



2019 Site Management Periodic Review Report – Love Canal Site

NYSDEC Site No. 932020
Niagara Falls, New York

Glenn Springs Holdings, Inc.

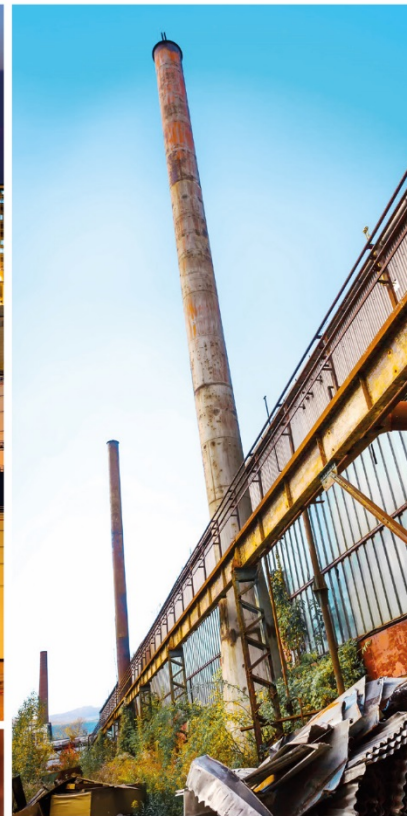




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1. Introduction

Operation of the Love Canal Site (Site) was transferred from the New York State Department of Environmental Conservation (NYSDEC) to Occidental Chemical Corporation (OCC) in April 1995. Effective July 1, 1998, Site responsibility was assigned by OCC to Glenn Springs Holdings, Inc. (GSH), an affiliate of OCC. Since October 1, 2008, GHD Services, Inc. (GHD), formerly Conestoga-Rovers & Associates (CRA), has performed operation, maintenance, monitoring, and reporting activities for the Site under contract to and direct management of GSH.

This report is the twenty-fifth annual report prepared by or on behalf of OCC and covers operation, maintenance, and monitoring activities for 2019. The completed 2019 NYSDEC Institutional and Engineering Controls Certification Form is included as Appendix A.

2. Remedial Systems

Operation of remedial systems to prevent the off-Site migration of chemical contaminants from the Site began in October 1978 with the installation of a barrier drain along the east and west sides of the South Sector of the Canal. The barrier drain was later extended to completely encompass the entire area of disposed waste within the Central and North Sectors of the Canal. The barrier drain, designed to intercept the shallow overburden lateral groundwater flow, consists of a trench approximately 4 feet wide that varies in depth from approximately 12 to 25 feet deep depending on location at the Site. Installed within the trench is a perforated vitrified clay tile pipe. The pipe is 6-inch diameter in the Central and North Sectors and both 6-inch and 8-inch diameter in the South Sector. The pipe is centered in a minimum of 2 feet of uniformly sized gravel, which is overlain with coarse sand extending to the existing ground surface present at the time of construction. Thirty-two lateral trenches, approximately 12 to 19 feet deep, filled with a minimum of 2 feet of gravel and overlain with sand similar to the barrier drain, were dug perpendicular to the barrier drain in the direction of the Canal. The majority of these laterals extend into the disposed waste. The barrier drain is graded from two highpoints, one in the southeast corner and the other in the northeast corner, toward a series of manholes which drain to four pump chambers (PC-1A/PC-2A in the North/Central Sector and PC-1/PC-2 in the South Sector) where the leachate is collected. The collected leachate is pumped from the four pump chambers to two other pump chambers connected to underground holding tanks (PC-3A in the North/Central Sector and PC-3 in the South Sector) where it is temporarily stored. From that point, the leachate is pumped to the on-Site Love Canal Treatment Facility (LCTF) where it is treated and discharged to the Niagara Falls Water Board (NFWB) sanitary sewer system under the Site's Significant Industrial User (SIU) Permit #44. The locations of the remedial system components are illustrated on the Site Plan presented as Figure 2.1.

The installation of a 22-acre clay cap over the entire former Canal area was completed in October 1980 following completion of the barrier drain collection system. The purpose of the cap is to reduce infiltration of precipitation. The thickness of the clay cap is a minimum of 3 feet. In 1985, a second (40-acre) cap was installed over the initial clay cap area. The newer cap consists of a 40-mil high density polyethylene (HDPE) liner covered by 18 inches of clean soil and vegetation.



In March 1999, the adjacent 102nd Street Landfill Site leachate collection system was connected to the Love Canal Site to facilitate the transfer of leachate from the 102nd Street landfill into Love Canal's pump chamber PC-3 for treatment at the LCTF.

2.1 Operations of the Barrier Drain and Collection System

2.1.1 Barrier Drain System

The barrier drain system continues to function as designed, with no major maintenance required during 2019. Semiannual inspections of the barrier drain components, including manholes and pump chambers, are required by the Site's NYSDEC-approved Operation and Maintenance (O&M) Manual (CRA, revised March 2015). Inspections of the barrier drain manholes were conducted on June 19 and September 4, 2019, and inspections of the barrier drain pump chambers were carried out on June 19 and September 11, 2019. The visual inspections showed that the manhole flumes were flowing freely and required no further maintenance. During both inspection events, limited buildup of sludge was noted at MH-6A, MH-6B, and MH-6C. However, the buildup was insufficient to warrant cleaning, as it did not impede flow through the manholes. The visual inspections were documented on the 2019 Semiannual Inspection Forms, which are presented in Appendix B. The manhole locations are presented on Figure 2.2.

2.1.2 Pumping System

The barrier drain system consists of two sectors, the Northern/Central and the Southern. Leachate from the Northern/Central Sector drains to pump chambers PC-1A and PC-2A where it is pumped to pump chamber PC-3A, while leachate from the Southern Sector is pumped from pump chambers PC-1 and PC-2 to the underground storage tank connected to pump chamber PC-3. From pump chambers PC-3 and PC-3A, the leachate is then transferred through a below ground metering chamber outside the LCTF on the southeast corner of the building and then into the LCTF for treatment. The pumping system is designed to operate continuously and was operational and functioned as designed throughout 2019.

2.1.3 102nd Street Landfill Forcemain

The leachate forcemain construction was completed in March 1999 and is used for the transfer of leachate from the 102nd Street Landfill to the LCTF. The forcemain begins at the northwest corner of the 102nd Street Landfill and extends northward beneath River Road, LaSalle Expressway, and Frontier Avenue to pump chamber PC-3 at the Site. During 2019, the leachate collection system at 102nd Street pumped 124,190 gallons of leachate to the LCTF.



3. Groundwater Treatment and Monitoring

3.1 Groundwater Treatment

3.1.1 Treatment System

The LCTF consists of clarification, bag filtration, and carbon treatment prior to discharge to the NFWB sanitary sewer system. A process schematic depicting the layout of the treatment system is presented as Figure 3.1.

Treated water from the Site is discharged essentially on a batch basis to the NFWB sanitary sewer system (i.e. when there is sufficient water in storage, the treatment system is operated); however, under seasonal high flow conditions, water is discharged continuously. The discharge is authorized under the Site's SIU Permit #44. The current permit was valid from January 9, 2015 to January 9, 2020. On December 20, 2019, the permit was renewed and is valid from January 10, 2020 to January 9, 2025. A copy of the NFWB permit is included as Appendix C.

3.1.2 Effluent Discharge

The LCTF discharged to the NFWB sanitary sewer system on 225 days in 2019.

Under high stormwater flow events, the NFWB periodically requires that the LCTF temporarily cease discharging to the sewer system. During an event of this type, the barrier drain pumping system will continue to operate and maintain a protective inward hydraulic gradient to capture leachate. The NFWB required the LCTF to temporarily cease discharging to the sewer system on January 24, February 4, and February 6 during 2019.

In 2019, the LCTF processed a total of 4,840,275 gallons of leachate. This total was comprised of 4,716,085 gallons of leachate from the Site and 124,190 gallons of leachate from the 102nd Street Landfill.

Table 3.1 shows the monthly total and average treated groundwater quantities from 2000 through 2019.

3.1.3 Effluent Sampling

Sampling of the effluent discharged to the NFWB sanitary sewer system occurred quarterly as required under the Site's SIU Discharge Permit #44. In accordance with the SIU permit, the quarterly monitoring periods for 2019 were as follows:

Quarter 1: December 1 – February 28

Quarter 2: March 1 – May 31

Quarter 3: June 1 – August 31

Quarter 4: September 1 – November 30

The quarterly effluent sampling for 2019 was performed on December 2, 2018 and March 18, June 17, and September 23, 2019. The sample results were submitted to the NFWB quarterly as required by the permit and to the NYSDEC. The results for each event were in compliance with the requirements of the Site's SIU permit.



3.1.4 Precipitation

In 2019, precipitation in the Niagara Falls region totaled 35.81 inches (Niagara Falls International Airport, National Climatic Data Center). Table 3.1 provides historical regional precipitation data from 2000 through 2019.

3.2 Groundwater Monitoring

Groundwater monitoring consists of both chemical monitoring to determine groundwater quality and hydraulic monitoring to demonstrate that the barrier drain is creating hydraulic containment. Monitoring and analytical protocols for the Site's groundwater monitoring program have been established and are set forth in the "Sampling Manual, Love Canal Site, Long-Term Groundwater Monitoring Program" (LTGMP), revised June 2013.

The monitoring results for 2019 are presented in the following sections.

3.2.1 Groundwater Quality

Chemical monitoring is performed annually by sampling select overburden and bedrock monitoring wells at the Site. On March 25, 2009, the NYSDEC communicated via email to GSH that the NYSDEC would no longer be providing an annual well sampling list for chemical monitoring and directed GSH to use the wells sampled in 2007 and 2008 for all future sampling events. Subsequent discussions between GSH and the NYSDEC regarding the well sampling list led to this decision being documented in an August 5, 2010 memo titled "Love Canal Annual Groundwater Sampling Schedule", presented in Appendix D.

It should be noted that Overburden Well 3151 is included on the Appendix D list; however, this well was noted in 2007 as "Well no longer available – destroyed" and could not be located. Therefore, this well has not been sampled since 2007. In addition, Overburden Well 10178A and Bedrock Wells MW-01 and MW-02 were added to the annual sampling program in 2011. The sampling frequency for Overburden Well 10178A became annual in 2016.

The 2019 annual groundwater chemical monitoring event was performed between June 11 and June 24, 2019. As part of the annual groundwater chemical monitoring in 2019, 41 monitoring wells were sampled, comprised of 21 overburden and 20 bedrock monitoring wells. As part of the LTGMP, the NYSDEC has the option of collecting split samples during the annual event and having those samples analyzed independently to verify data. However, based on a review of split sample data from 1995 to 2013, NYSDEC determined that there was no difference between the data sets. Therefore, NYSDEC indicated that split sampling was no longer required. However, as a groundwater quality check, the NYSDEC collected samples at select wells in the fall of 2019. The parameters were from the LTGMP and Emergent Contaminant screening initiative.

Groundwater samples were submitted to ALS Environmental Group USA, Corp (ALS), located in Rochester, New York. ALS is a New York State Department of Health (NYSDOH) approved laboratory certified under the National Environmental Laboratory Approval Program (NELAP). The samples were analyzed for Site-specific volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs). The raw data laboratory packages are presented in Appendix E. A GHD chemist performed the analytical Quality



Assurance/Quality Control (QA/QC) review and data validation. The QA/QC report for this event is presented in Appendix F.

Figure 3.2 identifies the wells sampled and their locations. The Love Canal Annual Groundwater Sampling Schedule is presented in Appendix D. Table 3.2 provides a summary of the overburden wells that were sampled, the analytical data, and a summation of the number of compounds found at or above the detection limits in each well. Table 3.3 provides a summary of the bedrock wells that were sampled, the analytical data, and a summation of the number of compounds found at or above the detection limits in each well.

3.2.1.1 Overburden Monitoring Wells

The 2019 groundwater analytical results for the overburden monitoring wells (Table 3.2) are consistent with previous long-term monitoring analytical results. The analytical results were non-detect or were detected at low levels consistent with concentrations detected during previous monitoring events (with the exception of groundwater from Well 10135, which is installed in an area of known Site impacts).

Historically, Well 10135 has had the most detected compounds and the highest concentrations detected. This well is located in the southwestern portion of the Site and within the fenced boundaries of the Site. Although located outside the barrier drain, Well 10135 is within the influence of the barrier drain based on hydraulic monitoring conducted at adjacent nested piezometer string 1160, as demonstrated on Figures 3.5 (1160 cross-section) and 3.9 (groundwater contours for overburden), and as further discussed in Section 3.2.2.

Consistent with previous Periodic Review Reports (PRRs), Table 3.4 presents the number of discrete compounds detected for each individual well sampled, arranged by parameter group. This table also presents the total number of detections in the overburden and in the bedrock. As these totals were derived by summing the total number of discrete compounds detected in each well, they do not represent the total numbers of discrete compounds detected in the overburden and bedrock overall. They represent the total number of individual detections in the overburden and bedrock overall.

To provide a clearer representation of the data in Table 3.4, based on NYSDECs comment in their letter dated April 2, 2019 and GSH's response via email dated May 17, 2019, Table 3.4 has been modified to also include the total number of discrete compounds detected in the overburden and bedrock, along with the total number of individual detections. In addition, the following modifications have been made to this table:

- Well 10135 has been separated from the rest of the overburden wells, as this well has always had the greatest number of detected compounds and highest concentrations detected, which are not representative of the number of detected compounds and concentrations detected in the remainder of the overburden wells.
- The previously reported data indicating the total number of detections at the Site (for both the overburden and bedrock wells combined) has been removed. The overburden and bedrock are now evaluated separately, as is common practice at similar sites.



As stated in the LTGMP, Well 10135, located in an isolated area of known contamination, is sampled as an indicator well. As recommended by the United States Environmental Protection Agency (USEPA) in its Fourth Five-Year Review Report, dated April 11, 2019 and agreed to by the NYSDEC, a trend analysis of contaminants in Well 10135 was performed. Table I.1 in Appendix I presents the total VOC concentrations, total SVOC concentrations, and total pesticide concentrations detected in Well 10135 from 1990 through 2019. PCBs have not been detected in this well since at least as far back as prior to 1998. As indicated on Figure I.1, the total concentration of VOCs detected in this well has remained stable since approximately 1993. The total concentration of SVOCs detected in this well has remained stable since approximately 1991. The total concentration of pesticides detected in this well has decreased from being in the approximate 40 to 90 µg/l range in the 1990s and early 2000s to being in the approximate 10 to 70 µg/l range from the early 2000s through 2019. Total pesticide concentrations have remained overall consistent, with no long-term increasing or decreasing trends observed since approximately 2005. Based on the demonstrated long-term stability of parameter concentrations in Well 10135 and its presence within the influence of the barrier drain, no further trend analysis is warranted.

It should be noted that overburden and bedrock monitoring wells located further west of 10135 (10178A and 10278, respectively) are sampled annually and have shown no impact, further confirming that the contamination at 10135 is isolated to the immediate area around the well.

3.2.1.2 Bedrock Monitoring Wells

The 2019 groundwater analytical results for the bedrock monitoring wells (Table 3.3) are consistent with previous long-term monitoring analytical results. Parameter concentrations were either non-detect or detected at low levels consistent with concentrations detected during previous monitoring events. Table 3.4 presents a summary of detections for each well sampled, arranged by parameter group.

In 2012, hexachlorobenzene was detected at Monitoring Well 10225A for the first time historically at a concentration of 3.6 µg/L. A concentration of 3.6 µg/L is within the historical non-detect range of 1.9 U µg/L to 10 U µg/L. In 2014, 2015, 2016, 2017, 2018, and again in 2019, hexachlorobenzene was non-detect at Well 10225A (1.9 U µg/L in 2014, 9.6 U µg/L in 2015, and 9.4 U µg/L in 2016 through 2019). In addition, hexachlorobenzene was not detected in adjacent Bedrock Wells 10225B and 10225C. Based on these data, the 2012 detection appears to be an anomalous data point and does not warrant additional evaluation. Well 10225A will continue to be monitored annually for groundwater quality in accordance with the NYSDEC-approved LTGMP, but the 2012 hexachlorobenzene detection will not be discussed in future PRRs.

3.2.1.3 Historical Compound Detections

Table 3.5 presents a summary of detected compounds of four long-term monitoring wells, consisting of three bedrock wells and one overburden well (Bedrock Wells 10210A, 10210B, and 10210C, and Overburden Well 10135) from 1990 to 2019. The data from these four wells are presented because they have the most consistent historical record of compound detections compared to the other overburden and bedrock wells. As discussed in Sections 3.2.1.1 and 3.2.1.2, the data from the additional Site wells not presented in Table 3.5 are typically non-detect or demonstrate sporadic low level detections and, therefore, do not present useful data in regards to a discussion of historical analytical trends at the Site. An evaluation of the 2019 sampling data for the four wells mentioned



above shows that the compounds detected in 2019 are present at sporadic low-level concentrations or concentrations consistent with historical trends.

3.2.2 Hydraulic Containment

Hydraulic monitoring consists of water level measurements conducted quarterly from six nested piezometer strings (1140, 1150, 1160, 1170, 1180, and 1190) per the NYSDEC-approved LTGMP, as well as NYSDEC-requested water level measurements collected from three wells (7161, 9130, and 9140). In 2019, water levels were measured in March, June, September, and November. These water level data are presented in Tables 3.6A to 3.6F. The wells on the tables are ordered from left to right on the table, beginning with the well furthest from the outside of the barrier drain to the well inside the area enclosed by the barrier drain. They are also ordered based on screen depth corresponding with the geologic stratum (i.e. fractured clay, soft, clay, and glacial till) as requested by NYSDEC in their letter dated October 21, 2016. Figures 3.3 to 3.8 show the overburden groundwater flow conditions for June 2019 at the six nested piezometers string locations based on geologic stratum consistent with the above.

Piezometer string groundwater elevation data from the remaining three quarters (March, September, and November 2019) demonstrate that the data from those monitoring periods are consistent with the June 2019 data.

In addition to the above-mentioned information, groundwater contour figures were prepared using the June 2019 water levels from the six nested piezometer strings and three additional wells (7161, 9130, and 9140) as requested by NYSDEC. As recommended by the USEPA in its Fourth Five-Year Review Report for the Site and agreed to by the NYSDEC, separate figures were prepared for the overburden and bedrock groundwater elevation contours. The June 2019 groundwater contour figures for the overburden and bedrock are presented as Figures 3.9 and 3.10, respectively.

The overburden groundwater contour figure (Figure 3.9) and Tables 3.6A to 3.6F illustrate that there is a minimum of 1.04 feet of inward gradient outside of the barrier drain at each of the six nested piezometer strings in the various geologic units. The term "feet of inward gradient" means the minimum difference in groundwater elevation between the wells on the outside of the barrier drain and the water level within the barrier drain, with the water level within the barrier drain representing the lowest water level elevation. This demonstrates that groundwater on the outside of the barrier drain (off-Site groundwater) is flowing toward and downward into the barrier drain. Based on the water level data from the six nested piezometer strings, an inward gradient can be inferred to exist around the collection drain system, demonstrating that the horizontal groundwater flow direction outside of the barrier drain is towards the barrier drain. A review of Figure 3.9 shows that groundwater flow on the inside of the barrier drain is also towards the barrier drain. Therefore, the barrier drain and lateral trenches are capturing leachate from the landfill area and a portion of groundwater outside the barrier drain, thereby preventing off-Site migration of chemicals and preventing off-Site groundwater from migrating into the landfill area.

As recommended by the USEPA in its Fourth Five-Year Review Report for the Site and agreed to by the NYSDEC, an evaluation of the hydraulic gradient of the area surrounding Well 10135 was completed based on analyzing hydraulic data for the years 2014 to 2018 for the piezometer string closest to Well 10135 (1160). Only piezometers that are screened in the same stratigraphic unit as Well 10135 (soft clay) were used (1161E, 1163A, and 1165A). Table 3.7 presents the quarterly



groundwater elevations of these piezometers and the groundwater elevations of Well 10135 measured prior to the annual chemical monitoring. Piezometer 1165A is approximately that same horizontal distance to the barrier drain and Well 10135. As shown in Table 3.7, the groundwater elevations measured in Well 10135 were always lower than the groundwater levels measured in 1165A. Therefore, there is an inward gradient extending from Piezometer 1165A through MW-10135 and into the barrier drain in each year that was evaluated (2014 through 2018). Based on the inward gradient, chemical impacts identified at Well 10135 are being captured by the barrier drain (i.e., Well 10135 is hydraulically contained).

As demonstrated on Figure 3.10, groundwater in the bedrock was generally flowing from east to west across the Site during the June 2019 hydraulic monitoring event.

Monitoring will continue during 2020 as per the NYSDEC-approved LTGMP except well 10135 will be added to the quarterly groundwater monitoring events starting in 2020, as recommended by the USEPA in its Fourth Five-Year Review Report for the Site dated April 11, 2019, and agreed to by NYSDEC.

3.2.3 Colvin Boulevard Sewer System NAPL Presence

Overburden Monitoring Well MW-3 was installed on July 1, 2011, within the bedding material of a newly repaired sanitary sewer line on Colvin Boulevard (Figure 2.1). The purpose of this well was to monitor for the presence of residual non-aqueous phase liquid (NAPL) that was observed during construction/repair activities in the bedding material. Following well development, MW-3 was monitored for the presence of NAPL on a weekly basis starting on July 19, 2011, and ending on October 7, 2011. No NAPL or visible sheen was detected during these weekly monitoring events. Based on these results, it was concluded that the NAPL that had been observed sporadically during the sewer repair activities was likely limited in volume and mobility. As such, in the report "Colvin Boulevard Sewer Repair Supplemental Subsurface Investigation Report, Colvin Boulevard and 96th Street," dated October 2011, GSH recommended/requested that additional monitoring of MW-3 be continued on a quarterly basis. The NYSDEC approved this request in a letter dated June 5, 2012. The last weekly monitoring event was conducted on August 3, 2012.

Well MW-3 has been monitored on a quarterly basis for the presence of NAPL since November 5, 2012. To date, no NAPL or visible sheen has been detected in this well. As requested by the NYSDEC in an email dated August 10, 2018, the dates of all previous quarterly NAPL checks at MW-3 were included in the PRR for monitoring year 2018. In 2019, the quarterly NAPL checks at MW-3 were conducted on March 5, June 4, September 3, and November 19. No NAPL or visible sheen was observed.

3.2.4 Well Maintenance

The 2019 well inspections identified the need for routine maintenance on several wells at the Site. Maintenance was conducted during the summer of 2019 and included the following:

- Minor maintenance work at several wells, including replacement of j-plugs and locks.
- Repaired the riser on well 10115



3.2.5 Summary of Treatment and Monitoring Results

The volume of effluent discharge from the LCTF increased from 4,400,918 gallons in 2018 to 4,840,275 gallons in 2019, a number consistent with volumes from previous years with similar precipitation levels. Quarterly sampling and analysis results submitted to both the NFWB and NYSDEC indicated that all chemistry detected in the effluent samples for each event was either non-detect or present at very low levels within historical ranges and well below Site's SIU Discharge Permit #44 discharge limits.

The inward hydraulic gradient observed at each of the six nested piezometer strings demonstrates that the barrier drain is effectively capturing leachate from the Site and preventing off-Site migration of chemicals. The analytical results from the monitoring wells sampled indicate that compounds were either not detected, or were detected at low levels below or consistent with concentrations from previous years (with the exception of groundwater from well 10135, discussed in Section 3.2.1.1), further illustrating containment.

The presence of an overall inward hydraulic gradient towards the barrier drain and a review of groundwater quality for the groundwater monitoring wells demonstrate overall Site containment.

4. Activities

Summaries of normal activities and repairs performed in 2019 are presented below.

4.1 Process Activities

Process activities that occurred during the year included the following:

- Removal and disposal of hazardous waste
- Cleaning of all pump chambers
- Cleaning of all storage tanks
- Cleaning of sludge from clarifier

4.2 Non-Process Activities

Non-process activities that occurred during the year included the following:

- Preventative maintenance
- Repair and maintenance of pump chambers and flow meters
- Repair and maintenance of gates
- Landscape maintenance including grass cutting, tree installation and removal, and tree and flower bed maintenance
- Heating and cooling system maintenance
- Installation of upgraded telecommunication equipment
- Repair of the drum barn door



- Replacement of the backflow preventer in the drum barn
- Repair of lights
- Repair of level float switches in the former dewatering containment facility (DCF) pump chamber tank

4.3 Community Outreach

Community Outreach programs have included such activities as beautification of the area surrounding the Site and tours of the facility.

4.3.1 Beautification

The following beautification activities were conducted at Love Canal in 2019:

- Maintenance and landscaping of the Site and surrounding areas
- Maintenance of flower beds and shrubs along Colvin Boulevard, 95th Street, and Frontier Avenue
- Cleanup of discarded debris along fence line
- Replacement of two trees on 95th Street
- Tree removal on Colvin Boulevard and 100th Street

4.3.2 Tours

Tours of the facility have been given throughout the years to representatives of various environmental agencies (domestic and foreign) and educational groups. The tours include an informational orientation, accompanied with visual aids, followed by a guided tour of the treatment facility and landfill. No tours were given in 2019.

4.3.3 Communications

All required reports were prepared and submitted to various agencies throughout the year. Reports included the 2018 Annual Hazardous Waste Report to the NYSDEC, the 2018 Periodic Review Report (formerly titled the Annual Operations and Monitoring Report) to various agencies, quarterly SIU analytical reports to the NFWB and NYSDEC, and monthly SIU reports to the NFWB.

The Love Canal Annual Newsletter for 2018 was issued to surrounding citizens and agencies in June 2019. The report summarizes items such as the amount of groundwater treated on Site and then discharged to NFWB's sanitary sewer system, maintenance activities, and other non-operational activities for the year.

4.4 Waste Generation

Throughout 2019, both hazardous and nonhazardous waste was generated from various activities and disposed of off Site in accordance with applicable laws and regulations.

The tracking of hazardous waste is performed by regulated hazardous waste manifests. A summary of the Site's annual hazardous waste generation is reported to the NYSDEC in the Annual



Hazardous Waste Report. The Annual Hazardous Waste Report summarizes the quantities, transporters, and disposal methods.

A total of 51,450 pounds of hazardous waste was generated from the activities listed below. The waste materials were sent off Site for disposal in accordance with applicable laws and regulations. Wastes generated in 2019 were disposed of through incineration or landfill impoundment by Clean Harbors, LLC.

The hazardous waste disposed of in 2019 consisted of soil/debris, spent carbon, and NAPL sludge as follows:

- Soil/Debris: 2,450 pounds (consisting of personal protective equipment [PPE], spent filter bags, and general debris)
- Spent Carbon: 31,500 pounds (collected from LCTF process)
- NAPL Sludge: 17,500 pounds (collected from LCTF process)

4.5 Routine Operations, Inspections, and Monitoring

A daily inspection of the system operations was performed for each day in 2019 in accordance with the O&M Manual for the Love Canal Site, dated March 2015. Inspection records are available upon request.

Monthly inspections, including fire extinguishers and carbon vapor phase vents for breakthrough were also completed in accordance with the O&M Manual. Inspection records are available upon request.

Semiannual inspection of the landfill cap surface (Appendix B) was conducted on June 20, 2019 and September 11, 2019. Two small, low areas in the surface of the landfill cap were observed southwest of PC-1 consistent with last year's inspection.

The NYSDEC conducted a Site inspection (landfill and treatment system) on June 12, 2019. No issues were identified; however, the low areas referenced above were discussed with GSH. In response to NYSDEC's June 18, 2019 letter regarding the 2018 PRR and the above discussion, GSH submitted a letter dated July 31, 2019 which indicated that, based on review of Site data, the subject depressions are not an indication that the cap has been compromised or is failing. GSH also stated that an evaluation to determine appropriate response would be conducted. GSH engaged a GHD landfill engineer to evaluate the subject area and their opinion will be submitted under separate cover. The evaluation recommended that the low areas be filled in with clean soil and graded. This work will be completed during 2020.

The NYSDEC also conducted a hazardous waste compliance inspection of the Site on September 13, 2019. No issues were identified.

The NFWB performed an annual inspection of the LCTF and performed verification sampling of the effluent discharge on April 11, 2019. The inspection and the annual effluent verification sampling concluded that the Site is being maintained and operated in accordance with the Site's SIU discharge permit and other local, State, and Federal requirements. The completed NFWB 2019 Inspection Form is included in Appendix G.



The USEPA conducted its Five Year Review inspection of the Site on November 6, 2018. Representatives of the USEPA, NYSDEC, Niagara County Department of Health, GSH, and GHD were in attendance. No issues were identified. The USEPA's Five-Year Review Report was published on April 11, 2019. In the report, the USEPA indicated that no issues were identified as part of the FYR, but made the following suggestions:

- Develop separate groundwater contour maps for the overburden aquifer and for the bedrock aquifer in future annual reports.
- Provide a trend analysis of the contaminants in MW-10135, since it continues to be the well that is most impacted.
- Add MW-10135 to the hydraulic monitoring events in order to ensure that there is an inward gradient from this well to the barrier wall.

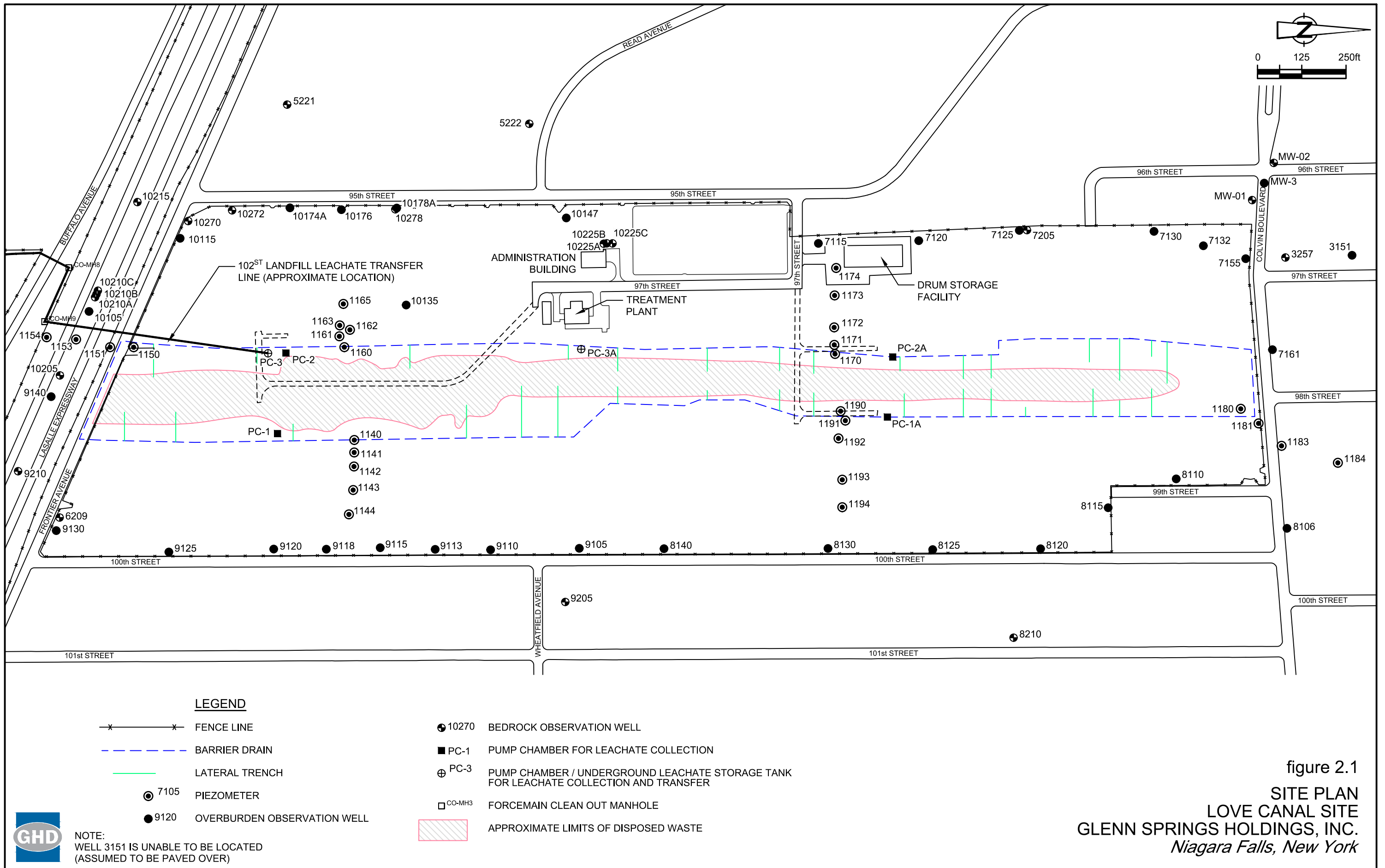
In an email to the USEPA on June 10, 2019 and in a letter to GSH dated June 18, 2019, the NYSDEC indicated that it had reviewed the Fourth Five Year Report and agreed with these recommendations. These recommendations have been incorporated into this PRR and LTGMP.

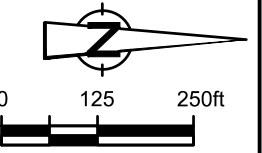
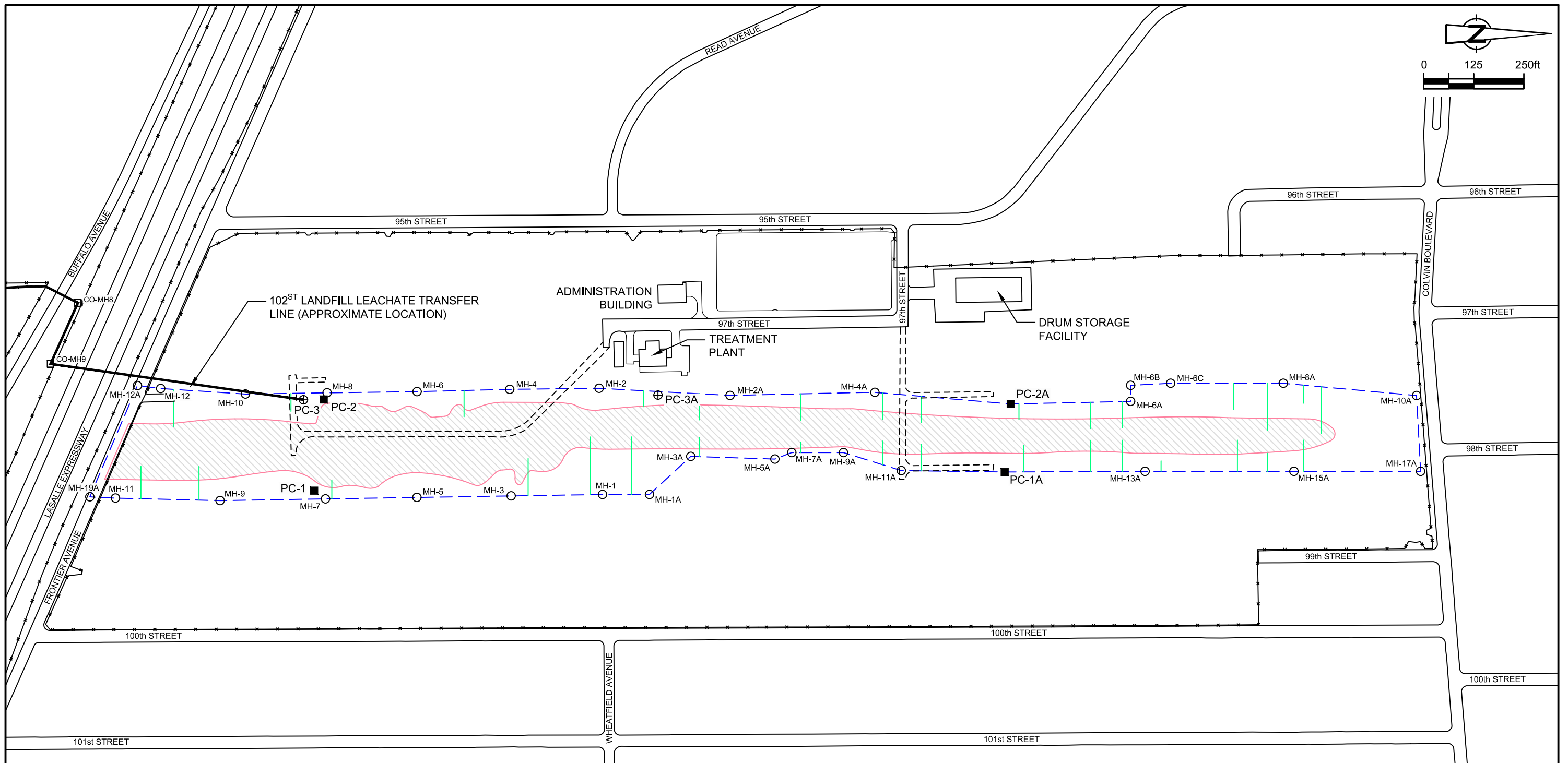
The backflow preventer system on the potable water supply lines was inspected and tested by CamTech Plumbing and Mechanical (CamTech) on February 14, 2019. CamTech is licensed and certified by the NFWB to perform the backflow preventer system inspections. All five backflow prevention devices were found to be operational with no maintenance required. A copy of the 2019 Test and Maintenance of Backflow Prevention Device Report for each device is presented in Appendix H.

