	79.6	50	µg/L	100		79.6	40-160	4.69	25	V-05
Ethyl Acetate	3.12	10	µg/L	10.0		31.2	* 70-130	93.0	* 25	L-07A, R-05, V-05
Ethylbenzene	10.3	1.0	µg/L	10.0		103	70-130	2.46	25	
Hexachlorobutadiene	11.3	0.60	µg/L	10.0		113	70-130	0.443	25	
2-Hexanone (MBK)	86.9	10	µg/L	100		86.9	70-160	0.995	25	V-05 †
Iodomethane	100	20	µg/L	100		100	70-130	2.96	25	
Isopropylbenzene (Cumene)	8.66	1.0	µg/L	10.0		86.6	70-130	6.59	25	
p-Isopropyltoluene (p-Cymene)	9.10	1.0	µg/L	10.0		91.0	70-130	1.89	25	
Methyl Acetate	9.43	1.0	µg/L	10.0		94.3	70-130	3.45	25	
Methyl tert-Butyl Ether (MTBE)	9.01	1.0	µg/L	10.0		90.1	70-130	1.21	25	
Methyl Cyclohexane	11.3	1.0	µg/L	10.0		113	70-130	1.96	25	
Methylene Chloride	9.90	5.0	µg/L	10.0		99.0	70-130	1.12	25	
4-Methyl-2-pentanone (MIBK)	88.8	10	µg/L	100		88.8	70-160	2.04	25	†
Naphthalene	6.54	2.0	µg/L	10.0		65.4	40-130	1.67	25	V-05 †
n-Propylbenzene	8.61	1.0	µg/L	10.0		86.1	70-130	3.31	25	
Styrene	9.38	1.0	µg/L	10.0		93.8	70-130	1.07	25	
1,1,1,2-Tetrachloroethane	10.2	1.0	µg/L	10.0		102	70-130	1.46	25	
1,1,2,2-Tetrachloroethane	8.80	0.50	µg/L	10.0		88.0	70-130	4.66	25	
Tetrachloroethylene	11.0	1.0	µg/L	10.0		110	70-130	2.77	25	
Tetrahydrofuran	8.97	10	µg/L	10.0		89.7	70-130	2.10	25	
Toluene	10.5	1.0	µg/L	10.0		105	70-130	1.44	25	
1,2,3-Trichlorobenzene	8.36	5.0	µg/L	10.0		83.6	70-130	2.54	25	
1,2,4-Trichlorobenzene	7.82	1.0	µg/L	10.0		78.2	70-130	1.42	25	V-05

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345471 - SW-846 5030B										
LCS Dup (B345471-BSD1)										
Prepared: 07/10/23 Analyzed: 07/11/23										
1,3,5-Trichlorobenzene	9.63	1.0	µg/L	10.0		96.3	70-130	0.521	25	
1,1,1-Trichloroethane	10.4	1.0	µg/L	10.0		104	70-130	3.12	25	
1,1,2-Trichloroethane	10.5	1.0	µg/L	10.0		105	70-130	1.14	25	
Trichloroethylene	10.4	1.0	µg/L	10.0		104	70-130	0.385	25	
Trichlorofluoromethane (Freon 11)	9.86	2.0	µg/L	10.0		98.6	70-130	1.02	25	
1,2,3-Trichloropropane	10.6	2.0	µg/L	10.0		106	70-130	4.15	25	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	10.1	1.0	µg/L	10.0		101	70-130	0.884	25	
1,2,3-Trimethylbenzene	9.23	0.50	µg/L	10.0		92.3	70-130	0.648	25	
1,2,4-Trimethylbenzene	9.11	1.0	µg/L	10.0		91.1	70-130	0.110	25	
1,3,5-Trimethylbenzene	8.64	1.0	µg/L	10.0		86.4	70-130	0.577	25	
Vinyl Acetate	95.4	20	µg/L	100		95.4	70-130	0.958	25	
Vinyl Chloride	10.3	2.0	µg/L	10.0		103	40-160	0.877	25	†
m+p Xylene	19.7	2.0	µg/L	20.0		98.5	70-130	0.815	25	
o-Xylene	9.45	1.0	µg/L	10.0		94.5	70-130	0.633	25	
Surrogate: 1,2-Dichloroethane-d4	23.4		µg/L	25.0		93.6	70-130			
Surrogate: Toluene-d8	24.8		µg/L	25.0		99.3	70-130			
Surrogate: 4-Bromofluorobenzene	21.2		µg/L	25.0		84.9	70-130			
Matrix Spike (B345471-MS1)										
Source: 23G0636-01 Prepared: 07/10/23 Analyzed: 07/12/23										
Acetone	72.5	50	µg/L	100	2.23	70.3	70-130			
Acrylonitrile	7.98	5.0	µg/L	10.0	ND	79.8	70-130			
tert-Amyl Methyl Ether (TAME)	7.78	0.50	µg/L	10.0	ND	77.8	70-130			
Benzene	9.40	1.0	µg/L	10.0	ND	94.0	70-130			
Bromobenzene	8.19	1.0	µg/L	10.0	ND	81.9	70-130			
Bromochloromethane	9.53	1.0	µg/L	10.0	ND	95.3	70-130			
Bromodichloromethane	8.50	0.50	µg/L	10.0	ND	85.0	70-130			
Bromoform	7.08	1.0	µg/L	10.0	ND	70.8	70-130			V-05
Bromomethane	11.3	2.0	µg/L	10.0	ND	113	70-130			V-20
2-Butanone (MEK)	82.1	20	µg/L	100	ND	82.1	70-130			
tert-Butyl Alcohol (TBA)	64.8	20	µg/L	100	ND	64.8	* 70-130			MS-07A, V-05
n-Butylbenzene	7.80	1.0	µg/L	10.0	ND	78.0	70-130			
sec-Butylbenzene	8.06	1.0	µg/L	10.0	ND	80.6	70-130			
tert-Butylbenzene	7.83	1.0	µg/L	10.0	ND	78.3	70-130			
tert-Butyl Ethyl Ether (TBEE)	7.96	0.50	µg/L	10.0	ND	79.6	70-130			
Carbon Disulfide	84.6	5.0	µg/L	100	ND	84.6	70-130			
Carbon Tetrachloride	7.32	5.0	µg/L	10.0	ND	73.2	70-130			
Chlorobenzene	9.34	1.0	µg/L	10.0	ND	93.4	70-130			
Chlorodibromomethane	7.60	0.50	µg/L	10.0	ND	76.0	70-130			
Chloroethane	9.03	2.0	µg/L	10.0	ND	90.3	70-130			
Chloroform	8.87	2.0	µg/L	10.0	ND	88.7	70-130			
Chloromethane	8.65	2.0	µg/L	10.0	ND	86.5	70-130			
2-Chlorotoluene	8.73	1.0	µg/L	10.0	ND	87.3	70-130			
4-Chlorotoluene	8.36	1.0	µg/L	10.0	ND	83.6	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	6.93	5.0	µg/L	10.0	ND	69.3	* 70-130			V-05, MS-24
1,2-Dibromoethane (EDB)	8.31	0.50	µg/L	10.0	ND	83.1	70-130			
Dibromomethane	8.63	1.0	µg/L	10.0	ND	86.3	70-130			
1,2-Dichlorobenzene	8.54	1.0	µg/L	10.0	ND	85.4	70-130			
1,3-Dichlorobenzene	8.54	1.0	µg/L	10.0	ND	85.4	70-130			
1,4-Dichlorobenzene	8.46	1.0	µg/L	10.0	ND	84.6	70-130			
trans-1,4-Dichloro-2-butene	5.49	2.0	µg/L	10.0	ND	54.9	* 70-130			L-04, MS-09, V-05
Dichlorodifluoromethane (Freon 12)	9.40	2.0	µg/L	10.0	ND	94.0	70-130			

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345471 - SW-846 5030B										
Matrix Spike (B345471-MS1)	Source: 23G0636-01			Prepared: 07/10/23 Analyzed: 07/12/23						
1,1-Dichloroethane	8.92	1.0	µg/L	10.0	ND	89.2	70-130			
1,2-Dichloroethane	8.35	1.0	µg/L	10.0	ND	83.5	70-130			
1,1-Dichloroethylene	8.60	1.0	µg/L	10.0	ND	86.0	70-130			
cis-1,2-Dichloroethylene	8.20	1.0	µg/L	10.0	ND	82.0	70-130			
trans-1,2-Dichloroethylene	8.21	1.0	µg/L	10.0	ND	82.1	70-130			
1,2-Dichloropropane	9.45	1.0	µg/L	10.0	ND	94.5	70-130			
1,3-Dichloropropane	8.56	0.50	µg/L	10.0	ND	85.6	70-130			
2,2-Dichloropropane	5.23	1.0	µg/L	10.0	ND	52.3	* 70-130			MS-07A
1,1-Dichloropropene	9.00	2.0	µg/L	10.0	ND	90.0	70-130			
cis-1,3-Dichloropropene	8.08	0.50	µg/L	10.0	ND	80.8	70-130			
trans-1,3-Dichloropropene	7.61	0.50	µg/L	10.0	ND	76.1	70-130			
Diethyl Ether	8.33	2.0	µg/L	10.0	ND	83.3	70-130			
Diisopropyl Ether (DIPE)	8.45	0.50	µg/L	10.0	ND	84.5	70-130			
1,4-Dioxane	82.5	50	µg/L	100	ND	82.5	70-130			V-05
Ethylbenzene	9.14	1.0	µg/L	10.0	ND	91.4	70-130			
Hexachlorobutadiene	8.58	0.60	µg/L	10.0	ND	85.8	70-130			
2-Hexanone (MBK)	68.7	10	µg/L	100	ND	68.7	* 70-130			MS-07A, V-05
Isopropylbenzene (Cumene)	8.17	1.0	µg/L	10.0	ND	81.7	70-130			
p-Isopropyltoluene (p-Cymene)	7.61	1.0	µg/L	10.0	ND	76.1	70-130			
Methyl Acetate	5.24	1.0	µg/L	10.0	ND	52.4	* 70-130			MS-07A
Methyl tert-Butyl Ether (MTBE)	7.77	1.0	µg/L	10.0	ND	77.7	70-130			
Methyl Cyclohexane	9.91	1.0	µg/L	10.0	ND	99.1	70-130			
Methylene Chloride	8.39	5.0	µg/L	10.0	ND	83.9	70-130			
4-Methyl-2-pentanone (MIBK)	74.4	10	µg/L	100	ND	74.4	70-130			
Naphthalene	5.11	2.0	µg/L	10.0	ND	51.1	* 70-130			MS-07A, V-05
n-Propylbenzene	8.21	1.0	µg/L	10.0	ND	82.1	70-130			
Styrene	7.98	1.0	µg/L	10.0	ND	79.8	70-130			
1,1,1,2-Tetrachloroethane	8.82	1.0	µg/L	10.0	ND	88.2	70-130			
1,1,2,2-Tetrachloroethane	8.10	0.50	µg/L	10.0	ND	81.0	70-130			
Tetrachloroethylene	9.24	1.0	µg/L	10.0	ND	92.4	70-130			
Tetrahydrofuran	8.97	10	µg/L	10.0	ND	89.7	70-130			
Toluene	9.55	1.0	µg/L	10.0	ND	95.5	70-130			
1,2,3-Trichlorobenzene	6.26	5.0	µg/L	10.0	ND	62.6	* 70-130			MS-24
1,2,4-Trichlorobenzene	5.84	1.0	µg/L	10.0	ND	58.4	* 70-130			MS-07A, V-05
1,3,5-Trichlorobenzene	7.59	1.0	µg/L	10.0	ND	75.9	70-130			
1,1,1-Trichloroethane	8.99	1.0	µg/L	10.0	ND	89.9	70-130			
1,1,2-Trichloroethane	8.58	1.0	µg/L	10.0	ND	85.8	70-130			
Trichloroethylene	9.28	1.0	µg/L	10.0	ND	92.8	70-130			
Trichlorofluoromethane (Freon 11)	8.69	2.0	µg/L	10.0	ND	86.9	70-130			
1,2,3-Trichloropropane	7.66	2.0	µg/L	10.0	ND	76.6	70-130			
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	8.90	1.0	µg/L	10.0	ND	89.0	70-130			
1,2,4-Trimethylbenzene	8.34	1.0	µg/L	10.0	ND	83.4	70-130			
1,3,5-Trimethylbenzene	8.41	1.0	µg/L	10.0	ND	84.1	70-130			
Vinyl Chloride	9.68	2.0	µg/L	10.0	ND	96.8	70-130			
m+p Xylene	18.5	2.0	µg/L	20.0	ND	92.6	70-130			
o-Xylene	8.63	1.0	µg/L	10.0	ND	86.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	23.0		µg/L	25.0		92.0	70-130			
Surrogate: Toluene-d8	24.9		µg/L	25.0		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	23.4		µg/L	25.0		93.4	70-130			