The annual fire system inspection was conducted on June 25, 2019. No issues were identified.

5. Conclusion

The 2019 monitoring results show that there has been no significant change in chemical concentration conditions and that the barrier drain system is successfully capturing leachate from the Site and preventing off-Site migration of contamination. The barrier drain continues to create an inward hydraulic gradient and capture leachate from the Site, preventing off-Site migration of chemicals, as evidenced by the groundwater gradients depicted on Figures 3.3 to 3.9 and analytical data from observation wells around the perimeter of the Site. The collection system is functioning as designed based on groundwater monitoring results and third party inspections by the NYSDEC. The treatment system is functioning as designed based on inspections and sampling by the NFWB and sampling by GSH. Effluent quality is compliant with the Site's SIU discharge permit. There were 4,840,275 gallons of leachate collected, treated, and discharged from the Site, of which 4,716,085 gallons of leachate were collected from the Site, and 124,190 gallons were collected from the 102nd Street Site and pumped to the LCTF for treatment. Monitoring results continue to confirm that the remediation and containment system (i.e., the leachate collection and treatment system) is functioning as designed.





LEGEND

—x—x—	FENCE LINE	■ PC-1	PUMP CHAMBER FOR LEACHATE COLLECTION
- - - - -	BARRIER DRAIN	⊕ PC-3	PUMP CHAMBER / UNDERGROUND LEACHATE STORAGE TANK FOR LEACHATE COLLECTION AND TRANSFER
—	LATERAL TRENCH	□ CO-MH3	FORCEMAIN CLEAN OUT MANHOLE
○ MH-1	MANHOLE LOCATION	[Hatched Box]	APPROXIMATE LIMITS OF DISPOSED WASTE



figure 2.2
MANHOLE LOCATIONS
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

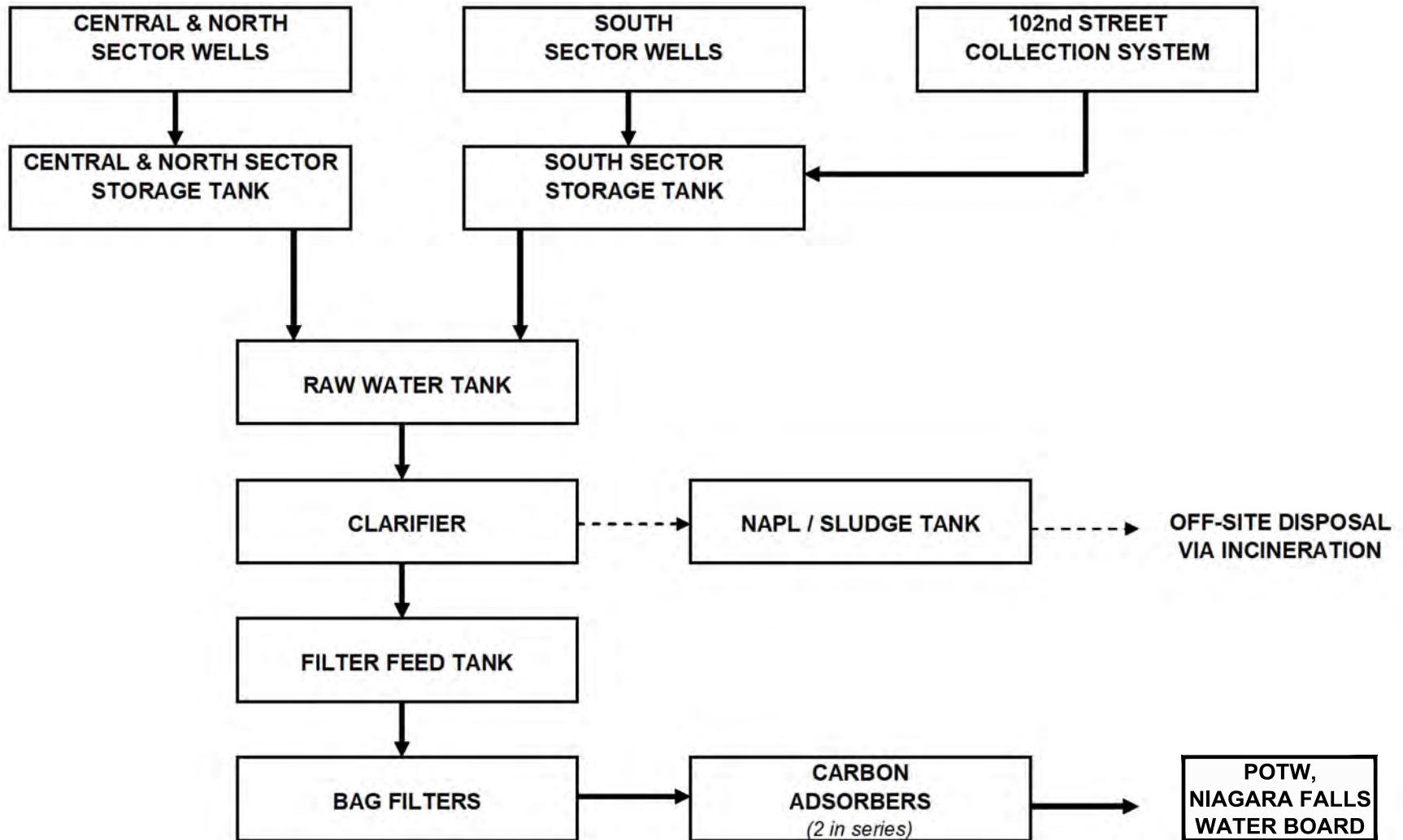
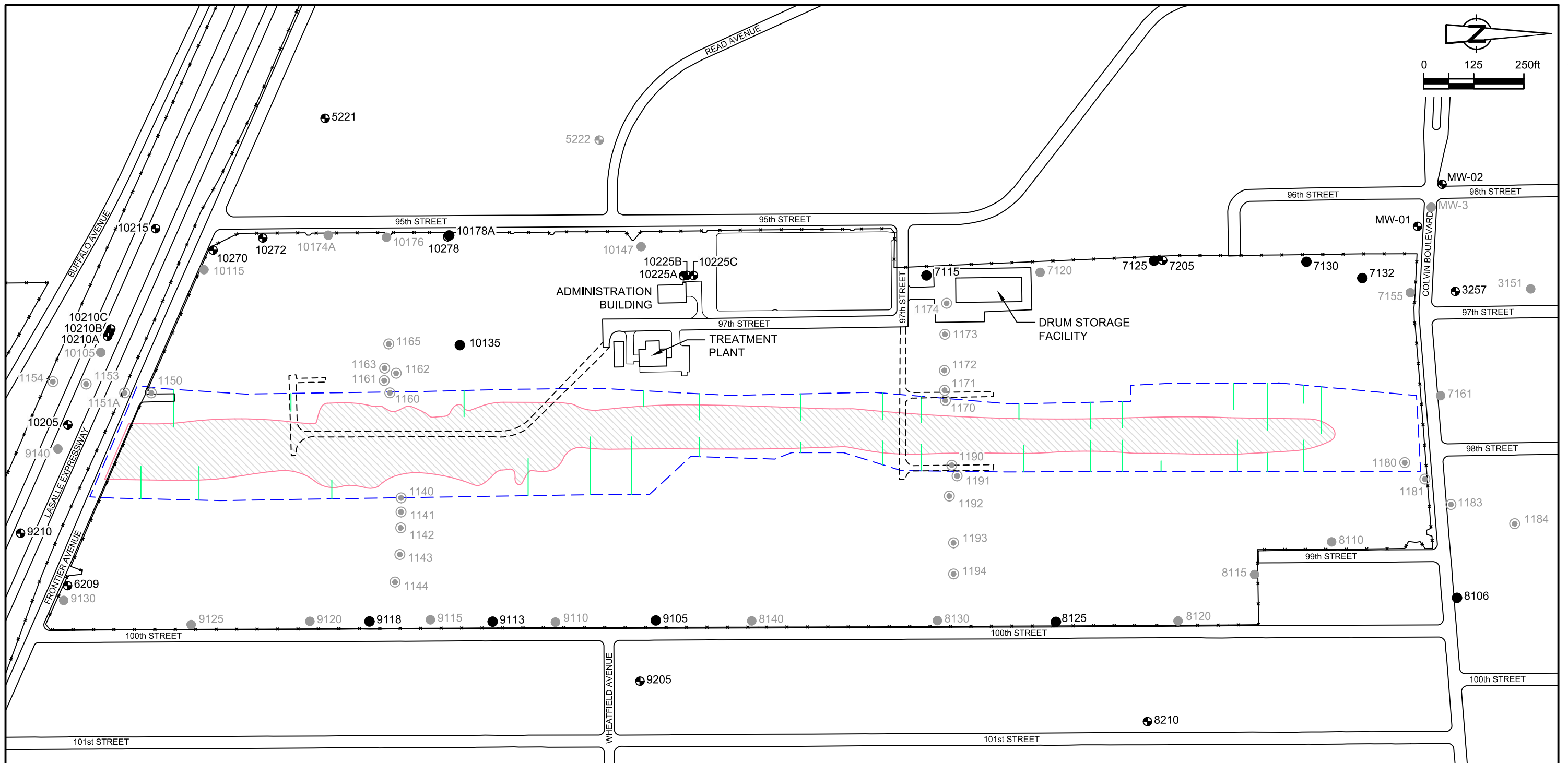


figure 3.1

PROCESS SCHEMATIC
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York





LEGEND

- x—x— FENCE LINE
- - - - - BARRIER DRAIN
- LATERAL TRENCH
- 7105 PIEZOMETER
- 9122 OVERBURDEN OBSERVATION WELL

- 5222 BEDROCK OBSERVATION WELL
- 7115 OVERBURDEN OBSERVATION WELL SAMPLED IN 2019
- 10270 BEDROCK OBSERVATION WELL SAMPLED IN 2019
- APPROXIMATE LIMITS OF DISPOSED WASTE

NOTE:
WELL 3151 IS UNABLE TO BE LOCATED
(ASSUMED TO BE PAVED OVER)



figure 3.2
2019 GROUNDWATER MONITORING LOCATIONS
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

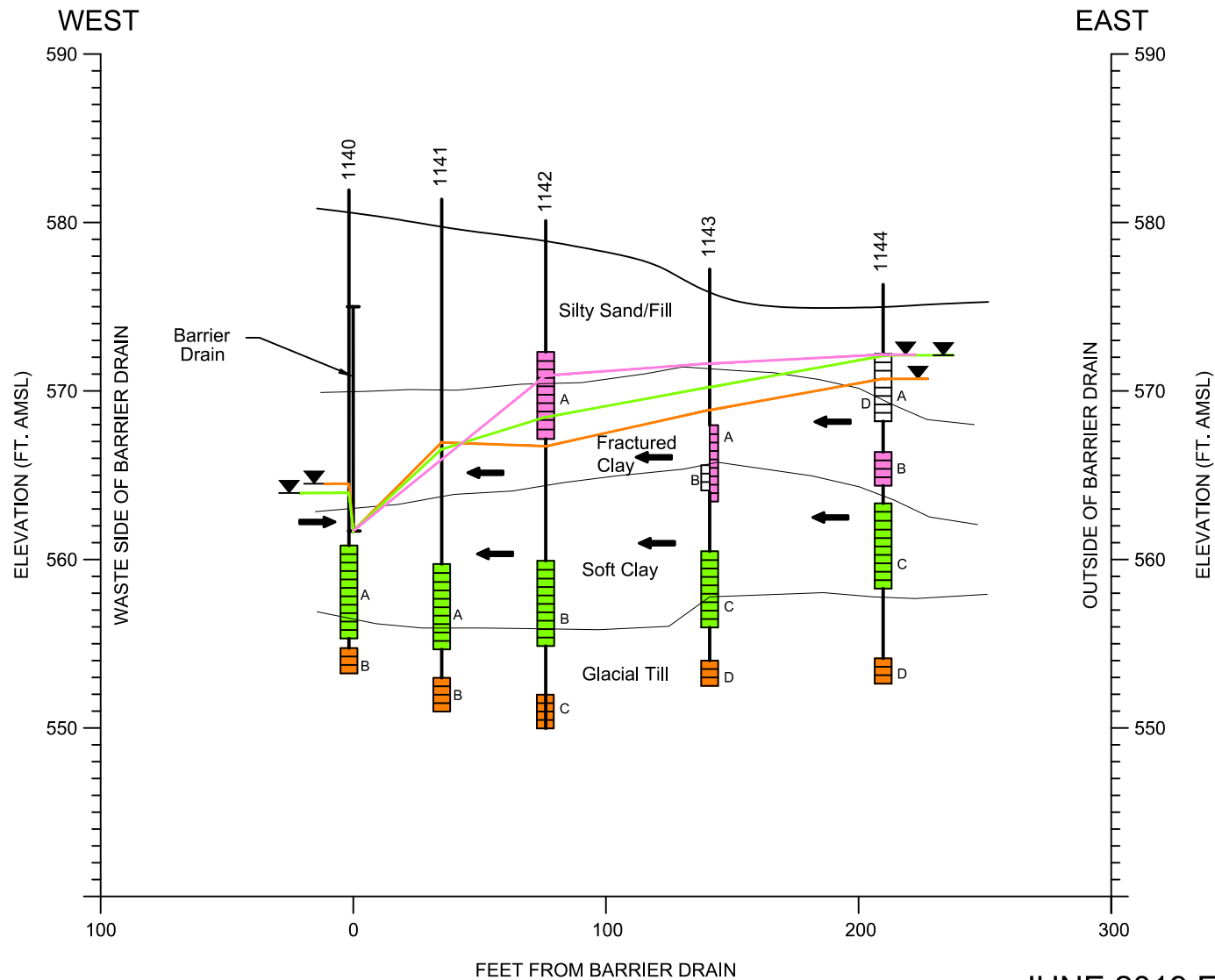


figure 3.3

LEGEND

A	PIEZOMETER DESIGNATION	GLACIAL TILL GROUNDWATER LEVEL
→	FLOW DIRECTION	FRACTURED CLAY GROUNDWATER LEVEL
□	SCREENED INTERVAL	SOFT CLAY GROUNDWATER LEVEL

- NOTES:
- (1) GROUNDWATER LEVEL SHOWN MATCH THE COLORED SCREEN INTERVAL.
 - (2) PIEZOMETERS WERE INSTALLED IN SEPARATE BOREHOLES.

JUNE 2019 FLOW DIAGRAM
1140 SERIES PIEZOMETERS
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York



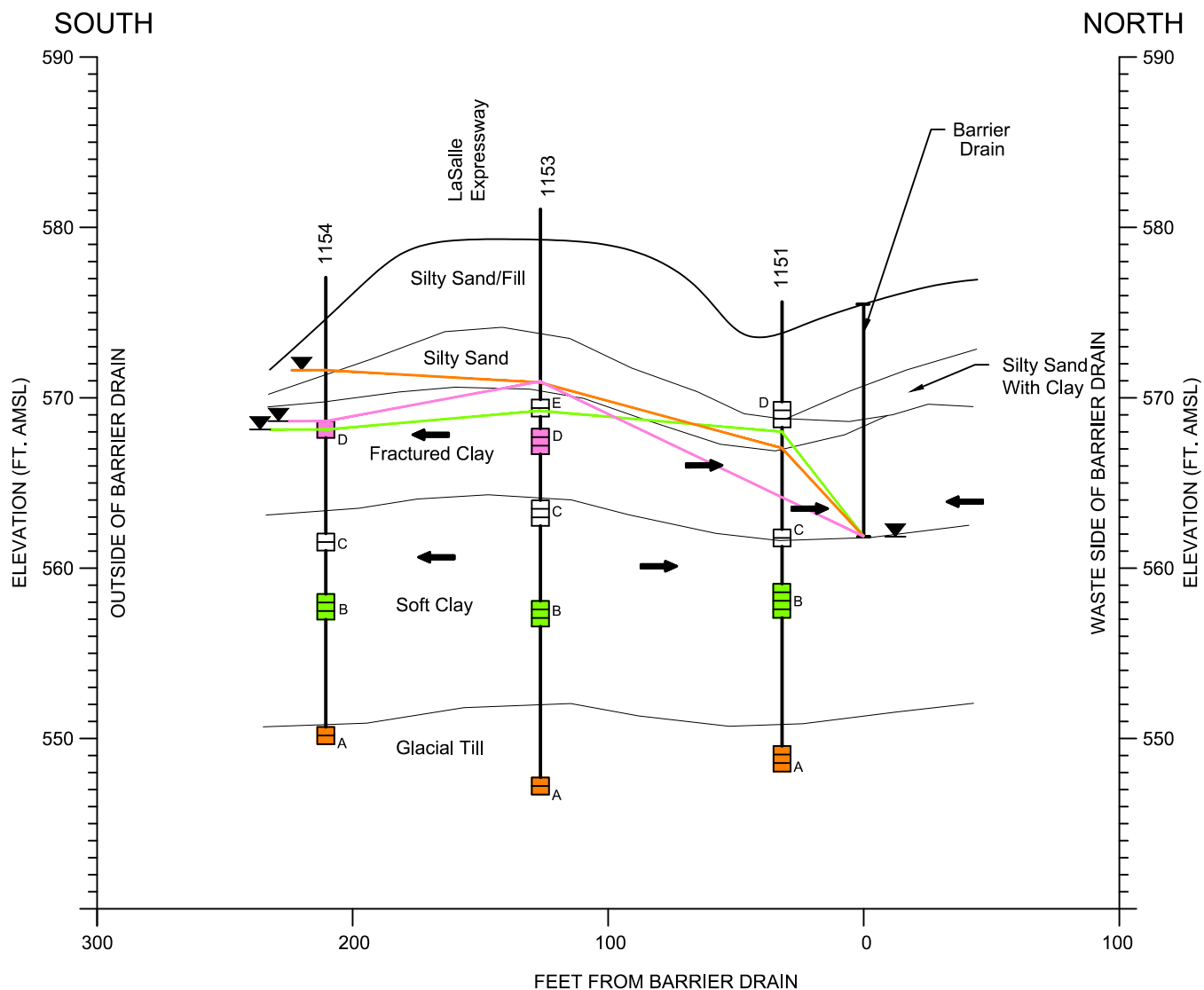


figure 3.4

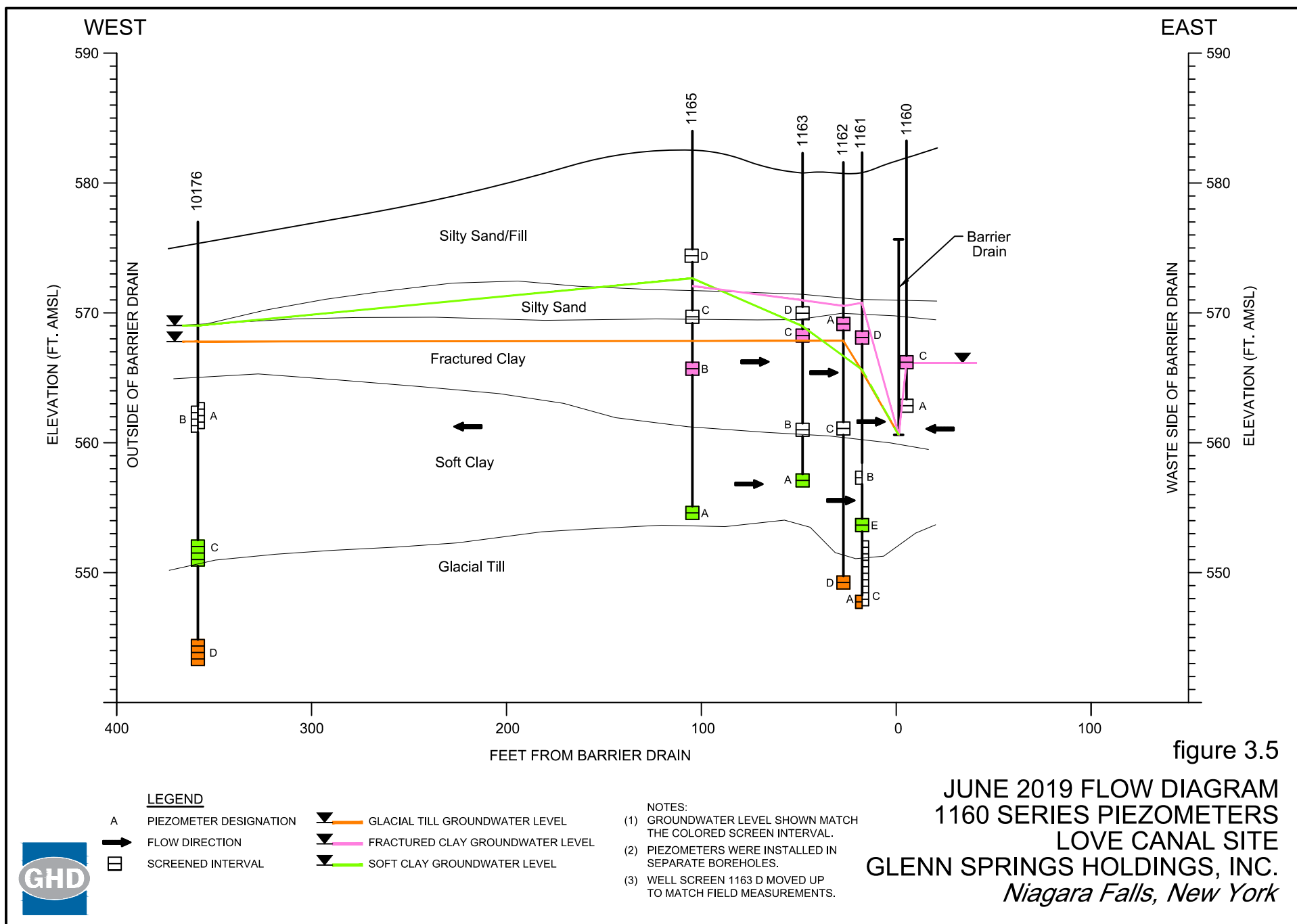
JUNE 2019 FLOW DIAGRAM
1150 SERIES PIEZOMETERS
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

LEGEND

A	PIEZOMETER DESIGNATION	GLACIAL TILL GROUNDWATER LEVEL
→	FLOW DIRECTION	FRACTURED CLAY GROUNDWATER LEVEL
□	SCREENED INTERVAL	SOFT CLAY GROUNDWATER LEVEL

- NOTES:**
- (1) GROUNDWATER LEVEL SHOWN MATCH THE COLORED SCREEN INTERVAL.
 - (2) PIEZOMETERS WERE INSTALLED IN SEPARATE BOREHOLES.





WEST

EAST

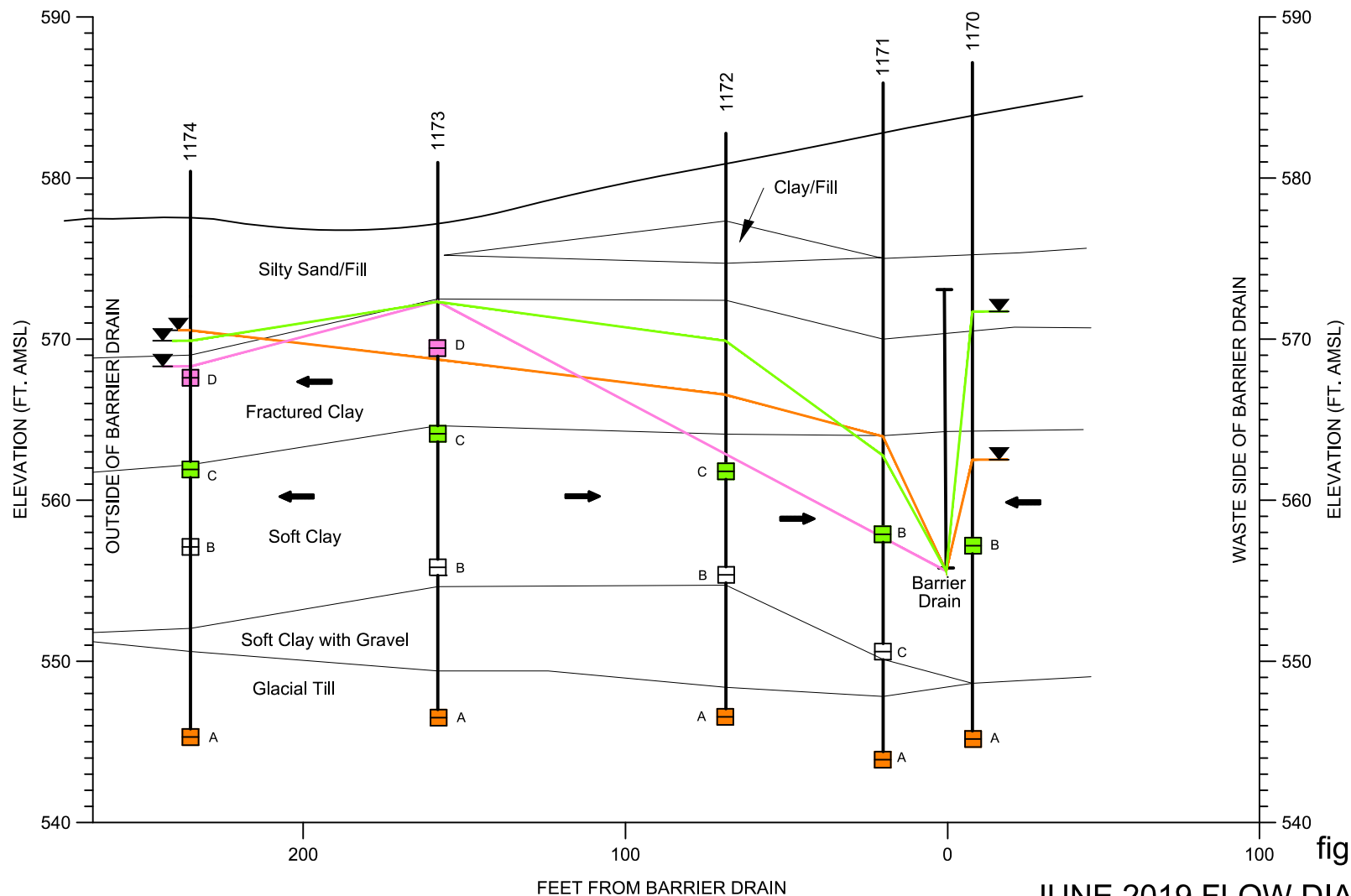


figure 3.6

LEGEND

A	PIEZOMETER DESIGNATION	GLACIAL TILL GROUNDWATER LEVEL
→	FLOW DIRECTION	FRACTURED CLAY GROUNDWATER LEVEL
□	SCREENED INTERVAL	SOFT CLAY GROUNDWATER LEVEL

- NOTES:
- (1) GROUNDWATER LEVEL SHOWN MATCH THE COLORED SCREEN INTERVAL.
 - (2) PIEZOMETERS WERE INSTALLED IN SEPARATE BOREHOLES.

**JUNE 2019 FLOW DIAGRAM
1170 SERIES PIEZOMETERS
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
*Niagara Falls, New York***



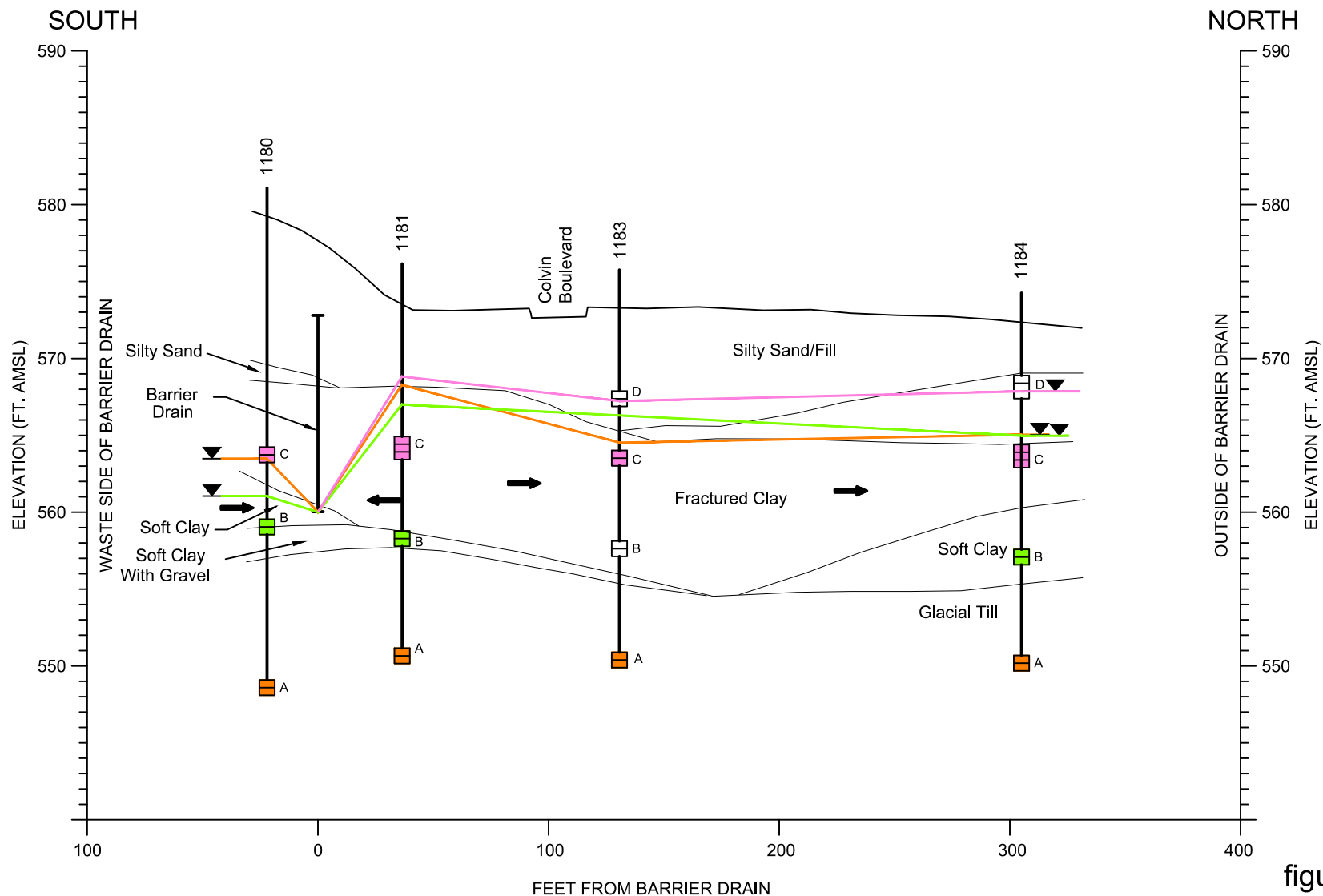


figure 3.7

LEGEND

A	PIEZOMETER DESIGNATION	GLACIAL TILL GROUNDWATER LEVEL
→	FLOW DIRECTION	FRACTURED CLAY GROUNDWATER LEVEL
□	SCREENED INTERVAL	SOFT CLAY GROUNDWATER LEVEL

- NOTES:**
- (1) GROUNDWATER LEVEL SHOWN MATCH THE COLORED SCREEN INTERVAL.
 - (2) PIEZOMETERS WERE INSTALLED IN SEPARATE BOREHOLES.
 - (3) PIEZOMETER 1180C WAS DRY AT TIME OF MEASUREMENT

JUNE 2019 FLOW DIAGRAM
1180 SERIES PIEZOMETERS
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York



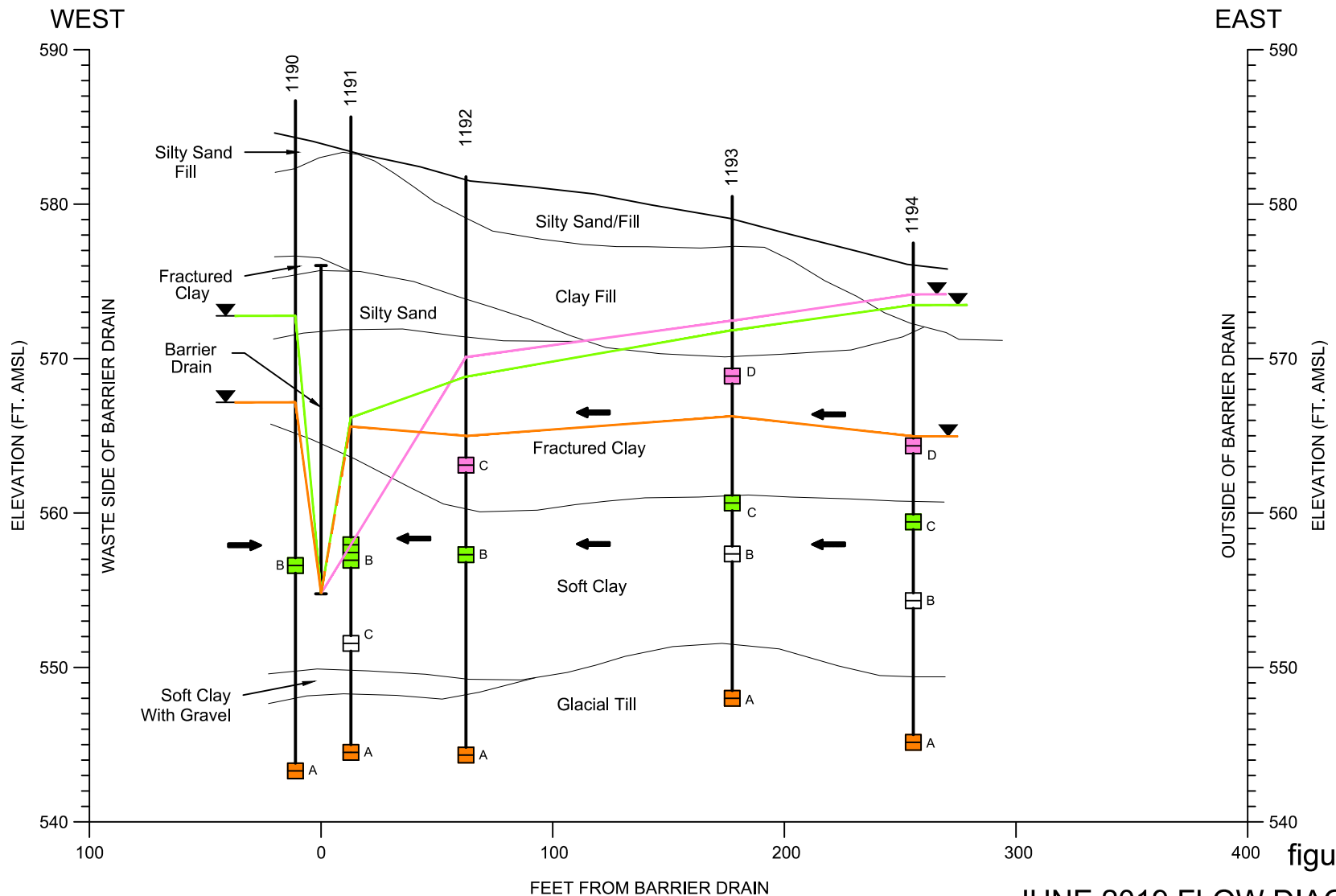


figure 3.8

**JUNE 2019 FLOW DIAGRAM
1190 SERIES PIEZOMETERS
LOVE CANAL SITE**

GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York



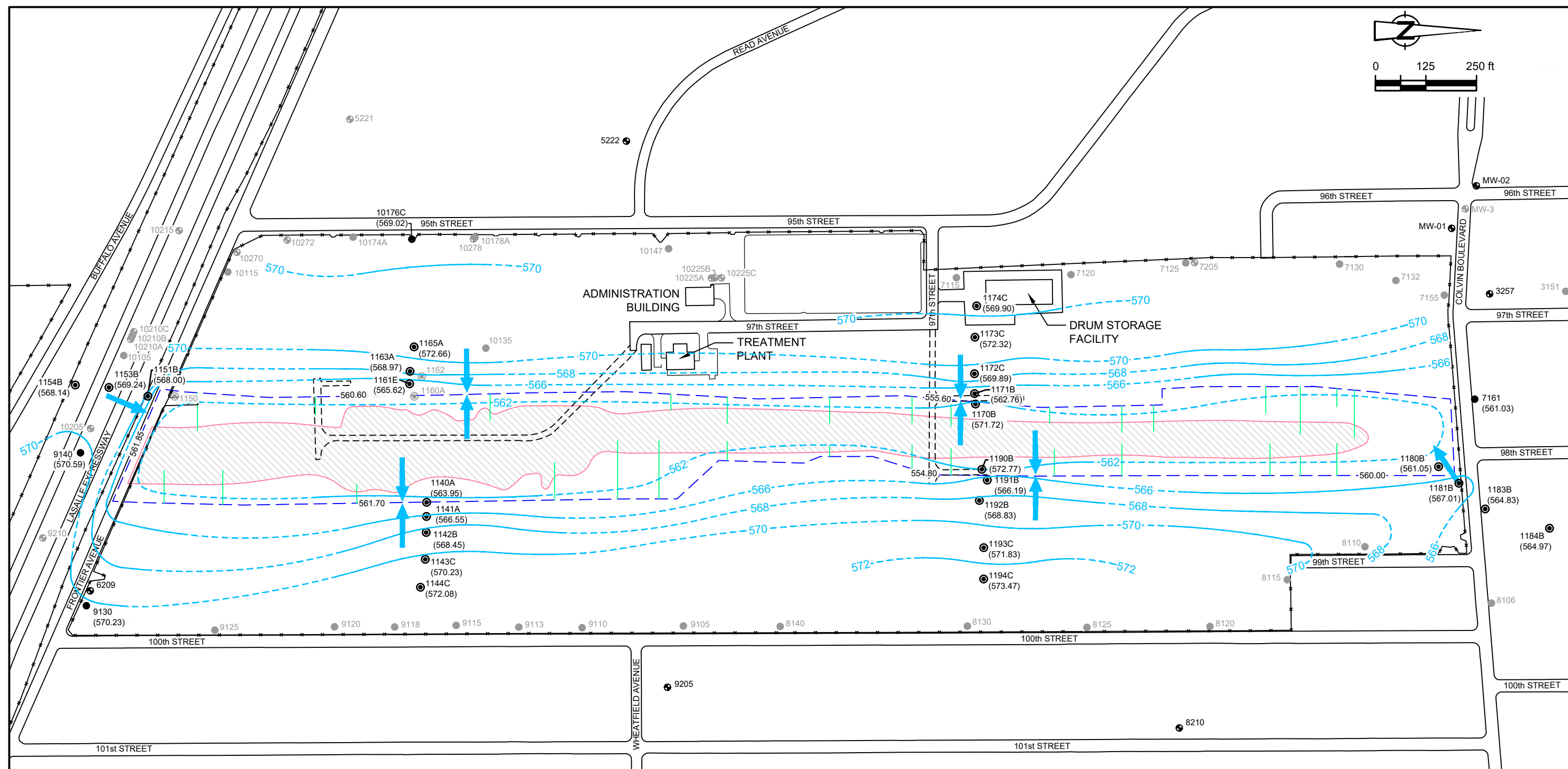
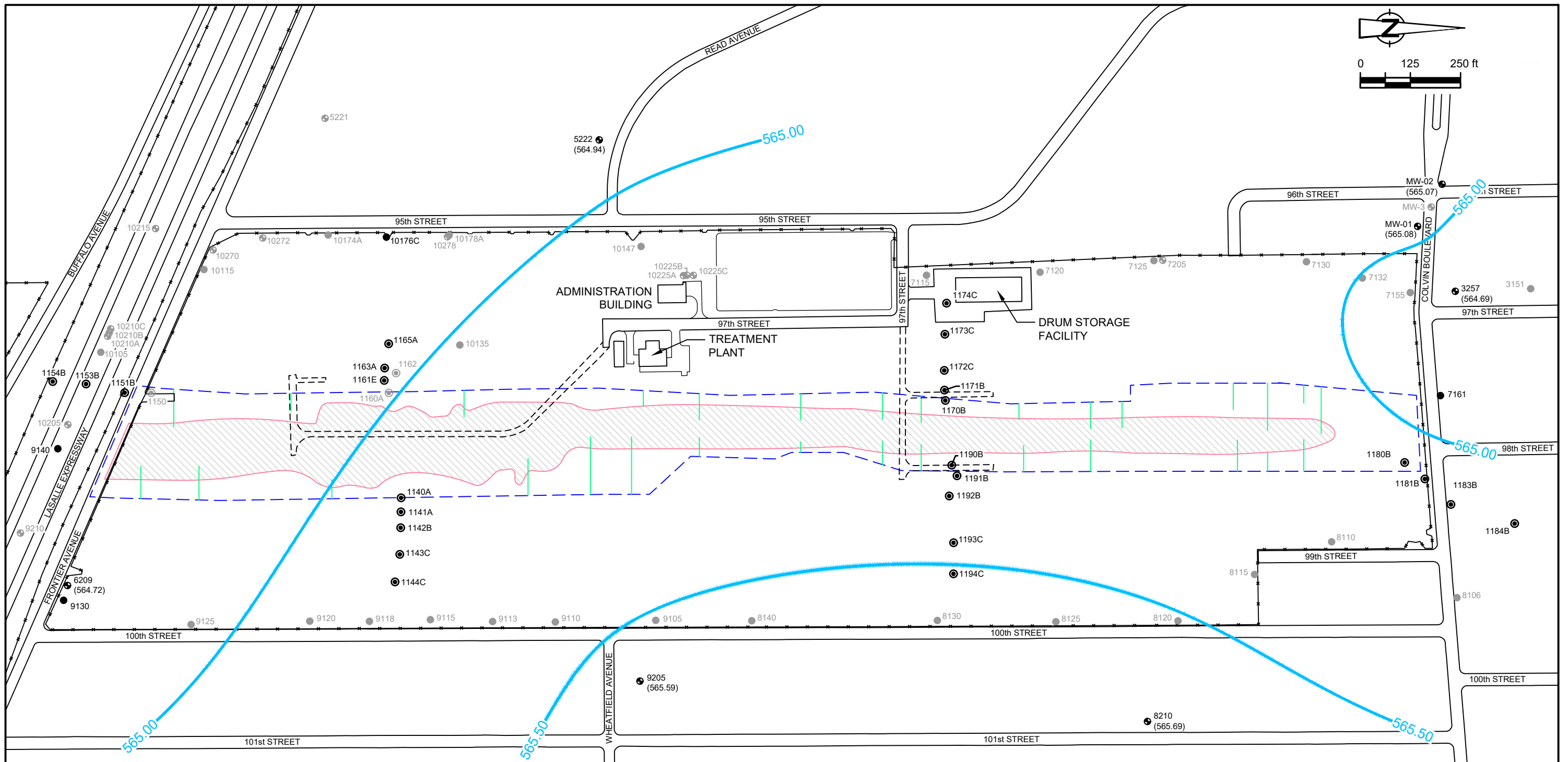


figure 3.9

JUNE 4, 2019 - OVERBURDEN GROUNDWATER CONTOURS
LOVE CANAL SITE
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York



LEGEND

- x—x— FENCE LINE
- - -554.80- - - ELEVATION OF THE BOTTOM OF THE BARRIER DRAIN
- LATERAL TRENCH
- 7105 PIEZOMETER
- 9120 OVERBURDEN OBSERVATION WELL
- 7105 PIEZOMETER (NOT PART OF HYDRAULIC MONITORING PROGRAM)
- 9120 OVERBURDEN OBSERVATION WELL (NOT PART OF HYDRAULIC MONITORING PROGRAM)

- 5222 BEDROCK OBSERVATION WELL
- 5221 BEDROCK OBSERVATION WELL (NOT PART OF HYDRAULIC MONITORING PROGRAM)
- ▨ APPROXIMATE LIMITS OF DISPOSED WASTE
- (565.36) GROUNDWATER ELEVATION
- 565.50— GROUNDWATER CONTOUR
- - - INFERRED GROUNDWATER CONTOUR

figure 3.10
 JUNE 4, 2019 - BEDROCK GROUNDWATER CONTOURS
 LOVE CANAL SITE
 GLENN SPRINGS HOLDINGS, INC.
 Niagara Falls, New York



Table 3.1

Monthly Volumes of Groundwater Treated
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
January	Gross	495,800	396,900	488,900	419,400	309,200	841,400	855,900	993,400	674,000	523,500	534,400	346,900	571,900	600,400	519,614	363,043	385,636	563,854	499,356	566,916
	Net ⁽¹⁾	280,364	282,480	422,682	374,123	260,171	796,518	817,305	970,918	649,777	495,713	471,805	322,994	546,816	575,767	499,889	346,565	370,676	548,797	491,321	558,881
	Days ⁽²⁾	21	20	21	14	10	17	16	20	18	16	17	18	15	18	20	14	18	19	20	26
February	Gross ⁽³⁾	480,400	560,000	663,700	266,300	330,000	440,200	437,300	216,600	570,000	506,700	314,300	375,800	656,700	495,900	291,292	68,244	634,159	371,608	692,324	486,978
	Net	368,492	468,863	608,116	231,049	291,082	401,137	405,124	174,776	539,772	485,869	276,643	349,712	634,167	478,434	277,226	55,548	619,942	357,557	685,588	480,242
	Days	21	19	20	13	9	11	9	7	16	13	10	19	16	19	15	16	19	13	24	26
March	Gross	505,500	616,400	364,900	721,500	1,038,400	698,900	436,800	582,500	570,500	606,900	550,100	1,003,700	384,500	488,000	388,937	658,775	544,972	641,911	492,694	356,288
	Net	290,501	493,476	316,696	667,337	986,332	667,105	402,047	560,237	550,518	582,109	526,021	978,000	363,378	467,083	375,154	642,149	529,757	629,687	481,863	345,457
	Days	23	21	21	17	21	13	13	16	12	18	17	21	16	20	17	20	21	20	24	16
April	Gross	675,600	352,300	689,700	432,800	800,400	805,300	184,800	447,200	602,000	414,900	498,200	676,400	334,400	533,800	786,808	575,949	531,147	1,053,394	751,811	632,012
	Net	547,926	262,946	629,683	380,745	767,982	769,514	155,028	420,133	574,359	377,080	466,778	652,656	316,188	516,478	768,257	561,287	517,498	1,041,670	741,736	621,937
	Days	20	20	20	16	17	14	6	14	12	16	15	11	18	22	20	17	19	24	28	25
May	Gross	473,300	311,200	589,500	425,400	326,500	183,400	121,800	323,200	172,900	306,200	379,400	942,700	363,100	148,500	444,598	113,599	175,158	983,450	169,570	579,868
	Net	335,331	207,580	532,251	379,299	294,612	156,846	93,394	297,471	147,715	267,700	348,837	917,206	341,424	129,687	428,177	99,179	163,324	971,685	160,439	570,737
	Days	20	17	20	14	10	5	4	12	11	14	18	17	16	18	21	12	15	25	18	19
June	Gross	632,200	202,200	395,100	367,900	253,200	160,800	130,700	173,300	128,700	110,000	205,200	473,100	142,000	497,300	168,921	262,025	98,255	178,582	110,862	248,940
	Net	486,721	132,132	347,485	303,576	208,659	118,979	104,449	148,638	107,411	79,200	174,305	449,046	118,568	478,285	152,639	245,083	83,122	164,597	101,919	239,997
	Days	20	16	14	13	9	6	5	4	6	7	13	16	12	18	12	19	11	15	10	12
July	Gross	333,900	182,200	194,500	187,700	137,700	92,600	195,500	129,100	164,760	187,900	85,600	79,700	98,400	280,000	151,772	138,495	77,140	335,930	103,168	134,549
	Net	184,955	111,941	145,344	142,849	111,217	78,234	183,084	99,026	141,442	153,170	55,670	53,632	72,435	260,823	123,921	122,874	62,847	322,782	94,304	125,685
	Days	20	16	16	11	7	3	5	6	6	7	4	5	9	19	15	16	12	18	8	10
August	Gross	437,100	267,200	151,300	158,600	301,900	98,800	322,440	120,800	197,340	369,400	184,300	193,900	73,960	193,144	98,166	108,376	65,714	242,754	91,721	105,894
	Net	286,925	194,821	107,928	114,497	269,934	55,055	293,900	106,040	191,068	347,425	162,562	166,652	49,422	168,418	83,010	91,308	50,772	228,321	84,888	99,061
	Days	23	18	17	8	10	5	10	5	6	18	8	13	8	21	9	7	6	17	7	8
September	Gross	209,600	144,900	148,600	105,800	484,800	317,900	249,160	68,400	152,200	101,500	88,100	47,800	161,100	131,289	139,016	151,905	96,279	114,926	95,188	217,213
	Net	82,263	81,619	94,401	60,350	435,482	284,315	213,343	49,041	122,101	76,057	56,678	21,679	136,728	110,397	111,392	134,935	79,011	100,242	82,421	204,446
	Days	20	16	12	7	12	8	7	4	9	7	2	6	17	23	13	12	11	8	8	11
October	Gross	264,300	438,500	154,600	211,000	135,700	486,300	919,200	173,000	296,100	199,200	120,200	417,500	318,400	503,036	121,075	146,842	124,508	286,862	132,231	333,060
	Net	134,248	348,153	108,226	211,000	94,476	445,560	892,734	141,650	274,068	129,035	88,537	389,696	291,391	480,233	94,680	123,794	104,726	270,291	119,086	319,915
	Days	20	18	13	9	4	10	18	8	13	8	5	14	19	20	18	11	11	12	11	19
November	Gross	250,900	250,400	360,800	356,800	211,400	524,600	691,800	90,100	449,700	210,100	263,400	350,100	526,900	538,978	107,729	146,722	101,686	686,365	635,923	450,485
	Net	132,728	194,481	306,258	310,650	186,999	494,443	658,765	77,506	414,149	152,302	233,159	322,735	504,290	520,087	85,439	127,799	85,421	669,770	618,813	433,375
	Days	17	16	14	12	5	14	14	3	14	12	15	12	20	19	12	15	11	22	21	25
December	Gross	522,600	555,300	549,600	692,300	674,400	502,000	510,400	345,700	757,500	506,200	510,900	952,000	517,700	677,411	471,085	155,368	335,448	278,817	626,070	728,072
	Net	421,149	475,856	496,556	643,735	622,403	476,165	492,900	317,790	733,582	467,578	483,221	926,201	493,061	660,890	456,099	138,929	318,036	264,686	614,350	716,352
	Days	17	18	15	14	14	12	12	8	20	17	17	19	14	17	14	13	14	19	28	28
Total	Gross	5,281,200	4,277,500	4,751,200	4,345,500	5,003,600	5,152,200	5,055,800	3,663,300	4,735,700	4,042,500	3,734,100	5,859,600	4,149,060	5,087,758	3,689,013	2,889,343	3,170,102	5,738,453	4,400,918	4,840,275
	Net	3,551,603	3,254,348	4,115,626	3,819,210	4,529,349	4,743,871	4,712,073	3,363,226	4,445,962	3,613,238	3,344,216	5,550,209	3,867,868	4,846,582	3,455,883	2,689,450	2,985,132	5,570,085	4,276,728	4,716,085
	Days	242	215	203	148	128	118	119	107	143	153	141	171	180	234	186	172	168	212	207	225
Monthly Average	Gross	440,100	356,458	395,933	362,125	416,967	429,350	421,317	305,275	394,642	336,875	311,175	488,300	345,755	423,980	307,418	240,779	264,175	478,204	366,743	403,356
	Net	295,967	271,196	342,969	318,268	377,446	395,323	392,673	280,269	370,497	301,103	278,685	462,517	322,322	403,882	287,990	224,121	248,761	464,174	356,394	393,007
	Days	20	18	17	12	11	10	10	9	12	13	12	14	15	20	16	14	14	18	17	19
Precipitation Inches ⁽⁴⁾		36.33	29.56	31.05	32.03	36.33	35.99	38.66	24.02	36.45	37.85	34.54	40.26	31.87	40.66	35.12	24.99	23.33	41.36	34.93	35.81

Notes:

- (1) - Gross: Total volume of leachate treated in gallons; treatment at LCTF includes leachate collected from 102nd Street Landfill Site.
- (2) - Net: Love Canal leachate treated in gallons; net is equal to the total (gross) leachate treated less leachate received from 102nd Street.
- (3) - Days: Number of days treatment facility discharged to the sanitary sewer.
- (4) - Precipitation data obtained from the National Climatic Data Center for Niagara Falls International Airport.

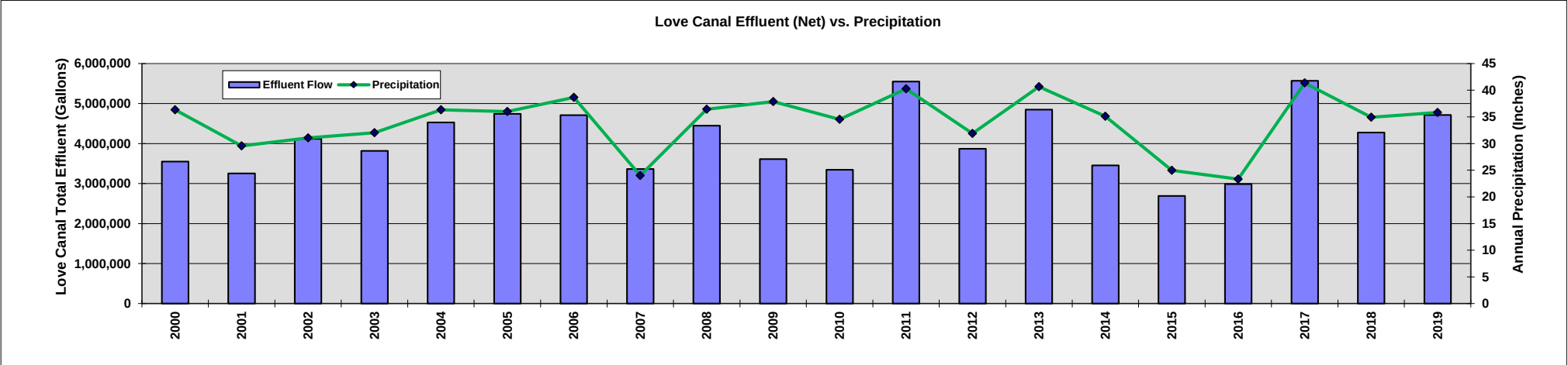


Table 3.2												
2019 Analytical Results Summary - Overburden Love Canal Long-Term Monitoring Program Niagara Falls, New York												
Sample Location: Sample ID: Sample Date:	7120 WG-9954-061119-SG-001 6/11/2019	7130 WG-9954-061219-SG-002 6/12/2019	7132 WG-9954-061219-SG-003 6/12/2019	7155 WG-9954-061419-DJT-015 6/14/2019	7161 WG-9954-061419-DJT-016 6/14/2019	8106 WG-9954-062119-SG-044 6/21/2019	8110 WG-9954-061919-SG-032 6/19/2019	8120 WG-9954-062119-SG-039 6/21/2019	8130 WG-9954-062119-SG-040 6/21/2019	8140 WG-9954-062119-SG-041 6/21/2019	9110 WG-9954-062119-SG-042 6/21/2019	
Parameters	Units											
Volatile Organic Compounds												
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Acetone	µg/L	10 U	10 U	10 U	4.7 J	5.1 J	5.3 J	10 U	10 U	10 U	10 U	
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.33 J	5.0 U	5.0 U	0.24 J	5.0 U	
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Carbon disulfide	µg/L	10 U	10 U	10 U	5.2 J	0.54 J	10 U	10 U	10 U	0.25 J	10 U	
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.86 J	5.0 U	5.0 U	0.60 J	5.0 U	
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.1 J	5.0 U	5.0 U	0.86 J	5.0 U	
Discrete Compounds Detected:	0	0	0	2	2	0	4	0	0	4	0	
Semi-volatile Organic Compounds												
1,2,4-Trichlorobenzene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
1,2-Dichlorobenzene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
1,3-Dichlorobenzene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
1,4-Dichlorobenzene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2,4,5-Trichlorophenol	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2,4,6-Trichlorophenol	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2,4-Dichlorophenol	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2,4-Dimethylphenol	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2,4-Dinitrophenol	µg/L	47 U	50 U	50 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	
2,4-Dinitrotoluene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2,6-Dinitrotoluene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2-Chloronaphthalene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2-Chlorophenol	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2-Methylnaphthalene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2-Methylphenol	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
2-Nitroaniline	µg/L	47 U	50 U	50 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	
2-Nitrophenol	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
3&4-Methylphenol	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
3,3'-Dichlorobenzidine	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
3-Nitroaniline	µg/L	47 U	50 U	50 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	
4,6-Dinitro-2-methylphenol	µg/L	47 U	50 U	50 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	
4-Bromophenyl phenyl ether	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
4-Chloro-3-methylphenol	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
4-Chloroaniline	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
4-Chlorophenyl phenyl ether	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
4-Nitroaniline	µg/L	47 U	50 U	50 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	
4-Nitrophenol	µg/L	47 U	50 U	50 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	
Acenaphthene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
Acenaphthylene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
Anthracene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
Benzo(a)anthracene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
Benzo(a)pyrene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
Benzo(b)fluoranthene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	
Benzo(g,h,i)perylene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	

Table 3.2												
2019 Analytical Results Summary - Overburden Love Canal Long-Term Monitoring Program Niagara Falls, New York												
Sample Location: Sample ID: Sample Date:	7120 WG-9954-061119-SG-001 6/11/2019	7130 WG-9954-061219-SG-002 6/12/2019	7132 WG-9954-061219-SG-003 6/12/2019	7155 WG-9954-061419-DJT-015 6/14/2019	7161 WG-9954-061419-DJT-016 6/14/2019	8106 WG-9954-062119-SG-044 6/21/2019	8110 WG-9954-061919-SG-032 6/19/2019	8120 WG-9954-062119-SG-039 6/21/2019	8130 WG-9954-062119-SG-040 6/21/2019	8140 WG-9954-062119-SG-041 6/21/2019	9110 WG-9954-062119-SG-042 6/21/2019	
Parameters	Units											
Semi-volatile Organic Compounds (Continued)												
Benzo(k)fluoranthene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzoic acid	µg/L	47 U	50 U	50 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
Benzyl alcohol	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	10 U	10 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	47 U	50 U	50 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.4 U	1.8 J	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Discrete Compounds Detected:	0	1	0	0	0	0	0	0	0	0	0	
Polychlorinated Biphenyls												
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	1.1 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	2.1 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	1.1 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	1.1 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	1.1 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 U	0.94 U	0.94 UJ	0.94 U	1.1 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 U	0.94 U	0.94 UJ	0.94 U	1.1 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Discrete Compounds Detected:	0	0	0	0	0	0	0	0	0	0	0	
Pesticides												
4,4'-DDD	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
4,4'-DDE	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
4,4'-DDT	µg/L	0.047 UJ	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
Aldrin	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
alpha-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 UJ	0.047 UJ	0.047 UJ	0.041 J	0.047 UJ
alpha-Chlordane	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
beta-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
delta-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
Dieldrin	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
Endosulfan I	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
Endosulfan II	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
Endosulfan sulfate	µg/L	0.047 UJ	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
Endrin	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
Endrin ketone	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
gamma-BHC (lindane)	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 UJ	0.047 UJ	0.047 UJ	0.023 J	0.047 UJ
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.053 U	0.047 U	0.047 U	0.047 U	0.047 U
Heptachlor	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
Heptachlor epoxide	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
Methoxychlor	µg/L	0.047 UJ	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.053 U	0.047 UJ	0.047 UJ	0.047 U	0.047 UJ
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.53 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Discrete Compounds Detected:	0	0	0	0	0	0	0	0	0	2	0	

Table 3.2

2019 Analytical Results Summary - Overburden Love Canal Long-Term Monitoring Program Niagara Falls, New York												
Sample Location: Sample ID: Sample Date:	9115 WG-9954-061819-SG-030 6/18/2019	9120 WG-9954-061819-SG-029 6/18/2019	9125 WG-9954-061819-SG-028 6/18/2019	9130 WG-9954-061419-DJT-017 6/14/2019	9140 WG-9954-062119-SG-043 6/21/2019	10105 WG-9954-061919-SG-035 6/19/2019	10135 WG-9954-061919-SG-036 6/19/2019	10135 WG-9954-061919-SG-037 6/19/2019 (Duplicate)	10147 WG-9954-061419-DJT-013 6/14/2019	10174A WG-9954-061419-DJT-014 6/14/2019	10178A WG-9954-061919-SG-031 6/19/2019	
Parameters	Units											
Volatile Organic Compounds												
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.8 J	1.8 J	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.4 J	3.8 J	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.22 J	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	5.7 J	4.4 J	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	4.2 J	4.0 J	4.7 J	6.5 J	10 U	8.7 J	50	35	10 U	5.5 J	5.1 J
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	4900	5700	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	0.79 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	10 UJ	0.30 J	0.31 J	0.44 J	0.31 J	0.56 J	0.31 J	0.33 J	10 U	10 U	10 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	2200	2400	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	59	60	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	0.43 J	0.36 J	0.34 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	8.1	8.4	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10	11	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.5 J	3.8 J	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 J	5.3	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	17000	19000	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	27	27	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	26	28	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.9 J	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	47	48	5.0 U	5.0 U	5.0 U
Discrete Compounds Detected:	1	3	4	3	1	2	18	16	0	1	1	
Semi-volatile Organic Compounds												
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	28 J	14 J	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	45 J	21 J	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	35 J	94 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	940 U	470 U	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	940 U	470 U	47 U	47 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	31 J	94 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	940 U	470 U	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	940 U	470 U	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	940 U	470 U	47 U	47 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	940 U	470 U	47 U	47 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U

Table 3.2												
2019 Analytical Results Summary - Overburden Love Canal Long-Term Monitoring Program Niagara Falls, New York												
Sample Location: Sample ID: Sample Date:	9115 WG-9954-061819-SG-030 6/18/2019	9120 WG-9954-061819-SG-029 6/18/2019	9125 WG-9954-061819-SG-028 6/18/2019	9130 WG-9954-061419-DJT-017 6/14/2019	9140 WG-9954-062119-SG-043 6/21/2019	10105 WG-9954-061919-SG-035 6/19/2019	10135 WG-9954-061919-SG-036 6/19/2019	10135 WG-9954-061919-SG-037 6/19/2019 (Duplicate)	10147 WG-9954-061419-DJT-013 6/14/2019	10174A WG-9954-061419-DJT-014 6/14/2019	10178A WG-9954-061919-SG-031 6/19/2019	
Parameters	Units											
Semi-volatile Organic Compounds (Continued)												
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Benzoic acid	µg/L	47 U	47 U	47 U	47 U	47 U	1300	1100	47 U	47 U	47 U	
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	61 J	43 J	9.4 U	9.4 U	9.4 U	
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	200 U	97 U	9.7 U	9.7 U	9.7 U	
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Chrysene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Dibenzofuran	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Fluorene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Hexachloroethane	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Isophorone	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Naphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Nitrobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Pentachlorophenol	µg/L	47 U	47 U	47 U	47 U	47 U	940 U	470 U	47 U	47 U	47 U	
Phenanthrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Phenol	µg/L	9.4 U	9.4 U	1.2 J	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	190 U	94 U	9.4 U	9.4 U	9.4 U	
Discrete Compounds Detected:	0	0	1	0	0	0	6	4	0	0	0	
Polychlorinated Biphenyls												
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	
Aroclor-1254 (PCB-1254)	µg/L	R	0.94 U	R	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	
Aroclor-1260 (PCB-1260)	µg/L	R	0.94 U	R	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	
Discrete Compounds Detected:	0	0	0	0	0	0	0	0	0	0	0	
Pesticides												
4,4'-DDD	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 UJ	0.94 U	0.94 U	0.047 U	0.047 U	0.047 UJ
4,4'-DDE	µg/L	R	0.047 UJ	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
4,4'-DDT	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
Aldrin	µg/L	R	0.047 UJ	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
alpha-BHC	µg/L	R	0.047 UJ	R	0.047 U	0.047 UJ	0.047 UJ	25	26	0.047 U	0.047 UJ	0.047 UJ
alpha-Chlordane	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
beta-BHC	µg/L	R	0.047 UJ	R	0.047 U	0.047 UJ	0.047 U	6.7	7.5	0.047 U	0.047 U	0.047 U
delta-BHC	µg/L	R	0.047 UJ	R	0.047 U	0.047 UJ	0.047 UJ	7.6	6.3	0.047 U	0.047 UJ	0.047 UJ
Dieldrin	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
Endosulfan I	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
Endosulfan II	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
Endosulfan sulfate	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
Endrin	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
Endrin ketone	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
gamma-BHC (lindane)	µg/L	R	0.047 UJ	R	0.047 U	0.047 UJ	0.047 UJ	4.7	4.4	0.047 U	0.047 UJ	0.047 UJ
gamma-Chlordane	µg/L	R	0.047 U	R	0.047 U	0.047 U	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
Heptachlor	µg/L	R	0.047 UJ	R	0.047 U	0.047 UJ	0.047 UJ	0.94 U	0.94 U	0.047 U	0.047 UJ	0.047 UJ
Heptachlor epoxide	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
Methoxychlor	µg/L	R	0.047 U	R	0.047 U	0.047 UJ	0.047 U	0.94 U	0.94 U	0.047 U	0.047 U	0.047 U
Toxaphene	µg/L	R	0.50 U	R	0.50 U	0.50 U	10 U	10 U	0.50 U	0.50 U	0.50 U	
Discrete Compounds Detected:	0	0	0	0	0	0	4	4	0	0	0	
Notes:												
J - Estimated concentration												
R - Rejected												
U - Not detected at the associated reporting limit												
UJ - Not detected; associated reporting limit is estimated												

Table 3.3													
2019 Analytical Results Summary - Bedrock Love Canal Long-Term Monitoring Program Niagara Falls, New York													
Sample Location:	3257	5221	6209	6209	7205	8210	9205	9210	10205	10210A	10210B	10210C	
Sample ID:	WG-9954-061319-SG-009	WG-9954-061919-SG-033	WG-9954-061319-SG-007	WG-9954-061319-SG-008	WG-9954-062119-SG-038	WG-9954-061819-SG-024	WG-9954-062419-SG-045	WG-9954-061719-SG-018	WG-9954-061719-SG-019	WG-9954-061419-DJT-010	WG-9954-061719-SG-020	WG-9954-061719-SG-021	
Sample Date:	6/13/2019	6/19/2019	6/13/2019	6/13/2019 (Duplicate)	6/21/2019	6/18/2019	6/24/2019	6/17/2019	6/17/2019	6/14/2019	6/17/2019	6/17/2019	
Parameters	Units												
Volatile Organic Compounds													
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	0.32 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	4.9 J	10 U	10 U	10 U	10 U	10 U	10 U	10 U	5.8 J	10 U	10 U
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	2.6 J	4.5 J	0.87 J	2.7 J	1.6 J	2.1 J	1.5 J	1.9 J	2.2 J	51	4.2 J	2.6 J
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.29 J	5.0 U	5.0 U
Discrete Compounds Detected:	1	2	1	1	2	2	1	1	1	3	1	1	
Semi-volatile Organic Compounds													
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	9.4 U											