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345471 - SW-846 5030B										
Matrix Spike Dup (B345471-MSD1)	Source: 23G0636-01			Prepared: 07/10/23 Analyzed: 07/12/23						
Acetone	74.8	50	µg/L	100	2.23	72.5	70-130	3.06	30	
Acrylonitrile	8.48	5.0	µg/L	10.0	ND	84.8	70-130	6.08	30	
tert-Amyl Methyl Ether (TAME)	8.00	0.50	µg/L	10.0	ND	80.0	70-130	2.79	30	
Benzene	9.65	1.0	µg/L	10.0	ND	96.5	70-130	2.62	30	
Bromobenzene	8.66	1.0	µg/L	10.0	ND	86.6	70-130	5.58	30	
Bromochloromethane	9.74	1.0	µg/L	10.0	ND	97.4	70-130	2.18	30	
Bromodichloromethane	8.77	0.50	µg/L	10.0	ND	87.7	70-130	3.13	30	
Bromoform	7.27	1.0	µg/L	10.0	ND	72.7	70-130	2.65	30	V-05
Bromomethane	12.3	2.0	µg/L	10.0	ND	123	70-130	8.83	30	V-20
2-Butanone (MEK)	83.8	20	µg/L	100	ND	83.8	70-130	2.02	30	
tert-Butyl Alcohol (TBA)	65.9	20	µg/L	100	ND	65.9 *	70-130	1.76	30	V-05, MS-07A
n-Butylbenzene	8.01	1.0	µg/L	10.0	ND	80.1	70-130	2.66	30	
sec-Butylbenzene	8.25	1.0	µg/L	10.0	ND	82.5	70-130	2.33	30	
tert-Butylbenzene	8.21	1.0	µg/L	10.0	ND	82.1	70-130	4.74	30	
tert-Butyl Ethyl Ether (TBEE)	8.23	0.50	µg/L	10.0	ND	82.3	70-130	3.34	30	
Carbon Disulfide	86.7	5.0	µg/L	100	ND	86.7	70-130	2.39	30	
Carbon Tetrachloride	7.31	5.0	µg/L	10.0	ND	73.1	70-130	0.137	30	
Chlorobenzene	9.48	1.0	µg/L	10.0	ND	94.8	70-130	1.49	30	
Chlorodibromomethane	7.64	0.50	µg/L	10.0	ND	76.4	70-130	0.525	30	
Chloroethane	8.63	2.0	µg/L	10.0	ND	86.3	70-130	4.53	30	
Chloroform	9.01	2.0	µg/L	10.0	ND	90.1	70-130	1.57	30	
Chloromethane	8.51	2.0	µg/L	10.0	ND	85.1	70-130	1.63	30	
2-Chlorotoluene	8.67	1.0	µg/L	10.0	ND	86.7	70-130	0.690	30	
4-Chlorotoluene	8.40	1.0	µg/L	10.0	ND	84.0	70-130	0.477	30	
1,2-Dibromo-3-chloropropane (DBCP)	7.45	5.0	µg/L	10.0	ND	74.5	70-130	7.23	30	V-05
1,2-Dibromoethane (EDB)	8.41	0.50	µg/L	10.0	ND	84.1	70-130	1.20	30	
Dibromomethane	8.72	1.0	µg/L	10.0	ND	87.2	70-130	1.04	30	
1,2-Dichlorobenzene	8.86	1.0	µg/L	10.0	ND	88.6	70-130	3.68	30	
1,3-Dichlorobenzene	8.97	1.0	µg/L	10.0	ND	89.7	70-130	4.91	30	
1,4-Dichlorobenzene	8.29	1.0	µg/L	10.0	ND	82.9	70-130	2.03	30	
trans-1,4-Dichloro-2-butene	5.50	2.0	µg/L	10.0	ND	55.0 *	70-130	0.182	30	L-04, MS-09, V-05
Dichlorodifluoromethane (Freon 12)	9.66	2.0	µg/L	10.0	ND	96.6	70-130	2.73	30	
1,1-Dichloroethane	8.98	1.0	µg/L	10.0	ND	89.8	70-130	0.670	30	
1,2-Dichloroethane	8.39	1.0	µg/L	10.0	ND	83.9	70-130	0.478	30	
1,1-Dichloroethylene	8.51	1.0	µg/L	10.0	ND	85.1	70-130	1.05	30	
cis-1,2-Dichloroethylene	8.58	1.0	µg/L	10.0	ND	85.8	70-130	4.53	30	
trans-1,2-Dichloroethylene	8.49	1.0	µg/L	10.0	ND	84.9	70-130	3.35	30	
1,2-Dichloropropane	9.25	1.0	µg/L	10.0	ND	92.5	70-130	2.14	30	
1,3-Dichloropropane	8.44	0.50	µg/L	10.0	ND	84.4	70-130	1.41	30	
2,2-Dichloropropane	5.30	1.0	µg/L	10.0	ND	53.0 *	70-130	1.33	30	MS-07A
1,1-Dichloropropene	9.10	2.0	µg/L	10.0	ND	91.0	70-130	1.10	30	
cis-1,3-Dichloropropene	8.14	0.50	µg/L	10.0	ND	81.4	70-130	0.740	30	
trans-1,3-Dichloropropene	7.79	0.50	µg/L	10.0	ND	77.9	70-130	2.34	30	
Diethyl Ether	8.48	2.0	µg/L	10.0	ND	84.8	70-130	1.78	30	
Diisopropyl Ether (DIPE)	8.52	0.50	µg/L	10.0	ND	85.2	70-130	0.825	30	
1,4-Dioxane	85.1	50	µg/L	100	ND	85.1	70-130	3.08	30	V-05
Ethylbenzene	9.17	1.0	µg/L	10.0	ND	91.7	70-130	0.328	30	
Hexachlorobutadiene	9.35	0.60	µg/L	10.0	ND	93.5	70-130	8.59	30	
2-Hexanone (MBK)	65.8	10	µg/L	100	ND	65.8 *	70-130	4.34	30	MS-07A, V-05
Isopropylbenzene (Cumene)	8.53	1.0	µg/L	10.0	ND	85.3	70-130	4.31	30	
p-Isopropyltoluene (p-Cymene)	8.14	1.0	µg/L	10.0	ND	81.4	70-130	6.73	30	
Methyl Acetate	5.86	1.0	µg/L	10.0	ND	58.6 *	70-130	11.2	30	MS-07A

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QUALITY CONTROL
Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345471 - SW-846 5030B										
Matrix Spike Dup (B345471-MSD1)	Source: 23G0636-01			Prepared: 07/10/23 Analyzed: 07/12/23						
Methyl tert-Butyl Ether (MTBE)	7.90	1.0	µg/L	10.0	ND	79.0	70-130	1.66	30	
Methyl Cyclohexane	10.1	1.0	µg/L	10.0	ND	101	70-130	1.80	30	
Methylene Chloride	8.31	5.0	µg/L	10.0	ND	83.1	70-130	0.958	30	
4-Methyl-2-pentanone (MIBK)	74.0	10	µg/L	100	ND	74.0	70-130	0.660	30	
Naphthalene	5.67	2.0	µg/L	10.0	ND	56.7	* 70-130	10.4	30	MS-07A, V-05
n-Propylbenzene	8.58	1.0	µg/L	10.0	ND	85.8	70-130	4.41	30	
Styrene	8.38	1.0	µg/L	10.0	ND	83.8	70-130	4.89	30	
1,1,1,2-Tetrachloroethane	9.32	1.0	µg/L	10.0	ND	93.2	70-130	5.51	30	
1,1,2,2-Tetrachloroethane	8.68	0.50	µg/L	10.0	ND	86.8	70-130	6.91	30	
Tetrachloroethylene	9.15	1.0	µg/L	10.0	ND	91.5	70-130	0.979	30	
Tetrahydrofuran	9.58	10	µg/L	10.0	ND	95.8	70-130	6.58	30	
Toluene	9.27	1.0	µg/L	10.0	ND	92.7	70-130	2.98	30	
1,2,3-Trichlorobenzene	7.05	5.0	µg/L	10.0	ND	70.5	70-130	11.9	30	
1,2,4-Trichlorobenzene	6.52	1.0	µg/L	10.0	ND	65.2	* 70-130	11.0	30	MS-07A, V-05
1,3,5-Trichlorobenzene	8.14	1.0	µg/L	10.0	ND	81.4	70-130	6.99	30	
1,1,1-Trichloroethane	9.21	1.0	µg/L	10.0	ND	92.1	70-130	2.42	30	
1,1,2-Trichloroethane	8.90	1.0	µg/L	10.0	ND	89.0	70-130	3.66	30	
Trichloroethylene	9.60	1.0	µg/L	10.0	ND	96.0	70-130	3.39	30	
Trichlorofluoromethane (Freon 11)	9.04	2.0	µg/L	10.0	ND	90.4	70-130	3.95	30	
1,2,3-Trichloropropane	10.1	2.0	µg/L	10.0	ND	101	70-130	27.3	30	
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	9.27	1.0	µg/L	10.0	ND	92.7	70-130	4.07	30	
1,2,4-Trimethylbenzene	8.27	1.0	µg/L	10.0	ND	82.7	70-130	0.843	30	
1,3,5-Trimethylbenzene	8.72	1.0	µg/L	10.0	ND	87.2	70-130	3.62	30	
Vinyl Chloride	9.64	2.0	µg/L	10.0	ND	96.4	70-130	0.414	30	
m+p Xylene	18.2	2.0	µg/L	20.0	ND	91.0	70-130	1.85	20	
o-Xylene	8.62	1.0	µg/L	10.0	ND	86.2	70-130	0.116	30	
Surrogate: 1,2-Dichloroethane-d4	24.5		µg/L	25.0		98.1	70-130			
Surrogate: Toluene-d8	24.4		µg/L	25.0		97.7	70-130			
Surrogate: 4-Bromofluorobenzene	23.7		µg/L	25.0		94.9	70-130			

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B345390 - SW-846 3510C
Blank (B345390-BLK1)

Prepared: 07/07/23 Analyzed: 07/11/23

Acenaphthene	ND	5.0	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	20	µg/L							V-05
Anthracene	ND	5.0	µg/L							
Benzidine	ND	20	µg/L							L-04, V-04, V-05, V-35
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	20	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							V-04
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							V-35
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	20	µg/L							V-04
2,4-Dinitrophenol	ND	10	µg/L							V-04
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							V-04
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachlorocyclopentadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B345390 - SW-846 3510C
Blank (B345390-BLK1)

Prepared: 07/07/23 Analyzed: 07/11/23

2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	20	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	197		µg/L	400		49.3	15-110			
Surrogate: Phenol-d6	129		µg/L	400		32.1	15-110			
Surrogate: Nitrobenzene-d5	138		µg/L	200		68.9	30-130			
Surrogate: 2-Fluorobiphenyl	134		µg/L	200		67.0	30-130			
Surrogate: 2,4,6-Tribromophenol	314		µg/L	400		78.4	15-110			
Surrogate: p-Terphenyl-d14	179		µg/L	200		89.6	30-130			

LCS (B345390-BS1)

Prepared: 07/07/23 Analyzed: 07/11/23

Acenaphthene	85.2	5.0	µg/L	100		85.2	40-140			R-05
Acenaphthylene	92.8	5.0	µg/L	100		92.8	40-140			R-05
Acetophenone	88.0	10	µg/L	100		88.0	40-140			R-05
Aniline	65.5	20	µg/L	100		65.5	40-140			R-05, V-05
Anthracene	91.5	5.0	µg/L	100		91.5	40-140			R-05
Benzidine	6.43	20	µg/L	100		6.43	* 40-140			L-04, R-05, V-04, V-05, V-35
Benzo(a)anthracene	90.0	5.0	µg/L	100		90.0	40-140			R-05
Benzo(a)pyrene	87.9	5.0	µg/L	100		87.9	40-140			R-05
Benzo(b)fluoranthene	93.4	5.0	µg/L	100		93.4	40-140			R-05
Benzo(g,h,i)perylene	93.0	5.0	µg/L	100		93.0	40-140			R-05
Benzo(k)fluoranthene	97.0	5.0	µg/L	100		97.0	40-140			R-05
Benzoic Acid	33.6	20	µg/L	100		33.6	10-130			R-05 †
Bis(2-chloroethoxy)methane	87.8	10	µg/L	100		87.8	40-140			R-05
Bis(2-chloroethyl)ether	88.4	10	µg/L	100		88.4	40-140			R-05
Bis(2-chloroisopropyl)ether	95.4	10	µg/L	100		95.4	40-140			R-05
Bis(2-Ethylhexyl)phthalate	95.7	10	µg/L	100		95.7	40-140			R-05, V-04
4-Bromophenylphenylether	89.1	10	µg/L	100		89.1	40-140			R-05
Butylbenzylphthalate	108	10	µg/L	100		108	40-140			R-05, V-35
Carbazole	92.5	10	µg/L	100		92.5	40-140			R-05
4-Chloroaniline	83.3	10	µg/L	100		83.3	40-140			R-05
4-Chloro-3-methylphenol	88.4	10	µg/L	100		88.4	30-130			R-05
2-Chloronaphthalene	74.4	10	µg/L	100		74.4	40-140			R-05

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345390 - SW-846 3510C										
LCS (B345390-BS1)										
Prepared: 07/07/23 Analyzed: 07/11/23										
2-Chlorophenol	78.5	10	µg/L	100		78.5	30-130			R-05
4-Chlorophenylphenylether	88.4	10	µg/L	100		88.4	40-140			R-05
Chrysene	84.7	5.0	µg/L	100		84.7	40-140			R-05
Dibenz(a,h)anthracene	95.8	5.0	µg/L	100		95.8	40-140			R-05
Dibenzofuran	89.0	5.0	µg/L	100		89.0	40-140			R-05
Di-n-butylphthalate	93.5	10	µg/L	100		93.5	40-140			R-05
1,2-Dichlorobenzene	63.4	5.0	µg/L	100		63.4	40-140			R-05
1,3-Dichlorobenzene	59.3	5.0	µg/L	100		59.3	40-140			R-05
1,4-Dichlorobenzene	59.8	5.0	µg/L	100		59.8	40-140			R-05
3,3-Dichlorobenzidine	103	10	µg/L	100		103	40-140			R-05
2,4-Dichlorophenol	86.9	10	µg/L	100		86.9	30-130			R-05
Diethylphthalate	89.7	10	µg/L	100		89.7	40-140			R-05
2,4-Dimethylphenol	70.1	10	µg/L	100		70.1	30-130			R-05
Dimethylphthalate	91.0	10	µg/L	100		91.0	40-140			R-05
4,6-Dinitro-2-methylphenol	99.6	20	µg/L	100		99.6	30-130			R-05, V-04
2,4-Dinitrophenol	83.3	10	µg/L	100		83.3	30-130			R-05, V-04
2,4-Dinitrotoluene	96.6	10	µg/L	100		96.6	40-140			R-05
2,6-Dinitrotoluene	105	10	µg/L	100		105	40-140			R-05
Di-n-octylphthalate	91.7	10	µg/L	100		91.7	40-140			R-05, V-04
1,2-Diphenylhydrazine/Azobenzene	91.7	10	µg/L	100		91.7	40-140			R-05
Fluoranthene	92.0	5.0	µg/L	100		92.0	40-140			R-05
Fluorene	89.8	5.0	µg/L	100		89.8	40-140			R-05
Hexachlorobenzene	93.3	10	µg/L	100		93.3	40-140			R-05
Hexachlorobutadiene	69.1	10	µg/L	100		69.1	40-140			R-05
Hexachlorocyclopentadiene	66.2	10	µg/L	100		66.2	30-140			R-05 †
Hexachloroethane	56.8	10	µg/L	100		56.8	40-140			R-05
Indeno(1,2,3-cd)pyrene	97.6	5.0	µg/L	100		97.6	40-140			R-05
Isophorone	92.4	10	µg/L	100		92.4	40-140			R-05
1-Methylnaphthalene	84.7	5.0	µg/L	100		84.7	40-140			R-05
2-Methylnaphthalene	81.2	5.0	µg/L	100		81.2	40-140			R-05
2-Methylphenol	75.4	10	µg/L	100		75.4	30-130			R-05
3/4-Methylphenol	71.4	10	µg/L	100		71.4	30-130			R-05
Naphthalene	77.7	5.0	µg/L	100		77.7	40-140			R-05
2-Nitroaniline	88.3	10	µg/L	100		88.3	40-140			R-05
3-Nitroaniline	95.3	10	µg/L	100		95.3	40-140			R-05
4-Nitroaniline	94.5	10	µg/L	100		94.5	40-140			R-05
Nitrobenzene	83.7	10	µg/L	100		83.7	40-140			R-05
2-Nitrophenol	80.8	10	µg/L	100		80.8	30-130			R-05
4-Nitrophenol	48.5	10	µg/L	100		48.5	10-130			R-05 †
N-Nitrosodimethylamine	55.4	10	µg/L	100		55.4	40-140			R-05
N-Nitrosodiphenylamine/Diphenylamine	88.4	10	µg/L	100		88.4	40-140			R-05
N-Nitrosodi-n-propylamine	86.8	10	µg/L	100		86.8	40-140			R-05
Pentachloronitrobenzene	105	10	µg/L	100		105	40-140			R-05
Pentachlorophenol	84.6	10	µg/L	100		84.6	30-130			R-05
Phenanthrene	88.8	5.0	µg/L	100		88.8	40-140			R-05
Phenol	41.5	10	µg/L	100		41.5	20-130			R-05 †
Pyrene	89.2	5.0	µg/L	100		89.2	40-140			R-05
Pyridine	19.4	20	µg/L	100		19.4	10-140			R-05 †
1,2,4,5-Tetrachlorobenzene	81.4	10	µg/L	100		81.4	40-140			R-05
1,2,4-Trichlorobenzene	75.6	5.0	µg/L	100		75.6	40-140			R-05
2,4,5-Trichlorophenol	90.9	10	µg/L	100		90.9	30-130			R-05
2,4,6-Trichlorophenol	88.8	10	µg/L	100		88.8	30-130			R-05