Table 3.3													
2019 Analytical Results Summary - Bedrock Love Canal Long-Term Monitoring Program Niagara Falls, New York													
Sample Location:	3257	5221	6209	6209	7205	8210	9205	9210	10205	10210A	10210B	10210C	
Sample ID:	WG-9954-061319-SG-009	WG-9954-061919-SG-033	WG-9954-061319-SG-007	WG-9954-061319-SG-008	WG-9954-062119-SG-038	WG-9954-061819-SG-024	WG-9954-062419-SG-045	WG-9954-061719-SG-018	WG-9954-061719-SG-019	WG-9954-061419-DJT-010	WG-9954-061719-SG-020	WG-9954-061719-SG-021	
Sample Date:	6/13/2019	6/19/2019	6/13/2019	6/13/2019 (Duplicate)	6/21/2019	6/18/2019	6/24/2019	6/17/2019	6/17/2019	6/14/2019	6/17/2019	6/17/2019	
Parameters	Units												
Semi-volatile Organic Compounds (Continued)													
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Benzoic acid	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	1.7 J
Pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U	9.4 U
Discrete Compounds Detected:	0	0	0	0	0	0	0	0	0	0	0	1	
Polychlorinated Biphenyls													
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 UJ	0.94 U	0.94 U	0.94 U	0.94 U	0.94 UJ	0.94 UJ	0.94 U	0.94 UJ	0.94 UJ	0.94 UJ
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 UJ	0.94 U	0.94 U	0.94 U	0.94 U	0.94 UJ	0.94 UJ	0.94 U	0.94 UJ	0.94 UJ	0.94 UJ
Discrete Compounds Detected:	0	0	0	0	0	0	0	0	0	0	0	0	
Pesticides													
4,4'-DDD	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 U
4,4'-DDE	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.047 U	0.047 U	0.047 UJ	0.047 UJ
4,4'-DDT	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.047 U	0.047 U	0.047 U	0.047 U
Aldrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.047 U	0.047 U	0.047 UJ	0.047 UJ
alpha-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U	0.028 J	0.050	0.027 J	0.24 U	0.24 U	0.10	0.054	0.021 J
alpha-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 U
beta-BHC	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 UJ
delta-BHC	µg/L	0.047 U	0.047 UJ	0.026 J	0.046 J	0.035 J	0.047 U	0.037 J	0.24 U	0.045 J	0.047 U	0.028 J	0.028 J
Dieldrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 U
Endosulfan I	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 U
Endosulfan II	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 U
Endosulfan sulfate	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.047 U	0.047 U	0.047 U	0.047 U
Endrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 U
Endrin ketone	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 U
gamma-BHC (lindane)	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U	0.026 J	0.047 U	0.026 J	0.24 U	0.24 U	0.080	0.055	0.026 J
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 U
Heptachlor	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 UJ
Heptachlor epoxide	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 U
Methoxychlor	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.24 U	0.24 U	0.047 U	0.047 U	0.047 U
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	2.5 U	2.5 U	0.50 U	0.50 U	0.50 U	0.50 U
Discrete Compounds Detected:	0	0	1	1	3	1	3	0	0	3	2	3	

Table 3.3

2019 Analytical Results Summary - Bedrock
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Sample Location:		10215	10215	10225A	10225B	10225C	10270	10272	10278	MW-01	MW-01	MW-02
Sample ID:		WG-9954-061719-SG-022	WG-9954-061719-SG-023	WG-9954-061419-DJT-011	WG-9954-061419-DJT-012	WG-9954-061919-SG-034	WG-9954-061319-SG-006	WG-9954-061219-SG-005	WG-9954-061219-SG-004	WG-9954-061819-SG-026	WG-9954-061819-SG-027	WG-9954-061819-SG-025
Sample Date:		6/17/2019	6/17/2019	6/14/2019	6/14/2019	6/19/2019	6/13/2019	6/12/2019	6/12/2019	6/18/2019	6/18/2019	6/18/2019
			(Duplicate)								(Duplicate)	
Parameters	Units											
Volatile Organic Compounds												
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	1.0 J	10 U	10 U	10 U	10 U	1.9 J	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	2.4 J	10 U	8.7 J	3.3 J	3.4 J	10 U	2.7 J	15	9.5 J	7.7 J	12
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	2.1 J	2.2 J	84	4.8 J	2.6 J	0.46 J	2.5 J	0.66 J	0.46 J	0.36 J	1.4 J
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	1.0 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	3.1 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	0.35 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	0.27 J	0.23 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	0.20 J
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	6.5	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	0.45 J	5.0 U	5.0 U	5.0 U	5.0 U	0.32 J	5.0 U	5.0 U	5.0 U
Discrete Compounds Detected:		2	1	6	3	5	1	2	4	2	2	3
Semi-volatile Organic Compounds												
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	10	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	47 U	47 U	49 U	47 U	50 U	50 U	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	47 U	47 U	49 U	47 U	50 U	50 U	47 U	47 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	47 U	47 U	49 U	47 U	50 U	50 U	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	47 U	47 U	49 U	47 U	50 U	50 U	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	47 U	47 U	49 U	47 U	50 U	50 U	47 U	47 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	47 U	47 U	49 U	47 U	50 U	50 U	47 U	47 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U

Table 3.3

2019 Analytical Results Summary - Bedrock
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Sample Location:		10215	10215	10225A	10225B	10225C	10270	10272	10278	MW-01	MW-01	MW-02
Sample ID:		WG-9954-061719-SG-022	WG-9954-061719-SG-023	WG-9954-061419-DJT-011	WG-9954-061419-DJT-012	WG-9954-061919-SG-034	WG-9954-061319-SG-006	WG-9954-061219-SG-005	WG-9954-061219-SG-004	WG-9954-061819-SG-026	WG-9954-061819-SG-027	WG-9954-061819-SG-025
Sample Date:		6/17/2019	6/17/2019 (Duplicate)	6/14/2019	6/14/2019	6/19/2019	6/13/2019	6/12/2019	6/12/2019	6/18/2019	6/18/2019 (Duplicate)	6/18/2019
Parameters		Units										
Semi-volatile Organic Compounds (Continued)												
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Benzoic acid	µg/L	47 U	47 U	47 U	47 U	49 U	47 U	50 U	50 U	47 U	47 U	47 U
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.7 U	9.7 U	9.8 U	9.7 U	10 U	10 U	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	47 U	47 U	47 U	47 U	49 U	47 U	50 U	50 U	47 U	47 U	47 U
Phenanthrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U	9.8 U	9.4 U	10 U	10 U	9.4 U	9.4 U	9.4 U
Discrete Compounds Detected:		0	0	0	0	1	0	0	0	0	0	0
Polychlorinated Biphenyls												
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 UJ	0.94 UJ	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 UJ	0.94 UJ	0.94 UJ
Aroclor-1260 (PCB-1260)	µg/L	0.94 UJ	0.94 UJ	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U	0.94 UJ	0.94 UJ	0.94 UJ
Discrete Compounds Detected:		0	0	0	0	0	0	0	0	0	0	0
Pesticides												
4,4'-DDD	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
4,4'-DDE	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
4,4'-DDT	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
Aldrin	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
alpha-BHC	µg/L	0.023 J	0.047 UJ	0.024 J	0.047 U	0.12	0.10	0.39	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
alpha-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
beta-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 U	0.047 U	0.024 J	0.026 J	0.047 UJ	0.047 UJ	0.047 UJ
delta-BHC	µg/L	0.028 J	0.047 UJ	0.10	0.023 J	0.046 J	0.074	0.26	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
Dieldrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
Endosulfan I	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
Endosulfan II	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan sulfate	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
Endrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
Endrin ketone	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
gamma-BHC (lindane)	µg/L	0.028 J	0.047 UJ	0.045 J	0.047 U	0.060	0.093	0.38	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
Heptachlor	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
Heptachlor epoxide	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
Methoxychlor	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
Discrete Compounds Detected:		3	0	3	1	3	3	4	1	0	0	0

Notes:
J - Estimated concentration
U - Not detected at the associated reporting limit
UJ - Not detected; associated reporting limit is estimated

Table 3.4

2019 Detection Summary -
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

			Number of Parameters Detected			
Overburden Wells (without well 10135)		Well Group	VOCs	SVOCs	PCBs	Pesticides
7120		B	0	0	0	0
7130		A	0	1	0	0
7132		A	0	0	0	0
7155		B	2	0	0	0
7161		B	2	0	0	0
8106		A	0	0	0	0
8110		B	4	0	0	0
8120		B	0	0	0	0
8130		B	0	0	0	0
8140		B	4	0	0	2
9110		B	0	0	0	0
9115		B	1	0	0*	NA**
9120		B	3	0	0	0
9125		B	4	1	0*	NA**
9130		B	3	0	0	0
9140		B	1	0	0	0
10105		B	2	0	0	0
10147		B	0	0	0	0
10174A		B	1	0	0	0
10178A		A	1	0	0	0
Total Overburden Well Detections			28	2	0	2
Number of Discrete Compounds Detected			7	1	0	2
Well 10135		Well Group	VOCs	SVOCs	PCBs	Pesticides
10135		A	18 (16)	6 (4)	0	4
Total Well 10135 Well Detections			18 (16)	6 (4)	0	4
Number of Discrete Compounds Detected			18 (16)	6 (4)	0	4
Bedrock Wells		Well Group	VOCs	SVOCs	PCBs	Pesticides
3257		A	1	0	0	0
5221		A	2	0	0	0
6209		A	1	0	0	1
7205		A	2	0	0	3
8210		A	2	0	0	1
9205		A	1	0	0	3
9210		A	1	0	0	0
10205		A	1	0	0	0
10210A		A	3	0	0	3
10210B		A	1	0	0	2
10210C		A	1	1	0	3
10215		A	2 (1)	0	0	3 (0)
10225A		A	6	0	0	3
10225B		A	3	0	0	1
10225C		A	5	1	0	3
10270		A	1	0	0	3
10272		A	2	0	0	4
10278		A	4	0	0	1
MW-01		X	2	0	0	0
MW-02		X	3	0	0	0
Total Bedrock Well Detections			44 (43)	2	0	34 (31)
Number of Discrete Compounds Detected			10	2	0	4
Notes:						
* - A portion of the data was rejected during data validation; rejected data is not included in total. Rejected results were non-detect						
** - All data rejected during data validation; rejected data is not included in total. Rejected results were non-detect						
NA - Not available						
U - No parameters detected at or above detection limits						
A - Annual Well						
B - Biannual Well						
X - Additional annual well added to program in 2011						
() - Results for duplicate sample, if different from parent sample						
PCBs - Polychlorinated Biphenyls						
SVOCs - Semi-volatile Organic Compounds						
VOCs - Volatile Organic Compounds						

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A
SampleDate:	7/24/1990	8/22/1991	8/26/1992	8/11/1993	5/25/1995	7/1/1996	7/10/1997	6/26/1998	6/23/1999	6/21/2000	5/18/2001	6/13/2002	5/27/2003	6/3/2004	6/28/2005	7/6/2006	7/26/2007	7/17/2008	7/15/2009	6/24/2010	7/19/2011
Parameters																					
Volatiles (µg/L)																					
1,1,1-Trichloroethane																					
1,1,2,2-Tetrachloroethane				0.2																	
1,1,2-Trichloroethane																					
1,1-Dichloroethane																					
1,1-Dichloroethene																					
1,2-Dichloroethane																					
1,2-Dichloroethene (total)																					
1,2-Dichloropropane				0.04																	
2-Butanone (Methyl Ethyl Ketone)									2 J			3 J		4 J							
2-Hexanone				0.4					3 J												
Acetone	14C			13B				120 J			10 J									5.2 J	
Benzene				0.1																	
Bromodichloromethane																					
Bromoform				0.03																	
Bromomethane (Methyl bromide)																					
Carbon Disulfide				2	20	310					6 J			6 J	1.6 J	1 J	8 J	24			
Chlorobenzene																					
Chloroform																					
Chlorotoluenes																					
cis-1,2-Dichloroethene																					
Dibromochloromethane				0.08																	
Dichlorotoluene, total																					
Ethylbenzene				0.6																	
m&p-Xylenes																					
Methylene Chloride				0.3																	
o-Xylene																					
Styrene				0.1																	
Tetrachloroethene				0.07																	
Toluene				0.4					2 J						2.3 J						
trans-1,2-Dichloroethene																					
Trichloroethene				0.1																6.3	
Trichlorotoluene, total																					
Vinyl Acetate																					
Vinyl Chloride																					
Xylenes (total)				1																	
Semi-volatiles (µg/L)																					
1,2,4-Trichlorobenzene																					
1,2-Dichlorobenzene																					
1,3-Dichlorobenzene																					
1,4-Dichlorobenzene																					
2,4,5-Trichlorophenol																					
2,4,6-Trichlorophenol																					
2,4-Dichlorophenol																					
2,4-Dimethylphenol																					
2-Chloronaphthalene																					
2-Chlorophenol																					
2-Methylnaphthalene																					
2-Methylphenol																					
3&4-Methylphenol																					
2-Nitrophenol																					
3,5-Dichlorotoluene																					
4-Chloro-3-methylphenol																					
4-Chlorophenyl phenyl ether																					
4-Methylphenol																					
Acetic acid																					
Anthracene																					
Benzo(a)pyrene																					
Benzo(b)fluoranthene																					
Benzo(g,h,i)perylene																					
Benzo(k)fluoranthene																					
Benzoic Acid								12 J					3 J	3 J	2.7 J				5.8 J		
Benzyl Alcohol																					
Bis(2-Chloroethyl)Ether																					

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A
SampleDate:	7/24/1990	8/22/1991	8/26/1992	8/11/1993	5/25/1995	7/1/1996	7/10/1997	6/26/1998	6/23/1999	6/21/2000	5/18/2001	6/13/2002	5/27/2003	6/3/2004	6/28/2005	7/6/2006	7/26/2007	7/17/2008	7/15/2009	6/24/2010	7/19/2011
Parameters																					
Semi-volatiles (µg/L)-Continued																					
bis(2-Ethylhexyl)Phthalate		12	21	31	51									1 J	1.7 J	8 J			2.5 J		
Butyl benzylphthalate (BBP)				3																	
Camphor																					
Carbazole																					
Chlorobenzoic acid																					
Chrysene																					
Dibenz(a,h)anthracene																					
Diethyl phthalate																					
Dimethyl Phthalate	16																				
Dimethyl tetrasulfide				22																	
Di-n-butyl phthalate (DBP)		2		0.9																	
Di-n-octyl phthalate (DnOP)	3B																				
Fluoranthene																					
Hexachlorobenzene																					
Hexachloroethane																					
Indeno(1,2,3-cd)pyrene																					
Naphthalene																					
N-Nitrosodiphenylamine																					
Pentachlorophenol																					
Phenanthrene																					
Phenol									1 J				5 J	1 J	1.7 J						
Pyrene																					
Pesticides/PCBs (µg/L)																					
4,4'-DDD													0.013 J								
4,4'-DDE																					
Aldrin																					
Alpha-BHC									0.28										0.14 J		
Alpha-Chlordane																					
Aroclor-1260 (PCB-1260)																					
beta&gamma-BHC (sum of isomers)																					
Beta-BHC									0.035 J				0.020 J	0.011 J			0.015 J		0.12 J		
Delta-BHC				0.0061									0.062 J	0.043 J					0.12 J		
Dieldrin																					
Endosulfan I									0.046 J												
Endosulfan II																					
Endosulfan Sulfate																					
Endrin																					
Endrin ketone																					
Gamma-BHC (Lindane)									0.10 J				0.039 J						0.12 J		
Gamma-Chlordane																					
Heptachlor																					
Heptachlor epoxide																					
Methoxychlor																					

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B
SampleDate:	6/22/2012	6/13/2013	6/27/2014	6/26/2015	6/24/2016	7/10/2017	7/23/2018	6/14/2019	7/24/1990	8/22/1991	8/26/1992	8/11/1993	6/15/1994	6/1/1995	7/5/1996	7/1/1997	6/18/1998	6/24/1999	6/15/2000	5/17/2001	6/10/2002
Parameters																					
Volatiles (µg/L)																					
1,1,1-Trichloroethane																					
1,1,2,2-Tetrachloroethane																					
1,1,2-Trichloroethane																					
1,1-Dichloroethane																					
1,1-Dichloroethene													0.06								
1,2-Dichloroethane																					
1,2-Dichloroethene (total)																					
1,2-Dichloropropane																					
2-Butanone (Methyl Ethyl Ketone)													4								
2-Hexanone																					
Acetone					3.5 J		8.4 J				5.8 J			31	6	12 B	23			12 J	
Benzene													0.3	0.3							
Bromodichloromethane																					
Bromoform																					
Bromomethane (Methyl bromide)					6.1								0.2								
Carbon Disulfide	2.7 J			2.9 J			2.0 J	340	51				2	0.4			8 J	2 J		14	3 J
Chlorobenzene														0.2							
Chloroform																					
Chlorotoluenes																					
cis-1,2-Dichloroethene																					
Dibromochloromethane																					
Dichlorotoluene, total																					
Ethylbenzene					0.28 J		0.35 J	0.22 J					0.2	0.08							
m&p-Xylenes																					
Methylene Chloride													0.4	0.2							
o-Xylene																					
Styrene																					
Tetrachloroethene													0.06								
Toluene									1.8					0.5				2 J	1 J		
trans-1,2-Dichloroethene																					
Trichloroethene													0.1	0.1							
Trichlorotoluene, total																					
Vinyl Acetate																					
Vinyl Chloride																					
Xylenes (total)								0.27 J	0.29 J				0.5	0.5							
Semi-volatiles (µg/L)																					
1,2,4-Trichlorobenzene																					
1,2-Dichlorobenzene																					
1,3-Dichlorobenzene																					
1,4-Dichlorobenzene																					
2,4,5-Trichlorophenol																					
2,4,6-Trichlorophenol																					
2,4-Dichlorophenol																					
2,4-Dimethylphenol																					
2-Chloronaphthalene																					
2-Chlorophenol																					
2-Methylnaphthalene														0.06							
2-Methylphenol																					
3&4-Methylphenol																					
2-Nitrophenol																					
3,5-Dichlorotoluene																					
4-Chloro-3-methylphenol																					
4-Chlorophenyl phenyl ether																					
4-Methylphenol														0.2							
Acetic acid																					
Anthracene																					
Benzo(a)pyrene														0.07							
Benzo(b)fluoranthene														0.08							
Benzo(g,h,i)perylene														0.1							
Benzo(k)fluoranthene														0.04							
Benzoic Acid																					
Benzyl Alcohol																					
Bis(2-Chloroethyl)Ether																					

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210A	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B
SampleDate:	6/22/2012	6/13/2013	6/27/2014	6/26/2015	6/24/2016	7/10/2017	7/23/2018	6/14/2019	7/24/1990	8/22/1991	8/26/1992	8/11/1993	6/15/1994	6/1/1995	7/5/1996	7/1/1997	6/18/1998	6/24/1999	6/15/2000	5/17/2001	6/10/2002
Parameters																					
Semi-volatiles (µg/L)-Continued																					
bis(2-Ethylhexyl)Phthalate									7 B	13		11	9			55	6 J				
Butyl benzylphthalate (BBP)													0.2								
Camphor																					
Carbazole													0.05								
Chlorobenzoic acid																					
Chrysene																					
Dibenz(a,h)anthracene													0.1								
Diethyl phthalate													0.3								
Dimethyl Phthalate																					
Dimethyl tetrasulfide																					
Di-n-butyl phthalate (DBP)									1	1			0.6						3 J		
Di-n-octyl phthalate (DnOP)													0.1								
Fluoranthene													0.04								
Hexachlorobenzene																					
Hexachloroethane																					
Indeno(1,2,3-cd)pyrene													0.1								
Naphthalene				0.41 J																	
N-Nitrosodiphenylamine													0.2								
Pentachlorophenol									1				0.3								
Phenanthrene													0.07								
Phenol									3	3			2								
Pyrene													0.04								
Pesticides/PCBs (µg/L)																					
4,4'-DDD																					
4,4'-DDE																					
Aldrin																					
Alpha-BHC					0.086			0.10													
Alpha-Chlordane				0.030																	
Aroclor-1260 (PCB-1260)																					
beta&gamma-BHC (sum of isomers)																					
Beta-BHC																					
Delta-BHC		0.067 J			0.067 J		0.032 J	0.045 J													
Dieldrin																					
Endosulfan I																					
Endosulfan II																					
Endosulfan Sulfate																					
Endrin																					
Endrin ketone																					
Gamma-BHC (Lindane)					0.083		0.021 J	0.080													
Gamma-Chlordane																					
Heptachlor																					
Heptachlor epoxide																					
Methoxychlor																					

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210C	10210C
SampleDate:	5/23/2003	6/2/2004	6/24/2005	6/28/2006	7/26/2007	7/17/2008	7/15/2009	7/15/2009	7/9/2009	6/15/2010	7/14/2011	6/18/2012	6/15/2013	6/26/2014	7/2/2015	6/28/2016	7/10/2017	7/19/2018	6/17/2019	7/25/1990	8/22/1991
Parameters																					
Volatiles (µg/L)																					
1,1,1-Trichloroethane																					
1,1,2,2-Tetrachloroethane																					
1,1,2-Trichloroethane																					
1,1-Dichloroethane																					
1,1-Dichloroethene																					
1,2-Dichloroethane																					
1,2-Dichloroethene (total)																					
1,2-Dichloropropane																					
2-Butanone (Methyl Ethyl Ketone)	23																				
2-Hexanone																					
Acetone																2.6 J					
Benzene																					
Bromodichloromethane																					
Bromoform																					
Bromomethane (Methyl bromide)																					
Carbon Disulfide	2 J		1.4 J	1 J	6 J					4.0 J	4.6 J	6.1 J		2.9 J	7.9		3.4 J	20	4.2 J		
Chlorobenzene		1 J																			
Chloroform																					
Chlorotoluenes																					
cis-1,2-Dichloroethene																					
Dibromochloromethane																					
Dichlorotoluene, total																					
Ethylbenzene																					
m&p-Xylenes																					
Methylene Chloride													1.2 J								
o-Xylene																					
Styrene																					
Tetrachloroethene		9 J																			
Toluene			1.1 J																	3	
trans-1,2-Dichloroethene																					
Trichloroethene																					
Trichlorotoluene, total																					
Vinyl Acetate																					
Vinyl Chloride																					
Xylenes (total)																					
Semi-volatiles (µg/L)																					
1,2,4-Trichlorobenzene	3 J																				
1,2-Dichlorobenzene																					
1,3-Dichlorobenzene																					
1,4-Dichlorobenzene																					
2,4,5-Trichlorophenol																					
2,4,6-Trichlorophenol																					
2,4-Dichlorophenol																					
2,4-Dimethylphenol																					
2-Chloronaphthalene																					
2-Chlorophenol																					
2-Methylnaphthalene																					
2-Methylphenol																					
3&4-Methylphenol																					
2-Nitrophenol																					
3,5-Dichlorotoluene																					
4-Chloro-3-methylphenol																					
4-Chlorophenyl phenyl ether																					
4-Methylphenol																					
Acetic acid																					
Anthracene																					
Benzo(a)pyrene																					
Benzo(b)fluoranthene																					
Benzo(g,h,i)perylene																					
Benzo(k)fluoranthene																					
Benzoic Acid					2 J																
Benzyl Alcohol																					
Bis(2-Chloroethyl)Ether																					

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210B	10210C	10210C
SampleDate:	5/23/2003	6/2/2004	6/24/2005	6/28/2006	7/26/2007	7/17/2008	7/15/2009	7/15/2009	7/9/2009	6/15/2010	7/14/2011	6/18/2012	6/15/2013	6/26/2014	7/2/2015	6/28/2016	7/10/2017	7/19/2018	6/17/2019	7/25/1990	8/22/1991
Parameters																					
Semi-volatiles (µg/L)-Continued																					
bis(2-Ethylhexyl)Phthalate		4 J	4.5 J	3 J																7 B	13
Butyl benzylphthalate (BBP)																				1	
Camphor																					
Carbazole																					
Chlorobenzoic acid																					
Chrysene																					
Dibenz(a,h)anthracene																					
Diethyl phthalate												1.8 J								1	
Dimethyl Phthalate																					
Dimethyl tetrasulfide																					
Di-n-butyl phthalate (DBP)																				2	3
Di-n-octyl phthalate (DnOP)																					
Fluoranthene																					
Hexachlorobenzene	1 J																				
Hexachloroethane																					1
Indeno(1,2,3-cd)pyrene																					
Naphthalene																					
N-Nitrosodiphenylamine																					
Pentachlorophenol																					
Phenanthrene																					
Phenol																				2	6
Pyrene																					
Pesticides/PCBs (µg/L)																					
4,4'-DDD																					
4,4'-DDE		0.011 J																			
Aldrin				.0089 J																	
Alpha-BHC	19	2.4	0.37	.58	0.016 J		0.064	0.050	0.050 / 0.064		0.048 J					0.056 J			0.054		
Alpha-Chlordane																					
Aroclor-1260 (PCB-1260)																					
beta&gamma-BHC (sum of isomers)																					
Beta-BHC	1.9	0.53	0.082 P	.082																	
Delta-BHC	0.56 J	0.15		.047 J			0.032 J	0.028 J	.028 J / 0.032 J	0.050 J	0.042 J					0.17 J					
Dieldrin	0.13 J																				
Endosulfan I	0.11 J																				
Endosulfan II																					
Endosulfan Sulfate																					
Endrin																					
Endrin ketone																					
Gamma-BHC (Lindane)	2.1	0.39	0.046 J	.099			0.038 J	0.033 J	.038 J / 0.033 J		0.061 J					0.084			0.055		
Gamma-Chlordane	0.15 J																				
Heptachlor															0.053 J						
Heptachlor epoxide	0.35 J																				
Methoxychlor																					

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C
SampleDate:	8/26/1992	8/11/1993	6/8/1994	6/1/1995	7/1/1996	7/1/1997	6/22/1998	6/24/1999	6/15/2000	5/17/2001	6/10/2002	5/23/2003	6/7/2004	6/23/2005	6/28/2006	7/26/2007	7/16/2008	7/13/2009	6/15/2010	7/14/2011	6/22/2012
Parameters																					
Volatiles (µg/L)																					
1,1,1-Trichloroethane																					
1,1,2,2-Tetrachloroethane																					
1,1,2-Trichloroethane																					
1,1-Dichloroethane																					
1,1-Dichloroethene																					
1,2-Dichloroethane																					
1,2-Dichloroethene (total)																					
1,2-Dichloropropane																					
2-Butanone (Methyl Ethyl Ketone)																					
2-Hexanone																					
Acetone	10 B		19 B					2100	8 J	9 J				1.9 J							
Benzene																					
Bromodichloromethane																					
Bromoform																					
Bromomethane (Methyl bromide)																					
Carbon Disulfide			0.6						3 J								2 J				U/1.4 J
Chlorobenzene															2 J						
Chloroform																					
Chlorotoluenes																					
cis-1,2-Dichloroethene																					
Dibromochloromethane																					
Dichlorotoluene, total																					
Ethylbenzene																					
m&p-Xylenes																					
Methylene Chloride			0.2																		
o-Xylene																					
Styrene																					
Tetrachloroethene															6 J						
Toluene													29 / 23								
trans-1,2-Dichloroethene																					
Trichloroethene																					
Trichlorotoluene, total																					
Vinyl Acetate																					
Vinyl Chloride																					
Xylenes (total)																					
Semi-volatiles (µg/L)																					
1,2,4-Trichlorobenzene															6 J						
1,2-Dichlorobenzene																					
1,3-Dichlorobenzene																					
1,4-Dichlorobenzene																					
2,4,5-Trichlorophenol																					
2,4,6-Trichlorophenol																					
2,4-Dichlorophenol																					
2,4-Dimethylphenol																					
2-Chloronaphthalene																					
2-Chlorophenol																					
2-Methylnaphthalene																					
2-Methylphenol			5																		
3&4-Methylphenol																					
2-Nitrophenol																					
3,5-Dichlorotoluene																					
4-Chloro-3-methylphenol																					
4-Chlorophenyl phenyl ether																					
4-Methylphenol			6	29	110	62	0.6J														
Acetic acid		11																			
Anthracene																					
Benzo(a)pyrene																					
Benzo(b)fluoranthene																					
Benzo(g,h,i)perylene																					
Benzo(k)fluoranthene																					
Benzoic Acid																					
Benzyl Alcohol																					
Bis(2-Chloroethyl)Ether																					

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10210C
SampleDate:	8/26/1992	8/11/1993	6/8/1994	6/1/1995	7/1/1996	7/1/1997	6/22/1998	6/24/1999	6/15/2000	5/17/2001	6/10/2002	5/23/2003	6/7/2004	6/23/2005	6/28/2006	7/26/2007	7/16/2008	7/13/2009	6/15/2010	7/14/2011	6/22/2012
Parameters																					
Semi-volatiles (µg/L)-Continued																					
bis(2-Ethylhexyl)Phthalate			8										29 / 5 J		5 J						
Butyl benzylphthalate (BBP)			0.4																		
Camphor																					
Carbazole																					
Chlorobenzoic acid																					
Chrysene																					
Dibenz(a,h)anthracene																					
Diethyl phthalate			0.2																4.4 J		
Dimethyl Phthalate																			0.87 J		
Dimethyl tetrasulfide																					
Di-n-butyl phthalate (DBP)			0.5																		
Di-n-octyl phthalate (DnOP)			0.04																		
Fluoranthene																					
Hexachlorobenzene																					
Hexachloroethane																					
Indeno(1,2,3-cd)pyrene																					
Naphthalene																					
N-Nitrosodiphenylamine																					
Pentachlorophenol																					
Phenanthrene			0.03																		
Phenol				22		22															
Pyrene																					
Pesticides/PCBs (µg/L)																					
4,4'-DDD																					
4,4'-DDE																					
Aldrin															0.061 J						
Alpha-BHC														0.083	0.45 J						
Alpha-Chlordane																					
Aroclor-1260 (PCB-1260)																					
beta&gamma-BHC (sum of isomers)																					
Beta-BHC															0.048 J						
Delta-BHC													0.019 J / 0.017 J		0.052 J			0.048 J			
Dieldrin																					
Endosulfan I																					
Endosulfan II																					
Endosulfan Sulfate																					
Endrin															0.14 J						
Endrin ketone																					
Gamma-BHC (Lindane)															0.11 J						
Gamma-Chlordane															0.018 J						
Heptachlor																					
Heptachlor epoxide																					
Methoxychlor																					

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135
SampleDate:	6/15/2013	6/26/2014	7/2/2015	6/28/2016	7/10/2017	7/19/2018	6/17/2019	9/13/1990	8/29/1991	8/26/1992	8/19/1993	6/22/1994	6/1/1995	6/27/1996	7/7/1997	6/17/1998	6/16/1999	6/22/2000	5/11/2001	6/12/2002	5/19/2003
Parameters																					
Volatiles (µg/L)																					
1,1,1-Trichloroethane											8	14									
1,1,2,2-Tetrachloroethane											12	51		26		94 J	29 / 32	27 J / 26 J	120 J / 100 J	56	38
1,1,2-Trichloroethane														14		29 J	15 / 12	16 J / 14 J	29 J / 34 J	27	
1,1-Dichloroethane																					
1,1-Dichloroethene							6				15	3					4 J / 3 J	4 J / 4 J	4 J / 4 J	4 J	3 J
1,2-Dichloroethane																					
1,2-Dichloroethene (total)								700		840	650	670 JD	560							600 J / 560	490 J
1,2-Dichloropropane																					
2-Butanone (Methyl Ethyl Ketone)											36							10 J	11 J / 12 J		
2-Hexanone																					
Acetone		4.3 J						50			270	100 B	100 J	60		110 J		28 J / 46 J		72	74
Benzene								6200	6700		5200	6000 E	4900 D	4800	5000 / 5600	5300 J	5700 / 5600	1900 J / 6400	8500 J / 7600	5900 / 6400	5500
Bromodichloromethane																					
Bromoform																					
Bromomethane (Methyl bromide)																					
Carbon Disulfide					0.77 J	6.3 J	2.6 J											2 J			
Chlorobenzene								2380	2400	2600	1700 E	2900 E	2000 D	1500	2300 / ND	1900 J	1900 / 1800	1300 J / 2300	18000 J / 2700 J	2200 / 2400	1900
Chloroform											100	120	86 J	110		150 J	110 / 120	130 J / 100 J	160 J / 150 J	160	110
Chlorotoluenes								16600	16000												
cis-1,2-Dichloroethene																					
Dibromochloromethane																					
Dichlorotoluene, total								14000	140												
Ethylbenzene								12	10		13	12				12	9 J / 10 J	12 J / 12 J	24 J / 22 J	15	10
m&p-Xylenes																				39	29
Methylene Chloride								5			41	8		11				24 J / 24 J		39	26
o-Xylene																				12	9 J
Styrene											4										
Tetrachloroethene								50			8	32				40 J	13 / 12	16 J / 14 J	50 J / 61 J	38	18
Toluene								22800	26000	2700	17000	21500	18000 D	14000	19000 / 17000	16000 J	16000 / 17000	1000 D / 21000	24000 / 22000	20000 J / 19000	15000
trans-1,2-Dichloroethene								20								58 J	67 / 70	67 J / 70 J	59 J / 60 J		
Trichloroethene								260	450		24	140	18 J	36		170 J	58 / 70	60 J / 72 J	180 J / 140 J	160 / 130 J	91
Trichlorotoluene, total								40													
Vinyl Acetate										6800											
Vinyl Chloride												61	44 J	50		48 J	62 / 61	110 J / 85 J	66 J / 75 J	48	51
Xylenes (total)								50	30		47	10 B	37 J	28		55 J	44 / 43	42 J / 44 J			
Semi-volatiles (µg/L)																					
1,2,4-Trichlorobenzene								80	290		74	87 B				78 J	45 J / 65 J	45 J / 36 J	65 J / 42 J		97 J
1,2-Dichlorobenzene								50	16		35	34					24 J / 30 J	18 J / 22 J	48 J		59 J
1,3-Dichlorobenzene												4									
1,4-Dichlorobenzene								120	47	110	94	91					61 J / 74 J	59 J / 52 J	110 J / 69 J		160 J
2,4,5-Trichlorophenol								860	130		70	59				38 J		0.9 J			
2,4,6-Trichlorophenol									120			8						1 J			
2,4-Dichlorophenol								830		1200B	420	610	150		2100 / 2100	2000	690 / 610	1400 J / 470 J	620 J / 1200 J	1800 J / 1500 J	1700
2,4-Dimethylphenol												9						2 J			
2-Chloronaphthalene													150						370 J / 550 J		
2-Chlorophenol												20				28 J	25 J				
2-Methylnaphthalene																					
2-Methylphenol											51	46				55 J	42 J / 35 J	160 J	41 J		50 J
3&4-Methylphenol																					
2-Nitrophenol																					
3,5-Dichlorotoluene										350											
4-Chloro-3-methylphenol									13			31					25 J / 33 J				41 J
4-Chlorophenyl phenyl ether												2									
4-Methylphenol									10		60	64				130 J	95 J / 120	99 J / 300 J	130 J / 86 J		210 J
Acetic acid																					
Anthracene												1									
Benzo(a)pyrene																					
Benzo(b)fluoranthene																					
Benzo(g,h,i)perylene																					
Benzo(k)fluoranthene																					
Benzoic Acid								140000	580				6400 D	4000	7000 J / 30000	23000 J	4300 / 5000	700 J / 19000	3200 J / 4400 J	31000 / 25000	26000
Benzyl Alcohol								4200	1100				380		1900 / 1600	2700	680 / 540	4000 D / 3200	330 J / 630 J	2000 / 1700 J	640
Bis(2-Chloroethyl)Ether											23						24 J	26 J / 25 J			

Table 3.5

Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10210C	10210C	10210C	10210C	10210C	10210C	10210C	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135
SampleDate:	6/15/2013	6/26/2014	7/2/2015	6/28/2016	7/10/2017	7/19/2018	6/17/2019	9/13/1990	8/29/1991	8/26/1992	8/19/1993	6/22/1994	6/1/1995	6/27/1996	7/7/1997	6/17/1998	6/16/1999	6/22/2000	5/11/2001	6/12/2002	5/19/2003
Parameters																					
Semi-volatiles (µg/L)-Continued																					
bis(2-Ethylhexyl)Phthalate											50	2						41 J / 24 J			
Butyl benzylphthalate (BBP)																					
Camphor											130										
Carbazole																					
Chlorobenzoic acid								4000													
Chrysene												0.2									
Dibenz(a,h)anthracene																					
Diethyl phthalate												1									
Dimethyl Phthalate																					
Dimethyl tetrasulfide																					
Di-n-butyl phthalate (DBP)																					
Di-n-octyl phthalate (DnOP)																					
Fluoranthene												0.2									
Hexachlorobenzene																					
Hexachloroethane																					
Indeno(1,2,3-cd)pyrene																					
Naphthalene																1400 J / 2000 J	1000 J / 1800 J	1400 / 1100			
N-Nitrosodiphenylamine																					
Pentachlorophenol											52	4									
Phenanthrene																					
Phenol							1.7 J		10		98	91	140			120 / 96 J		51 J		180 J	
Pyrene																					
Pesticides/PCBs (µg/L)																					
4,4'-DDD																0.21 / 0.20 J	0.13 J / 0.071 J				
4,4'-DDE												0.071									
Aldrin								0.53	0.24 P							0.21 J / 0.74 JN	1.5 JN / 0.95 JN	0.12 J / 0.12 J			
Alpha-BHC				0.062			0.021 J	84	42 C	24 CEP	28 D	29		39 / 39	59	40 / 37 J	50 / 50	43 J / 50 J	43 / 39	49	
Alpha-Chlordane																					
Aroclor-1260 (PCB-1260)																			0.031 J / 0.017 J		
beta&gamma-BHC (sum of isomers)											19.5	20.4									
Beta-BHC											10 D	11	8.1 / 8.6	12		12 / 11 J	15 / 16	16 J / 16 J	14 J / 13 J	15 J	
Delta-BHC				0.14 J			0.028 J	15	9.8	7.5 CE	4.7	5.2	5.1 / ND	8.9		11 / 9.6 J	13 / 14	10 J / 12 J	9.0 J / 11 J	12	
Dieldrin																					
Endosulfan I																0.34 J / 0.43 J	1.5 JN / 1.6 JN				
Endosulfan II																	0.52 J / 0.69 J				
Endosulfan Sulfate										0.43 P						0.18 / 0.17 J	0.17 J			1.3 J	
Endrin				0.13								0.15 P									
Endrin ketone																					
Gamma-BHC (Lindane)				0.13			0.026 J	33					2.4 J	6.2 J / 5.1 J	6.5 J	5.5 / 4.1 J	6.4 / 8.0	7.3 J / 5.0 J	7.1 J / 6.1 J	7.1	
Gamma-Chlordane																	0.18 J / 0.16 J		0.29 J / 0.35 J		
Heptachlor																	0.63 / 0.68 JN			0.61 J	
Heptachlor epoxide																	0.043 J / 0.058	0.031 J / 0.029 J	0.016 J / 0.025	2.2 J	
Methoxychlor																					

Table 3.5
Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135
SampleDate:	5/28/2004	6/17/2005	6/28/2005	6/26/2006	7/18/2007	7/23/2008	6/25/2009	6/16/2010	7/13/2011	6/12/2012	6/18/2013	6/13/2014	6/25/2015	7/5/2016	7/7/2017	7/10/2018	6/19/2019
Parameters																	
Volatiles (µg/L)																	
1,1,1-Trichloroethane																	
1,1,1,2,2-Tetrachloroethane					16 J		25 / 24							3.4 J		1.8 J / 1.8 J	
1,1,2-Trichloroethane					15 J		9.1 J / 8.7 J							8.1		3.4 J / 3.8 J	
1,1-Dichloroethane														0.32 J		0.22 J / 5.0 U	
1,1-Dichloroethene					2 J												
1,2-Dichloroethane																	
1,2-Dichloroethene (total)																	
1,2-Dichloropropane																	
2-Butanone (Methyl Ethyl Ketone)							5.8 J / 6.1 J							5.1 J		5.7 J / 4.4 J	
2-Hexanone																	
Acetone				200 J	53 J		42 / 37	39							45		50 / 35
Benzene	5400		5700	6800	7100	5300	7500 / 7600	3400	2200	5900	2500	6100	6200	7100	6300	6200	4900 / 5700
Bromodichloromethane																38 J	
Bromoform																	
Bromomethane (Methyl bromide)																	
Carbon Disulfide					2 J										0.31 J		0.31 J / 0.33 J
Chlorobenzene	2000	2100	2400	2100	1400	2900 J / 3000 J	1300	1100	2500	730	2300	2600	2700	2600	2400	2200 / 2400	
Chloroform			110 J	140 J	99 J	96 / 97	160	67	130 J			180 J	400 J	100	230 J	59 / 60	
Chlorotoluenes																	
cis-1,2-Dichloroethene				630		79 J	79 / 76	110	38 J							39 J	8.1 / 8.4
Dibromochloromethane																	
Dichlorotoluene, total																	
Ethylbenzene					10 J		10 / 10	13							14		10 / 11
m&p-Xylenes																	
Methylene Chloride			100 J	44 J	32 J		25 / 24	38	16 J			150 J		23		3.5 J / 3.8 J	
o-Xylene																	
Styrene																	
Tetrachloroethene					13 J		14 / 14	19	9.5 J						17		5.0 J / 5.3
Toluene	16000	18000	21000	23000	13000	24000 / 24000	11000	3100	14000	6100	20000	20000	23000	19000	21000	17000 / 19000	
trans-1,2-Dichloroethene			52 J	50 J	32 J	30 / 30	48	17 J						31	34 J	27 / 27	
Trichloroethene			46 J	89 J	27 J	91 / 89	140	52				110 J	78 J	73	71 J	26 / 28	
Trichlorotoluene, total																	
Vinyl Acetate																	
Vinyl Chloride							27 / 17	31							15		3.9 J / 5.0 U
Xylenes (total)					37 J		44 / 53	51							58	35 J	47 / 48
Semi-volatiles (µg/L)																	
1,2,4-Trichlorobenzene	67 J			63	47 J	28	110 / 110	78 J	76 J	74 J	69	64 J		22 J			28 J / 14 J
1,2-Dichlorobenzene	36 J			37	31 J	10 J	68 / 52	57 J	45 J		45	34 J	47 J	14 J			
1,3-Dichlorobenzene				3 J	87 J		4.1 J / 5.5 J				5.2 J						
1,4-Dichlorobenzene	100 J	110 J		100	84 J	24	150 J / 100 J	150 J	130 J	110 J	130	94 J	140 J	36 J			45 J / 21 J
2,4,5-Trichlorophenol				8 J							10						
2,4,6-Trichlorophenol						6 J	28 / 23				12						
2,4-Dichlorophenol	420	300 J	250		490	150	1200 / 1100	780	590	240	360	660	790	42 J		120 J	35 J / 94 U
2,4-Dimethylphenol																	
2-Chloronaphthalene										150 J	210						
2-Chlorophenol			18			17 J	31 / 26				28			12 J			
2-Methylnaphthalene																	
2-Methylphenol	25 J			33	34 J	140	66 J / 50 J	42 J	30 J		29	23 J	44 J				
3&4-Methylphenol															34	80 J	31 J / 94 U
2-Nitrophenol																	
3,5-Dichlorotoluene																	
4-Chloro-3-methylphenol			15			26	95 / 97	31 J			23						
4-Chlorophenyl phenyl ether																	
4-Methylphenol	49 J	98 J	110		120 J	110	170 J / 140 J	130 J	83 J		89	53 J	93 J				
Acetic acid																	
Anthracene																	
Benzo(a)pyrene																	
Benzo(b)fluoranthene																	
Benzo(g,h,i)perylene																	
Benzo(k)fluoranthene																	
Benzoic Acid	1400 J	4700 J	14000 J	14000	7600 J	3000 J / 54000	9500	11000	8700	16000	14000	16000	1100		6000	1300 / 1100	
Benzyl Alcohol	23 J		48	580	38	1200 / 1300	610	450	600 J	380 J	290	250	79 J		280 J	61 J / 43 J	
Bis(2-Chloroethyl)Ether	24 J		24	30 J	16 J	29 / 28	34 J	28 J			26	19 J	27 J				

Table 3.5
Summary of Detected Compounds in Select Wells
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Well Number:	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135	10135
SampleDate:	5/28/2004	6/17/2005	6/28/2005	6/26/2006	7/18/2007	7/23/2008	6/25/2009	6/16/2010	7/13/2011	6/12/2012	6/18/2013	6/13/2014	6/25/2015	7/5/2016	7/7/2017	7/10/2018	6/19/2019

Parameters

Semi-volatiles (µg/L)-Continued																	
bis(2-Ethylhexyl)Phthalate				53			4.4 J / 4.2 J										
Butyl benzylphthalate (BBP)																	
Camphor																	
Carbazole																	
Chlorobenzoic acid																	
Chrysene																	
Dibenz(a,h)anthracene																	
Diethyl phthalate																	
Dimethyl Phthalate																	
Dimethyl tetrasulfide																	
Di-n-butyl phthalate (DBP)																	
Di-n-octyl phthalate (DnOP)																	
Fluoranthene																	
Hexachlorobenzene																	
Hexachloroethane																	
Indeno(1,2,3-cd)pyrene																	
Naphthalene	1800 J	4500 J															
N-Nitrosodiphenylamine																	
Pentachlorophenol																	
Phenanthrene																	
Phenol	100 J	140	130 J	96	140 J / 160 J	100	82	89 J	92	62	87 J	11 J					
Pyrene																	
Pesticides/PCBs (µg/L)																	
4,4'-DDD	0.19 J	0.11 J		0.081 J	0.13 J		0.048 J		0.036 J	0.089 J							
4,4'-DDE										0.053							
Aldrin				0.073	0.052 J	0.55 J / 0.55 J	0.063 J			0.16 J	0.060 J						
Alpha-BHC	15	21 C	35	12	17	27 J / 32 J	4.0	21	7.1 J	20	21 J	20	25		23	25 / 26	
Alpha-Chlordane				0.011 J													
Aroclor-1260 (PCB-1260)						12 J / 11 J											
beta&gamma-BHC (sum of isomers)																	
Beta-BHC	3.4	5.6	7.1	3.7	4.4	11 J / 9.1 J	4.1	7.1	3.1	5.9	5.3 J	4.7	6.7		4.3	6.7 / 7.5	
Delta-BHC	9.1	9.1	13	4.7	6.3	11 J / 12	0.28	7.3	1.6 J	5.2	4.8 J	7.4	11		7.2	7.6 / 6.3	
Dieldrin																	
Endosulfan I																	
Endosulfan II	0.15 J					1.6 J / 2.3				0.053 J	0.12 J						
Endosulfan Sulfate				0.34	0.37 J	1.5 J						0.035 J					
Endrin				0.034 J		1.9 / 1.3 J						1.4					
Endrin ketone											0.067 J						
Gamma-BHC (Lindane)		0.32 J	4.8	2.1	2	7.4 J / 6.2 J	0.92	4.1	1.4 J	3.9	4.3 J	3.2	4.9		3.3	4.7 / 4.4	
Gamma-Chlordane			.33 J	0.017 J						0.065	0.064 J	1.1 J					
Heptachlor				0.092	0.19 J				0.71	0.15 J	0.23 J						
Heptachlor epoxide	0.053			0.29	0.13 J	1.6 J / 1.7 J	0.10 J		0.089 J	0.22 J	0.23 J						
Methoxychlor									0.036 J								

Notes:

D - Sample result is from a dilution

C - Sample result was confirmed

E - Sample result was greater than the highest calibration level

N - Validator qualifier-presumptive certainty, usually used when there is a large difference in dual column results

P - Lab qualifier used when there are large differences in dual column results

J - Estimated concentration

U - Not detected at the associated reporting limit

B - Detected in the blank sample

Blank - Not detected

PCBs - Polychlorinated Biphenyls

1140 Series Piezometers Water Levels - 2019
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Silty Sand/Fill Medium

Date	Well **	
	1144 A (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	572.79	561.70
06/04/19	572.06	561.70
09/03/19	570.21	561.70
11/19/19	571.75	561.70

Fractured Clay Medium

Date	Well **			
	1144 B (ft. AMSL)	1143 A (ft. AMSL)	1142 A (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	572.91	571.56	570.73	561.70
06/04/19	572.16	571.63	570.92	561.70
09/03/19	570.34	570.02	569.84	561.70
11/19/19	571.72	570.16	569.77	561.70

Soft Clay Medium

Date	Well **						
	1144 C (ft. AMSL)	1143 B (ft. AMSL)	1143 C (ft. AMSL)	1142 B (ft. AMSL)	1141 A (ft. AMSL)	Tile Drain (ft. AMSL)	1140 A (ft. AMSL)
03/05/19	572.05	571.53	570.47	568.15	564.27	561.70	564.08
06/04/19	572.08	571.54	570.23	568.45	566.55	561.70	563.95
09/03/19	570.18	570.19	569.42	568.29	566.56	561.70	564.32
11/19/19	571.13	570.03	569.22	568.04	566.42	561.70	564.54

Glacial Till Medium

Date	Well **					
	1144 D (ft. AMSL)	1143 D (ft. AMSL)	1142 C (ft. AMSL)	1141 B (ft. AMSL)	Tile Drain (ft. AMSL)	1140 B (ft. AMSL)
03/05/19	570.04	568.79	566.49	566.75	561.70	564.54
06/04/19	570.72	568.87	566.72	566.95	561.70	564.50
09/03/19	569.97	568.74	566.75	566.93	561.70	564.70
11/19/19	569.50	568.37	566.66	566.92	561.70	564.96

Notes:

- ** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
-  - Indicates wells used in Figure 3.3 Piezometer Flow Diagram to generate Fractured Clay groundwater level
-  - Indicates wells used in Figure 3.3 Piezometer Flow Diagram to generate Soft Clay groundwater level
-  - Indicates wells used in Figure 3.3 Piezometer Flow Diagram to generate Glacial Till groundwater level
- ft. AMSL - Feet above mean sea level.

**1150 Series Piezometers Water Levels - 2019
Love Canal Long-Term Monitoring Program
Niagara Falls, New York**

Silty Sand/Fill Medium

Date	Well **	
	1151 D (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	570.73	561.85
06/04/19	570.22	561.85
09/03/19	568.53	561.85
11/19/19	570.56	561.85

Fractured Clay Medium

Date	Well **				
	1154 D (ft. AMSL)	1153 E (ft. AMSL)	1153 D (ft. AMSL)	1151 C (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	568.73	569.59	571.66	569.23	561.85
06/04/19	568.63	569.31	570.96	569.37	561.85
09/03/19	568.13	569.07	570.11	568.07	561.85
11/19/19	568.63	570.18	570.76	568.22	561.85

Soft Clay Medium

Date	Well **					
	1154 B (ft. AMSL)	1154 C (ft. AMSL)	1153 B (ft. AMSL)	1153 C (ft. AMSL)	1151 B (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	568.07	568.42	569.69	573.55	567.88	561.85
06/04/19	568.14	568.41	569.24	571.84	568.00	561.85
09/03/19	568.06	568.21	569.11	574.29	567.63	561.85
11/19/19	568.65	568.51	569.83	576.59	568.15	561.85

Glacial Till Medium

Date	Well **			
	1154 A (ft. AMSL)	1153 A (ft. AMSL)	1151 A (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	571.84	570.86	567.46	561.85
06/04/19	571.62	570.90	567.04	561.85
09/03/19	571.45	572.05	576.06	561.85
11/19/19	571.13	572.75	567.44	561.85

Notes:

- ** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
- Indicates wells used in Figure 3.4 Piezometer Flow Diagram to generate Fractured Clay groundwater level
- Indicates wells used in Figure 3.4 Piezometer Flow Diagram to generate Soft Clay groundwater level
- Indicates wells used in Figure 3.4 Piezometer Flow Diagram to generate Glacial Till groundwater level
- ft. AMSL - Feet above mean sea level.

1160 Series Piezometers Water Levels - 2019
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Silty Sand/Fill Medium

Date	Well **	
	1165 D (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	573.12	560.60
06/04/19	573.41	560.60
09/03/19	571.89	560.60
11/19/19	572.47	560.60

Silty Sand Medium

Date	Well **		
	1165 C (ft. AMSL)	1163 D (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	572.21	DRY	560.60
06/04/19	572.44	DRY	560.60
09/03/19	572.27	DRY	560.60
11/19/19	572.20	DRY	560.60

Fractured Clay Medium

Date	Well **								
	1165 B (ft. AMSL)	1163 B (ft. AMSL)	1163 C (ft. AMSL)	1162 A (ft. AMSL)	1162 C (ft. AMSL)	1161 D (ft. AMSL)	Tile Drain (ft. AMSL)	1160 A (ft. AMSL)	1160 C (ft. AMSL)
03/05/19	571.96	569.71	569.97	569.77	569.91	569.65	560.60	565.33	566.43
06/04/19	572.07	570.46	570.97	570.53	570.71	570.77	560.60	565.03	566.15
09/03/19	571.09	569.83	570.25	569.62	569.85	570.19	560.60	565.00	566.68
11/19/19	571.57	569.65	569.77	569.47	569.72	569.84	560.60	565.68	566.91

Soft Clay Medium

Date	Well **								
	10176 A (ft. AMSL)	10176 B (ft. AMSL)	10176 C (ft. AMSL)	1165 A (ft. AMSL)	1163 A (ft. AMSL)	1161 B (ft. AMSL)	1161 C (ft. AMSL)	1161 E (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	570.53	570.96	569.22	572.25	568.84	567.18	569.17	565.62	560.60
06/04/19	569.90	570.06	569.02	572.66	568.97	567.20	569.82	565.62	560.60
09/03/19	564.50	569.54	568.89	572.36	568.89	567.20	569.31	565.64	560.60
11/19/19	571.45	571.18	569.81	572.09	569.08	567.34	569.20	565.96	560.60

Glacial Till Medium

Date	Well **			
	10176 D (ft. AMSL)	1162 D (ft. AMSL)	1161 A (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	567.74	567.67	565.54	560.60
06/04/19	567.79	567.85	565.51	560.60
09/03/19	567.91	567.67	565.39	560.60
11/19/19	568.45	568.06	565.79	560.60

Notes:

- ** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
- Indicates wells used in Figure 3.5 Piezometer Flow Diagram to generate Fractured Clay groundwater level
- Indicates wells used in Figure 3.5 Piezometer Flow Diagram to generate Soft Clay groundwater level
- Indicates wells used in Figure 3.5 Piezometer Flow Diagram to generate Glacial Till groundwater level
- ft. AMSL - Feet above mean sea level.

1170 Series Piezometers Water Levels - 2019
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Date	Well **		Tile Drain (ft. AMSL)
	1174 D (ft. AMSL)	1173 D (ft. AMSL)	
03/05/19	568.99	572.31	555.60
06/04/19	568.31	572.35	555.60
09/03/19	568.37	571.04	555.60
11/19/19	568.81	571.69	555.60

Soft Clay Medium

Date	Well **				
	1174 B (ft. AMSL)	1174 C (ft. AMSL)	1173 B (ft. AMSL)	1173 C (ft. AMSL)	1172 B (ft. AMSL)
03/05/19	570.16	569.69	569.95	571.77	569.01
06/04/19	570.72	569.90	569.91	572.32	569.32
09/03/19	570.83	570.19	569.88	571.59	569.12
11/19/19	570.97	570.47	570.12	571.21	568.70

Date	1172 C (ft. AMSL)	1171 B (ft. AMSL)	1171 C (ft. AMSL)	Tile Drain (ft. AMSL)	1170 B (ft. AMSL)
	(ft. AMSL)	(ft. AMSL)	(ft. AMSL)	(ft. AMSL)	(ft. AMSL)
03/05/19	569.41	562.65	561.73	555.60	570.31
06/04/19	569.89	562.76	561.69	555.60	571.72
09/03/19	569.56	562.80	561.66	555.60	564.17
11/19/19	569.24	562.89	561.84	555.60	572.32

Glacial Till Medium

Date	Well **					Tile Drain (ft. AMSL)	1170 A (ft. AMSL)
	1174 A (ft. AMSL)	1173 A (ft. AMSL)	1172 A (ft. AMSL)	1171 A (ft. AMSL)			
03/05/19	570.57	569.06	566.43	563.76		555.60	563.06
06/04/19	570.55	568.74	566.54	563.95		555.60	562.52
09/03/19	570.52	568.04	566.46	564.13		555.60	562.28
11/19/19	570.64	568.50	566.52	564.05		555.60	562.58

Notes:

- ** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
- Indicates wells used in Figure 3.6 Piezometer Flow Diagram to generate Fractured Clay groundwater level
- Indicates wells used in Figure 3.6 Piezometer Flow Diagram to generate Soft Clay groundwater level
- Indicates wells used in Figure 3.6 Piezometer Flow Diagram to generate Glacial Till groundwater level
- ft. AMSL - Feet above mean sea level.

1180 Series Piezometers Water Levels - 2019
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Silty Sand Medium

Date	Well **	
	1183 D (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	566.96	560.00
06/04/19	566.76	560.00
09/03/19	DRY	560.00
11/19/19	566.80	560.00

Fractured Clay Medium

Date	Well **				
	1184 C (ft. AMSL)	1184 D (ft. AMSL)	1183 C (ft. AMSL)	1183 B (ft. AMSL)	1181 C (ft. AMSL)
03/05/19	568.47	568.49	567.92	565.17	569.07
06/04/19	567.86	568.05	567.23	564.83	568.83
09/03/19	567.35	DRY	566.40	564.57	567.35
11/19/19	565.26	DRY	566.81	564.78	569.93
Date	Tile Drain (ft. AMSL)	1180 C (ft. AMSL)			
03/05/19	560.00	DRY			
06/04/19	560.00	DRY			
09/03/19	560.00	DRY			
11/19/19	560.00	DRY			

Soft Clay Medium

Date	Well **			
	1184 B (ft. AMSL)	1181 B (ft. AMSL)	Tile Drain (ft. AMSL)	1180 B (ft. AMSL)
03/05/19	565.00	566.78	560.00	561.05
06/04/19	564.97	567.01	560.00	561.05
09/03/19	564.17	566.22	560.00	561.04
11/19/19	564.36	567.31	560.00	561.25

Glacial Till Medium

Date	Well **				
	1184 A (ft. AMSL)	1183 A (ft. AMSL)	1181 A (ft. AMSL)	Tile Drain (ft. AMSL)	1180 A (ft. AMSL)
03/05/19	564.69	564.62	568.24	560.00	563.26
06/04/19	565.04	564.52	568.29	560.00	563.48
09/03/19	564.40	564.20	566.83	560.00	563.27
11/19/19	564.25	564.33	569.10	560.00	563.41

Notes:

- ** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
-  - Indicates wells used in Figure 3.7 Piezometer Flow Diagram to generate Fractured Clay groundwater level
-  - Indicates wells used in Figure 3.7 Piezometer Flow Diagram to generate Soft Clay groundwater level
-  - Indicates wells used in Figure 3.7 Piezometer Flow Diagram to generate Glacial Till groundwater level
- ft. AMSL - Feet above mean sea level.

1190 Series Piezometers Water Levels - 2019
Love Canal Long-Term Monitoring Program
Niagara Falls, New York

Fractured Clay Medium

Date	Well **			
	1194 D (ft. AMSL)	1193 D (ft. AMSL)	1192 C (ft. AMSL)	Tile Drain (ft. AMSL)
03/05/19	573.65	571.80	569.91	554.80
06/04/19	574.16	572.46	570.10	554.80
09/03/19	570.26	571.33	570.28	554.80
11/19/19	572.66	570.81	569.90	554.80

Soft Clay Medium

Date	Well **					
	1194 B (ft. AMSL)	1194 C (ft. AMSL)	1193 B (ft. AMSL)	1193 C (ft. AMSL)	1192 B (ft. AMSL)	1191 B (ft. AMSL)
03/05/19	570.15	573.14	568.71	571.11	568.44	565.45
06/04/19	570.44	573.47	569.30	571.83	568.83	566.19
09/03/19	568.58	570.05	569.18	571.25	568.92	566.27
11/19/19	569.19	571.47	568.96	570.65	568.71	565.86

Date	1191 C (ft. AMSL)	Tile Drain (ft. AMSL)	1190 B (ft. AMSL)
	(ft. AMSL)	(ft. AMSL)	(ft. AMSL)
03/05/19	564.56	554.80	566.95
06/04/19	564.38	554.80	572.77
09/03/19	564.35	554.80	563.37
11/19/19	564.34	554.80	567.24

Glacial Till Medium

Date	Well **					
	1194 A (ft. AMSL)	1193 A (ft. AMSL)	1192 A (ft. AMSL)	1191 A (ft. AMSL)	Tile Drain (ft. AMSL)	1190 A (ft. AMSL)
03/05/19	564.51	565.85	564.43	565.47	554.80	565.78
06/04/19	564.97	566.27	564.99	565.61	554.80	567.17
09/03/19	564.59	565.87	564.59	565.72	554.80	564.76
11/19/19	564.66	565.94	564.68	565.74	554.80	565.54

Notes:

- ** - Wells listed from left to right in order from most distant outside of tile drain, to tile drain, then inside of tile drain.
- Indicates wells used in Figure 3.8 Piezometer Flow Diagram to generate Fractured Clay groundwater level
- Indicates wells used in Figure 3.8 Piezometer Flow Diagram to generate Soft Clay groundwater level
- Indicates wells used in Figure 3.8 Piezometer Flow Diagram to generate Glacial Till groundwater level
- ft. AMSL - Feet above mean sea level.

Table 3.7

**Groundwater Elevations in the Vicinity of 10153
Love Canal Long-Term Monitoring Program
Niagara Falls, New York**

Date	Well 1165A (ft. AMSL)	MW-10135 (ft. AMSL)	Well Location		Barrier Drain *
			Well 1163A (ft. AMSL)	Well 1161E (ft. AMSL)	
March 2014	571.69		568.66	N/A	560.60
June 2014	571.80	571.66	568.68	565.37	
Sept 2014	571.39		568.54	565.25	
Dec 2014	571.27		568.61	565.40	
March 2015	571.64		568.49	565.36	560.60
June 2015	572.23	570.90	568.41	565.17	
Sept 2015	572.15		568.63	565.35	
Dec 2015	571.74		568.78	565.55	
March 2016	571.87		568.36	569.67	560.60
June 2016	572.50	570.94 **	568.54	565.17	
Sept 2016	571.98		568.66	565.36	
Dec 2016	571.41		568.61	565.39	
March 2017	571.87		568.31	565.19	560.60
June 2017	572.58	571.49 **	569.23	566.23	
Sept 2017	572.38		569.02	565.77	
Dec 2017	572.13		569.15	566.48	
March 2018	572.46		568.73	565.76	560.60
May 2018	572.76	571.11 **	568.65	565.41	
Sept 2018	572.07		568.59	565.37	
Dec 2018	571.80		568.82	565.67	
Average	571.99	571.22	568.67	565.73	560.60

Notes:

- * Barrier Drain Elevation not measured; elevation taken from design data specific to 1160 piezometer location.
- ** Water elevation measured in July.

Appendices

Appendix A

Institutional and Engineering Controls Certification Form

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation

625 Broadway, 11th Floor, Albany, NY 12233-7020

P: (518)402-9543 | F: (518)402-9547

www.dec.ny.gov

12/04/2019

Joseph Branch Project Coordinator
OCC/Glenn Springs Holdings, Inc.
7601 Old Channel Trail
Montaque, MI 49437

RE: Reminder Notice: Site Management Periodic Review Report and IC/EC Certification Submittal

Site Name: Love Canal

Site No.: 932020

Site Address: 805 97th Street

Dear Mr. Branch:

This letter serves as a reminder that sites in active Site Management (SM) require the submittal of a periodic progress report. This report, referred to as the Periodic Review Report (PRR), must document the implementation of and compliance with, site specific SM requirements. Section 6.3(b) of DER-10 Technical Guidance for Site Investigation and Remediation (available online at <http://www.dec.ny.gov/regulations/67386.html>) provides guidance regarding the information that must be included in the PRR. Further, if the site is comprised of multiple parcels, then you as the Certifying Party must arrange to submit one PRR for all parcels that comprise the site. The PRR must be received by the Department no later than **January 30, 2020**. Guidance on the content of a PRR is enclosed.

Site Management is defined in regulation (6 NYCRR 375-1.2(at)) and in Chapter 6 of DER-10. Depending on when the remedial program for your site was completed, SM may be governed by multiple documents (e.g., Operation, Maintenance, and Monitoring Plan; Soil Management Plan) or one comprehensive Site Management Plan.

A Site Management Plan (SMP) may contain one or all of the following elements, as applicable to the site: a plan to maintain institutional controls and/or engineering controls ("IC/EC Plan"); a plan for monitoring the performance and effectiveness of the selected remedy ("Monitoring Plan"); and/or a plan for the operation and maintenance of the selected remedy ("O&M Plan"). Additionally, the technical requirements for SM are stated in the decision document (e.g., Record of Decision) and, in some cases, the legal agreement directing the remediation of the site (e.g., order on consent, voluntary agreement, etc.).

When you submit the PRR (by the due date above), include the enclosed forms documenting that all SM requirements are being met. The Institutional Controls (ICs) portion of the form (Box 6) must be signed by you or your designated representative. The Engineering Controls (ECs) portion of the form (Box 7) must be signed by a Qualified Environmental Professional (QEP). If you cannot certify that all SM requirements are being met, you must submit a Corrective Measures Work Plan that identifies the actions to be taken to restore compliance. The work plan must include a schedule to be approved by the Department. The Periodic Review process will not be considered complete until all necessary corrective measures are completed and all required controls are certified. Instructions for completing the certifications are enclosed.



Department of
Environmental
Conservation

All site-related documents and data, including the PRR, are to be submitted in electronic format to the Department of Environmental Conservation. The Department will not approve the PRR unless all documents and data generated in support of that report have been submitted in accordance with the electronic submissions protocol. In addition, the certification forms are required to be submitted in both paper and electronic formats.

Information on the format of the data submissions can be found at:

<http://www.dec.ny.gov/regulations/2586.html>

The signed certification forms should be sent to Brian Sadowski, Project Manager, at the following address:

New York State Department of Environmental Conservation
270 Michigan Avenue Buffalo, NY 14203-2915

Phone number: 716-851-7220 E-mail: brian.sadowski@dec.ny.gov

The contact information above is also provided so that you may notify the project manager about upcoming inspections, or for any other questions or concerns that may arise in regard to the site.

Enclosures

PRR General Guidance
Certification Form Instructions
Certification Forms

ec: w/enclosures
Brian Sadowski, Project Manager
Chad Staniszewski, Hazardous Waste Remediation Engineer, Region 9
John Pentilchuk, GHD Group (john.pentilchuk@ghd.com)
M. Kuczka

Enclosure 1 Certification

Instructions

I. Verification of Site Details (Box 1 and Box 2):

Answer the three questions in the Verification of Site Details Section. The Owner and/or Qualified Environmental Professional (QEP) may include handwritten changes and/or other supporting documentation, as necessary.

II. Certification of Institutional / Engineering Controls (Boxes 3, 4, and 5)

Review the listed IC/ECs, confirming that all existing controls are listed, and that all existing controls are still applicable. If there is a control that is no longer applicable the Owner / Remedial Party should petition the Department separately to request approval to remove the control.

In Box 5, complete certifications for all Plan components, as applicable, by checking the corresponding checkbox.

If you cannot certify "YES" for each Control listed in Box 3 & Box 4, sign and date the form in Box 5. Attach supporting documentation that explains why the **Certification** cannot be rendered, as well as a plan of proposed corrective measures, and an associated schedule for completing the corrective measures. Note that this **Certification** form must be submitted even if an IC or EC cannot be certified; however, the certification process will not be considered complete until corrective action is completed.

If the Department concurs with the explanation, the proposed corrective measures, and the proposed schedule, a letter authorizing the implementation of those corrective measures will be issued by the Department's Project Manager. Once the corrective measures are complete, a new Periodic Review Report (with IC/EC Certification) must be submitted within 45 days to the Department. If the Department has any questions or concerns regarding the PRR and/or completion of the IC/EC Certification, the Project Manager will contact you.

III. IC/EC Certification by Signature (Box 6 and Box 7):

If you certified "YES" for each Control, please complete and sign the IC/EC Certifications page as follows:

- Where the only control is an Institutional Control on the use of the property, the certification statement in Box 6 shall be completed and may be made by the property owner.
- Where the site has Institutional and Engineering Controls, the certification statement in Box 7 must be completed by a Professional Engineer or Qualified Environmental Professional, as noted on the form.



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details

Box 1

Site No. 932020

Site Name Love Canal

Site Address: 805 97th Street Zip Code: 14304

City/Town: Niagara Falls

County: Niagara

Site Acreage: 70.0

Reporting Period: January 1, 2019 to December 31, 2019

	YES	NO
1. Is the information above correct?	☒	☐
If NO, include handwritten above or on a separate sheet.		
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?	☐	☒
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?	☐	☒
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?	☒	☐
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.		
5. Is the site currently undergoing development?	☐	☒

*Renewal of
SIU Discharge
Permit #44
issued on
12/20/19
effective
January
10, 2020*

Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below?	☒	☐
7. Are all ICs/ECs in place and functioning as designed?	☒	☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

NIAGARA FALLS WATER BOARD

SIGNIFICANT INDUSTRIAL USER WASTEWATER DISCHARGE

Permit No. 44

In accordance with all terms and conditions of the
Niagara Falls Water Board Wastewater Regulations Part 1960
and also with all applicable provisions of Federal and State Law or regulation:

Permission Is Hereby Granted To:

**GLENN SPRINGS HOLDINGS, INC. –
LOVE CANAL LEACHATE TREATMENT FACILITY**

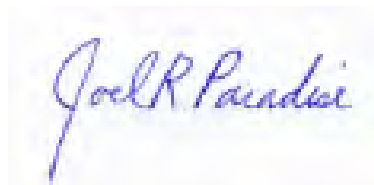
Located at: 805 - 97th Street, Niagara Falls, NY 14304

Classified by SIC Number: 4952

For the contribution of wastewater into the Niagara Falls Water Board
Publicly-Owned Treatment Works (POTW).

Effective this 10th day of January 2020
To Expire this 9th day of January 2025

Signed this 20th day of December 2019



For
Pat Fama
Executive Director of the Niagara Falls Water Board

SITE NO. 932020		Boxes 3 and 4	
Description of Engineering and Institutional Controls			
<u>Parcel</u>	<u>Engineering Control</u>	<u>Institutional Control</u>	
<u>232 Parcels</u>	Cover System Fencing/Access Control Groundwater Containment Leachate Collection Pump & Treat	Building Use Restriction Ground Water Use Restriction Landuse Restriction Monitoring Plan O&M Plan	
161.19-1-1			
161.57-1-1			
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161.73-1-2			
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161.18-1-18

Periodic Review Report (PRR) Certification Statements

Box 5

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

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

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

YES NO
☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

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

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

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

YES NO
☒ ☐

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

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

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. 932020

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

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

I Joseph Branch at 7601 Old Channel Trail, Montague, MI
print name print business address 49437

am certifying as Owner (Owner or Remedial Party)

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



Signature of Owner or Remedial Party Rendering Certification

1/27/2020
Date

IC/EC CERTIFICATIONS

Box 7.