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345390 - SW-846 3510C										
LCS (B345390-BS1)										
Prepared: 07/07/23 Analyzed: 07/11/23										
Surrogate: 2-Fluorophenol	263		µg/L	400		65.8	15-110			
Surrogate: Phenol-d6	184		µg/L	400		46.0	15-110			
Surrogate: Nitrobenzene-d5	184		µg/L	200		91.9	30-130			
Surrogate: 2-Fluorobiphenyl	173		µg/L	200		86.7	30-130			
Surrogate: 2,4,6-Tribromophenol	447		µg/L	400		112	* 15-110			S-07
Surrogate: p-Terphenyl-d14	208		µg/L	200		104	30-130			
LCS Dup (B345390-BSD1)										
Prepared: 07/07/23 Analyzed: 07/11/23										
Acenaphthene	23.6	5.0	µg/L	100		23.6	* 40-140	113	* 20	L-07A
Acenaphthylene	25.4	5.0	µg/L	100		25.4	* 40-140	114	* 20	L-07A
Acetophenone	20.7	10	µg/L	100		20.7	* 40-140	124	* 20	L-07A
Aniline	10.1	20	µg/L	100		10.1	* 40-140	147	* 50	L-07A, V-05 ‡
Anthracene	25.0	5.0	µg/L	100		25.0	* 40-140	114	* 20	L-07A
Benzdine	0.260	20	µg/L	100		0.260	* 40-140	184	* 20	L-04, L-07A, V-04, V-05, V-35
Benzo(a)anthracene	24.6	5.0	µg/L	100		24.6	* 40-140	114	* 20	L-07A
Benzo(a)pyrene	22.6	5.0	µg/L	100		22.6	* 40-140	118	* 20	L-07A
Benzo(b)fluoranthene	25.2	5.0	µg/L	100		25.2	* 40-140	115	* 20	L-07A
Benzo(g,h,i)perylene	25.6	5.0	µg/L	100		25.6	* 40-140	114	* 20	L-07A
Benzo(k)fluoranthene	26.4	5.0	µg/L	100		26.4	* 40-140	114	* 20	L-07A
Benzoic Acid	16.3	20	µg/L	100		16.3	10-130	69.3	* 50	R-05 † ‡
Bis(2-chloroethoxy)methane	23.2	10	µg/L	100		23.2	* 40-140	117	* 20	L-07A
Bis(2-chloroethyl)ether	19.0	10	µg/L	100		19.0	* 40-140	129	* 20	L-07A
Bis(2-chloroisopropyl)ether	22.4	10	µg/L	100		22.4	* 40-140	124	* 20	L-07A
Bis(2-Ethylhexyl)phthalate	22.1	10	µg/L	100		22.1	* 40-140	125	* 20	L-07A, V-04
4-Bromophenylphenylether	24.8	10	µg/L	100		24.8	* 40-140	113	* 20	L-07A
Butylbenzylphthalate	27.3	10	µg/L	100		27.3	* 40-140	119	* 20	V-35, L-07A
Carbazole	24.8	10	µg/L	100		24.8	* 40-140	116	* 20	L-07A
4-Chloroaniline	19.8	10	µg/L	100		19.8	* 40-140	123	* 20	L-07A
4-Chloro-3-methylphenol	22.3	10	µg/L	100		22.3	* 30-130	119	* 20	L-07A
2-Chloronaphthalene	19.8	10	µg/L	100		19.8	* 40-140	116	* 20	L-07A
2-Chlorophenol	16.4	10	µg/L	100		16.4	* 30-130	131	* 20	L-07A
4-Chlorophenylphenylether	25.1	10	µg/L	100		25.1	* 40-140	112	* 20	L-07A
Chrysene	24.5	5.0	µg/L	100		24.5	* 40-140	110	* 20	L-07A
Dibenz(a,h)anthracene	25.2	5.0	µg/L	100		25.2	* 40-140	117	* 20	L-07A
Dibenzofuran	25.6	5.0	µg/L	100		25.6	* 40-140	111	* 20	L-07A
Di-n-butylphthalate	24.0	10	µg/L	100		24.0	* 40-140	118	* 20	L-07A
1,2-Dichlorobenzene	12.2	5.0	µg/L	100		12.2	* 40-140	136	* 20	L-07A
1,3-Dichlorobenzene	10.7	5.0	µg/L	100		10.7	* 40-140	139	* 20	L-07A
1,4-Dichlorobenzene	11.0	5.0	µg/L	100		11.0	* 40-140	138	* 20	L-07A
3,3-Dichlorobenzidine	23.6	10	µg/L	100		23.6	* 40-140	125	* 20	L-07A
2,4-Dichlorophenol	21.5	10	µg/L	100		21.5	* 30-130	121	* 20	L-07A
Diethylphthalate	24.7	10	µg/L	100		24.7	* 40-140	114	* 20	L-07A
2,4-Dimethylphenol	17.8	10	µg/L	100		17.8	* 30-130	119	* 20	L-07A
Dimethylphthalate	26.4	10	µg/L	100		26.4	* 40-140	110	* 50	L-07A ‡
4,6-Dinitro-2-methylphenol	21.5	20	µg/L	100		21.5	* 30-130	129	* 50	L-07A, V-04 ‡
2,4-Dinitrophenol	16.8	10	µg/L	100		16.8	* 30-130	133	* 50	L-07A, V-04 ‡
2,4-Dinitrotoluene	24.8	10	µg/L	100		24.8	* 40-140	118	* 20	L-07A
2,6-Dinitrotoluene	27.5	10	µg/L	100		27.5	* 40-140	117	* 20	L-07A
Di-n-octylphthalate	18.9	10	µg/L	100		18.9	* 40-140	132	* 20	L-07A, V-04
1,2-Diphenylhydrazine/Azobenzene	24.1	10	µg/L	100		24.1	* 40-140	117	* 20	L-07A
Fluoranthene	24.6	5.0	µg/L	100		24.6	* 40-140	116	* 20	L-07A
Fluorene	25.0	5.0	µg/L	100		25.0	* 40-140	113	* 20	L-07A

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B345390 - SW-846 3510C
LCS Dup (B345390-BSD1)

Prepared: 07/07/23 Analyzed: 07/11/23

Hexachlorobenzene	25.8	10	µg/L	100		25.8	* 40-140	113	* 20	L-07A
Hexachlorobutadiene	16.3	10	µg/L	100		16.3	* 40-140	124	* 20	L-07A
Hexachlorocyclopentadiene	17.9	10	µg/L	100		17.9	* 30-140	115	* 50	L-07A † ‡
Hexachloroethane	10.2	10	µg/L	100		10.2	* 40-140	139	* 50	L-07A ‡
Indeno(1,2,3-cd)pyrene	26.0	5.0	µg/L	100		26.0	* 40-140	116	* 50	L-07A ‡
Isophorone	24.0	10	µg/L	100		24.0	* 40-140	118	* 20	L-07A
1-Methylnaphthalene	22.6	5.0	µg/L	100		22.6	* 40-140	116	* 20	L-07A
2-Methylnaphthalene	21.6	5.0	µg/L	100		21.6	* 40-140	116	* 20	L-07A
2-Methylphenol	18.1	10	µg/L	100		18.1	* 30-130	123	* 20	L-07A
3/4-Methylphenol	17.6	10	µg/L	100		17.6	* 30-130	121	* 20	L-07A
Naphthalene	19.8	5.0	µg/L	100		19.8	* 40-140	119	* 20	L-07A
2-Nitroaniline	20.9	10	µg/L	100		20.9	* 40-140	123	* 20	L-07A
3-Nitroaniline	24.7	10	µg/L	100		24.7	* 40-140	118	* 20	L-07A
4-Nitroaniline	23.7	10	µg/L	100		23.7	* 40-140	120	* 20	L-07A
Nitrobenzene	19.3	10	µg/L	100		19.3	* 40-140	125	* 20	L-07A
2-Nitrophenol	18.7	10	µg/L	100		18.7	* 30-130	125	* 20	L-07A
4-Nitrophenol	16.3	10	µg/L	100		16.3	10-130	99.2	* 50	L-07A † ‡
N-Nitrosodimethylamine	9.39	10	µg/L	100		9.39	* 40-140	142	* 20	L-07A
N-Nitrosodiphenylamine/Diphenylamine	23.6	10	µg/L	100		23.6	* 40-140	116	* 20	L-07A
N-Nitrosodi-n-propylamine	21.0	10	µg/L	100		21.0	* 40-140	122	* 20	L-07A
Pentachloronitrobenzene	26.6	10	µg/L	100		26.6	* 40-140	119	* 20	L-07A
Pentachlorophenol	26.4	10	µg/L	100		26.4	* 30-130	105	* 50	L-07A ‡
Phenanthrene	25.5	5.0	µg/L	100		25.5	* 40-140	111	* 20	L-07A
Phenol	9.41	10	µg/L	100		9.41	* 20-130	126	* 20	L-07A †
Pyrene	25.0	5.0	µg/L	100		25.0	* 40-140	112	* 20	L-07A
Pyridine	ND	20	µg/L	100			* 10-140		50	L-07A † ‡
1,2,4,5-Tetrachlorobenzene	22.2	10	µg/L	100		22.2	* 40-140	114	* 20	L-07A
1,2,4-Trichlorobenzene	18.2	5.0	µg/L	100		18.2	* 40-140	122	* 20	L-07A
2,4,5-Trichlorophenol	22.5	10	µg/L	100		22.5	* 30-130	121	* 20	L-07A
2,4,6-Trichlorophenol	21.4	10	µg/L	100		21.4	* 30-130	122	* 50	L-07A ‡
Surrogate: 2-Fluorophenol	45.2		µg/L	400		11.3	* 15-110			S-26
Surrogate: Phenol-d6	40.1		µg/L	400		10.0	* 15-110			S-26
Surrogate: Nitrobenzene-d5	41.6		µg/L	200		20.8	* 30-130			S-26
Surrogate: 2-Fluorobiphenyl	49.2		µg/L	200		24.6	* 30-130			S-26
Surrogate: 2,4,6-Tribromophenol	114		µg/L	400		28.4	15-110			
Surrogate: p-Terphenyl-d14	57.4		µg/L	200		28.7	* 30-130			S-26

Batch B345793 - SW-846 3510C
Blank (B345793-BLK1)

Prepared: 07/12/23 Analyzed: 07/17/23

Acenaphthene	ND	5.0	µg/L							L-04
Acenaphthylene	ND	5.0	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	20	µg/L							
Anthracene	ND	5.0	µg/L							
Benzdine	ND	20	µg/L							V-04, V-05, V-35
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzoic Acid	ND	20	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit	Notes
Batch B345793 - SW-846 3510C										
Blank (B345793-BLK1)										
Prepared: 07/12/23 Analyzed: 07/17/23										
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							V-04
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							V-35
Carbazole	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
4-Chloro-3-methylphenol	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							L-04
2-Chlorophenol	ND	10	µg/L							
4-Chlorophenylphenylether	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							L-04
1,3-Dichlorobenzene	ND	5.0	µg/L							L-04
1,4-Dichlorobenzene	ND	5.0	µg/L							L-04
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
4,6-Dinitro-2-methylphenol	ND	20	µg/L							V-04
2,4-Dinitrophenol	ND	10	µg/L							V-04
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							V-04, V-06
1,2-Diphenylhydrazine/Azobenzene	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluorene	ND	5.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							L-04
Hexachlorocyclopentadiene	ND	10	µg/L							L-04
Hexachloroethane	ND	10	µg/L							L-04
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Isophorone	ND	10	µg/L							
1-Methylnaphthalene	ND	5.0	µg/L							L-04
2-Methylnaphthalene	ND	5.0	µg/L							L-04
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							L-04
2-Nitroaniline	ND	10	µg/L							
3-Nitroaniline	ND	10	µg/L							
4-Nitroaniline	ND	10	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
N-Nitrosodimethylamine	ND	10	µg/L							
N-Nitrosodiphenylamine/Diphenylamine	ND	10	µg/L							
N-Nitrosodi-n-propylamine	ND	10	µg/L							
Pentachloronitrobenzene	ND	10	µg/L							

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345793 - SW-846 3510C										
Blank (B345793-BLK1)										
Prepared: 07/12/23 Analyzed: 07/17/23										
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyridine	ND	20	µg/L							
1,2,4,5-Tetrachlorobenzene	ND	10	µg/L							L-04
1,2,4-Trichlorobenzene	ND	5.0	µg/L							L-04
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	192		µg/L	400		48.0	15-110			
Surrogate: Phenol-d6	132		µg/L	400		33.0	15-110			
Surrogate: Nitrobenzene-d5	127		µg/L	200		63.6	30-130			
Surrogate: 2-Fluorobiphenyl	92.8		µg/L	200		46.4	30-130			
Surrogate: 2,4,6-Tribromophenol	304		µg/L	400		76.1	15-110			
Surrogate: p-Terphenyl-d14	170		µg/L	200		85.0	30-130			
LCS (B345793-BS1)										
Prepared: 07/12/23 Analyzed: 07/17/23										
Acenaphthene	37.2	5.0	µg/L	100		37.2	* 40-140			L-04
Acenaphthylene	42.5	5.0	µg/L	100		42.5	40-140			
Acetophenone	63.2	10	µg/L	100		63.2	40-140			R-05
Aniline	26.4	20	µg/L	100		26.4	* 40-140			L-07A
Anthracene	72.5	5.0	µg/L	100		72.5	40-140			
Benzidine	ND	20	µg/L	100			* 40-140			V-35, V-04, V-05
Benzo(a)anthracene	80.4	5.0	µg/L	100		80.4	40-140			
Benzo(a)pyrene	78.0	5.0	µg/L	100		78.0	40-140			
Benzo(b)fluoranthene	82.5	5.0	µg/L	100		82.5	40-140			
Benzo(g,h,i)perylene	82.7	5.0	µg/L	100		82.7	40-140			
Benzo(k)fluoranthene	85.2	5.0	µg/L	100		85.2	40-140			
Benzoic Acid	42.2	20	µg/L	100		42.2	10-130			†
Bis(2-chloroethoxy)methane	64.2	10	µg/L	100		64.2	40-140			R-05
Bis(2-chloroethyl)ether	64.6	10	µg/L	100		64.6	40-140			R-05
Bis(2-chloroisopropyl)ether	59.5	10	µg/L	100		59.5	40-140			R-05
Bis(2-Ethylhexyl)phthalate	92.5	10	µg/L	100		92.5	40-140			V-04
4-Bromophenylphenylether	56.6	10	µg/L	100		56.6	40-140			
Butylbenzylphthalate	98.7	10	µg/L	100		98.7	40-140			V-35
Carbazole	80.0	10	µg/L	100		80.0	40-140			
4-Chloroaniline	59.0	10	µg/L	100		59.0	40-140			R-05
4-Chloro-3-methylphenol	73.0	10	µg/L	100		73.0	30-130			R-05
2-Chloronaphthalene	25.6	10	µg/L	100		25.6	* 40-140			L-04
2-Chlorophenol	60.4	10	µg/L	100		60.4	30-130			R-05
4-Chlorophenylphenylether	44.1	10	µg/L	100		44.1	40-140			
Chrysene	75.0	5.0	µg/L	100		75.0	40-140			
Dibenz(a,h)anthracene	84.6	5.0	µg/L	100		84.6	40-140			
Dibenzofuran	43.0	5.0	µg/L	100		43.0	40-140			
Di-n-butylphthalate	86.2	10	µg/L	100		86.2	40-140			
1,2-Dichlorobenzene	19.1	5.0	µg/L	100		19.1	* 40-140			L-04
1,3-Dichlorobenzene	14.6	5.0	µg/L	100		14.6	* 40-140			L-04, R-05
1,4-Dichlorobenzene	16.0	5.0	µg/L	100		16.0	* 40-140			L-04, R-05
3,3-Dichlorobenzidine	84.0	10	µg/L	100		84.0	40-140			
2,4-Dichlorophenol	63.7	10	µg/L	100		63.7	30-130			R-05
Diethylphthalate	82.5	10	µg/L	100		82.5	40-140			
2,4-Dimethylphenol	57.2	10	µg/L	100		57.2	30-130			R-05

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345793 - SW-846 3510C										
LCS (B345793-BS1)										
Prepared: 07/12/23 Analyzed: 07/17/23										
Dimethylphthalate	78.1	10	µg/L	100		78.1	40-140			
4,6-Dinitro-2-methylphenol	88.1	20	µg/L	100		88.1	30-130			V-04
2,4-Dinitrophenol	79.8	10	µg/L	100		79.8	30-130			V-04
2,4-Dinitrotoluene	82.2	10	µg/L	100		82.2	40-140			
2,6-Dinitrotoluene	85.8	10	µg/L	100		85.8	40-140			
Di-n-octylphthalate	94.2	10	µg/L	100		94.2	40-140			V-04, V-06
1,2-Diphenylhydrazine/Azobenzene	60.6	10	µg/L	100		60.6	40-140			
Fluoranthene	78.9	5.0	µg/L	100		78.9	40-140			
Fluorene	50.1	5.0	µg/L	100		50.1	40-140			
Hexachlorobenzene	67.7	10	µg/L	100		67.7	40-140			
Hexachlorobutadiene	12.2	10	µg/L	100		12.2	* 40-140			L-04
Hexachlorocyclopentadiene	14.3	10	µg/L	100		14.3	* 30-140			L-04 †
Hexachloroethane	9.00	10	µg/L	100		9.00	* 40-140			L-04
Indeno(1,2,3-cd)pyrene	86.3	5.0	µg/L	100		86.3	40-140			
Isophorone	71.9	10	µg/L	100		71.9	40-140			R-05
1-Methylnaphthalene	27.7	5.0	µg/L	100		27.7	* 40-140			L-04
2-Methylnaphthalene	25.7	5.0	µg/L	100		25.7	* 40-140			L-04
2-Methylphenol	60.0	10	µg/L	100		60.0	30-130			R-05
3/4-Methylphenol	57.6	10	µg/L	100		57.6	30-130			R-05
Naphthalene	27.9	5.0	µg/L	100		27.9	* 40-140			L-04
2-Nitroaniline	74.6	10	µg/L	100		74.6	40-140			
3-Nitroaniline	80.3	10	µg/L	100		80.3	40-140			
4-Nitroaniline	75.6	10	µg/L	100		75.6	40-140			
Nitrobenzene	56.5	10	µg/L	100		56.5	40-140			R-05
2-Nitrophenol	57.8	10	µg/L	100		57.8	30-130			R-05
4-Nitrophenol	44.4	10	µg/L	100		44.4	10-130			†
N-Nitrosodimethylamine	47.9	10	µg/L	100		47.9	40-140			R-05
N-Nitrosodiphenylamine/Diphenylamine	74.6	10	µg/L	100		74.6	40-140			
N-Nitrosodi-n-propylamine	65.3	10	µg/L	100		65.3	40-140			R-05
Pentachloronitrobenzene	83.7	10	µg/L	100		83.7	40-140			
Pentachlorophenol	76.1	10	µg/L	100		76.1	30-130			
Phenanthrene	69.0	5.0	µg/L	100		69.0	40-140			
Phenol	34.0	10	µg/L	100		34.0	20-130			R-05 †
Pyrene	78.8	5.0	µg/L	100		78.8	40-140			
Pyridine	5.91	20	µg/L	100		5.91	* 10-140			L-07A, R-05 †
1,2,4,5-Tetrachlorobenzene	24.7	10	µg/L	100		24.7	* 40-140			L-04
1,2,4-Trichlorobenzene	18.1	5.0	µg/L	100		18.1	* 40-140			L-04
2,4,5-Trichlorophenol	76.0	10	µg/L	100		76.0	30-130			
2,4,6-Trichlorophenol	68.9	10	µg/L	100		68.9	30-130			
Surrogate: 2-Fluorophenol	205		µg/L	400		51.3	15-110			
Surrogate: Phenol-d6	154		µg/L	400		38.6	15-110			
Surrogate: Nitrobenzene-d5	126		µg/L	200		63.1	30-130			
Surrogate: 2-Fluorobiphenyl	135		µg/L	200		67.6	30-130			
Surrogate: 2,4,6-Tribromophenol	392		µg/L	400		98.0	15-110			
Surrogate: p-Terphenyl-d14	192		µg/L	200		95.8	30-130			

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345793 - SW-846 3510C										
LCS Dup (B345793-BSD1)										
Prepared: 07/12/23 Analyzed: 07/17/23										
Acenaphthene	31.9	5.0	µg/L	100		31.9	* 40-140	15.4	20	L-04
Acenaphthylene	38.7	5.0	µg/L	100		38.7	* 40-140	9.28	20	L-07A
Acetophenone	86.1	10	µg/L	100		86.1	40-140	30.7	* 20	R-05
Aniline	60.9	20	µg/L	100		60.9	40-140	79.1	* 50	R-05 ‡
Anthracene	79.0	5.0	µg/L	100		79.0	40-140	8.62	20	
Benzydine	23.4	20	µg/L	100		23.4	* 40-140	178	* 20	V-04, V-05, V-35
Benzo(a)anthracene	92.0	5.0	µg/L	100		92.0	40-140	13.5	20	
Benzo(a)pyrene	87.9	5.0	µg/L	100		87.9	40-140	11.8	20	
Benzo(b)fluoranthene	94.5	5.0	µg/L	100		94.5	40-140	13.6	20	
Benzo(g,h,i)perylene	93.8	5.0	µg/L	100		93.8	40-140	12.6	20	
Benzo(k)fluoranthene	96.9	5.0	µg/L	100		96.9	40-140	12.9	20	
Benzoic Acid	50.0	20	µg/L	100		50.0	10-130	16.7	50	† ‡
Bis(2-chloroethoxy)methane	88.3	10	µg/L	100		88.3	40-140	31.7	* 20	R-05
Bis(2-chloroethyl)ether	87.1	10	µg/L	100		87.1	40-140	29.7	* 20	R-05
Bis(2-chloroisopropyl)ether	74.0	10	µg/L	100		74.0	40-140	21.8	* 20	R-05
Bis(2-Ethylhexyl)phthalate	104	10	µg/L	100		104	40-140	11.5	20	V-04
4-Bromophenylphenylether	58.8	10	µg/L	100		58.8	40-140	3.95	20	
Butylbenzylphthalate	115	10	µg/L	100		115	40-140	15.3	20	V-35
Carbazole	92.7	10	µg/L	100		92.7	40-140	14.8	20	
4-Chloroaniline	77.3	10	µg/L	100		77.3	40-140	26.8	* 20	R-05
4-Chloro-3-methylphenol	90.7	10	µg/L	100		90.7	30-130	21.6	* 20	R-05
2-Chloronaphthalene	22.6	10	µg/L	100		22.6	* 40-140	12.4	20	L-04
2-Chlorophenol	84.9	10	µg/L	100		84.9	30-130	33.8	* 20	R-05
4-Chlorophenylphenylether	40.7	10	µg/L	100		40.7	40-140	7.90	20	
Chrysene	85.1	5.0	µg/L	100		85.1	40-140	12.7	20	
Dibenz(a,h)anthracene	97.0	5.0	µg/L	100		97.0	40-140	13.6	20	
Dibenzofuran	39.2	5.0	µg/L	100		39.2	* 40-140	9.20	20	L-07
Di-n-butylphthalate	97.4	10	µg/L	100		97.4	40-140	12.2	20	
1,2-Dichlorobenzene	22.6	5.0	µg/L	100		22.6	* 40-140	16.6	20	L-04
1,3-Dichlorobenzene	19.2	5.0	µg/L	100		19.2	* 40-140	26.7	* 20	L-04, R-05
1,4-Dichlorobenzene	20.1	5.0	µg/L	100		20.1	* 40-140	22.8	* 20	L-04, R-05
3,3-Dichlorobenzidine	96.9	10	µg/L	100		96.9	40-140	14.2	20	
2,4-Dichlorophenol	86.5	10	µg/L	100		86.5	30-130	30.4	* 20	R-05
Diethylphthalate	92.4	10	µg/L	100		92.4	40-140	11.3	20	
2,4-Dimethylphenol	77.6	10	µg/L	100		77.6	30-130	30.3	* 20	R-05
Dimethylphthalate	89.8	10	µg/L	100		89.8	40-140	13.9	50	‡
4,6-Dinitro-2-methylphenol	102	20	µg/L	100		102	30-130	15.0	50	V-04 ‡
2,4-Dinitrophenol	101	10	µg/L	100		101	30-130	23.3	50	V-04 ‡
2,4-Dinitrotoluene	94.2	10	µg/L	100		94.2	40-140	13.7	20	
2,6-Dinitrotoluene	98.4	10	µg/L	100		98.4	40-140	13.6	20	
Di-n-octylphthalate	110	10	µg/L	100		110	40-140	15.6	20	V-04, V-06
1,2-Diphenylhydrazine/Azobenzene	61.3	10	µg/L	100		61.3	40-140	1.08	20	
Fluoranthene	90.6	5.0	µg/L	100		90.6	40-140	13.7	20	
Fluorene	48.4	5.0	µg/L	100		48.4	40-140	3.39	20	
Hexachlorobenzene	73.0	10	µg/L	100		73.0	40-140	7.54	20	
Hexachlorobutadiene	14.1	10	µg/L	100		14.1	* 40-140	14.0	20	L-04
Hexachlorocyclopentadiene	12.8	10	µg/L	100		12.8	* 30-140	11.2	50	L-04 † ‡
Hexachloroethane	12.6	10	µg/L	100		12.6	* 40-140	33.3	50	L-04 ‡
Indeno(1,2,3-cd)pyrene	98.9	5.0	µg/L	100		98.9	40-140	13.5	50	‡
Isophorone	93.3	10	µg/L	100		93.3	40-140	25.9	* 20	R-05
1-Methylnaphthalene	25.4	5.0	µg/L	100		25.4	* 40-140	8.82	20	L-04
2-Methylnaphthalene	23.7	5.0	µg/L	100		23.7	* 40-140	8.42	20	L-04