Qualified Environmental Professional Signature

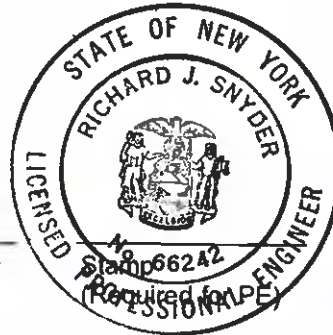
I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

GTD Services Inc.

I Richard J. Snyder at 2055 Niagara Falls Blvd, Niagara Falls, NY
print name print business address 14304

am certifying as a Qualified Environmental Professional for the Remedial Party
(Owner or Remedial Party)

Richard J. Snyder
Signature of Qualified Environmental Professional, for
the Owner or Remedial Party, Rendering Certification



January 29, 2020
Date

Enclosure 3
Periodic Review Report (PRR) General Guidance

- I. Executive Summary: (1/2-page or less)
 - A. Provide a brief summary of site, nature and extent of contamination, and remedial history.
 - B. Effectiveness of the Remedial Program - Provide overall conclusions regarding;
 1. progress made during the reporting period toward meeting the remedial objectives for the site
 2. the ultimate ability of the remedial program to achieve the remedial objectives for the site.
 - C. Compliance
 1. Identify any areas of non-compliance regarding the major elements of the Site Management Plan (SMP, i.e., the Institutional/Engineering Control (IC/EC) Plan, the Monitoring Plan, and the Operation & Maintenance (O&M) Plan).
 2. Propose steps to be taken and a schedule to correct any areas of non-compliance.
 - D. Recommendations
 1. recommend whether any changes to the SMP are needed
 2. recommend any changes to the frequency for submittal of PRRs (increase, decrease)
 3. recommend whether the requirements for discontinuing site management have been met.
- II. Site Overview (one page or less)
 - A. Describe the site location, boundaries (figure), significant features, surrounding area, and the nature and extent of contamination prior to site remediation.
 - B. Describe the chronology of the main features of the remedial program for the site, the components of the selected remedy, cleanup goals, site closure criteria, and any significant changes to the selected remedy that have been made since remedy selection.
- III. Evaluate Remedy Performance, Effectiveness, and Protectiveness
Using tables, graphs, charts and bulleted text to the extent practicable, describe the effectiveness of the remedy in achieving the remedial goals for the site. Base findings, recommendations, and conclusions on objective data. Evaluations should be presented simply and concisely.
- IV. IC/EC Plan Compliance Report (if applicable)
 - A. IC/EC Requirements and Compliance
 1. Describe each control, its objective, and how performance of the control is evaluated.
 2. Summarize the status of each goal (whether it is fully in place and its effectiveness).
 3. Corrective Measures: describe steps proposed to address any deficiencies in ICECs.
 4. Conclusions and recommendations for changes.
 - B. IC/EC Certification
 1. The certification must be complete (even if there are IC/EC deficiencies), and certified by the appropriate party as set forth in a Department-approved certification form(s).
- V. Monitoring Plan Compliance Report (if applicable)
 - A. Components of the Monitoring Plan (tabular presentations preferred) - Describe the requirements of the monitoring plan by media (i.e., soil, groundwater, sediment, etc.) and by any remedial technologies being used at the site.
 - B. Summary of Monitoring Completed During Reporting Period - Describe the monitoring tasks actually completed during this PRR reporting period. Tables and/or figures should be used to show all data.
 - C. Comparisons with Remedial Objectives - Compare the results of all monitoring with the remedial objectives for the site. Include trend analyses where possible.
 - D. Monitoring Deficiencies - Describe any ways in which monitoring did not fully comply with the monitoring plan.
 - E. Conclusions and Recommendations for Changes - Provide overall conclusions regarding the monitoring completed and the resulting evaluations regarding remedial effectiveness.
- VI. Operation & Maintenance (O&M) Plan Compliance Report (if applicable)
 - A. Components of O&M Plan - Describe the requirements of the O&M plan including required activities, frequencies, recordkeeping, etc.
 - B. Summary of O&M Completed During Reporting Period - Describe the O&M tasks actually completed during this PRR reporting period.
 - C. Evaluation of Remedial Systems - Based upon the results of the O&M activities completed, evaluated the ability of each component of the remedy subject to O&M requirements to perform as

designed/expected.

D. O&M Deficiencies - Identify any deficiencies in complying with the O&M plan during this PRR reporting period.

E. Conclusions and Recommendations for Improvements - Provide an overall conclusion regarding O&M for the site and identify any suggested improvements requiring changes in the O&M Plan.

VII. Overall PRR Conclusions and Recommendations

A. Compliance with SMP - For each component of the SMP (i.e., IC/EC, monitoring, O&M), summarize;

1. whether all requirements of each plan were met during the reporting period
2. any requirements not met
3. proposed plans and a schedule for coming into full compliance.

B. Performance and Effectiveness of the Remedy - Based upon your evaluation of the components of the SMP, form conclusions about the performance of each component and the ability of the remedy to achieve the remedial objectives for the site.

C. Future PRR Submittals

1. Recommend, with supporting justification, whether the frequency of the submittal of PRRs should be changed (either increased or decreased).
2. If the requirements for site closure have been achieved, contact the Departments Project Manager for the site to determine what, if any, additional documentation is needed to support a decision to discontinue site management.

VIII. Additional Guidance

Additional guidance regarding the preparation and submittal of an acceptable PRR can be obtained from the Departments Project Manager for the site.

Appendix B

Semiannual Inspection Forms



Glenn Springs Holdings, Inc.

A subsidiary of Occidental Petroleum

Love Canal Semi-Annual Barrier Drain Manhole Inspection

Date 6/19/2019

Sector	MH No.	Location	Water Y/N	Level Feet	Debris Y/N	Structure OK	Cleaning Y/N	Comments
North Colvin	MH-10A	NW	N	3"	N	Y	N	
	MH-8A	NW	Y	3"	N	Y	N	
	MH-6C	NW	Y	3"	Y	Y	N	Some built up sludge - no flow restriction
	MH-6B	NW	Y	3"	Y	Y	N	Some built up sludge - no flow restriction
	MH-6A	NW	Y	3"	Y	Y	N	Some built up sludge - no flow restriction
	PC-2A	NW	Y	3'	N	Y	N	
	MH-4A	NW	Y	3"	N	Y	N	
	MH-2A	NW	Y	3"	N	Y	N	
	MH-2	SW	Y	2"	Y	Y	N	
	MH-4	SW	Y	3"	Y	Y	N	
	MH-6	SW	Y	3"	N	Y	N	
	MH-8/PC2	SW	Y	3.0'	N	Y	N	
	MH-10	SW	Y	3"	Y	Y	N	
South Frontier	MH-12	SW	Y	3"	N	Y	N	
	MH-14	SW	Y	3"	N	Y	N	
North Colvin								
	NH-17A	NE	N	3"	N	Y	N	
	MH-15A	NE	Y	3"	N	Y	N	
	MH-13A	NE	Y	3"	Y	Y	N	
	PC1A	NE	Y	2.5'	Y	Y	N	
	MH-11A	NE	Y	3"	N	Y	N	
	MH-9A	NE	Y	3"	N	Y	N	
	MH-7A	NE	Y	3"	Y	Y	N	
	MH-5A	NE	N	3"	N	Y	N	
	MH-3A	NE	Y	3"	N	Y	N	
	MH-1A	NE	Y	3"	N	Y	N	
	MH-1	SE	N	3"	N	Y	N	
	MH-3	SE	Y	3"	Y	Y	N	
	MH-5	SE	N	2"	N	Y	N	
	MH-7/PC1	SE	Y	3'	N	Y	N	
	MH-9	SE	Y	2"	N	Y	N	
South Frontier	MH-11	SE	Y	2"	Y	Y	N	
	MH-13	SE	Y	2"	N	Y	N	

Signature: Darrell Crockett

**SEMIANNUAL LANDFILL CAP, SITE COVER, AND FENCE INSPECTION**

Site: Love Canal
Date: 6/20/2019
Inspector: Darrell Crockett

Weather: 75°F

Inspection Item	Applicable to Site	Inspect For	
1. <u>Landfill Cap</u>	Y	- signs of erosion (cap, ditches, swales)	N
		- exposure of the HDPE Liner	N
		- areas of insufficient grass coverage	N
		- signs of dead/dying grass	N
		- presence of washouts	N
		- settlement causing ponding of water	Y
		- signs of slope instability	Y
		- signs of burrowing by animals	N
		- presence of rooting trees (cap, ditches, swales)	N
		- signs of poor drainage in ditches/swales	N
2. <u>Site Cover</u> (Asphalt, Grass, Vegetation)	N	- signs of erosion (cover, ditches, swales)	Y / N
		- areas of insufficient asphalt, grass, vegetation coverage	Y / N
		- signs of dead/dying grass/vegetation	Y / N
		- presence of washouts	Y / N
		- settlement causing ponding of water	Y / N
		- signs of slope instability	Y / N
		- signs of burrowing by animals	Y / N
		- presence of rooting trees (cover, ditches, swales)	Y / N
		- signs of poor drainage in ditches/swales	Y / N
3. <u>Perimeter Fence</u>	Y	- breaches in fence	N
		- gates secure	Y
		- locks in place	Y
		- missing or illegible signage	N

Comments/Remarks (Note: If repair/maintenance is recommended, describe its location/extent below)

There is settlement and wet area on the road leading to PC1 and south of the road consistent with last year's inspection



Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

Love Canal Semiannual Barrier System / Pump Chamber Inspections

Date: 6/19/2019
Inspector: Darrell Crockett

Weather: 75° F

Check the Following as Appropriate:

- Visual Inspection of chamber piping
- Verification of level probe performance
- Inspection of pump chamber integrity
- Inspection of pump chamber security

Wells	Satisfactory	Needs Maintenance
PC-1	Y	
PC-2	Y	
PC-3	Y	
PC-1A	Y	
PC-2A	Y	
PC-3A	Y	

Comments:

Signature: Darrell Crockett



Glenn Springs Holdings, Inc.

A subsidiary of Occidental Petroleum

Love Canal Semi-Annual Barrier Drain Manhole Inspection

Date 9/4/2019

Sector	MH No.	Location	Water Y/N	Level Feet	Debris Y/N	Structure OK	Cleaning Y/N	Comments
North Colvin	MH-10A	NW	N	0	N	Y	N	
	MH-8A	NW	Y	6"	N	Y	N	
	MH-6C	NW	Y	12"	Y	Y	N	Some built up sludge - no flow restriction
	MH-6B	NW	Y	12"	Y	Y	N	Some built up sludge - no flow restriction
	MH-6A	NW	Y	12"	Y	Y	N	Some built up sludge - no flow restriction
	PC-2A	NW	Y	3.0'	N	Y	N	
	MH-4A	NW	Y	2"	N	Y	N	
	MH-2A	NW	Y	2"	N	Y	N	
	MH-2	SW	Y	2"	Y	Y	N	
	MH-4	SW	Y	8"	Y	Y	N	
	MH-6	SW	Y	8"	N	Y	N	
	MH-8/PC2	SW	Y	2.7'	N	Y	N	
	MH-10	SW	Y	7"	Y	Y	N	
South Frontier	MH-12	SW	Y	6"	N	Y	N	
	MH-14	SW	Y	1"	N	Y	N	
North Colvin								
	NH-17A	NE	N	0	N	Y	N	
	MH-15A	NE	Y	2"	N	Y	N	
	MH-13A	NE	Y	2"	Y	Y	N	
	PC1A	NE	Y	2.9'	Y	Y	N	
	MH-11A	NE	Y	2"	N	Y	N	
	MH-9A	NE	Y	2"	N	Y	N	
	MH-7A	NE	Y	2"	Y	Y	N	
	MH-5A	NE	N	2"	N	Y	N	
	MH-3A	NE	Y	2"	N	Y	N	
	MH-1A	NE	Y	4"	N	Y	N	
	MH-1	SE	N	3"	N	Y	N	
	MH-3	SE	Y	2"	Y	Y	N	
South Frontier	MH-5	SE	N	2"	N	Y	N	
	MH-7/PC1	SE	Y	2.6'	N	Y	N	
	MH-9	SE	Y	3"	N	Y	N	
	MH-11	SE	Y	4"	Y	Y	N	
	MH-13	SE	Y	1"	N	Y	N	

Signature: Darrell Crockett

**SEMIANNUAL LANDFILL CAP, SITE COVER, AND FENCE INSPECTION**

Site: Love Canal
Date: 9/11/2019
Inspector: Darrell Crockett

Weather: Sunny 60° F

Inspection Item	Applicable to Site	Inspect For	
1. <u>Landfill Cap</u>	Y	- signs of erosion (cap, ditches, swales)	N
		- exposure of the HDPE Liner	N
		- areas of insufficient grass coverage	N
		- signs of dead/dying grass	N
		- presence of washouts	N
		- settlement causing ponding of water	Y
		- signs of slope instability	Y
		- signs of burrowing by animals	N
		- presence of rooting trees (cap, ditches, swales)	N
		- signs of poor drainage in ditches/swales	N
2. <u>Site Cover</u>	N	- signs of erosion (cover, ditches, swales)	Y / N
(Asphalt, Grass, Vegetation)		- areas of insufficient asphalt, grass, vegetation coverage	Y / N
		- signs of dead/dying grass/vegetation	Y / N
		- presence of washouts	Y / N
		- settlement causing ponding of water	Y / N
		- signs of slope instability	Y / N
		- signs of burrowing by animals	Y / N
		- presence of rooting trees (cover, ditches, swales)	Y / N
		- signs of poor drainage in ditches/swales	Y / N
3. <u>Perimeter Fence</u>	Y	- breaches in fence	N
		- gates secure	Y
		- locks in place	Y
		- missing or illegible signage	N

Comments/Remarks (Note: If repair/maintenance is recommended, describe its location/extent below)

There is settlement and wet area on the road leading to PC1 and south of the road consistent with last year's inspection



Glenn Springs Holdings, Inc.

A subsidiary of Occidental Petroleum

Love Canal Semiannual Barrier System / Pump Chamber Inspections

Date: 9/11/2019
Inspector: Darrell Crockett

Weather: 60° F

Check the Following as Appropriate:

Visual Inspection of chamber piping
 Verification of level probe performance
 Inspection of pump chamber integrity
 Inspection of pump chamber security

Wells	Satisfactory	Needs Maintenance
PC-1	Y	
PC-2	Y	
PC-3	Y	
PC-1A	Y	
PC-2A	Y	
PC-3A	Y	

Comments:

Signature: Darrell Crockett

Appendix C

Niagara Falls Water Board

Wastewater Discharge Permit #44



PAGE 1 OF 15
PERMIT NO. 44

NIAGARA FALLS WATER BOARD
WASTEWATER FACILITIES
SIGNIFICANT INDUSTRIAL USER
WASTEWATER DISCHARGE PERMIT

PERMIT NO. 44 Glenn Springs Holdings, Inc. -
Love Canal Leachate Treatment Facility

In accordance with all terms and conditions of the Niagara Falls Water Board Regulations Part 1960 and also with all applicable provisions of Federal and State Law or regulation:

Permission is Hereby Granted To: Glenn Springs Holdings, Inc. -
Love Canal Leachate Treatment Facility

Located at: 805 - 97th Street, Niagara Falls, NY 14304

Classified by SIC No(s): 4952

For the contribution of wastewater, into the Niagara Falls Water Board Publicly-Owned Treatment Works (POTW).

Effective this 9th day of, January 2015
To Expire this 9th day of, January 2020

A handwritten signature in black ink, appearing to read "Paul J. Drof".

for

Paul J. Drof
Executive Director of Niagara Falls Water Board

Signed this 31TH day of December, 2014

DISCHARGE IDENTIFICATION

[illegible]

**WASTEWATER DISCHARGE PERMIT
REQUIREMENTS FOR:**

**ACTION
REQUIRED**

**REQUIRED DATE
OF SUBMISSION**

A. Discharges to the Niagara Falls Water Board (NFWB) Sewer

1.	Identification of all discharges to the NFWB Sewer System on a current plant sewer map certified by a New York State licensed professional engineer.	None	Submitted 12/24/14
2.	Identification of each contributing waste stream to each discharge to the NFWB Sewer System clearly marked on, or referenced to, a current plant sewer map certified by a New York State licensed professional engineer.	None	Submitted 12/24/14
3.	Elimination of all uncontaminated discharges to the NFWB Sewer System. All uncontaminated flows should be clearly identified on a current sewer map certified by a New York State licensed professional engineer.	N/A	
4.	Establishment of a control manhole that is continuously and immediately accessible for each discharge to the NFWB Sewer System.	None	Previously Established

B. Wastewater Discharge Management Practices

1.	Identification of a responsible person(s) (day to day and in emergencies).	None	Performed by NFWB

C. Slug Control Plan**

Pursuant to Section 40 CFR 403.12 (v) of the Federal Pretreatment Standards the Niagara Falls Water Board will evaluate the permittee, a minimum of once every two years for the need for a "Slug Control Plan." If a plan is required by the Niagara Falls Water Board, then the plan will contain, at a minimum, the following elements:

- a) Description of discharge practices, including non-routine batch discharges;
- b) Description of stored chemicals;
- c) Procedures for immediately notifying the POTW of slug discharges, including any discharge that would violate a prohibition under 40 CFR 403.5 (b), with procedures for follow-up written notification within five days;
- d) If necessary, procedures to prevent adverse impact from accidental spills, including inspection and maintenance of storage areas, handling and transfer of materials, loading and unloading operations, control of plant site runoff, worker training, building of containment structures or equipment, measures for containing toxic organic pollutants (including solvents), and/or measures and equipment necessary for emergency response.

**This section applies to all pollutants limited by the Niagara Falls Water Board SPDES Permit and all prohibited wastewater discharges (See Section 1960.5 of the Niagara Falls Water Board Wastewater Regulations).

D. General Wastewater Discharge Permit Conditions

1. Flow monitoring should be performed concurrently with any Wastewater Discharge Permit sampling and should be reported at the same time as analytical results. If it is not feasible to perform flow monitoring, an estimate of flow (method of estimated flow preapproved by the Niagara Falls Water Board) should be submitted with the analytical results.
2. All sampling for billing and pretreatment compliance purposes will be coordinated through the Niagara Falls Water Board Industrial Monitoring Coordinator.
3. All analysis must be performed by a State certified laboratory using analytical methods consistent with 40 CFR 136 and quality control provisions as required by the Niagara Falls Water Board Laboratory Technical Director. The permittee will report the results as directed in Section G of this permit. Results should be reported using the Method Detection Limit (MDL). Reporting results less than MDL will be indicated in the report by a less than sign (<) followed by the numeric MDL concentration reported by the laboratory. In these cases the pollutant load will be calculated and reported as zero (0). The MDL will be defined as the level at which the analytical procedure referenced is capable of determining with a 99% probability that the substance is present. The value is determined in reagent water. The precision at this level is +/- 100%.
4. An estimate of relative production levels for wastewater contributing processes at the time of any pretreatment compliance sampling will be submitted upon request of the Director of Niagara Falls Water Board - Wastewater Facilities.
5. All samples will be handled in accordance with EPA approved methods. Chain of Custody records will be submitted with all sampling results.
6. All conditions, standards and numeric limitations of Niagara Falls Water Board Wastewater Regulations are hereby incorporated into this permit by reference. These conditions, standards and numeric limitations must be complied with. Failure to comply with any part of said Regulations constitutes a violation and is subject to enforcement actions(s) described in Section 1960.9 of said Regulations, and in the Niagara Falls Water Board Pretreatment Administrative Procedure Number Five (5) - "Enforcement Response Guide." In the event of a violation, including slug discharges or spills, the Niagara Falls Water Board must be notified immediately by phone and confirmed by letter within five (5) working days.

Any person adjudicated of violating any provision in the Niagara Falls Water Board Wastewater Regulations shall be assessed a fine in the amount of up to \$10,000. This amount is available for each violation, and each day of a violation is a separate incident for which penalties may be sought.

6. The person violating any of the provisions of the Niagara Falls Water Board Wastewater Regulations will be liable for any expense, loss, or damage occasioned by reason of such violation. The expense, loss or damage will be taken to be the extent determined by the Director.

In addition, any person who knowingly makes any false statements, representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to the Niagara Falls Water Board Wastewater Regulations, or Wastewater Discharge Permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under the Niagara Falls Water Board Wastewater Regulations will, upon conviction be punished by a fine up to \$5,000. Furthermore, the Niagara Falls Water Board may recover reasonable attorney's fees, court costs, court reporting fees, and other expenses of litigation by appropriate suit at law against the person found to have violated applicable laws, orders, rules and permits required by the Niagara Falls Water Board Wastewater Regulations.

7. In accordance with Federal Regulation CFR 40, Part 403.12(g), any exceedance of a numeric limitation noted by the SIU must be re-sampled, analyzed and resubmitted to the Niagara Falls Water Board - Wastewater Facilities within 30 days.

Specifically, if any limit that is listed in Section F of this permit is exceeded, then the permittee will undertake a short term monitoring program for that pollutant. Samples will be collected identical to those required for routine monitoring purposes and will be collected on each of at least two (2) operating days and analyzed. Results will be reported in both concentration and mass, and will be submitted within 30 days of becoming aware of the exceedance.

8. Sampling frequency for any permitted compounds may be increased beyond the requirements set forth in Section F and G of this permit. If the permittee monitors (sample and analysis) more frequent than required under this permit, **all** results of this monitoring must be reported.
9. As noted in Section 1960.5g of the Niagara Falls Water Board Wastewater Regulations, "Personnel as designated by the Director will be permitted at any time for reasonable cause to enter upon all properties served by the Niagara Falls Water Board for the purpose of, and to carry out, inspection of the premises, observation, measurement, sampling and testing, in accordance with provisions of the Regulations."
10. As noted in Section 1960.5c of the Niagara Falls Water Board Wastewater Regulations, significant changes in discharge characteristics or volume must be reported immediately to the Niagara Falls Water Board - Wastewater Facilities.
11. As noted in Section 1960.6b of the Niagara Falls Water Board Wastewater Regulations, samples required to be collected via a 24-hour composite sampler must be retained refrigerated for an additional 24 hour plus un-refrigerated an additional 48 hours (total 72 hours).

12. As noted in Section 1960.5d of the Niagara Falls Water Board Wastewater Regulations, all "SIU's will keep on file for a minimum of three years, all records, flow charts, laboratory calculations or any other pertinent data on their discharge to the Niagara Falls Water Board - Wastewater Facilities."
13. As noted in Section 1960.6g of the Niagara Falls Water Board Wastewater Regulations, "Permits are issued to a specific user for a specific monitoring station. A permit will not be reassigned or transferred without the approval of the Director which approval will not be unreasonably withheld. Any succeeding owner or user to which a permit has been transferred and approved will also comply with all the terms and conditions of the existing permit."
14. The Annual Average Limitation is equivalent to the specific SIU allocation, and will be defined as the permissible long term average discharge of a particular pollutant. These limitations are listed in Section F of this permit. The computation of the Annual Average will be as follows; for each compound listed in Section G of this permit, the Annual Average will be the average of the present monitoring quarter and three previous quarters data.
15. The Daily Maximum Limitation will be defined as the maximum allowable discharge on anyone day. The Daily Maximum Limitation will allow for periodic short term discharge fluctuations. These specific limitations are listed in Section F of this permit.
16. Enforcement of the Annual Average Limitation will be based on the reported average of the last four quarters data vs. the Annual Average Limited listed in Section F of this permit. Enforcement of the Daily Maximum Limitation will be based on individual analysis results vs. the Daily Maximum Limit listed in Section F of this permit. These results may be obtained from self monitoring (Section G), City of Niagara Falls Verification, incident investigation or billing samples.
17. The Niagara Falls Water Board Administrative Procedure Number 6 "Procedure for Determination and Use of Local Limits" lists all pollutants noted in the Niagara Falls Water Board – Wastewater Facilities SPDES Permit. The limits defined in the procedure are values which are based on the quantity of substances discharged which can be easily related to the Treatment Plant's removal capacity.
The pollutants listed in this procedure that are not specifically listed in Section F and G of this permit may be present in the permittee's wastewater discharge, but at levels which do not require specific permit limitations. Consequently, if any of the limits listed in this procedure, for pollutants not identified in Section F and G of this permit, are exceeded then the permittee will undertake a short-term, high intensity monitoring program for that pollutant. Samples identical to those required for routine monitoring purposes will be collected on each of at least three operating days and analyzed. Results will be expressed in terms of both concentration and mass, and will be submitted no later than the end of the third month following the month when the limit was first exceeded.

If levels higher than the limit are confirmed, the permit may be reopened by the Niagara Falls Water Board for consideration of revised permit limits.

E. Specific Wastewater Discharge Permit Conditions

1. Billing Agreement:

- a) Flow quantities will be derived from the Wastewater Treatment Facility flow meter. The results of the daily flow readings will be compiled and submitted in a Monthly Flow Report by the 15th day of the following month.
- b) Charges for TSS, SOC and Substances of Concern shall be developed based on Quarterly Self Monitoring data.

2. Love Canal Leachate Treatment Facility (LCLTF)

The Niagara Falls Water Board agrees to accept wastewater processed from the Glenn Springs Holdings (GSH) LCLTF. These waters in addition to Love Canal wastewater shall include wastewater from the 102nd Street remedial site. This approval is subject to the following conditions:

- a) The LCLTF shall be properly operated and maintained at all times.
- b) To ensure proper operation GSH shall ensure sufficient feed, inter-stage (breakthrough), and effluent analysis to ensure timely carbon changes. Treatment levels of 10 ug/l shall be achieved and verified with quarterly composite sample analysis for the following compounds: trichloroethylene, tetrachloroethylene, monochlorotoluene, monochlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, hexachlorocyclohexanes and hexachlorobenzene.

E. Specific Wastewater Discharge Permit Conditions

2. Love Canal Leachate Treatment Facility (LCLTF)

Continued

- c) The issuance of this approval is based on GSH's previous assertions that there is no reason to anticipate the presence of tetrachlorodibenzo-p-dioxins in the discharge from the treatment facility. The Niagara Falls Water Board hereby reserves the right to collect samples from the treatment facility effluent and analyze such wastewaters for their chemical constituents, including tetrachlorodibenzo-p-dioxins. If such analysis indicates the presence of tetrachlorodibenzo-p-dioxins, this approval may be withdrawn. If at anytime, the Niagara Falls Water Board determines on any basis that the discharge of these wastewater to the POTW is interfering with the operation of that facility, the Niagara Falls Water Board will direct GSH to discontinue the discharge.
- d) These pretreated wastewaters shall be discharged to the POTW via Outfall MS # 1.
- e) Periodically wet weather flow in the area around LCLTF results in surcharged sewers. The resultant surcharge requires overflow at combined sewer and storm sewer overflow points. Other points in the sewer shed require manual bypass pumping. Consequently, to minimize this overflow, the Niagara Falls Water Board will require the permittee to cease discharge from the LCLTF during these surcharge events.

A notification procedure has been established by the Niagara Falls Water Board to formalize the communication between the Niagara Falls Water Board and the permittee to halt and resume the LCLTF discharge. This procedure by reference is hereby incorporated as a condition of this permit.

F. Discharge Limitations & Monitoring Requirements

During the Period beginning the effective date of this Permit and lasting until the expiration date, discharge from the permitted facility outfall(s) will be limited and monitored by the permittee as specified below.

OUTFALL NUMBER/ EFFLUENT PARAMETER	DISCHARGE LIMITATIONS		UNITS	MINIMUM MONITORING REQUIREMENTS	
	ANNUAL AVERAGE	DAILY MAXIMUM		MEASUREMENT FREQUENCY	SAMPLE TYPE
#1 Flow	0.3	0.3	MGD	Continuous	4
#1 Total Suspended Suspended	25	50	lbs/d	1/Qtr.	1
#1 Soluble Organic Carbon	50	75	lbs/d	1/Qtr.	1
#1 Volatile - Priority Pollutants (See Attached list Section G)	MONITOR	ONLY	lbs/d	1/Qtr.	1
#1 Acid Extractable - Priority Pollutants (See attached list Section G)	MONITOR	ONLY	lbs/d	1/Qtr.	1
#1 Base/Neutral - Priority Pollutants (See attached list Section G)	MONITOR	ONLY	lbs/d	1/Qtr.	1
# 1 Pesticides - Hexachlorocyclohexanes	MONITOR	ONLY	lbs/d	1/Qtr.	1
#1 Total Phenols	MONITOR	ONLY	lbs/d	1/Qtr.	1

F. **DISCHARGE LIMITATIONS & MONITORING REQUIREMENTS**
CONTINUED

SAMPLE TYPE FOOTNOTES

- (1) Each sample will consist of four (4) grabs collected spaced throughout the **batch** discharge, such that they are representative of the effluent being discharged pursuant to 40CFR 403.12.b5iii. The four (4) grabs will be **composited in the laboratory** and analyzed as one sample.
- (2) Each sample will consist of four (4) grabs collected spaced over the 24-hour period, such that they are representative of the effluent being discharged pursuant to 40CFR 403.12.b5iii. The four (4) grabs will be **composited in the laboratory** and analyzed as one sample.
- (3) Each sample will consist of a 24-hour, **flow proportioned** composite sample collected from the monitoring point.
- (4) Flow will be monitored continuously with the use of a water meter or another acceptable flow metering device.
- (5) Each sample will consist of a 24-hour, **time proportioned** composite sample collected from the monitoring point.
- (6) Reserved
- (7) Same as (3), however, five (5) samples will be collected per quarter from the monitoring point and analyzed by and at the Niagara Falls Water Board's expense.
- (8) Four (4) grab samples will be collected spaced over the 24-hour period, such that they are representative of the effluent being discharged pursuant to 40CFR 403.12.b5iii. Each grab will be **analyzed and reported separately**.
- (9) A grab sample is defined as an aliquot collected over a period of not more than 15 minutes.

G. Discharge Monitoring Reporting Requirements

During the period beginning the effective date of this permit and lasting until its expiration date, discharge monitoring results will be summarized and reported by the permittee; Monthly - 14 days after monitoring period, Quarterly - by the last day of the monitoring period = February 28, May 31, August 31, November 30. Semiannual reports will be submitted on the last day of the monitoring period = February 28, August 31. The annual average for each parameter listed in Section F, will be computed and reported quarterly. The individual sample analysis for present quarter will also be reported quarterly unless directed otherwise in this permit.

[illegible]

Discharge Monitoring Compounds

Volatile	Base/Neutrals Extractables
Benzene	Dimethyl Phthalate
Carbon Tetrachloride	Butyl Benz Phthalate
Chlorodibromomethane	Di-N-Butyl Phthalate
Monochlorobenzene	Di-N-Octyl Phthalate
Dichlorobromomethane	Diethyl Phthalate
Chloroform	Nitrosodiphenylamine
Dichloroethylenes	Dichlorobenzenes
Bromoform	Dichlorotoluene
Dichloropropylenes	Acenaphthlene
Ethylbenzene	Fluoranthene
Tetrachloroethanes	Chrysene
Tetrachloroethylene	Napthalene
Toluene	Benzo (a) Anthracene
Trichloroethanes	Pyrene
Trichloroethylene	Trichlorobenzene
Methylene Chloride	Trichlorotoluene
Vinyl Chloride	Hexachlorobutadiene
Monochlorotoluenes	Tetrachlorobenzene
Monochlorobenzotrifluoride	Hexachlorocyclopentadiene
	Hexachlorobenzene
	Dichlorobenzotrifluoride

Discharge Monitoring Compounds

Acids	Pesticides
Monochlorophenol	Alpha, beta, delta, gama – hexachlorocyclohexane
Dichlorophenol	
Monochlorocresol	
Trichlorophenol	
Pentachlorophenol	

Conventionals	
Total Phenols	
Total Suspended Solids	
Soluble Organic Carbon	

H. Comments/Revisions

NIAGARA FALLS WATER BOARD

SIGNIFICANT INDUSTRIAL USER WASTEWATER DISCHARGE

Permit No. 44

In accordance with all terms and conditions of the
Niagara Falls Water Board Wastewater Regulations Part 1960
and also with all applicable provisions of Federal and State Law or regulation:

Permission Is Hereby Granted To:

**GLENN SPRINGS HOLDINGS, INC. –
LOVE CANAL LEACHATE TREATMENT FACILITY**

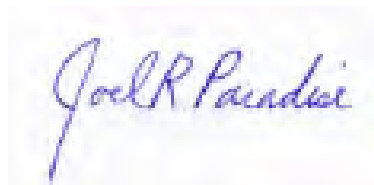
Located at: 805 - 97th Street, Niagara Falls, NY 14304

Classified by SIC Number: 4952

For the contribution of wastewater into the Niagara Falls Water Board
Publicly-Owned Treatment Works (POTW).

Effective this 10th day of January 2020
To Expire this 9th day of January 2025

Signed this 20th day of December 2019



For
Pat Fama
Executive Director of the Niagara Falls Water Board

DISCHARGE IDENTIFICATION

OUTFALL	DESCRIPTION	LOCATION	RECEIVING
#1	97 th Street Discharge	97 th Street	Carbon treated leachate from the Love Canal Leachate Treatment Facility and the 102 nd Street landfill

A. Discharges to the Niagara Falls Water Board (NFWB) Sewer

WASTEWATER DISCHARGE PERMIT REQUIREMENTS FOR:		ACTION REQUIRED	REQUIRED DATE OF SUBMISSION
1.	Identification of all discharges to the NFWB Sewer System on a current plant sewer map certified by a New York State licensed professional engineer.	None	Submitted 12/06/2019
2.	Identification of each contributing waste stream to each discharge to the NFWB Sewer System clearly marked on, or referenced to, a current plant sewer map certified by a New York State licensed professional engineer.	None	Submitted 12/06/2019
3.	Elimination of all uncontaminated discharges to the NFWB Sewer System. All uncontaminated flows should be clearly identified on a current sewer map certified by a New York State licensed professional engineer.	N/A	
4.	Establishment of a control manhole that is continuously and immediately accessible for each discharge to the NFWB Sewer System.	None	Previously Established

B. Wastewater Discharge Management Practices

1.	Identification of a responsible person(s) (day to day and in emergencies).	Updated as needed by NFWB personnel

C. General Wastewater Discharge Permit Conditions

1. Flow monitoring should be performed concurrently with any Wastewater Discharge Permit sampling and should be reported at the same time as analytical results. If it is not feasible to perform flow monitoring, an estimate of flow (method of estimated flow preapproved by the Niagara Falls Water Board) should be submitted with the analytical results.
2. All sampling for billing and pretreatment compliance purposes will be coordinated through the Niagara Falls Water Board Industrial Monitoring Coordinator.
3. All analysis must be performed by a State certified laboratory using analytical methods promulgated and consistent with 40 CFR 136 and amendments thereto. The permittee will request their contract laboratory to report both Practical Quantitation Limit (PQL) and Method Detection Limit (MDL). The PQL and MDL are defined in the NYSDEC Technical Guidance Series 1.3.7.