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QUALITY CONTROL
Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345793 - SW-846 3510C										
LCS Dup (B345793-BSD1)										
Prepared: 07/12/23 Analyzed: 07/17/23										
2-Methylphenol	86.3	10	µg/L	100		86.3	30-130	35.9 *	20	R-05
3/4-Methylphenol	81.2	10	µg/L	100		81.2	30-130	34.0 *	20	R-05
Naphthalene	28.6	5.0	µg/L	100		28.6 *	40-140	2.55	20	L-04
2-Nitroaniline	86.4	10	µg/L	100		86.4	40-140	14.6	20	
3-Nitroaniline	92.8	10	µg/L	100		92.8	40-140	14.4	20	
4-Nitroaniline	92.2	10	µg/L	100		92.2	40-140	19.9	20	
Nitrobenzene	74.6	10	µg/L	100		74.6	40-140	27.6 *	20	R-05
2-Nitrophenol	82.3	10	µg/L	100		82.3	30-130	34.9 *	20	R-05
4-Nitrophenol	51.4	10	µg/L	100		51.4	10-130	14.5	50	† ‡
N-Nitrosodimethylamine	61.2	10	µg/L	100		61.2	40-140	24.3 *	20	R-05
N-Nitrosodiphenylamine/Diphenylamine	82.4	10	µg/L	100		82.4	40-140	9.93	20	
N-Nitrosodi-n-propylamine	86.0	10	µg/L	100		86.0	40-140	27.3 *	20	R-05
Pentachloronitrobenzene	94.5	10	µg/L	100		94.5	40-140	12.2	20	
Pentachlorophenol	85.8	10	µg/L	100		85.8	30-130	11.9	50	‡
Phenanthrene	75.8	5.0	µg/L	100		75.8	40-140	9.46	20	
Phenol	46.4	10	µg/L	100		46.4	20-130	30.9 *	20	R-05 †
Pyrene	89.3	5.0	µg/L	100		89.3	40-140	12.6	20	
Pyridine	28.2	20	µg/L	100		28.2	10-140	131 *	50	R-05 † ‡
1,2,4,5-Tetrachlorobenzene	20.5	10	µg/L	100		20.5 *	40-140	18.4	20	L-04
1,2,4-Trichlorobenzene	18.3	5.0	µg/L	100		18.3 *	40-140	0.987	20	L-04
2,4,5-Trichlorophenol	85.6	10	µg/L	100		85.6	30-130	11.8	20	
2,4,6-Trichlorophenol	81.8	10	µg/L	100		81.8	30-130	17.2	50	‡
Surrogate: 2-Fluorophenol	269		µg/L	400		67.3	15-110			
Surrogate: Phenol-d6	197		µg/L	400		49.3	15-110			
Surrogate: Nitrobenzene-d5	168		µg/L	200		83.8	30-130			
Surrogate: 2-Fluorobiphenyl	133		µg/L	200		66.3	30-130			
Surrogate: 2,4,6-Tribromophenol	406		µg/L	400		102	15-110			
Surrogate: p-Terphenyl-d14	204		µg/L	200		102	30-130			

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QUALITY CONTROL
1,4-Dioxane by isotope dilution GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B345722 - SW-846 3510C
Blank (B345722-BLK1)

Prepared: 07/12/23 Analyzed: 07/18/23

1,4-Dioxane	ND	0.20	µg/L							
Surrogate: 1,4-Dioxane-d8	2.61		µg/L	10.0		26.1	15-110			

LCS (B345722-BS1)

Prepared: 07/12/23 Analyzed: 07/18/23

1,4-Dioxane	10.6	0.20	µg/L	10.0		106	40-140			
Surrogate: 1,4-Dioxane-d8	2.74		µg/L	10.0		27.4	15-110			

LCS Dup (B345722-BSD1)

Prepared: 07/12/23 Analyzed: 07/18/23

1,4-Dioxane	10.7	0.20	µg/L	10.0		107	40-140	0.779	30	
Surrogate: 1,4-Dioxane-d8	2.88		µg/L	10.0		28.8	15-110			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-06	Sample was extracted past the recommended holding time.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
MS-07A	Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.
MS-09	Matrix spike recovery and/or matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a low bias for reported result or non-homogeneous sample aliquots cannot be eliminated.
MS-24	Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
S-07	One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.
S-26	Surrogate outside of control limits.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.
V-35	Initial calibration verification (ICV) did not meet method specifications and was biased on the high side for this compound. Reported result is estimated.

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CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260D in Water</i>	
Acetone	CT,ME,NH,VA,NY
Acrylonitrile	CT,ME,NH,VA,NY
tert-Amyl Methyl Ether (TAME)	ME,NH,VA,NY
Benzene	CT,ME,NH,VA,NY
Bromobenzene	ME,NY
Bromochloromethane	ME,NH,VA,NY
Bromodichloromethane	CT,ME,NH,VA,NY
Bromoform	CT,ME,NH,VA,NY
Bromomethane	CT,ME,NH,VA,NY
2-Butanone (MEK)	CT,ME,NH,VA,NY
tert-Butyl Alcohol (TBA)	ME,NH,VA,NY
n-Butylbenzene	ME,VA,NY
sec-Butylbenzene	ME,VA,NY
tert-Butylbenzene	ME,VA,NY
tert-Butyl Ethyl Ether (TBEE)	ME,NH,VA,NY
Carbon Disulfide	CT,ME,NH,VA,NY
Carbon Tetrachloride	CT,ME,NH,VA,NY
Chlorobenzene	CT,ME,NH,VA,NY
Chlorodibromomethane	CT,ME,NH,VA,NY
Chloroethane	CT,ME,NH,VA,NY
Chloroform	CT,ME,NH,VA,NY
Chloromethane	CT,ME,NH,VA,NY
2-Chlorotoluene	ME,NH,VA,NY
4-Chlorotoluene	ME,NH,VA,NY
1,2-Dibromo-3-chloropropane (DBCP)	ME,NY
1,2-Dibromoethane (EDB)	ME,NY
Dibromomethane	ME,NH,VA,NY
1,2-Dichlorobenzene	CT,ME,NH,VA,NY
1,3-Dichlorobenzene	CT,ME,NH,VA,NY
1,4-Dichlorobenzene	CT,ME,NH,VA,NY
trans-1,4-Dichloro-2-butene	ME,NH,VA,NY
Dichlorodifluoromethane (Freon 12)	ME,NH,VA,NY
1,1-Dichloroethane	CT,ME,NH,VA,NY
1,2-Dichloroethane	CT,ME,NH,VA,NY
1,1-Dichloroethylene	CT,ME,NH,VA,NY
cis-1,2-Dichloroethylene	ME,NY
trans-1,2-Dichloroethylene	CT,ME,NH,VA,NY
1,2-Dichloropropane	CT,ME,NH,VA,NY
1,3-Dichloropropane	ME,VA,NY
2,2-Dichloropropane	ME,NH,VA,NY
1,1-Dichloropropene	ME,NH,VA,NY
cis-1,3-Dichloropropene	CT,ME,NH,VA,NY
trans-1,3-Dichloropropene	CT,ME,NH,VA,NY
Diethyl Ether	ME,NY
Diisopropyl Ether (DIPE)	ME,NH,VA,NY
1,4-Dioxane	ME,NY
Ethylbenzene	CT,ME,NH,VA,NY

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CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260D in Water</i>	
Hexachlorobutadiene	CT,ME,NH,VA,NY
2-Hexanone (MBK)	CT,ME,NH,VA,NY
Isopropylbenzene (Cumene)	ME,VA,NY
p-Isopropyltoluene (p-Cymene)	CT,ME,NH,VA,NY
Methyl Acetate	ME,NY
Methyl tert-Butyl Ether (MTBE)	CT,ME,NH,VA,NY
Methyl Cyclohexane	NY
Methylene Chloride	CT,ME,NH,VA,NY
4-Methyl-2-pentanone (MIBK)	CT,ME,NH,VA,NY
Naphthalene	ME,NH,VA,NY
n-Propylbenzene	CT,ME,NH,VA,NY
Styrene	CT,ME,NH,VA,NY
1,1,1,2-Tetrachloroethane	CT,ME,NH,VA,NY
1,1,2,2-Tetrachloroethane	CT,ME,NH,VA,NY
Tetrachloroethylene	CT,ME,NH,VA,NY
Toluene	CT,ME,NH,VA,NY
1,2,3-Trichlorobenzene	ME,NH,VA,NY
1,2,4-Trichlorobenzene	CT,ME,NH,VA,NY
1,3,5-Trichlorobenzene	ME
1,1,1-Trichloroethane	CT,ME,NH,VA,NY
1,1,2-Trichloroethane	CT,ME,NH,VA,NY
Trichloroethylene	CT,ME,NH,VA,NY
Trichlorofluoromethane (Freon 11)	CT,ME,NH,VA,NY
1,2,3-Trichloropropane	ME,NH,VA,NY
1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	VA,NY
1,2,4-Trimethylbenzene	ME,VA,NY
1,3,5-Trimethylbenzene	ME,VA,NY
Vinyl Chloride	CT,ME,NH,VA,NY
m+p Xylene	CT,ME,NH,VA,NY
o-Xylene	CT,ME,NH,VA,NY
<i>SW-846 8270E in Water</i>	
1,4-Dioxane	NY,NH
Acenaphthene	CT,NY,NC,ME,NH,VA
Acenaphthylene	CT,NY,NC,ME,NH,VA
Acetophenone	NY,NC
Aniline	CT,NY,NC,ME,VA
Anthracene	CT,NY,NC,ME,NH,VA
Benzidine	CT,NY,NC,ME,NH,VA
Benzo(a)anthracene	CT,NY,NC,ME,NH,VA
Benzo(a)pyrene	CT,NY,NC,ME,NH,VA
Benzo(b)fluoranthene	CT,NY,NC,ME,NH,VA
Benzo(g,h,i)perylene	CT,NY,NC,ME,NH,VA
Benzo(k)fluoranthene	CT,NY,NC,ME,NH,VA
Benzoic Acid	NY,NC,ME,NH,VA
Bis(2-chloroethoxy)methane	CT,NY,NC,ME,NH,VA
Bis(2-chloroethyl)ether	CT,NY,NC,ME,NH,VA

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CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8270E in Water</i>	
Bis(2-chloroisopropyl)ether	CT,NY,NC,ME,NH,VA
Bis(2-Ethylhexyl)phthalate	CT,NY,NC,ME,NH,VA
4-Bromophenylphenylether	CT,NY,NC,ME,NH,VA
Butylbenzylphthalate	CT,NY,NC,ME,NH,VA
Carbazole	NC
4-Chloroaniline	CT,NY,NC,ME,NH,VA
4-Chloro-3-methylphenol	CT,NY,NC,ME,NH,VA
2-Chloronaphthalene	CT,NY,NC,ME,NH,VA
2-Chlorophenol	CT,NY,NC,ME,NH,VA
4-Chlorophenylphenylether	CT,NY,NC,ME,NH,VA
Chrysene	CT,NY,NC,ME,NH,VA
Dibenz(a,h)anthracene	CT,NY,NC,ME,NH,VA
Dibenzofuran	CT,NY,NC,ME,NH,VA
Di-n-butylphthalate	CT,NY,NC,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,NC,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,NC,ME,NH,VA
3,3-Dichlorobenzidine	CT,NY,NC,ME,NH,VA
2,4-Dichlorophenol	CT,NY,NC,ME,NH,VA
Diethylphthalate	CT,NY,NC,ME,NH,VA
2,4-Dimethylphenol	CT,NY,NC,ME,NH,VA
Dimethylphthalate	CT,NY,NC,ME,NH,VA
4,6-Dinitro-2-methylphenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrophenol	CT,NY,NC,ME,NH,VA
2,4-Dinitrotoluene	CT,NY,NC,ME,NH,VA
2,6-Dinitrotoluene	CT,NY,NC,ME,NH,VA
Di-n-octylphthalate	CT,NY,NC,ME,NH,VA
1,2-Diphenylhydrazine/Azobenzene	NY,NC
Fluoranthene	CT,NY,NC,ME,NH,VA
Fluorene	NY,NC,ME,NH,VA
Hexachlorobenzene	CT,NY,NC,ME,NH,VA
Hexachlorobutadiene	CT,NY,NC,ME,NH,VA
Hexachlorocyclopentadiene	CT,NY,NC,ME,NH,VA
Hexachloroethane	CT,NY,NC,ME,NH,VA
Indeno(1,2,3-cd)pyrene	CT,NY,NC,ME,NH,VA
Isophorone	CT,NY,NC,ME,NH,VA
1-Methylnaphthalene	NC
2-Methylnaphthalene	CT,NY,NC,ME,NH,VA
2-Methylphenol	CT,NY,NC,NH,VA
3/4-Methylphenol	CT,NY,NC,NH,VA
Naphthalene	CT,NY,NC,ME,NH,VA
2-Nitroaniline	CT,NY,NC,ME,NH,VA
3-Nitroaniline	CT,NY,NC,ME,NH,VA
4-Nitroaniline	CT,NY,NC,ME,NH,VA
Nitrobenzene	CT,NY,NC,ME,NH,VA
2-Nitrophenol	CT,NY,NC,ME,NH,VA
4-Nitrophenol	CT,NY,NC,ME,NH,VA

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
SW-846 8270E in Water	
N-Nitrosodimethylamine	CT,NY,NC,ME,NH,VA
N-Nitrosodiphenylamine/Diphenylamine	NY
N-Nitrosodi-n-propylamine	CT,NY,NC,ME,NH,VA
Pentachloronitrobenzene	NC
Pentachlorophenol	CT,NY,NC,ME,NH,VA
Phenanthrene	CT,NY,NC,ME,NH,VA
Phenol	CT,NY,NC,ME,NH,VA
Pyrene	CT,NY,NC,ME,NH,VA
Pyridine	CT,NY,NC,ME,NH,VA
1,2,4,5-Tetrachlorobenzene	NY,NC
1,2,4-Trichlorobenzene	CT,NY,NC,ME,NH,VA
2,4,5-Trichlorophenol	CT,NY,NC,ME,NH,VA
2,4,6-Trichlorophenol	CT,NY,NC,ME,NH,VA
2-Fluorophenol	NC

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
NC	North Carolina Div. of Water Quality	652	12/31/2023
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2023

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ENV-FRM-ELON-0001 V05__Sample Receiving Checklist

Log In Back-Sheet

Login Sample Receipt Checklist – (Rejection Criteria Listing
– Using Acceptance Policy) Any False statement will be
brought to the attention of the Client – True or False



Client Ramboll
Project Claremont Polychemical site
MCP/RCP Required N/A
Deliverable Package Requirement N/A
Location old Bethage, New York
PWSID# (When Applicable) N/A
Arrival Method:
Courier ☐ Fed Ex ☒ Walk In ☐ Other ☐
Received By / Date / Time AAM / 7-6-23 / 1001
Back-Sheet By / Date / Time AAM / 7-6-23 / 1215
Temperature Method Temp. Gun #5
Temp ☒ < 6° C Actual Temperature 2.5°C
Rush Samples: Yes ☐ No ☒ Notify _____
Short Hold: Yes ☐ No ☒ Notify _____

Notes regarding Samples/COC outside of SOP:

PFAS 1633 was split from
work order

	True	False
Received on Ice	☒	☐
Received in Cooler	☒	☐
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Splitting Samples Required	☒	☐
MS/MSD	☒	☐
Trip Blanks	☒	☐
Lab to Filters	☐	☒
COC Legible	☒	☐
COC Included: (Check all included)		
Client ☒	Analysis ☒	Sampler Name ☒
Project ☒	IDs ☒	Collection Date/Time ☒
All Samples Proper pH: <u>N/A</u> ☐ ☐		

Additional Container Notes

Sample	Soils Jars (Circle Amb/Clear)				Ambers				Plastics						VOA Vials					Other / Fill in												
	16oz Amb/Clear	8oz Amb/Clear	4oz Amb/Clear	2oz Amb/Clear	1 Liter		250mL		100mL	1 Liter		500mL		250mL						Unpreserved	HCl	MeOH	D.I. Water	BiSulfate	Col/Bact							
					Unpreserved	HCL	Sulfuric	Sulfuric	Phosphoric	HCl	Unpreserved	Unpreserved	Sulfuric	Unpreserved	Trizma	Sulfuric	Nitric	NaOH	NaOH/Zinc													
1																																
2																																
3																																
4																																
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20																																

July 21, 2023

Payson Long
NYDEC_Ramboll US Consulting, Inc. - Syracuse
333 West Washington Street, PO Box 4873
Syracuse, NY 13221

Project Location: Old Bethage, New York
Client Job Number:
Project Number: 130015
Laboratory Work Order Number: 23G0640

Enclosed are results of analyses for samples as received by the laboratory on July 6, 2023. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kyle A. Murray
Project Manager

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332NYDEC_Ramboll US Consulting, Inc. - Syracuse
333 West Washington Street, PO Box 4873
Syracuse, NY 13221
ATTN: Payson Long

REPORT DATE: 7/21/2023

PURCHASE ORDER NUMBER: 144165

PROJECT NUMBER: 130015

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 23G0640

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION: Old Bethage, New York

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
PD-CP-00-070523	23G0640-01	Ground Water		Draft Method 1633	
PD-CP-01-070523	23G0640-02	Ground Water		Draft Method 1633	
ASF-CP-00-070523	23G0640-03	Ground Water		Draft Method 1633	
ASF-CP-01-070523	23G0640-04	Ground Water		Draft Method 1633	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

Draft Method 1633**Qualifications:**

H-01

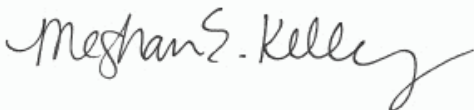
Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.

Analyte & Samples(s) Qualified:**Total Suspended Solids**

23G0640-01[PD-CP-00-070523], 23G0640-02[PD-CP-01-070523], 23G0640-03[ASF-CP-00-070523], 23G0640-04[ASF-CP-01-070523]

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.



Meghan E. Kelley
Reporting Specialist

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: PD-CP-00-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0640-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	24	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluoropentanoic acid (PFPeA)	18	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorohexanoic acid (PFHxA)	21	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluoroheptanoic acid (PFHpA)	11	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorooctanoic acid (PFOA)	31	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorononanoic acid (PFNA)	25	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorodecanoic acid (PFDA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorobutanesulfonic acid (PFBS)	3.7	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluoropentanesulfonic acid (PFPeS)	2.4	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorohexanesulfonic acid (PFHxS)	7.5	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorooctanesulfonic acid (PFOS)	14	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
N-EtFOSAA (NEtFOSAA)	1.5	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.5	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.5	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
11Cl-PF3OUDS (F53B Major)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.5	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	47	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	47	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS

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Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: PD-CP-00-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0640-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:31	AMS
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
13C4-PFBA	51.0	10-130						7/20/23 17:31	
13C5-PFPeA	79.9	35-150						7/20/23 17:31	
13C5-PFHxA	91.4	55-150						7/20/23 17:31	
13C4-PFHpA	104	55-150						7/20/23 17:31	
13C8-PFOA	93.7	60-140						7/20/23 17:31	
13C9-PFNA	88.6	55-140						7/20/23 17:31	
13C6-PFDA	88.6	50-140						7/20/23 17:31	
13C7-PFUnA	86.8	30-140						7/20/23 17:31	
13C2-PFDoA	83.8	10-150						7/20/23 17:31	
13C2-PFTeDA	79.4	10-130						7/20/23 17:31	
13C3-PFBS	95.8	55-150						7/20/23 17:31	
13C3-PFHxS	95.7	55-150						7/20/23 17:31	
13C8-PFOS	89.0	45-140						7/20/23 17:31	
13C2-4:2FTS	86.0	60-200						7/20/23 17:31	
13C2-6:2FTS	85.6	60-200						7/20/23 17:31	
13C2-8:2FTS	77.9	50-200						7/20/23 17:31	
13C8-PFOSA	92.2	30-130						7/20/23 17:31	
D3-NMeFOSA	62.2	15-130						7/20/23 17:31	
D5-NEtFOSA	61.5	10-130						7/20/23 17:31	
D3-NMeFOSAA	83.1	45-200						7/20/23 17:31	
D5-NEtFOSAA	88.6	10-200						7/20/23 17:31	
D7-NMeFOSE	78.6	10-150						7/20/23 17:31	
D9-NEtFOSE	80.3	10-150						7/20/23 17:31	
13C3-HFPO-DA	82.0	25-160						7/20/23 17:31	

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Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: PD-CP-00-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0640-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Suspended Solids	ND	10	mg/L	1	H-01	Draft Method 1633	7/14/23	7/14/23 11:50	RRB

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Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: PD-CP-01-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0640-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	25	3.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluoropentanoic acid (PFPeA)	17	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorohexanoic acid (PFHxA)	21	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluoroheptanoic acid (PFHpA)	11	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorooctanoic acid (PFOA)	31	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorononanoic acid (PFNA)	26	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorodecanoic acid (PFDA)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorobutanesulfonic acid (PFBS)	4.0	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluoropentanesulfonic acid (PFPeS)	2.4	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorohexanesulfonic acid (PFHxS)	7.8	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorooctanesulfonic acid (PFOS)	15	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
N-EtFOSAA (NEtFOSAA)	1.6	0.97	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.7	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.7	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	3.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
11Cl-PF3OUDS (F53B Major)	ND	3.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.7	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
2H,2H,3H,3H-Perfluorooctanoic acid(FPePA)(5:3FTCA)	ND	48	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	48	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: PD-CP-01-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0640-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 17:46	AMS
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
13C4-PFBA	59.8	10-130						7/20/23 17:46	
13C5-PFPeA	81.8	35-150						7/20/23 17:46	
13C5-PFHxA	94.9	55-150						7/20/23 17:46	
13C4-PFHpA	106	55-150						7/20/23 17:46	
13C8-PFOA	101	60-140						7/20/23 17:46	
13C9-PFNA	89.1	55-140						7/20/23 17:46	
13C6-PFDA	88.3	50-140						7/20/23 17:46	
13C7-PFUnA	90.1	30-140						7/20/23 17:46	
13C2-PFDoA	84.3	10-150						7/20/23 17:46	
13C2-PFTeDA	79.6	10-130						7/20/23 17:46	
13C3-PFBS	97.7	55-150						7/20/23 17:46	
13C3-PFHxS	94.4	55-150						7/20/23 17:46	
13C8-PFOS	89.2	45-140						7/20/23 17:46	
13C2-4:2FTS	82.8	60-200						7/20/23 17:46	
13C2-6:2FTS	81.3	60-200						7/20/23 17:46	
13C2-8:2FTS	73.4	50-200						7/20/23 17:46	
13C8-PFOSA	92.3	30-130						7/20/23 17:46	
D3-NMeFOSA	66.2	15-130						7/20/23 17:46	
D5-NEtFOSA	64.4	10-130						7/20/23 17:46	
D3-NMeFOSAA	84.7	45-200						7/20/23 17:46	
D5-NEtFOSAA	86.5	10-200						7/20/23 17:46	
D7-NMeFOSE	80.5	10-150						7/20/23 17:46	
D9-NEtFOSE	82.5	10-150						7/20/23 17:46	
13C3-HFPO-DA	84.8	25-160						7/20/23 17:46	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: PD-CP-01-070523

Sampled: 7/5/2023 09:30

Sample ID: 23G0640-02

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Suspended Solids	ND	10	mg/L	1	H-01	Draft Method 1633	7/14/23	7/14/23 11:50	RRB

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: ASF-CP-00-070523

Sampled: 7/5/2023 10:45

Sample ID: 23G0640-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	25	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluoropentanoic acid (PFPeA)	17	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorohexanoic acid (PFHxA)	21	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluoroheptanoic acid (PFHpA)	11	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorooctanoic acid (PFOA)	32	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorononanoic acid (PFNA)	25	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorodecanoic acid (PFDA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorobutanesulfonic acid (PFBS)	3.8	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluoropentanesulfonic acid (PFPeS)	2.4	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorohexanesulfonic acid (PFHxS)	8.1	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorooctanesulfonic acid (PFOS)	14	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
N-EtFOSAA (NEtFOSAA)	1.5	0.95	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.5	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.5	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
11Cl-PF3OUDS (F53B Major)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.5	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	47	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	47	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEESA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: ASF-CP-00-070523

Sampled: 7/5/2023 10:45

Sample ID: 23G0640-03

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:02	AMS
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
13C4-PFBA	88.3	10-130						7/20/23 18:02	
13C5-PFPeA	79.1	35-150						7/20/23 18:02	
13C5-PFHxA	90.9	55-150						7/20/23 18:02	
13C4-PFHpA	102	55-150						7/20/23 18:02	
13C8-PFOA	93.7	60-140						7/20/23 18:02	
13C9-PFNA	85.5	55-140						7/20/23 18:02	
13C6-PFDA	83.6	50-140						7/20/23 18:02	
13C7-PFUnA	76.5	30-140						7/20/23 18:02	
13C2-PFDoA	72.8	10-150						7/20/23 18:02	
13C2-PFTeDA	65.4	10-130						7/20/23 18:02	
13C3-PFBS	92.6	55-150						7/20/23 18:02	
13C3-PFHxS	87.9	55-150						7/20/23 18:02	
13C8-PFOS	87.2	45-140						7/20/23 18:02	
13C2-4:2FTS	82.6	60-200						7/20/23 18:02	
13C2-6:2FTS	78.8	60-200						7/20/23 18:02	
13C2-8:2FTS	67.0	50-200						7/20/23 18:02	
13C8-PFOSA	76.4	30-130						7/20/23 18:02	
D3-NMeFOSA	54.2	15-130						7/20/23 18:02	
D5-NEtFOSA	50.8	10-130						7/20/23 18:02	
D3-NMeFOSAA	67.2	45-200						7/20/23 18:02	
D5-NEtFOSAA	69.8	10-200						7/20/23 18:02	
D7-NMeFOSE	64.5	10-150						7/20/23 18:02	
D9-NEtFOSE	60.8	10-150						7/20/23 18:02	
13C3-HFPO-DA	85.6	25-160						7/20/23 18:02	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: ASF-CP-00-070523

Sampled: 7/5/2023 10:45

Sample ID: 23G0640-03

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Suspended Solids	18	10	mg/L	1	H-01	Draft Method 1633	7/14/23	7/14/23 11:50	RRB

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: ASF-CP-01-070523

Sampled: 7/5/2023 10:45

Sample ID: 23G0640-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluorobutanoic acid (PFBA)	22	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluoropentanoic acid (PFPeA)	18	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorohexanoic acid (PFHxA)	20	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluoroheptanoic acid (PFHpA)	11	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorooctanoic acid (PFOA)	32	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorononanoic acid (PFNA)	26	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorodecanoic acid (PFDA)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluoroundecanoic acid (PFUnA)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorododecanoic acid (PFDoA)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorotridecanoic acid (PFTrDA)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorotetradecanoic acid (PFTeDA)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorobutanesulfonic acid (PFBS)	3.8	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluoropentanesulfonic acid (PFPeS)	2.5	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorohexanesulfonic acid (PFHxS)	7.4	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorooctanesulfonic acid (PFOS)	14	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorononanesulfonic acid (PFNS)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorodecanesulfonic acid (PFDS)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorododecanesulfonic acid (PFDoS)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluorooctanesulfonamide (PFOSA)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
N-MeFOSAA (NMeFOSAA)	ND	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
N-EtFOSAA (NEtFOSAA)	1.5	0.96	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.6	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.6	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
9Cl-PF3ONS (F53B Minor)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
11Cl-PF3OUDS (F53B Major)	ND	3.8	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.6	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	ND	48	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	48	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: ASF-CP-01-070523

Sampled: 7/5/2023 10:45

Sample ID: 23G0640-04

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - LC/MS-MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	1.9	ng/L	1		Draft Method 1633	7/18/23	7/20/23 18:18	AMS
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
13C4-PFBA	83.3	10-130						7/20/23 18:18	
13C5-PFPeA	72.2	35-150						7/20/23 18:18	
13C5-PFHxA	84.5	55-150						7/20/23 18:18	
13C4-PFHpA	96.4	55-150						7/20/23 18:18	
13C8-PFOA	87.0	60-140						7/20/23 18:18	
13C9-PFNA	79.4	55-140						7/20/23 18:18	
13C6-PFDA	79.9	50-140						7/20/23 18:18	
13C7-PFUnA	76.4	30-140						7/20/23 18:18	
13C2-PFDoA	68.3	10-150						7/20/23 18:18	
13C2-PFTeDA	61.9	10-130						7/20/23 18:18	
13C3-PFBS	85.1	55-150						7/20/23 18:18	
13C3-PFHxS	83.0	55-150						7/20/23 18:18	
13C8-PFOS	83.0	45-140						7/20/23 18:18	
13C2-4:2FTS	77.1	60-200						7/20/23 18:18	
13C2-6:2FTS	74.4	60-200						7/20/23 18:18	
13C2-8:2FTS	62.9	50-200						7/20/23 18:18	
13C8-PFOSA	72.7	30-130						7/20/23 18:18	
D3-NMeFOSA	53.3	15-130						7/20/23 18:18	
D5-NEtFOSA	50.0	10-130						7/20/23 18:18	
D3-NMeFOSAA	66.3	45-200						7/20/23 18:18	
D5-NEtFOSAA	69.7	10-200						7/20/23 18:18	
D7-NMeFOSE	58.5	10-150						7/20/23 18:18	
D9-NEtFOSE	55.6	10-150						7/20/23 18:18	
13C3-HFPO-DA	77.8	25-160						7/20/23 18:18	

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Old Bethage, New York

Sample Description:

Work Order: 23G0640

Date Received: 7/6/2023

Field Sample #: ASF-CP-01-070523

Sampled: 7/5/2023 10:45

Sample ID: 23G0640-04

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Suspended Solids	ND	10	mg/L	1	H-01	Draft Method 1633	7/14/23	7/14/23 11:50	RRB

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Sample Extraction Data**Prep Method:**Draft Method 1633 **Analytical Method:**Draft Method 1633 **Leachates were extracted on 7/14/2023 per NO PREP in Batch B345592**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
23G0640-01 [PD-CP-00-070523]	B345527	528	5.00	07/18/23
23G0640-02 [PD-CP-01-070523]	B345527	517	5.00	07/18/23
23G0640-03 [ASF-CP-00-070523]	B345527	528	5.00	07/18/23
23G0640-04 [ASF-CP-01-070523]	B345527	520	5.00	07/18/23

Draft Method 1633

Lab Number [Field ID]	Batch	Initial [mL]	Date
23G0640-01 [PD-CP-00-070523]	B345592	50.0	07/14/23
23G0640-02 [PD-CP-01-070523]	B345592	50.0	07/14/23
23G0640-03 [ASF-CP-00-070523]	B345592	50.0	07/14/23
23G0640-04 [ASF-CP-01-070523]	B345592	50.0	07/14/23

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345527 - Draft Method 1633										
Blank (B345527-BLK1)				Prepared: 07/18/23 Analyzed: 07/20/23						
Perfluorobutanoic acid (PFBA)	ND	3.9	ng/L							
Perfluoropentanoic acid (PFPeA)	ND	2.0	ng/L							
Perfluorohexanoic acid (PFHxA)	ND	0.98	ng/L							
Perfluoroheptanoic acid (PFHpA)	ND	0.98	ng/L							
Perfluorooctanoic acid (PFOA)	ND	0.98	ng/L							
Perfluorononanoic acid (PFNA)	ND	0.98	ng/L							
Perfluorodecanoic acid (PFDA)	ND	0.98	ng/L							
Perfluoroundecanoic acid (PFUnA)	ND	0.98	ng/L							
Perfluorododecanoic acid (PFDoA)	ND	0.98	ng/L							
Perfluorotridecanoic acid (PFTrDA)	ND	0.98	ng/L							
Perfluorotetradecanoic acid (PFTeDA)	ND	0.98	ng/L							
Perfluorobutanesulfonic acid (PFBS)	ND	0.98	ng/L							
Perfluoropentanesulfonic acid (PFPeS)	ND	0.98	ng/L							
Perfluorohexanesulfonic acid (PFHxS)	ND	0.98	ng/L							
Perfluoroheptanesulfonic acid (PFHpS)	ND	0.98	ng/L							
Perfluorooctanesulfonic acid (PFOS)	ND	0.98	ng/L							
Perfluorononanesulfonic acid (PFNS)	ND	0.98	ng/L							
Perfluorodecanesulfonic acid (PFDS)	ND	0.98	ng/L							
Perfluorododecanesulfonic acid (PFDoS)	ND	0.98	ng/L							
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	ND	3.9	ng/L							
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	ND	3.9	ng/L							
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	ND	3.9	ng/L							
Perfluorooctanesulfonamide (PFOSA)	ND	0.98	ng/L							
N-methyl perfluorooctanesulfonamide (NMeFOSA)	ND	0.98	ng/L							
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	ND	0.98	ng/L							
N-MeFOSAA (NMeFOSAA)	ND	0.98	ng/L							
N-EtFOSAA (NEtFOSAA)	ND	0.98	ng/L							
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	ND	9.8	ng/L							
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	ND	9.8	ng/L							
Hexafluoropropylene oxide dimer acid (HFPO-DA)	ND	3.9	ng/L							
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	ND	3.9	ng/L							
9Cl-PF3ONS (F53B Minor)	ND	3.9	ng/L							
11Cl-PF3OUdS (F53B Major)	ND	3.9	ng/L							
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	ND	9.8	ng/L							
2H,2H,3H,3H-Perfluorooctanoic acid(FPePA)(5:3FTCA)	ND	49	ng/L							
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	ND	49	ng/L							
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	ND	2.0	ng/L							
Perfluoro-3-methoxypropanoic acid (PFMPA)	ND	2.0	ng/L							
Perfluoro-4-methoxybutanoic acid (PFMBA)	ND	2.0	ng/L							
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	ND	2.0	ng/L							
Surrogate: 13C4-PFBA	90.9		ng/L	98.4		92.4	10-130			

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B345527 - Draft Method 1633
Blank (B345527-BLK1)

Prepared: 07/18/23 Analyzed: 07/20/23

Surrogate: 13C5-PFPeA	46.6		ng/L	49.2		94.8	35-150			
Surrogate: 13C5-PFHxA	23.6		ng/L	24.6		95.9	55-150			
Surrogate: 13C4-PFHpA	24.0		ng/L	24.6		97.8	55-150			
Surrogate: 13C8-PFOA	23.9		ng/L	24.6		97.2	60-140			
Surrogate: 13C9-PFNA	10.7		ng/L	12.3		87.4	55-140			
Surrogate: 13C6-PFDA	10.7		ng/L	12.3		86.8	50-140			
Surrogate: 13C7-PFUnA	10.4		ng/L	12.3		84.7	30-140			
Surrogate: 13C2-PFDoA	9.72		ng/L	12.3		79.1	10-150			
Surrogate: 13C2-PFTeDA	9.40		ng/L	12.3		76.4	10-130			
Surrogate: 13C3-PFBS	23.7		ng/L	24.6		96.5	55-150			
Surrogate: 13C3-PFHxS	22.8		ng/L	24.6		92.7	55-150			
Surrogate: 13C8-PFOS	22.3		ng/L	24.6		90.6	45-140			
Surrogate: 13C2-4:2FTS	37.9		ng/L	49.2		77.0	60-200			
Surrogate: 13C2-6:2FTS	39.0		ng/L	49.2		79.3	60-200			
Surrogate: 13C2-8:2FTS	37.1		ng/L	49.2		75.4	50-200			
Surrogate: 13C8-PFOA	20.9		ng/L	24.6		84.8	30-130			
Surrogate: D3-NMeFOSA	16.2		ng/L	24.6		65.7	15-130			
Surrogate: D5-NEtFOSA	16.1		ng/L	24.6		65.6	10-130			
Surrogate: D3-NMeFOSAA	41.5		ng/L	49.2		84.3	45-200			
Surrogate: D5-NEtFOSAA	39.7		ng/L	49.2		80.8	10-200			
Surrogate: D7-NMeFOSE	192		ng/L	246		78.2	10-150			
Surrogate: D9-NEtFOSE	190		ng/L	246		77.2	10-150			
Surrogate: 13C3-HFPO-DA	89.9		ng/L	98.4		91.4	25-160			

LCS (B345527-BS1)

Prepared: 07/18/23 Analyzed: 07/20/23

Perfluorobutanoic acid (PFBA)	91.4	4.0	ng/L	95.0		96.2	58-148			
Perfluoropentanoic acid (PFPeA)	45.0	2.0	ng/L	47.5		94.7	54-152			
Perfluorohexanoic acid (PFHxA)	22.2	0.99	ng/L	23.8		93.4	55-152			
Perfluoroheptanoic acid (PFHpA)	21.9	0.99	ng/L	23.8		92.1	54-154			
Perfluorooctanoic acid (PFOA)	21.6	0.99	ng/L	23.8		90.9	52-161			
Perfluorononanoic acid (PFNA)	22.9	0.99	ng/L	23.8		96.6	59-149			
Perfluorodecanoic acid (PFDA)	22.4	0.99	ng/L	23.8		94.1	52-147			
Perfluoroundecanoic acid (PFUnA)	22.1	0.99	ng/L	23.8		92.8	48-159			
Perfluorododecanoic acid (PFDoA)	22.5	0.99	ng/L	23.8		94.7	64-142			
Perfluorotridecanoic acid (PFTTrDA)	22.6	0.99	ng/L	23.8		95.0	49-148			
Perfluorotetradecanoic acid (PFTeDA)	23.4	0.99	ng/L	23.8		98.7	47-161			
Perfluorobutanesulfonic acid (PFBS)	20.4	0.99	ng/L	21.1		96.8	62-144			
Perfluoropentanesulfonic acid (PFPeS)	21.6	0.99	ng/L	22.3		96.8	59-151			
Perfluorohexanesulfonic acid (PFHxS)	20.3	0.99	ng/L	21.7		93.4	57-146			
Perfluoroheptanesulfonic acid (PFHpS)	22.2	0.99	ng/L	22.6		98.0	55-152			
Perfluorooctanesulfonic acid (PFOS)	20.3	0.99	ng/L	22.0		92.0	58-149			
Perfluorononanesulfonic acid (PFNS)	20.4	0.99	ng/L	22.9		89.2	52-148			
Perfluorodecanesulfonic acid (PFDS)	19.7	0.99	ng/L	22.9		85.9	51-147			
Perfluorododecanesulfonic acid (PFDoS)	20.3	0.99	ng/L	23.0		88.3	36-145			
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	87.3	4.0	ng/L	89.1		97.9	67-146			
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	87.6	4.0	ng/L	90.3		97.1	61-151			
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	90.6	4.0	ng/L	91.5		99.0	63-152			
Perfluorooctanesulfonamide (PFOSA)	22.6	0.99	ng/L	23.8		94.9	61-148			
N-methyl perfluorooctanesulfonamide (NMeFOSA)	22.6	0.99	ng/L	23.8		95.1	63-145			

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B345527 - Draft Method 1633
LCS (B345527-BS1)

Prepared: 07/18/23 Analyzed: 07/20/23

N-ethyl perfluorooctanesulfonamide (NEtFOSA)	21.0	0.99	ng/L	23.8		88.6	65-139			
N-MeFOSAA (NMeFOSAA)	22.6	0.99	ng/L	23.8		95.0	58-144			
N-EtFOSAA (NEtFOSAA)	22.3	0.99	ng/L	23.8		93.7	59-146			
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	232	9.9	ng/L	238		97.5	71-136			
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	229	9.9	ng/L	238		96.2	69-137			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	96.0	4.0	ng/L	95.0		101	63-144			
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	87.3	4.0	ng/L	89.7		97.3	68-146			
9Cl-PF3ONS (F53B Minor)	80.2	4.0	ng/L	89.1		90.0	56-156			
11Cl-PF3OUDS (F53B Major)	81.0	4.0	ng/L	89.7		90.3	46-156			
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	242	9.9	ng/L	238		102	62-129			
2H,2H,3H,3H-Perfluorooctanoic acid(FPePA)(5:3FTCA)	1180	49	ng/L	1190		99.1	63-134			
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	1120	49	ng/L	1190		94.6	50-138			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	39.2	2.0	ng/L	42.3		92.6	56-151			
Perfluoro-3-methoxypropanoic acid (PFMPA)	45.1	2.0	ng/L	47.5		95.0	51-145			
Perfluoro-4-methoxybutanoic acid (PFMBA)	44.4	2.0	ng/L	47.5		93.5	55-148			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	46.7	2.0	ng/L	47.5		98.2	48-161			
Surrogate: 13C4-PFBA	87.1		ng/L	99.0		88.0	10-130			
Surrogate: 13C5-PFPeA	43.2		ng/L	49.5		87.2	35-150			
Surrogate: 13C5-PFHxA	22.3		ng/L	24.7		90.0	55-150			
Surrogate: 13C4-PFHpA	21.8		ng/L	24.7		88.2	55-150			
Surrogate: 13C8-PFOA	22.3		ng/L	24.7		90.1	60-140			
Surrogate: 13C9-PFNA	10.8		ng/L	12.4		87.1	55-140			
Surrogate: 13C6-PFDA	10.8		ng/L	12.4		86.9	50-140			
Surrogate: 13C7-PFUnA	10.6		ng/L	12.4		85.9	30-140			
Surrogate: 13C2-PFDoA	9.93		ng/L	12.4		80.3	10-150			
Surrogate: 13C2-PFTeDA	9.64		ng/L	12.4		77.9	10-130			
Surrogate: 13C3-PFBS	21.7		ng/L	24.7		87.6	55-150			
Surrogate: 13C3-PFHxS	21.1		ng/L	24.7		85.3	55-150			
Surrogate: 13C8-PFOS	21.1		ng/L	24.7		85.3	45-140			
Surrogate: 13C2-4:2FTS	37.6		ng/L	49.5		76.0	60-200			
Surrogate: 13C2-6:2FTS	39.6		ng/L	49.5		80.0	60-200			
Surrogate: 13C2-8:2FTS	37.9		ng/L	49.5		76.7	50-200			
Surrogate: 13C8-PFOSA	19.4		ng/L	24.7		78.4	30-130			
Surrogate: D3-NMeFOSA	16.3		ng/L	24.7		65.7	15-130			
Surrogate: D5-NEtFOSA	16.8		ng/L	24.7		68.0	10-130			
Surrogate: D3-NMeFOSAA	38.7		ng/L	49.5		78.2	45-200			
Surrogate: D5-NEtFOSAA	37.8		ng/L	49.5		76.4	10-200			
Surrogate: D7-NMeFOSE	184		ng/L	247		74.3	10-150			
Surrogate: D9-NEtFOSE	183		ng/L	247		73.8	10-150			
Surrogate: 13C3-HFPO-DA	85.6		ng/L	99.0		86.5	25-160			

MRL Check (B345527-MRL1)

Prepared: 07/18/23 Analyzed: 07/20/23

Perfluorobutanoic acid (PFBA)	8.83	4.0	ng/L	7.92		111	44-157			
Perfluoropentanoic acid (PFPeA)	4.32	2.0	ng/L	3.96		109	57-148			