The permittee should report results that are less than the MDL or PQL on the NFWB Self Monitoring Report, as non-detect (ND), by placing a less than sign (<) followed by the analytical result. Every effort should be made to attain results down to the MDL. If this is not possible, then results less than PQL but greater than MDL must also be additionally flagged with the qualifier "J" on the Self Monitoring Report. For example, a result less than 5 PQL would be reported <5 (J). In either case the calculated load in lbs per day would be zero. Monitoring results which are lower than the PQL must be reported but will not be used to determine compliance with the permit limit.

4. An estimate of relative production levels for wastewater contributing processes at the time of any pretreatment compliance sampling will be submitted upon request of the Director of Niagara Falls Water Board – Wastewater Facilities.
5. All samples will be handled in accordance with EPA approved methods. Chain of Custody records will be submitted with all sampling results.
6. All conditions, standards and numeric limitations of Niagara Falls Water Board Wastewater Regulations are hereby incorporated into this permit by reference. These conditions, standards and numeric limitations must be complied with. Failure to comply with any part of said regulations constitutes a violation and is subject to enforcement actions(s) described in Section 1960.9 of said Regulations, and in the Niagara Falls Water Board Pretreatment Administrative Procedure Number Five (5) - "Enforcement Response Guide." Violators are subject to all applicable *Civil* and *Criminal* penalties. In the event of a violation, including slug discharges or spills, the Niagara Falls Water Board must be notified immediately by phone and confirmed by letter within five (5) working days. (C6. continued)

C. General Wastewater Discharge Permit Conditions (continued)

- 6.cont. Any person adjudicated of violating any provision in the Niagara Falls Water Board Wastewater Regulations shall be assessed a fine in the amount of up to \$10,000. This amount is available for each violation, and each day of a violation is a separate incident for which penalties may be sought.

The person violating any of the provisions of the Niagara Falls Water Board Wastewater Regulations will be liable for any expense, loss, or damage occasioned by reason of such violation. The expense, loss or damage will be taken to be to the extent determined by the Director.

In addition, any person who knowingly makes any false statements; representation or certification in any application, record, report, plan or other document filed or required to be maintained pursuant to the Niagara Falls Water Board Wastewater Regulations, or Wastewater Discharge Permit, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required under the Niagara Falls Water Board – Wastewater Regulations will, upon conviction be punished by a fine up to \$5,000. Furthermore, the Niagara Falls Water Board may recover reasonable attorney's fees, court costs, court reporting fees, and other expenses of litigation by appropriate suit at law against the person found to have violated applicable laws, orders, rules and permits required by the Niagara Falls Water Board Wastewater Regulations.

7. In accordance with Federal Regulation CFR 40, Part 403.12(g), any exceedance of a numeric limitation noted by the SIU must be re-sampled, analyzed and resubmitted to the of Niagara Falls Water Board Wastewater Facilities within 30 days of becoming aware of the exceedance.

Specifically, if any limit that is listed in Section E of this permit is exceeded, then the permittee will undertake a short-term monitoring program for that pollutant. Samples will be collected identical to those required for routine monitoring purposes and will be collected on each of at least two (2) operating days and analyzed. Results will be reported in both concentration and mass, and will be submitted within 30 days of becoming aware of the exceedance.

8. Sampling frequency for any permitted compounds may be increased beyond the requirements set forth in Section E and F of this permit. If the permittee monitors (sample and analysis) more frequent than required under this permit, all results of this monitoring must be reported.
9. As noted in Section 1960.5g of the Niagara Falls Water Board Wastewater Regulations, "Personnel as designated by the Director will be permitted at any time for reasonable cause to enter upon all properties served by the Niagara Falls Water Board – Wastewater Facilities for the purpose of, and to carry out, inspection of the premises, observation, measurement, sampling and testing, in accordance with provisions of the Regulations." (C. continued)

C. General Wastewater Discharge Permit Conditions (continued)

10. As noted in Section 1960.5c of the Niagara Falls Water Board Wastewater Regulations, significant changes in discharge characteristics or volume must be reported immediately to the Niagara Falls Water Board – Wastewater Facilities.
11. As noted in Section 1960.6b of the Niagara Falls Water Board Wastewater Regulations, samples required to be collected via a 24-hour composite sampler must be retained refrigerated for an additional 24 hour plus unrefrigerated an additional 48 hours (total 72 hours).
12. As noted in Section 1960.5d of the Niagara Falls Water Board Wastewater Regulations, all "SIU's will keep on file for a minimum of three years, all records, flow charts, laboratory calculations or any other pertinent data on their discharge to the Niagara Falls Water Board – Wastewater Facilities.
13. As noted in Section 1960.6g of the Niagara Falls Water Board Wastewater Regulations, "Permits are issued to a specific user for a specific monitoring station. A permit will not be reassigned or transferred without the approval of the Director which approval will not be unreasonably withheld. Any succeeding owner or user to which a permit has been transferred and approved will also comply with all the terms and conditions of the existing permit."
14. The Annual Average Limitation is equivalent to the specific SIU allocation, and will be defined as the permissible long-term average discharge of a particular pollutant. These limitations are listed in Section E of this permit. The computation of the Annual Average will be as follows; for each compound listed in Section F of this permit, the Annual Average will be the average of the present monitoring quarter and three previous quarters' data.
15. The Daily Maximum Limitation will be defined as the maximum allowable discharge on anyone day. The Daily Maximum Limitation will allow for periodic short-term discharge fluctuations. These specific limitations are listed in Section E of this permit.
16. Enforcement of the Annual Average Limitation will be based on the reported average of the last four quarters data vs. the Annual Average Limited listed in Section E of this permit. Enforcement of the Daily Maximum Limitation will be based on individual analysis results vs. the Daily Maximum Limit listed in Section E of this permit. These results may be obtained from self-monitoring (Section F), Niagara Falls Water Board Verification, incident investigation or billing samples.

(C. continued)

C. General Wastewater Discharge Permit Conditions (continued)

17. The Niagara Falls Water Board Administrative Procedure Number 6 "Procedure for Determination and Use of Local Limits" lists all pollutants noted in the Niagara Falls Water Board – Wastewater Facilities SPDES Permit. The limits defined in the procedure are values which are based on the quantity of substances discharged which can be easily related to the Treatment Plant's removal capacity.

The pollutants listed in this procedure which are not specifically listed in Section E and F of this permit may be present in the permittee's wastewater discharge, but at levels which do not require specific permit limitations. Consequently, if any of the limits listed in this procedure, for pollutants not identified in Section E and F of this permit, are exceeded then the permittee will undertake a short-term, high intensity monitoring program for that pollutant.

Samples identical to those required for routine monitoring purposes will be collected on each of at least three operating days and analyzed. Results will be expressed in terms of both concentration and mass, and will be submitted no later than the end of the third month following the month when the limit was first exceeded.

If levels higher than the limit are confirmed, the permit may be reopened by the Niagara Falls Water Board for consideration of revised permit limits.

18. 40 CFR 403.17(c) contains the notification requirements for anticipated and unanticipated bypass. In the event of an anticipated bypass, the federal regulations at 403.17 (c)(1) require an industrial user to notify the Niagara Falls Water Board at least ten days prior to the date of the bypass. In the event of an unanticipated bypass, the federal regulations at 40 CFR 403.17(c)(2) require an industrial user to notify the Niagara Falls Water Board within 24 hours from the time the industrial user becomes aware of the bypass and submit a written description of the bypass within five days of the time the industrial user becomes aware of the bypass. As defined at 403.17 (a)(1), a bypass is "the intentional diversion of wastestreams from any portion of an Industrial User's treatment facility."
19. 40 CFR 403.8(f)(2)(vi) requires the SIU to notify the Niagara Falls Water Board immediately of any changes at its facility affecting its potential for a slug discharge.

D. Specific Wastewater Discharge Permit Conditions

1. Billing Agreement:

- a) Flow quantities will be derived from the Wastewater Treatment Facility flow meter. The results of the daily flow readings will be compiled and submitted to the Niagara Falls Water Board in a Monthly Flow Report by the 15th day of the following month.
- b) Charges for TSS, SOC and Substances of Concern shall be developed based on Quarterly Self-Monitoring data.

2. Love Canal Leachate Treatment Facility (LCLTF)

The Niagara Falls Water Board agrees to accept wastewater processed from the Glenn Springs Holdings (GSH) LCLTF. These waters in addition to Love Canal wastewater shall include wastewater from the 102nd Street remedial site. This approval is subject to the following conditions:

- a) The LCLTF shall be properly operated and maintained at all times.
- b) To ensure proper operation GSH shall ensure sufficient feed, inter-stage (breakthrough), and effluent analysis to ensure timely carbon changes. Treatment levels of 10 ug/l shall be achieved and verified with quarterly composite sample analysis for the following compounds: trichloroethylene, tetrachloroethylene, monochlorotoluene, monochlorobenzenes, trichlorobenzenes, tetrachlorobenzenes, hexachlorocyclohexanes- alpha, beta, gamma and delta and hexachlorobenzene.
- c) The issuance of this approval is based on GSH's previous assertions that there is no reason to anticipate the presence of tetrachlorodibenzo-p-dioxins in the discharge from the treatment facility. The Niagara Falls Water Board hereby reserves the right to collect samples from the treatment facility effluent and analyze such wastewaters for their chemical constituents, including tetrachlorodibenzo-p-dioxins. If such analysis indicates the presence of tetrachlorodibenzo-p-dioxins, this approval may be withdrawn. If at any time, the Niagara Falls Water Board determines on any basis that the discharge of these wastewater to the POTW is interfering with the operation of that facility, the Niagara Falls Water Board will direct GSH to discontinue the discharge.
- d) These pretreated wastewaters shall be discharged to the POTW via Outfall MS # 1.

(D2. continued)

D. Specific Wastewater Discharge Permit Conditions (continued)

2. Love Canal Leachate Treatment Facility (LCLTF) (continued)

- e) Periodically wet weather flow in the area around LCLTF results in surcharged sewers. The resultant surcharge requires overflow at combined sewer and storm sewer overflow points. Other points in the sewer shed require manual bypass pumping. Consequently, to minimize this overflow, the Niagara Falls Water Board will require the permittee to cease discharge from the LCLTF during these surcharge events.

A notification procedure has been established by the Niagara Falls Water Board to formalize the communication between the Niagara Falls Water Board and the permittee to halt and resume the LCLTF discharge. This procedure by reference is hereby incorporated as a condition of this permit.

3. Slug Discharge Control Plan:

Pursuant to the regulations contained in the Federal Industrial Pretreatment Program, 40CFR 403.8(f)(2), the NFWB is obligated to periodically review users for the need for a Slug Discharge Control Plan.

This permittee has been reviewed and is NOT required to develop and implement such a plan.

E. Discharge Limitations & Monitoring Requirements

During the Period beginning the effective date of this Permit and lasting until the expiration date, discharge from the permitted facility outfall(s) will be limited and monitored by the permittee as specified below.

OUTFALL NUMBER / EFFLUENT PARAMETER	DISCHARGE LIMITATIONS		UNITS	MINIMUM MONITORING REQUIREMENTS	
	ANNUAL AVERAGE	DAILY MAXIMUM		MEASUREMENT FREQUENCY	SAMPLE TYPE
MS #1 Flow	0.3	0.3	MGD	Continuous	4
MS #1 Total Suspended Solids	25	50	lbs./d	1/Quarter	1
MS #1 Soluble Organic Carbon	50	75	lbs./d	1/Quarter	1
MS#1 Volatile Priority Pollutants (See Attached list (Section F-1))	MONITOR ONLY		lbs./d	1/Quarter	1
MS #1 Acid Extractable Priority Pollutants (See attached list Section F-2)	MONITOR ONLY		lbs./d	1/Quarter	1
MS #1 Base/Neutral Priority Pollutants (See attached list Section F-3)	MONITOR ONLY		lbs./d	1/Quarter	1
MS #1 Pesticides Hexachlorocyclohexanes- alpha, beta, gamma and delta (See attached list Section F-4)	MONITOR ONLY		lbs./d	1/Quarter	1
MS #1 Total Phenols	MONITOR ONLY		lbs./d	1/Quarter	1

SAMPLE TYPE FOOTNOTES

- (1) Each sample will consist of four (4) grabs collected spaced throughout the batch discharge, such that they are representative of the effluent being discharged pursuant to 40CFR 403.12.b5iii. The four (4) grabs will be composited in the laboratory and analyzed as one sample.
- (2) Each sample will consist of four (4) grabs collected spaced over the 24-hour period, such that they are representative of the effluent being discharged pursuant to 40CFR 403.12.b5iii. The four (4) grabs will be composited in the laboratory and analyzed as one sample.
- (3) Each sample will consist of a 24-hour, flow proportioned composite sample collected from the monitoring point.
- (4) Flow will be monitored continuously with the use of a water meter or another acceptable flow metering device.
- (5) Each sample will consist of a 24-hour, time proportioned composite sample collected from the monitoring point.
- (6) Reserved
- (7) Same as (3), however, five (5) samples will be collected per quarter from the monitoring point and analyzed by and at the Niagara Falls Water Board's expense.
- (8) Four (4) grab samples will be collected spaced over the 24-hour period, such that they are representative of the effluent being discharged pursuant to 40CFR 403.12.b5iii. Each grab will be analyzed and reported separately.
- (9) A grab sample is defined as an aliquot collected over a period of not more than 15 minutes.

F. Discharge Monitoring Reporting Requirements

During the period beginning the effective date of this permit and lasting until its expiration date, discharge monitoring results will be summarized and reported by the permittee; Monthly - 14 days after monitoring period, Quarterly - by the last day of the monitoring period = February 28, May 31, August 31, November 30. Semiannual reports will be submitted on the last day of the monitoring period = February 28, August 31. The annual average for each parameter listed in Section F, will be computed and reported quarterly. The individual sample analysis for present quarter will also be reported quarterly unless directed otherwise in this permit.

OUTFALL NO	PARAMETER	REPORTING FREQUENCY
MS #1	Flow	Monthly
MS #1	Total Suspended Solids	Quarterly
MS #1	Soluble Organic Carbon	Quarterly
MS #1	Volatile - Priority Pollutants (F-1) *	Quarterly
MS #1	Acid Extractables - Priority Pollutants (F-2) *	Quarterly
MS #1	Base/Neutral - Priority Pollutants (F-3) *	Quarterly
MS #1	Pesticides (F-4) *	Quarterly
MS #1	Total Phenols	Quarterly

* See specific compounds listed on the following page.

(F. continued)

F. Discharge Monitoring Reporting Requirements (continued)

Discharge Monitoring Compounds

F1- Volatile Priority Pollutants		
Benzene	Bromoform	Trichloroethylene
Carbon Tetrachloride	Dichloropropylenes	Methylene Chloride
Chlorodibromomethane	Ethylbenzene	Vinyl Chloride
Monochlorobenzene	Tetrachloroethanes	Monochlorotoluenes
Dichlorobromomethane	Tetrachloroethylene	Monochlorobenzotrifluoride
Chloroform	Toluene	
Dichloroethylenes	Trichloroethanes	

F2- Acid Extractables Priority Pollutants		
Monochlorophenol	Monochlorocresol	Pentachlorophenol
Dichlorophenol	Trichlorophenol	

F3- Base/Neutrals Extractables Priority Pollutants		
Dimethyl Phthalate	Dichlorotoluene	Trichlorobenzene
Butyl Benz Phthalate	Acenaphthlene	Trichlorotoluene
Di-N-Butyl Phthalate	Fluoranthene	Hexachlorobutadiene
Di-N-Octyl Phthalate	Chrysene	Tetrachlorobenzene
Diethyl Phthalate	Napthalene	Hexachlorocyclopentadiene
Nitrosodiphenylamine	Benzo (a) Anthracene	Hexachlorobenzene
Dichlorobenzenes	Pyrene	Dichlorobenzotrifluoride

F4- Pesticides
Hexachlorocyclohexanes- alpha, beta, delta, and gamma

G. Comments/Revisions

Appendix D

Annual Groundwater Sampling Schedule



**CONESTOGA-ROVERS
& ASSOCIATES**

2055 Niagara Falls Blvd., Suite #3
Niagara Falls, New York 14304
Telephone: (716) 297-6150 Fax: (716) 297-2265
www.CRAworld.com

MEMORANDUM

TO: Clint Babcock, Ralph Schupp
FROM: Jane Pietraszek-Polovich/adh/8 *JPP*
C.C.: Darrell Crockett, Dennis Hoyt, John Pentilchuk,
Dave Tyran, Filing
RE: Love Canal Annual Groundwater Sampling Schedule

REF. NO.: 009954
DATE: August 5, 2010

At the request of Glenn Springs Holdings, Inc. (GSH), Conestoga-Rovers & Associates (CRA) has prepared the following memo to document the Annual Groundwater Sampling schedule for the Love Canal Facility in Niagara Falls, New York (Site).

Correspondence from Mr. Brian Sadowski of the New York State Department of Environmental Conservation (NYSDEC) sent to CRA and GSH on March 25, 2009 (email attached) states that it is no longer necessary for the NYSDEC to specifically list the wells to be sampled each year at the Site, since the annual and alternating (Group I and Group II) wells have remained the same throughout the years. From 1994 through 2008, the NYSDEC provided GSH with a list of wells to be sampled each year. The March 25, 2009 email from Mr. Sadowski stated that the NYSDEC will no longer provide such a list. Therefore, Mr. Sadowski suggested that the wells sampled during the 2007 annual groundwater monitoring event be used for the 2009 annual groundwater monitoring event, to remain consistent with the Long-Term Monitoring Program. The 2007 (and therefore 2009) monitoring wells represent the Group I wells (Table 1). The 2008 (and therefore 2010) monitoring wells represent the Group II wells. In addition, there are select overburden and bedrock wells that are to be sampled annually (Table 1).

Mr. Sadowski went on to further state that GSH must "ensure that the monitoring network and well selection provide adequate overburden and bedrock coverage that returns the data necessary for the evaluation of the remediation, and that the NYSDEC feels that the selection of the 2007 wells will meet those objectives." Mr. Sadowski indicated that GSH can enhance upon the objective by choosing other wells if they wish. Once the well selection is made for the annual event, GSH is to provide the NYSDEC with the monitoring well numbers. Any changes in the well selection must be accompanied with reasons for the addition/deletion. Based on a review of the data for the wells suggested by NYSDEC, GSH agreed to sample the wells in Table 1 for future sampling events. This was communicated to the NYSDEC through a phone call to Mr. Sadowski on June 7, 2010, and documented in the attached email dated June 8, 2010. The NYSDEC is to be notified when the annual monitoring will take place for oversight purposes and to split samples if desired. A 2-week notice of the annual groundwater monitoring event is preferred by the NYSDEC.

TABLE 1
SAMPLE SCHEDULE
LOVE CANAL FACILITY
LONG-TERM MONITORING PROGRAM
NIAGARA FALLS, NEW YORK

<i>Annual Wells</i>	<i>Biannual Wells</i>	
<i>Bedrock Wells</i>	<i>Overburden Wells Group I (2009)</i>	<i>Overburden Wells Group II (2010)</i>
3257	3151	7115
5221	7120	7125
6209	7155	8115
7205	7161	8125
8210	8110	9105
9205	8120	9113
9210	8130	9118
10205	8140	10178A
10210A	9110	
10210B	9115	
10210C	9120	
10215	9125	
10225A	9130	
10225B	9140	
10225C	10105	
10270	10147	
10272	10174A	
10278		
<i>Overburden Wells</i>		
7130		
7132		
8106		
10135		

From: Crockett, Darrell
Sent: Wednesday, March 25, 2009 12:06 PM
To: Pentilchuk, John
Subject: 9954 FW: Love Canal Annual 2009 Sampling
John,

Please let me know how you'd like for me to proceed. I have the 2007 sampling event data.

Thanks
Darrell

From: Brian Sadowski [mailto:bpsadows@gw.dec.state.ny.us]
Sent: Wed 3/25/2009 11:56 AM
To: Crockett, Darrell
Cc: Hoyt, Dennis; Clint_Babcock ext
Subject: Re: Love Canal Annual 2009 Sampling

Darrell,

Your contact and this response will be considered as our pre-sampling conference as stated on p.6. in Section 2.0 Monitoring Requirements of the February 19, 2001 Sampling Manual. Over the last fourteen years the Department has specifically listed the wells to sample and believe that is no longer necessary as the annual and alternating wells have stayed the same. GSHI and/or MSRM has clearly demonstrated their ability to operate, maintain and monitor the site. With the addition of CRA; there is an added layer of technological security and professional environmental judgement. With that said, the Department will not provide a specific list of wells to monitor. However, the suggested wells are the wells that were sampled in 2007 to remain consistent with the LTM program schedule listed on Table 2.2 of the Sampling Manual. The monitoring schedule is flexible. OXY and CRA is to ensure that the monitoring network and well selection provides adequate overburden and bedrock coverage that returns the data necessary for the evaluation of the remediation. The Department feels that the selection of the 2007 wells will meet those objectives. OXY and CRA can enhance upon the objectives by choosing other wells if they wish. When a decision is made by CRA on the well selection, please provide the Department with the well numbers. A simple return "as same as 2007 or 2007 with the addition, deletion or substitution of well #" will suffice. If changes are made, please provide reasoning. Finally, the Department will not be splitting this year. But, will need to be given notice when monitoring will take place for oversight purposes. Thank you.

>>> "Crockett, Darrell" <dcrockett@craworld.com> 3/18/2009 8:05 AM >>>
Hello Brian,

At your convenience would you please provide me with a 2009 Annual sampling well list including the split samples.

Thank You
Darrell Crockett
716/998-5804

From: Polovich, Jane

Sent: Tuesday, June 08, 2010 9:49 AM

To: Filing

Subject: 9954: Love Canal Annual Sampling - Conversation with Brian Sadowski NYSDEC

I spoke with Brian Sadowski on Monday June 7, 2010 to confirm the annual groundwater sampling locations at Love Canal. As per Brians email of March 25 2009 to Darrell Crockett, the 2007 wells selected by the DEC were to be the ones sampled in 2009 (these represent the Group I wells). I confirmed with Mr. Sadowski that the 2008 wells selected by the DEC would be teh wells sampled in 2010 (representing the Group II wells). These Group I and Group II wells will from this point forward be the wells sampled for the alternating annual groundwater sampling events at Love Canal. Mr Sadowski went further to say that GSH may add or delete wells from the sampling but must provide a reason to the DEC prior to sampling for the additions / deletions. CRA documented this change in the sampling program in a internal memo.

Jane Polovich

Conestoga-Rovers & Associates (CRA)

2055 Niagara Falls Blvd., Suite 3
Niagara Falls, New York 14304

Phone: 716.297.6150

Fax: 716.297.2265

Email: jpolovich@CRAworld.com

www.CRAworld.com

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Appendix E

Laboratory Reports



July 18, 2019

Service Request No:R1905844

Ms. Kathy Willy
GHD Services Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, NY 14304

Laboratory Results for: Love Canal:292-402-D02-3100

Dear Ms.Willy,

Enclosed are the results of the sample(s) submitted to our laboratory June 21, 2019
For your reference, these analyses have been assigned our service request number **R1905844**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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RQ1906787-03 - CCV Semivoa GC	1966
RQ1906787-04 - CCV Semivoa GC	1968
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Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100
Sample Matrix: Water

Service Request: R1905844

Date Received: 06/21/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Nine water samples were received for analysis at ALS Environmental on 06/21/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

Method 8270D, 07/15/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8270D, R1905844-009: The control limits were exceeded for one or more surrogates due to suspected matrix interferences. Extract was very cloudy. A re-extraction was not performed because sample was way out of holding time.

Method 8270D, R1905844-008: The control limits for one or more surrogates in the sample are not applicable. The analysis of the sample required a dilution, which resulted in a surrogate concentration below the Method Reporting Limit (MRL). No further corrective action was appropriate.

Method 8270D, 06/28/19, 07/01/19: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 06/28/19: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 07/02/19: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 07/02/19: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Semivolatile GC:

Method 8081B, 07/03/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 07/02/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Approved by 

Date 07/18/2019



Method 8082A, 07/03/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Volatiles by GC/MS:

Method 8260C, 06/26/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 06/26/2019: The Continuing Calibration Verification (CCV) exceeded control limits for Acetone. All detected concentrations for Acetone in samples associated with this CCV should be considered as estimated. The analytes affected are flagged in the CCV Summary Report.

Approved by

A handwritten signature in black ink, appearing to read 'Brady Knutson', written over a horizontal line.

Date

07/18/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: RB-9954-061919-SG-002	Lab ID: R1905844-001

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	6.6	J	2.1	10	ug/L	8260C
alpha-BHC	0.55		0.020	0.047	ug/L	8081B
delta-BHC	0.11		0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.29		0.020	0.047	ug/L	8081B

CLIENT ID: TB-9954-061919-SG-004	Lab ID: R1905844-002

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	17	B	2.1	10	ug/L	8260C
Toluene	0.30	BJ	0.20	5.0	ug/L	8260C

CLIENT ID: WG-9954-061919-SG-031	Lab ID: R1905844-003

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	5.1	J	2.1	10	ug/L	8260C

CLIENT ID: WG-9954-061919-SG-032	Lab ID: R1905844-004

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	5.3	J	2.1	10	ug/L	8260C
Benzene	0.33	J	0.20	5.0	ug/L	8260C
Toluene	0.86	J	0.20	5.0	ug/L	8260C
Xylenes, Total	1.1	J	0.23	5.0	ug/L	8260C

CLIENT ID: WG-9954-061919-SG-033	Lab ID: R1905844-005

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	4.9	J	2.1	10	ug/L	8260C
Carbon Disulfide	4.5	J	0.25	10	ug/L	8260C

CLIENT ID: WG-9954-061919-SG-034	Lab ID: R1905844-006

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	3.4	J	2.1	10	ug/L	8260C
Carbon Disulfide	2.6	J	0.25	10	ug/L	8260C
Chlorobenzene	1.0	J	0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	6.5		0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	3.1	J	0.23	5.0	ug/L	8260C
1,2,4-Trichlorobenzene	10		1.0	9.8	ug/L	8270D
alpha-BHC	0.12		0.020	0.047	ug/L	8081B
delta-BHC	0.046	J	0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.060		0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-061919-SG-035	Lab ID: R1905844-007

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	8.7	J	2.1	10	ug/L	8260C
Carbon Disulfide	0.56	J	0.25	10	ug/L	8260C

SAMPLE DETECTION SUMMARY

CLIENT ID: WG-9954-061919-SG-036	Lab ID: R1905844-008

Analyte	Results	Flag	MDL	MRL	Units	Method
1,1,2,2-Tetrachloroethane	1.8	J	0.20	5.0	ug/L	8260C
1,1,2-Trichloroethane	3.4	J	0.20	5.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	0.22	J	0.20	5.0	ug/L	8260C
2-Butanone (MEK)	5.7	J	0.78	10	ug/L	8260C
Acetone	50		2.1	10	ug/L	8260C
Benzene	1600	E	0.20	5.0	ug/L	8260C
Carbon Disulfide	0.31	J	0.25	10	ug/L	8260C
Chlorobenzene	1000	E	0.20	5.0	ug/L	8260C
Chloroform	59		0.24	5.0	ug/L	8260C
Dichloromethane	3.5	J	0.36	5.0	ug/L	8260C
Ethylbenzene	10		0.20	5.0	ug/L	8260C
Tetrachloroethene (PCE)	5.0	J	0.21	5.0	ug/L	8260C
Toluene	2100	E	0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	26		0.20	5.0	ug/L	8260C
Vinyl Chloride	3.9	J	0.20	5.0	ug/L	8260C
Xylenes, Total	47		0.23	5.0	ug/L	8260C
cis-1,2-Dichloroethene	8.1		0.23	5.0	ug/L	8260C
trans-1,2-Dichloroethene	27		0.20	5.0	ug/L	8260C
Benzene	4900	D	20	500	ug/L	8260C
Chlorobenzene	2200	D	20	500	ug/L	8260C
Chloroform	130	DJ	24	500	ug/L	8260C
Toluene	17000	D	20	500	ug/L	8260C
Trichloroethene (TCE)	21	DJ	20	500	ug/L	8260C
Xylenes, Total	41	DJ	23	500	ug/L	8260C
1,2,4-Trichlorobenzene	28	J	20	190	ug/L	8270D
1,4-Dichlorobenzene	45	J	20	190	ug/L	8270D
2,4-Dichlorophenol	35	J	20	190	ug/L	8270D
3- and 4-Methylphenol Coelution	31	J	20	190	ug/L	8270D
Benzoic Acid	1300		120	940	ug/L	8270D
Benzyl Alcohol	61	J	20	190	ug/L	8270D
alpha-BHC	25		0.40	0.94	ug/L	8081B
beta-BHC	6.7		0.40	0.94	ug/L	8081B
delta-BHC	7.6		0.40	0.94	ug/L	8081B
gamma-BHC (Lindane)	4.7		0.40	0.94	ug/L	8081B

CLIENT ID: WG-9954-061919-SG-037	Lab ID: R1905844-009

Analyte	Results	Flag	MDL	MRL	Units	Method
1,1,2,2-Tetrachloroethane	1.8	J	0.20	5.0	ug/L	8260C
1,1,2-Trichloroethane	3.8	J	0.20	5.0	ug/L	8260C
2-Butanone (MEK)	4.4	J	0.78	10	ug/L	8260C
Acetone	35		2.1	10	ug/L	8260C
Benzene	1700	E	0.20	5.0	ug/L	8260C

SAMPLE DETECTION SUMMARY

CLIENT ID: WG-9954-061919-SG-037			Lab ID: R1905844-009			
Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	0.33	J	0.25	10	ug/L	8260C
Chlorobenzene	1100	E	0.20	5.0	ug/L	8260C
Chloroform	60		0.24	5.0	ug/L	8260C
Dichloromethane	3.8	J	0.36	5.0	ug/L	8260C
Ethylbenzene	11		0.20	5.0	ug/L	8260C
Tetrachloroethene (PCE)	5.3		0.21	5.0	ug/L	8260C
Toluene	2300	E	0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	28		0.20	5.0	ug/L	8260C
Xylenes, Total	48		0.23	5.0	ug/L	8260C
cis-1,2-Dichloroethene	8.4		0.23	5.0	ug/L	8260C
trans-1,2-Dichloroethene	27		0.20	5.0	ug/L	8260C
Benzene	5700	D	20	500	ug/L	8260C
Chlorobenzene	2400	D	20	500	ug/L	8260C
Chloroform	170	DJ	24	500	ug/L	8260C
Toluene	19000	D	20	500	ug/L	8260C
Trichloroethene (TCE)	35	DJ	20	500	ug/L	8260C
Xylenes, Total	42	DJ	23	500	ug/L	8260C
trans-1,2-Dichloroethene	35	DJ	20	500	ug/L	8260C
1,2,4-Trichlorobenzene	14	J	10	94	ug/L	8270D
1,4-Dichlorobenzene	21	J	10	94	ug/L	8270D
Benzoic Acid	1100		60	470	ug/L	8270D
Benzyl Alcohol	43	J	10	94	ug/L	8270D
alpha-BHC	26		0.40	0.94	ug/L	8081B
beta-BHC	7.5		0.40	0.94	ug/L	8081B
delta-BHC	6.3		0.40	0.94	ug/L	8081B
gamma-BHC (Lindane)	4.4		0.40	0.94	ug/L	8081B



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Service Request:R1905844

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1905844-001	RB-9954-061919-SG-002	6/20/2019	1300
R1905844-002	TB-9954-061919-SG-004	6/19/2019	0000
R1905844-003	WG-9954-061919-SG-031	6/19/2019	1215
R1905844-004	WG-9954-061919-SG-032	6/19/2019	0935
R1905844-005	WG-9954-061919-SG-033	6/19/2019	1050
R1905844-006	WG-9954-061919-SG-034	6/19/2019	1155
R1905844-007	WG-9954-061919-SG-035	6/19/2019	1335
R1905844-008	WG-9954-061919-SG-036	6/19/2019	1450
R1905844-009	WG-9954-061919-SG-037	6/19/2019	1450

CHAIN-OF-CUSTODY/Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Client Information	
GLEN SPRINGS HOLDINGS INC	Report To: Kathy Willy
805 97TH STREET	Copy To:
LOVE CANAL	
Niagara Falls, New York 14304	Invoice To:
Phone: 716-283-0111	PO:
Fax: 716-283-2856	Project Name: LOVE CANAL ANNUAL GW
Email: kathy.willy@ghd.com	Project Number: 9954

Lab Information	
Laboratory: ALS	
Laboratory Location: 1565 JEFFERSON RD. BUILDING 300, SUITE 360 ROCHESTER, NY 14623	
Laboratory Contact: BRADY KALKMAN	
Requested Due Date:	TAT: 10
QA/QC Requirements:	

Event Information	
ID#: LC ANNUAL GW SAMPLING 2019-04-1	
SSOW Ref#:	
Sampler Name: S GARDNER, A MARTIN	

Sample Identification	Valid Matrix Code WG Groundwater WB Borehole Water WS Surface Water SO Soil SE Sediment	Matrix Code	Date Collected	Time Collected	Pest/PCBs (None)	SVOC (none)	VOA (HCL)	Remarks
RB-9954-062019-SG-002	WG	Q	06/20/2019	13:00	2	2	3	
TB-9954-061919-SG-004	WG	Q	06/19/2019	00:00	0	0	3	
WG-9954-061919-SG-031	WG		06/19/2019	12:15	2	2	3	
WG-9954-061919-SG-032	WG		06/19/2019	09:35	2	2	3	
WG-9954-061919-SG-033	WG		06/19/2019	10:50	2	2	3	
WG-9954-061919-SG-034	WG		06/19/2019	11:55	2	2	3	
WG-9954-061919-SG-035	WG		06/19/2019	13:35	2	2	3	
WG-9954-061919-SG-036	WG		06/19/2019	14:50	2	2	3	
WG-9954-061919-SG-037	WG		06/19/2019	14:50	2	2	3	
Total Bottles					16	16	27	Grand Total:59

Sample Condition

Temp in C	
Received on ice	Y/N
Sealed Cooler	Y/N
Samples Intact	Y/N

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY:	DATE	TIME	RECIEVED BY:	DATE	TIME
Lab Courier	3	<i>[Signature]</i>	6/20/19	1500	<i>[Signature]</i>	6/21/19	1102
AIRBILL#:		<i>[Signature]</i>	6/21/19	1220	<i>[Signature]</i>	6/21/19	1220

R1905844

GHD Services Inc.
Love Canal:282-402-002-3100



5



SR#

004, 005, 006, 007, 008, 009, 010,
011, 012, 013

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T030477

Project Name: Love Canal:292-402-D02-3100		NUMBER OF CONTAINERS	7D	14D					
Project Number: 9954 Annual Long Term Monitoring	Report To Kathy Willy								
Company / Address GHD Services Inc. 2055 Niagara Falls Blvd., Suite 3 Niagara Falls NY, 14304									
Phone # 718-297-2160	FAX # 716-297-2265								
Sampler Signature	Sampler Printed Name								

[illegible]

Special Instructions/Comments:	Turnaround Requirements	Report Requirements	Invoice Information
	___ RUSH (SURCHARGES APPLY)	___ I. Results Only	P.O.# _____
	___ Standard (3 weeks)	___ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)	Bill To: _____
	_____ REQUESTED FAX DATE	___ III. Results + QC and Calibration Summaries	_____
	_____ Requested Report Date	<u>X</u> IV. Data Validation Report with Raw Data	_____
		EData ___ Yes ___ No	_____