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B345527 - Draft Method 1633										
MRL Check (B345527-MRL1)										
Prepared: 07/18/23 Analyzed: 07/20/23										
Perfluorohexanoic acid (PFHxA)	2.03	0.99	ng/L	1.98		103	62-149			
Perfluoroheptanoic acid (PFHpA)	2.02	0.99	ng/L	1.98		102	56-150			
Perfluorooctanoic acid (PFOA)	2.03	0.99	ng/L	1.98		103	57-161			
Perfluorononanoic acid (PFNA)	2.00	0.99	ng/L	1.98		101	53-157			
Perfluorodecanoic acid (PFDA)	2.02	0.99	ng/L	1.98		102	43-158			
Perfluoroundecanoic acid (PFUnA)	1.96	0.99	ng/L	1.98		99.1	50-155			
Perfluorododecanoic acid (PFDoA)	2.22	0.99	ng/L	1.98		112	60-141			
Perfluorotridecanoic acid (PFTrDA)	2.09	0.99	ng/L	1.98		106	52-140			
Perfluorotetradecanoic acid (PFTeDA)	2.17	0.99	ng/L	1.98		109	52-156			
Perfluorobutanesulfonic acid (PFBS)	1.81	0.99	ng/L	1.76		103	63-145			
Perfluoropentanesulfonic acid (PFPeS)	2.29	0.99	ng/L	1.86		123	58-144			
Perfluorohexanesulfonic acid (PFHxS)	2.05	0.99	ng/L	1.81		113	44-158			
Perfluoroheptanesulfonic acid (PFHpS)	1.89	0.99	ng/L	1.89		100	51-150			
Perfluorooctanesulfonic acid (PFOS)	1.98	0.99	ng/L	1.84		108	43-162			
Perfluorononanesulfonic acid (PFNS)	2.01	0.99	ng/L	1.91		105	46-151			
Perfluorodecanesulfonic acid (PFDS)	1.80	0.99	ng/L	1.91		94.3	50-144			
Perfluorododecanesulfonic acid (PFDoS)	1.91	0.99	ng/L	1.92		99.3	30-138			
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	8.18	4.0	ng/L	7.43		110	52-158			
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	7.82	4.0	ng/L	7.53		104	48-158			
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	8.35	4.0	ng/L	7.62		109	46-165			
Perfluorooctanesulfonamide (PFOSA)	2.15	0.99	ng/L	1.98		109	47-163			
N-methyl perfluorooctanesulfonamide (NMeFOSA)	1.90	0.99	ng/L	1.98		95.8	54-155			
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	2.11	0.99	ng/L	1.98		107	49-156			
N-MeFOSAA (NMeFOSAA)	2.23	0.99	ng/L	1.98		112	32-160			
N-EtFOSAA (NEtFOSAA)	2.18	0.99	ng/L	1.98		110	51-154			
N-methylperfluorooctanesulfonamidoethanol (NMeFOSE)	22.4	9.9	ng/L	19.8		113	56-151			
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	20.6	9.9	ng/L	19.8		104	60-147			
Hexafluoropropylene oxide dimer acid (HFPO-DA)	7.97	4.0	ng/L	7.92		101	58-154			
4,8-Dioxo-3H-perfluorononanoic acid (ADONA)	7.05	4.0	ng/L	7.48		94.4	61-148			
9Cl-PF3ONS (F53B Minor)	6.42	4.0	ng/L	7.43		86.4	44-167			
11Cl-PF3OUDS (F53B Major)	6.50	4.0	ng/L	7.48		87.0	36-158			
3-Perfluoropropyl propanoic acid (FPrPA) (3:3FTCA)	21.4	9.9	ng/L	19.8		108	32-161			
2H,2H,3H,3H-Perfluorooctanoic acid (FPePA)(5:3FTCA)	112	50	ng/L	99.0		113	39-156			
3-Perfluoroheptyl propanoic acid (FHpPA) (7:3FTCA)	104	50	ng/L	99.0		105	36-149			
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEESA)	3.53	2.0	ng/L	3.52		100	56-144			
Perfluoro-3-methoxypropanoic acid (PFMPA)	4.11	2.0	ng/L	3.96		104	48-150			
Perfluoro-4-methoxybutanoic acid (PFMBA)	3.89	2.0	ng/L	3.96		98.2	49-154			
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.89	2.0	ng/L	3.96		98.2	47-160			
Surrogate: 13C4-PFBA	87.0		ng/L	99.0		87.9	10-130			
Surrogate: 13C5-PFPeA	42.6		ng/L	49.5		86.1	35-150			
Surrogate: 13C5-PFHxA	21.9		ng/L	24.8		88.4	55-150			

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QUALITY CONTROL
Semivolatile Organic Compounds by - LC/MS-MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B345527 - Draft Method 1633
MRL Check (B345527-MRL1)

Prepared: 07/18/23 Analyzed: 07/20/23

Surrogate: 13C4-PFHpA	22.0		ng/L	24.8		88.8	55-150			
Surrogate: 13C8-PFOA	22.4		ng/L	24.8		90.4	60-140			
Surrogate: 13C9-PFNA	10.4		ng/L	12.4		84.4	55-140			
Surrogate: 13C6-PFDA	10.9		ng/L	12.4		88.3	50-140			
Surrogate: 13C7-PFUnA	10.3		ng/L	12.4		83.5	30-140			
Surrogate: 13C2-PFDoA	9.63		ng/L	12.4		77.8	10-150			
Surrogate: 13C2-PFTeDA	9.55		ng/L	12.4		77.2	10-130			
Surrogate: 13C3-PFBS	21.7		ng/L	24.8		87.6	55-150			
Surrogate: 13C3-PFHxS	20.8		ng/L	24.8		84.0	55-150			
Surrogate: 13C8-PFOS	21.5		ng/L	24.8		86.7	45-140			
Surrogate: 13C2-4:2FTS	35.2		ng/L	49.5		71.0	60-200			
Surrogate: 13C2-6:2FTS	36.6		ng/L	49.5		73.9	60-200			
Surrogate: 13C2-8:2FTS	35.6		ng/L	49.5		72.0	50-200			
Surrogate: 13C8-PFOSA	19.9		ng/L	24.8		80.3	30-130			
Surrogate: D3-NMeFOSA	15.5		ng/L	24.8		62.8	15-130			
Surrogate: D5-NEtFOSA	15.6		ng/L	24.8		63.1	10-130			
Surrogate: D3-NMeFOSAA	38.8		ng/L	49.5		78.3	45-200			
Surrogate: D5-NEtFOSAA	38.9		ng/L	49.5		78.6	10-200			
Surrogate: D7-NMeFOSE	182		ng/L	248		73.6	10-150			
Surrogate: D9-NEtFOSE	184		ng/L	248		74.4	10-150			
Surrogate: 13C3-HFPO-DA	85.3		ng/L	99.0		86.1	25-160			

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B345592 - Draft Method 1633
Blank (B345592-BLK1)

Prepared & Analyzed: 07/14/23

Total Suspended Solids	ND	5.0	mg/L							
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LCS (B345592-BS1)

Prepared & Analyzed: 07/14/23

Total Suspended Solids	213	5.0	mg/L	200		106	64.1-125			
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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332**FLAG/QUALIFIER SUMMARY**

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-01	Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.

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CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>Draft Method 1633 in Water</i>	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
Perfluorobutanoic acid (PFBA)	NH-P,NY,PA,WV
Perfluoropentanoic acid (PFPeA)	NH-P,NY,PA,WV
Perfluorohexanoic acid (PFHxA)	NH-P,NY,PA,WV
Perfluoroheptanoic acid (PFHpA)	NH-P,NY,PA,WV
Perfluorooctanoic acid (PFOA)	NH-P,NY,PA,WV
Perfluorononanoic acid (PFNA)	NH-P,NY,PA,WV
Perfluorodecanoic acid (PFDA)	NH-P,NY,PA,WV
Perfluoroundecanoic acid (PFUnA)	NH-P,NY,PA,WV
Perfluorododecanoic acid (PFDoA)	NH-P,NY,PA,WV
Perfluorotridecanoic acid (PFTrDA)	NH-P,NY,PA,WV
Perfluorotetradecanoic acid (PFTeDA)	NH-P,NY,PA,WV
Perfluorobutanesulfonic acid (PFBS)	NH-P,NY,PA,WV
Perfluoropentanesulfonic acid (PFPeS)	NH-P,NY,PA,WV
Perfluorohexanesulfonic acid (PFHxS)	NH-P,NY,PA,WV
Perfluoroheptanesulfonic acid (PFHpS)	NH-P,NY,PA,WV
Perfluorooctanesulfonic acid (PFOS)	NH-P,NY,PA,WV
Perfluorononanesulfonic acid (PFNS)	NH-P,PA,WV
Perfluorodecanesulfonic acid (PFDS)	NH-P,PA,WV
Perfluorododecanesulfonic acid (PFDoS)	NH-P,PA,WV
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2FTS)	NH-P,PA,WV
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2FTS)	NH-P,NY,PA,WV
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2FTS)	NH-P,NY,PA,WV
Perfluorooctanesulfonamide (PFOSA)	NH-P,PA,WV
N-methyl perfluorooctanesulfonamide (NMeFOSA)	NH-P,PA,WV
N-ethyl perfluorooctanesulfonamide (NEtFOSA)	NH-P,PA,WV
N-MeFOSAA (NMeFOSAA)	NH-P,NY,PA,WV
N-EtFOSAA (NEtFOSAA)	NH-P,NY,PA,WV
N-methylperfluorooctanesulfonamidoethanol(NMeFOSE)	NH-P,PA,WV
N-ethylperfluorooctanesulfonamidoethanol (NEtFOSE)	NH-P,PA,WV
Hexafluoropropylene oxide dimer acid (HFPO-DA)	NH-P,NY,PA,WV
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	NH-P,NY,PA,WV
9Cl-PF3ONS (F53B Minor)	NH-P,NY,PA,WV
11Cl-PF3OUdS (F53B Major)	NH-P,NY,PA,WV
3-Perfluoropropyl propanoic acid (FPrPA)(3:3FTCA)	NH-P,PA,WV
2H,2H,3H,3H-Perfluorooctanoic acid(FPePA)(5:3FTCA)	NH-P,PA,WV
3-Perfluoroheptyl propanoic acid (FHpPA)(7:3FTCA)	NH-P,PA,WV
Perfluoro(2-ethoxyethane)sulfonic acid (PFEEA)	NH-P,NY,PA,WV
Perfluoro-3-methoxypropanoic acid (PFMPA)	NH-P,NY,PA,WV
Perfluoro-4-methoxybutanoic acid (PFMBA)	NH-P,PA,WV
Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	NH-P,PA,WV

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Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
MA	Massachusetts DEP	M-MA100	06/30/2024
CT	Connecticut Department of Public Health	PH-0821	12/31/2024
NY	New York State Department of Health	10899 NELAP	04/1/2024
NH	New Hampshire Environmental Lab	2516 NELAP	02/5/2024
RI	Rhode Island Department of Health	LAO00373	12/30/2023
NC	North Carolina Div. of Water Quality	652	12/31/2023
ME	State of Maine	MA00100	06/9/2025
VA	Commonwealth of Virginia	460217	12/14/2023
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2023
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2024
WV	West Virginia DEP Division of Water and Waste Management	419	08/31/2024

OU-5 July 2023 Monthly System Samples

Use the top boxes if the samples are to be shipped via courier (e.g., Fed Ex)						
Relinquished by: Jf: _____ GES, Inc.	Date:	7/5/23	Courier Name:	FedEx	Date:	7/5/23
	Time:	1140	Tracking #:	FEDCS MNR	Time:	1140
	Date:		Courier Name:		Date:	
	Time:		Tracking #:		Time:	
	Date:		Received By:	Mb 2-5c	Date:	7-6-23
Relinquished by:					Time:	1001
Jf: _____	Courier Name:	FedEx				
Page 27 of 30 KAW						

(<https://www.fedex.com/en-us/home.html>)

Sign Up or Log In

FedEx® Tracking



DELIVERED

Thursday

7/6/2023 at 10:01 am

Signed for by: L.ARROYO

↓ Obtain proof of delivery

How was your delivery?



DELIVERY STATUS

Delivered

TRACKING ID

791370469138

FROM

OLD BETHPAGE, NY US

Label Created

6/29/2023 11:06 AM

PACKAGE RECEIVED BY FEDEX

MELVILLE, NY

7/5/2023 11:19 AM

IN TRANSIT

WINDSOR LOCKS, CT

7/6/2023 7:25 AM

OUT FOR DELIVERY

WINDSOR LOCKS, CT

7/6/2023 7:35 AM

DELIVERED

East Longmeadow, MA US

Delivered

7/6/2023 at 10:01 AM

↓ View travel history

Want updates on this shipment? Enter your email and we will do the rest!

YOUR EMAIL

MORE OPTIONS

SUBMIT

ASK FEDEX

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.pacelabs.com

ENV-FRM-ELON-0001 V05__ Sample Receiving Checklist

Log In Back-Sheet

Login Sample Receipt Checklist – (Rejection Criteria Listing
– Using Acceptance Policy) Any False statement will be
brought to the attention of the Client – True or False



Client Ramboll
Project Claremont Polychemical Site
MCP/RCP Required NIA
Deliverable Package Requirement NIA
Location old Bethage, New York
PWSID# (When Applicable) NIA
Arrival Method:
Courier ☐ Fed Ex ☒ Walk In ☐ Other ☐
Received By / Date / Time AAM / 7-6-23 / 1001
Back-Sheet By / Date / Time AAM / 7-6-23 / 1215
Temperature Method Temp. Gun # 5
Temp ☒ < 6° C Actual Temperature 2.5° C
Rush Samples: Yes ☐ No ☒ Notify _____
Short Hold: Yes ☐ No ☒ Notify _____

Notes regarding Samples/COC outside of SOP:

PEAS 1633 was split from
work order

	True	False
Received on Ice	☒	☐
Received in Cooler	☒	☐
Custody Seal: DATE TIME	☐	☒
COC Relinquished	☒	☐
COC/Samples Labels Agree	☒	☐
All Samples in Good Condition	☒	☐
Samples Received within Holding Time	☒	☐
Is there enough Volume	☒	☐
Proper Media/Container Used	☒	☐
Splitting Samples Required	☒	☐
MS/MSD	☐	☒
Trip Blanks	☐	☒
Lab to Filters	☐	☒
COC Legible	☒	☐
COC Included: (Check all included)		
Client ☒	Analysis ☒	Sampler Name ☒
Project ☒	IDs ☒	Collection Date/Time ☒
All Samples Proper pH: <u>N/A</u> ☐ ☐		

Additional Container Notes

Sample	Soils Jars (Circle Amb/Clear)				Ambers				Plastics						VOA Vials					Other / Fill in				
	16oz Amb/Clear	8oz Amb/Clear	4oz Amb/Clear	2oz Amb/Clear	1 Liter		250mL		100mL	1 Liter		500mL	250mL					Unpreserved	HCl	MeOH	D.I. Water	BiSulfate	Col/Bact	Other
					Unpreserved	Sulfuric	Sulfuric	Phosphoric	HCl	Unpreserved	Sulfuric	Sulfuric	Unpreserved	Trizma	Sulfuric	Nitric	NaOH	NaOH/Zinc						
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