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

4

GHD Services Inc.
Love Canal:292-402-D02-3100





Cooler Receipt and Preservation Check Form

R1905844

5

GHD Services Inc.
Love Canal: 282-402-002-3100Project/Client GHD Folder Number _____Cooler received on 6/21/19 by: SW/6LCOURIER: ~~ADS~~ UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	☒ N
2	Custody papers properly completed (ink, signed)?	☒ N
3	Did all bottles arrive in good condition (unbroken)?	☒ N
4	Circle: ~~Wet Ice~~ Dry Ice Gel packs present?	☒ N

5a	Perchlorate samples have required headspace?	Y N ☒ NA
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y ☒ NA
6	Where did the bottles originate?	ALS/ROC CLIENT
7	Soil VOA received as:	Bulk Encore 5035set ☒ NA

8. Temperature Readings Date: 6/21/19 Time: 1755 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	3.0	2.9	2.9				
Correction Factor (°C)	+0.3	+0.3	+0.3				
Corrected Temp (°C)	3.3	3.1	3.2				
Temp from: Type of bottle	1L Amber	1L Amber	1L Amber				
Within 0-6°C?	☒ N	☒ N	☒ N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-2002 by SW/6L on 6/21/19 at 1755
5035 samples placed in storage location: _____ by _____ on _____ at _____Cooler Breakdown/Preservation Check**: Date: 6/21/19 Time: 1905 by: SW

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? ☒ YES ☐ NO
10. Did all bottle labels and tags agree with custody papers? ☒ YES ☐ NO
11. Were correct containers used for the tests indicated? ☒ YES ☐ NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? ☒ YES ☐ NO
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated ☒ N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
<2		HNO ₃								
<2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	Client label					

**VOAs and 1664 Not to be tested before analysis.
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).Bottle lot numbers: Client label
Explain all Discrepancies/ Other Comments:

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: SW
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

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Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905844

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905844-001.01	8260C	6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		6/26/2019	1118	In Lab / KRUEST	
		6/26/2019	1135	R-001-S12 / KRUEST	
R1905844-001.02		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-001.03		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-001.10	8270D	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/27/2019	0816	In Lab / VSTAUFFER	
R1905844-001.11		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
R1905844-001.12	8081B,8082A	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0940	In Lab / VSTAUFFER	
R1905844-001.13		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
R1905844-002.01		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		6/26/2019	1118	In Lab / KRUEST	
		6/26/2019	1135	R-001-S12 / KRUEST	
R1905844-002.02	8260C	6/24/2019	1915	SMO / DWARD	

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Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905844

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	8260C	6/24/2019	1916	R-001 / DWARD	
		6/27/2019	1624	In Lab / KRUEST	
		6/27/2019	1629	R-001-S12 / KRUEST	
		R1905844-002.03			
		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		R1905844-003.01			
		8260C	6/24/2019	1915	SMO / DWARD
6/24/2019	1916		R-001 / DWARD		
6/26/2019	1118		In Lab / KRUEST		
6/26/2019	1135		R-001-S12 / KRUEST		
R1905844-003.02					
		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		R1905844-003.03			
			6/24/2019	1915	SMO / DWARD
6/24/2019	1916		R-001 / DWARD		
R1905844-003.10					
			6/24/2019	1916	SMO / DWARD
		6/24/2019	1917	R-002 / DWARD	
		R1905844-003.11			
				6/24/2019	1916
6/24/2019	1917			R-002 / DWARD	
R1905844-003.12					
8270D	6/24/2019			1916	SMO / DWARD
	6/24/2019	1917	R-002 / DWARD		
	6/26/2019	0939	In Lab / VSTAUFFER		
	R1905844-003.13				
	8081B,8082A	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0940	In Lab / VSTAUFFER	

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Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905844

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905844-004.01	8260C	6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		6/26/2019	1118	In Lab / KRUEST	
R1905844-004.02		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-004.03		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-004.10	8081B,8082A	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0940	In Lab / VSTAUFFER	
R1905844-004.11	8270D	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0939	In Lab / VSTAUFFER	
R1905844-004.12		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
R1905844-004.13		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
R1905844-005.01	8260C	6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		6/26/2019	1118	In Lab / KRUEST	
		6/26/2019	1135	R-001-S12 / KRUEST	
R1905844-005.02		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	

ALS Group USA, Corp.
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Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905844

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905844-005.03					
		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-005.10					
	8081B,8082A				
		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0940	In Lab / VSTAUFFER	
R1905844-005.11					
	8270D				
		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0939	In Lab / VSTAUFFER	
R1905844-005.12					
		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
R1905844-005.13					
		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
R1905844-006.01					
	8260C				
		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		6/26/2019	1118	In Lab / KRUEST	
		6/26/2019	1135	R-001-S12 / KRUEST	
R1905844-006.02					
		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-006.03					
		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-006.10					
		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	

ALS Group USA, Corp.
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Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905844

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905844-006.11	8081B,8082A	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0940	In Lab / VSTAUFFER	
R1905844-006.12	8270D	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0939	In Lab / VSTAUFFER	
R1905844-006.13		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
R1905844-007.01	8260C	6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		6/26/2019	1118	In Lab / KRUEST	
		6/26/2019	1136	R-001-S12 / KRUEST	
R1905844-007.02		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-007.03		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-007.10	8270D	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0939	In Lab / VSTAUFFER	
R1905844-007.11	8081B,8082A	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0940	In Lab / VSTAUFFER	
R1905844-007.12		6/24/2019	1916	SMO / DWARD	

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Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905844

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905844-007.13		6/24/2019	1917	R-002 / DWARD	
		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
R1905844-008.01	8260C	6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		6/26/2019	1118	In Lab / KRUEST	
		6/26/2019	1136	R-001-S12 / KRUEST	
R1905844-008.02	8260C	6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		6/27/2019	1624	In Lab / KRUEST	
		6/27/2019	1629	R-001-S12 / KRUEST	
R1905844-008.03		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-008.10		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
R1905844-008.11	8081B,8082A	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0940	In Lab / VSTAUFFER	
R1905844-008.12	8270D	6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0939	In Lab / VSTAUFFER	
R1905844-008.13		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	

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Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905844

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905844-009.01					
	8260C				
		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		6/26/2019	1118	In Lab / KRUEST	
		6/26/2019	1136	R-001-S12 / KRUEST	
R1905844-009.02					
	8260C				
		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
		6/27/2019	1624	In Lab / KRUEST	
		6/27/2019	1629	R-001-S12 / KRUEST	
R1905844-009.03					
		6/24/2019	1915	SMO / DWARD	
		6/24/2019	1916	R-001 / DWARD	
R1905844-009.10					
	8081B,8082A				
		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0940	In Lab / VSTAUFFER	
R1905844-009.11					
	8270D				
		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
		6/26/2019	0939	In Lab / VSTAUFFER	
R1905844-009.12					
		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	
R1905844-009.13					
		6/24/2019	1916	SMO / DWARD	
		6/24/2019	1917	R-002 / DWARD	



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905844

Sample Name: RB-9954-061919-SG-002
Lab Code: R1905844-001
Sample Matrix: Water

Date Collected: 06/20/19
Date Received: 06/21/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES
8082A	KSERCU	AMOSSES
8260C		KRUEST
8270D	KSERCU	JMISIUREWICZ

Sample Name: TB-9954-061919-SG-004
Lab Code: R1905844-002
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method	Extracted/Digested By	Analyzed By
8260C		KRUEST

Sample Name: WG-9954-061919-SG-031
Lab Code: R1905844-003
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES
8082A	KSERCU	AMOSSES
8260C		KRUEST
8270D	KSERCU	JMISIUREWICZ

Sample Name: WG-9954-061919-SG-032
Lab Code: R1905844-004
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES
8082A	KSERCU	AMOSSES
8260C		KRUEST
8270D	KSERCU	JMISIUREWICZ

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905844

Sample Name: WG-9954-061919-SG-033
Lab Code: R1905844-005
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES
8082A	KSERCU	AMOSSES
8260C		KRUEST
8270D	KSERCU	JMISIUREWICZ

Sample Name: WG-9954-061919-SG-034
Lab Code: R1905844-006
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES
8082A	KSERCU	AMOSSES
8260C		KRUEST
8270D	KSERCU	JMISIUREWICZ

Sample Name: WG-9954-061919-SG-035
Lab Code: R1905844-007
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES
8082A	KSERCU	AMOSSES
8260C		KRUEST
8270D	KSERCU	JMISIUREWICZ

Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES

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dba ALS Environmental

Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905844

Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method

8082A
8260C
8270D

Extracted/Digested By

KSERCU

KSERCU

Analyzed By

AMOSSES
KRUEST
JMISIUREWICZ

Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008.R01
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method

8260C

Extracted/Digested By

Analyzed By

KRUEST

Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

KSERCU

Analyzed By

AMOSSES
AMOSSES
KRUEST
JMISIUREWICZ

Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009.R01
Sample Matrix: Water

Date Collected: 06/19/19
Date Received: 06/21/19

Analysis Method

8260C

Extracted/Digested By

Analyzed By

KRUEST



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory

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Volatile Organic Compounds by GC/MS

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: RB-9954-061919-SG-002
Lab Code: R1905844-001

Service Request: R1905844
Date Collected: 06/20/19 13:00

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/26/19 15:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/26/19 15:24	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/26/19 15:24	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/26/19 15:24	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/26/19 15:24	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/26/19 15:24	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/26/19 15:24	
2-Butanone (MEK)	10 U	10	0.78	1	06/26/19 15:24	
2-Hexanone	10 U	10	0.20	1	06/26/19 15:24	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/26/19 15:24	
Acetone	6.6 J	10	2.1	1	06/26/19 15:24	
Benzene	5.0 U	5.0	0.20	1	06/26/19 15:24	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/26/19 15:24	
Bromoform	5.0 U	5.0	0.25	1	06/26/19 15:24	
Bromomethane	5.0 U	5.0	0.70	1	06/26/19 15:24	
Carbon Disulfide	10 U	10	0.25	1	06/26/19 15:24	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/26/19 15:24	
Chlorobenzene	5.0 U	5.0	0.20	1	06/26/19 15:24	
Chloroethane	5.0 U	5.0	0.23	1	06/26/19 15:24	
Chloroform	5.0 U	5.0	0.24	1	06/26/19 15:24	
Chloromethane	5.0 U	5.0	0.28	1	06/26/19 15:24	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/26/19 15:24	
Dichloromethane	5.0 U	5.0	0.36	1	06/26/19 15:24	
Ethylbenzene	5.0 U	5.0	0.20	1	06/26/19 15:24	
Styrene	5.0 U	5.0	0.20	1	06/26/19 15:24	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/26/19 15:24	
Toluene	5.0 U	5.0	0.20	1	06/26/19 15:24	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/26/19 15:24	
Vinyl Acetate	10 U	10	1.1	1	06/26/19 15:24	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/26/19 15:24	
Xylenes, Total	5.0 U	5.0	0.23	1	06/26/19 15:24	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/26/19 15:24	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/26/19 15:24	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/26/19 15:24	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/26/19 15:24	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: RB-9954-061919-SG-002
Lab Code: R1905844-001

Service Request: R1905844
Date Collected: 06/20/19 13:00
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	06/26/19 15:24	
Dibromofluoromethane	93	89 - 119	06/26/19 15:24	
Toluene-d8	100	87 - 121	06/26/19 15:24	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: RB-9954-061919-SG-002
Lab Code: R1905844-001

Service Request: R1905844
Date Collected: 06/20/19 13:00
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: TB-9954-061919-SG-004
Lab Code: R1905844-002

Service Request: R1905844
Date Collected: 06/19/19 00:00

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/27/19 17:33	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/27/19 17:33	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/27/19 17:33	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/27/19 17:33	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/27/19 17:33	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/27/19 17:33	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/27/19 17:33	
2-Butanone (MEK)	10 U	10	0.78	1	06/27/19 17:33	
2-Hexanone	10 U	10	0.20	1	06/27/19 17:33	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/27/19 17:33	
Acetone	17 B	10	2.1	1	06/27/19 17:33	
Benzene	5.0 U	5.0	0.20	1	06/27/19 17:33	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/27/19 17:33	
Bromoform	5.0 U	5.0	0.25	1	06/27/19 17:33	
Bromomethane	5.0 U	5.0	0.70	1	06/27/19 17:33	
Carbon Disulfide	10 U	10	0.25	1	06/27/19 17:33	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/27/19 17:33	
Chlorobenzene	5.0 U	5.0	0.20	1	06/27/19 17:33	
Chloroethane	5.0 U	5.0	0.23	1	06/27/19 17:33	
Chloroform	5.0 U	5.0	0.24	1	06/27/19 17:33	
Chloromethane	5.0 U	5.0	0.28	1	06/27/19 17:33	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/27/19 17:33	
Dichloromethane	5.0 U	5.0	0.36	1	06/27/19 17:33	
Ethylbenzene	5.0 U	5.0	0.20	1	06/27/19 17:33	
Styrene	5.0 U	5.0	0.20	1	06/27/19 17:33	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/27/19 17:33	
Toluene	0.30 BJ	5.0	0.20	1	06/27/19 17:33	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/27/19 17:33	
Vinyl Acetate	10 U	10	1.1	1	06/27/19 17:33	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/27/19 17:33	
Xylenes, Total	5.0 U	5.0	0.23	1	06/27/19 17:33	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/27/19 17:33	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/27/19 17:33	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/27/19 17:33	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/27/19 17:33	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: TB-9954-061919-SG-004
Lab Code: R1905844-002

Service Request: R1905844
Date Collected: 06/19/19 00:00
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	06/27/19 17:33	
Dibromofluoromethane	91	89 - 119	06/27/19 17:33	
Toluene-d8	95	87 - 121	06/27/19 17:33	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: TB-9954-061919-SG-004
Lab Code: R1905844-002

Service Request: R1905844
Date Collected: 06/19/19 00:00
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	15.35	13.1	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-031
Lab Code: R1905844-003

Service Request: R1905844
Date Collected: 06/19/19 12:15

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/26/19 15:46	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/26/19 15:46	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/26/19 15:46	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/26/19 15:46	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/26/19 15:46	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/26/19 15:46	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/26/19 15:46	
2-Butanone (MEK)	10 U	10	0.78	1	06/26/19 15:46	
2-Hexanone	10 U	10	0.20	1	06/26/19 15:46	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/26/19 15:46	
Acetone	5.1 J	10	2.1	1	06/26/19 15:46	
Benzene	5.0 U	5.0	0.20	1	06/26/19 15:46	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/26/19 15:46	
Bromoform	5.0 U	5.0	0.25	1	06/26/19 15:46	
Bromomethane	5.0 U	5.0	0.70	1	06/26/19 15:46	
Carbon Disulfide	10 U	10	0.25	1	06/26/19 15:46	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/26/19 15:46	
Chlorobenzene	5.0 U	5.0	0.20	1	06/26/19 15:46	
Chloroethane	5.0 U	5.0	0.23	1	06/26/19 15:46	
Chloroform	5.0 U	5.0	0.24	1	06/26/19 15:46	
Chloromethane	5.0 U	5.0	0.28	1	06/26/19 15:46	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/26/19 15:46	
Dichloromethane	5.0 U	5.0	0.36	1	06/26/19 15:46	
Ethylbenzene	5.0 U	5.0	0.20	1	06/26/19 15:46	
Styrene	5.0 U	5.0	0.20	1	06/26/19 15:46	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/26/19 15:46	
Toluene	5.0 U	5.0	0.20	1	06/26/19 15:46	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/26/19 15:46	
Vinyl Acetate	10 U	10	1.1	1	06/26/19 15:46	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/26/19 15:46	
Xylenes, Total	5.0 U	5.0	0.23	1	06/26/19 15:46	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/26/19 15:46	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/26/19 15:46	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/26/19 15:46	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/26/19 15:46	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-031
Lab Code: R1905844-003

Service Request: R1905844
Date Collected: 06/19/19 12:15
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	06/26/19 15:46	
Dibromofluoromethane	94	89 - 119	06/26/19 15:46	
Toluene-d8	97	87 - 121	06/26/19 15:46	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-031
Lab Code: R1905844-003

Service Request: R1905844
Date Collected: 06/19/19 12:15
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-032
Lab Code: R1905844-004

Service Request: R1905844
Date Collected: 06/19/19 09:35

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/26/19 16:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/26/19 16:08	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/26/19 16:08	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/26/19 16:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/26/19 16:08	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/26/19 16:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/26/19 16:08	
2-Butanone (MEK)	10 U	10	0.78	1	06/26/19 16:08	
2-Hexanone	10 U	10	0.20	1	06/26/19 16:08	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/26/19 16:08	
Acetone	5.3 J	10	2.1	1	06/26/19 16:08	
Benzene	0.33 J	5.0	0.20	1	06/26/19 16:08	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/26/19 16:08	
Bromoform	5.0 U	5.0	0.25	1	06/26/19 16:08	
Bromomethane	5.0 U	5.0	0.70	1	06/26/19 16:08	
Carbon Disulfide	10 U	10	0.25	1	06/26/19 16:08	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/26/19 16:08	
Chlorobenzene	5.0 U	5.0	0.20	1	06/26/19 16:08	
Chloroethane	5.0 U	5.0	0.23	1	06/26/19 16:08	
Chloroform	5.0 U	5.0	0.24	1	06/26/19 16:08	
Chloromethane	5.0 U	5.0	0.28	1	06/26/19 16:08	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/26/19 16:08	
Dichloromethane	5.0 U	5.0	0.36	1	06/26/19 16:08	
Ethylbenzene	5.0 U	5.0	0.20	1	06/26/19 16:08	
Styrene	5.0 U	5.0	0.20	1	06/26/19 16:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/26/19 16:08	
Toluene	0.86 J	5.0	0.20	1	06/26/19 16:08	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/26/19 16:08	
Vinyl Acetate	10 U	10	1.1	1	06/26/19 16:08	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/26/19 16:08	
Xylenes, Total	1.1 J	5.0	0.23	1	06/26/19 16:08	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/26/19 16:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/26/19 16:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/26/19 16:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/26/19 16:08	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-032
Lab Code: R1905844-004

Service Request: R1905844
Date Collected: 06/19/19 09:35
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	06/26/19 16:08	
Dibromofluoromethane	94	89 - 119	06/26/19 16:08	
Toluene-d8	98	87 - 121	06/26/19 16:08	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-032
Lab Code: R1905844-004

Service Request: R1905844
Date Collected: 06/19/19 09:35
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-033
Lab Code: R1905844-005

Service Request: R1905844
Date Collected: 06/19/19 10:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/26/19 16:30	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/26/19 16:30	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/26/19 16:30	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/26/19 16:30	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/26/19 16:30	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/26/19 16:30	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/26/19 16:30	
2-Butanone (MEK)	10 U	10	0.78	1	06/26/19 16:30	
2-Hexanone	10 U	10	0.20	1	06/26/19 16:30	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/26/19 16:30	
Acetone	4.9 J	10	2.1	1	06/26/19 16:30	
Benzene	5.0 U	5.0	0.20	1	06/26/19 16:30	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/26/19 16:30	
Bromoform	5.0 U	5.0	0.25	1	06/26/19 16:30	
Bromomethane	5.0 U	5.0	0.70	1	06/26/19 16:30	
Carbon Disulfide	4.5 J	10	0.25	1	06/26/19 16:30	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/26/19 16:30	
Chlorobenzene	5.0 U	5.0	0.20	1	06/26/19 16:30	
Chloroethane	5.0 U	5.0	0.23	1	06/26/19 16:30	
Chloroform	5.0 U	5.0	0.24	1	06/26/19 16:30	
Chloromethane	5.0 U	5.0	0.28	1	06/26/19 16:30	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/26/19 16:30	
Dichloromethane	5.0 U	5.0	0.36	1	06/26/19 16:30	
Ethylbenzene	5.0 U	5.0	0.20	1	06/26/19 16:30	
Styrene	5.0 U	5.0	0.20	1	06/26/19 16:30	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/26/19 16:30	
Toluene	5.0 U	5.0	0.20	1	06/26/19 16:30	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/26/19 16:30	
Vinyl Acetate	10 U	10	1.1	1	06/26/19 16:30	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/26/19 16:30	
Xylenes, Total	5.0 U	5.0	0.23	1	06/26/19 16:30	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/26/19 16:30	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/26/19 16:30	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/26/19 16:30	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/26/19 16:30	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-033
Lab Code: R1905844-005

Service Request: R1905844
Date Collected: 06/19/19 10:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	06/26/19 16:30	
Dibromofluoromethane	97	89 - 119	06/26/19 16:30	
Toluene-d8	96	87 - 121	06/26/19 16:30	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: WG-9954-061919-SG-033
Lab Code: R1905844-005

Service Request: R1905844
Date Collected: 06/19/19 10:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.32	138.7	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-034
Lab Code: R1905844-006

Service Request: R1905844
Date Collected: 06/19/19 11:55

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/26/19 16:52	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/26/19 16:52	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/26/19 16:52	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/26/19 16:52	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/26/19 16:52	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/26/19 16:52	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/26/19 16:52	
2-Butanone (MEK)	10 U	10	0.78	1	06/26/19 16:52	
2-Hexanone	10 U	10	0.20	1	06/26/19 16:52	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/26/19 16:52	
Acetone	3.4 J	10	2.1	1	06/26/19 16:52	
Benzene	5.0 U	5.0	0.20	1	06/26/19 16:52	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/26/19 16:52	
Bromoform	5.0 U	5.0	0.25	1	06/26/19 16:52	
Bromomethane	5.0 U	5.0	0.70	1	06/26/19 16:52	
Carbon Disulfide	2.6 J	10	0.25	1	06/26/19 16:52	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/26/19 16:52	
Chlorobenzene	1.0 J	5.0	0.20	1	06/26/19 16:52	
Chloroethane	5.0 U	5.0	0.23	1	06/26/19 16:52	
Chloroform	5.0 U	5.0	0.24	1	06/26/19 16:52	
Chloromethane	5.0 U	5.0	0.28	1	06/26/19 16:52	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/26/19 16:52	
Dichloromethane	5.0 U	5.0	0.36	1	06/26/19 16:52	
Ethylbenzene	5.0 U	5.0	0.20	1	06/26/19 16:52	
Styrene	5.0 U	5.0	0.20	1	06/26/19 16:52	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/26/19 16:52	
Toluene	5.0 U	5.0	0.20	1	06/26/19 16:52	
Trichloroethene (TCE)	6.5	5.0	0.20	1	06/26/19 16:52	
Vinyl Acetate	10 U	10	1.1	1	06/26/19 16:52	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/26/19 16:52	
Xylenes, Total	5.0 U	5.0	0.23	1	06/26/19 16:52	
cis-1,2-Dichloroethene	3.1 J	5.0	0.23	1	06/26/19 16:52	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/26/19 16:52	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/26/19 16:52	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/26/19 16:52	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-034
Lab Code: R1905844-006

Service Request: R1905844
Date Collected: 06/19/19 11:55
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	06/26/19 16:52	
Dibromofluoromethane	97	89 - 119	06/26/19 16:52	
Toluene-d8	97	87 - 121	06/26/19 16:52	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-034
Lab Code: R1905844-006

Service Request: R1905844
Date Collected: 06/19/19 11:55
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.32	151.4	JN
000088-16-4	Benzene, 1-chloro-2-(trifluorometh	10.65	7.1	JN
000095-49-8	Benzene, 1-chloro-2-methyl-	11.16	7.3	JN
000108-70-3	Benzene, 1,3,5-trichloro-	13.44	13.6	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-035
Lab Code: R1905844-007

Service Request: R1905844
Date Collected: 06/19/19 13:35

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/26/19 17:14	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/26/19 17:14	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/26/19 17:14	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/26/19 17:14	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/26/19 17:14	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/26/19 17:14	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/26/19 17:14	
2-Butanone (MEK)	10 U	10	0.78	1	06/26/19 17:14	
2-Hexanone	10 U	10	0.20	1	06/26/19 17:14	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/26/19 17:14	
Acetone	8.7 J	10	2.1	1	06/26/19 17:14	
Benzene	5.0 U	5.0	0.20	1	06/26/19 17:14	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/26/19 17:14	
Bromoform	5.0 U	5.0	0.25	1	06/26/19 17:14	
Bromomethane	5.0 U	5.0	0.70	1	06/26/19 17:14	
Carbon Disulfide	0.56 J	10	0.25	1	06/26/19 17:14	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/26/19 17:14	
Chlorobenzene	5.0 U	5.0	0.20	1	06/26/19 17:14	
Chloroethane	5.0 U	5.0	0.23	1	06/26/19 17:14	
Chloroform	5.0 U	5.0	0.24	1	06/26/19 17:14	
Chloromethane	5.0 U	5.0	0.28	1	06/26/19 17:14	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/26/19 17:14	
Dichloromethane	5.0 U	5.0	0.36	1	06/26/19 17:14	
Ethylbenzene	5.0 U	5.0	0.20	1	06/26/19 17:14	
Styrene	5.0 U	5.0	0.20	1	06/26/19 17:14	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/26/19 17:14	
Toluene	5.0 U	5.0	0.20	1	06/26/19 17:14	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/26/19 17:14	
Vinyl Acetate	10 U	10	1.1	1	06/26/19 17:14	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/26/19 17:14	
Xylenes, Total	5.0 U	5.0	0.23	1	06/26/19 17:14	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/26/19 17:14	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/26/19 17:14	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/26/19 17:14	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/26/19 17:14	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-035
Lab Code: R1905844-007

Service Request: R1905844
Date Collected: 06/19/19 13:35
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	06/26/19 17:14	
Dibromofluoromethane	98	89 - 119	06/26/19 17:14	
Toluene-d8	98	87 - 121	06/26/19 17:14	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-035
Lab Code: R1905844-007

Service Request: R1905844
Date Collected: 06/19/19 13:35
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.32	70.8	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008

Service Request: R1905844
Date Collected: 06/19/19 14:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/26/19 17:36	
1,1,2,2-Tetrachloroethane	1.8 J	5.0	0.20	1	06/26/19 17:36	
1,1,2-Trichloroethane	3.4 J	5.0	0.20	1	06/26/19 17:36	
1,1-Dichloroethane (1,1-DCA)	0.22 J	5.0	0.20	1	06/26/19 17:36	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/26/19 17:36	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/26/19 17:36	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/26/19 17:36	
2-Butanone (MEK)	5.7 J	10	0.78	1	06/26/19 17:36	
2-Hexanone	10 U	10	0.20	1	06/26/19 17:36	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/26/19 17:36	
Acetone	50	10	2.1	1	06/26/19 17:36	
Benzene	1600 E	5.0	0.20	1	06/26/19 17:36	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/26/19 17:36	
Bromoform	5.0 U	5.0	0.25	1	06/26/19 17:36	
Bromomethane	5.0 U	5.0	0.70	1	06/26/19 17:36	
Carbon Disulfide	0.31 J	10	0.25	1	06/26/19 17:36	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/26/19 17:36	
Chlorobenzene	1000 E	5.0	0.20	1	06/26/19 17:36	
Chloroethane	5.0 U	5.0	0.23	1	06/26/19 17:36	
Chloroform	59	5.0	0.24	1	06/26/19 17:36	
Chloromethane	5.0 U	5.0	0.28	1	06/26/19 17:36	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/26/19 17:36	
Dichloromethane	3.5 J	5.0	0.36	1	06/26/19 17:36	
Ethylbenzene	10	5.0	0.20	1	06/26/19 17:36	
Styrene	5.0 U	5.0	0.20	1	06/26/19 17:36	
Tetrachloroethene (PCE)	5.0 J	5.0	0.21	1	06/26/19 17:36	
Toluene	2100 E	5.0	0.20	1	06/26/19 17:36	
Trichloroethene (TCE)	26	5.0	0.20	1	06/26/19 17:36	
Vinyl Acetate	10 U	10	1.1	1	06/26/19 17:36	
Vinyl Chloride	3.9 J	5.0	0.20	1	06/26/19 17:36	
Xylenes, Total	47	5.0	0.23	1	06/26/19 17:36	
cis-1,2-Dichloroethene	8.1	5.0	0.23	1	06/26/19 17:36	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/26/19 17:36	
trans-1,2-Dichloroethene	27	5.0	0.20	1	06/26/19 17:36	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/26/19 17:36	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	06/26/19 17:36	
Dibromofluoromethane	93	89 - 119	06/26/19 17:36	
Toluene-d8	99	87 - 121	06/26/19 17:36	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	11.20	1155.7	J
000108-41-8	Benzene, 1-chloro-3-methyl-	11.23	16.9	JN
	unknown	11.28	695.4	J
000095-73-8	Benzene, 2,4-dichloro-1-methyl-	12.91	218.6	JN
	unknown	13.18	16.4	J
032768-54-0	Benzene, 1,2-dichloro-3-methyl-	13.23	57.8	JN
000464-49-3	Bicyclo[2.2.1]heptan-2-one, 1,7,7-	13.36	16.4	JN
000120-82-1	Benzene, 1,2,4-trichloro-	13.44	24.0	JN
000096-47-9	Furan, tetrahydro-2-methyl-	6.19	50.0	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008

Service Request: R1905844
Date Collected: 06/19/19 14:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	500 U	500	21	100	06/27/19 17:54	
1,1,2,2-Tetrachloroethane	500 U	500	20	100	06/27/19 17:54	
1,1,2-Trichloroethane	500 U	500	20	100	06/27/19 17:54	
1,1-Dichloroethane (1,1-DCA)	500 U	500	20	100	06/27/19 17:54	
1,1-Dichloroethene (1,1-DCE)	500 U	500	25	100	06/27/19 17:54	
1,2-Dichloroethane	500 U	500	20	100	06/27/19 17:54	
1,2-Dichloropropane	500 U	500	20	100	06/27/19 17:54	
2-Butanone (MEK)	1000 U	1000	78	100	06/27/19 17:54	
2-Hexanone	1000 U	1000	20	100	06/27/19 17:54	
4-Methyl-2-pentanone	1000 U	1000	20	100	06/27/19 17:54	
Acetone	1000 U	1000	210	100	06/27/19 17:54	
Benzene	4900 D	500	20	100	06/27/19 17:54	
Bromodichloromethane	500 U	500	22	100	06/27/19 17:54	
Bromoform	500 U	500	25	100	06/27/19 17:54	
Bromomethane	500 U	500	70	100	06/27/19 17:54	
Carbon Disulfide	1000 U	1000	25	100	06/27/19 17:54	
Carbon Tetrachloride	500 U	500	34	100	06/27/19 17:54	
Chlorobenzene	2200 D	500	20	100	06/27/19 17:54	
Chloroethane	500 U	500	23	100	06/27/19 17:54	
Chloroform	130 DJ	500	24	100	06/27/19 17:54	
Chloromethane	500 U	500	28	100	06/27/19 17:54	
Dibromochloromethane	500 U	500	20	100	06/27/19 17:54	
Dichloromethane	500 U	500	36	100	06/27/19 17:54	
Ethylbenzene	500 U	500	20	100	06/27/19 17:54	
Styrene	500 U	500	20	100	06/27/19 17:54	
Tetrachloroethene (PCE)	500 U	500	21	100	06/27/19 17:54	
Toluene	17000 D	500	20	100	06/27/19 17:54	
Trichloroethene (TCE)	21 DJ	500	20	100	06/27/19 17:54	
Vinyl Acetate	1000 U	1000	110	100	06/27/19 17:54	
Vinyl Chloride	500 U	500	20	100	06/27/19 17:54	
Xylenes, Total	41 DJ	500	23	100	06/27/19 17:54	
cis-1,2-Dichloroethene	500 U	500	23	100	06/27/19 17:54	
cis-1,3-Dichloropropene	500 U	500	20	100	06/27/19 17:54	
trans-1,2-Dichloroethene	500 U	500	20	100	06/27/19 17:54	
trans-1,3-Dichloropropene	500 U	500	23	100	06/27/19 17:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/27/19 17:54	
Dibromofluoromethane	95	89 - 119	06/27/19 17:54	
Toluene-d8	98	87 - 121	06/27/19 17:54	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
000095-49-8	Benzene, 1-chloro-2-methyl-	11.16	11890.0	JN
000106-43-4	Benzene, 1-chloro-4-methyl-	11.25	6052.0	JN
032768-54-0	Benzene, 1,2-dichloro-3-methyl-	12.90	1101.0	JN
	unknown	15.35	657.0	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009

Service Request: R1905844
Date Collected: 06/19/19 14:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/26/19 17:57	
1,1,2,2-Tetrachloroethane	1.8 J	5.0	0.20	1	06/26/19 17:57	
1,1,2-Trichloroethane	3.8 J	5.0	0.20	1	06/26/19 17:57	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/26/19 17:57	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/26/19 17:57	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/26/19 17:57	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/26/19 17:57	
2-Butanone (MEK)	4.4 J	10	0.78	1	06/26/19 17:57	
2-Hexanone	10 U	10	0.20	1	06/26/19 17:57	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/26/19 17:57	
Acetone	35	10	2.1	1	06/26/19 17:57	
Benzene	1700 E	5.0	0.20	1	06/26/19 17:57	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/26/19 17:57	
Bromoform	5.0 U	5.0	0.25	1	06/26/19 17:57	
Bromomethane	5.0 U	5.0	0.70	1	06/26/19 17:57	
Carbon Disulfide	0.33 J	10	0.25	1	06/26/19 17:57	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/26/19 17:57	
Chlorobenzene	1100 E	5.0	0.20	1	06/26/19 17:57	
Chloroethane	5.0 U	5.0	0.23	1	06/26/19 17:57	
Chloroform	60	5.0	0.24	1	06/26/19 17:57	
Chloromethane	5.0 U	5.0	0.28	1	06/26/19 17:57	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/26/19 17:57	
Dichloromethane	3.8 J	5.0	0.36	1	06/26/19 17:57	
Ethylbenzene	11	5.0	0.20	1	06/26/19 17:57	
Styrene	5.0 U	5.0	0.20	1	06/26/19 17:57	
Tetrachloroethene (PCE)	5.3	5.0	0.21	1	06/26/19 17:57	
Toluene	2300 E	5.0	0.20	1	06/26/19 17:57	
Trichloroethene (TCE)	28	5.0	0.20	1	06/26/19 17:57	
Vinyl Acetate	10 U	10	1.1	1	06/26/19 17:57	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/26/19 17:57	
Xylenes, Total	48	5.0	0.23	1	06/26/19 17:57	
cis-1,2-Dichloroethene	8.4	5.0	0.23	1	06/26/19 17:57	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/26/19 17:57	
trans-1,2-Dichloroethene	27	5.0	0.20	1	06/26/19 17:57	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/26/19 17:57	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	06/26/19 17:57	
Dibromofluoromethane	94	89 - 119	06/26/19 17:57	
Toluene-d8	101	87 - 121	06/26/19 17:57	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	11.20	4137.2	J
000108-41-8	Benzene, 1-chloro-3-methyl-	11.23	61.7	JN
	unknown	11.28	2497.7	J
000106-46-7	Benzene, 1,4-dichloro-	12.16	51.3	JN
025186-47-4	Benzene, 1,3-dichloro-5-methyl-	12.91	766.3	JN
	unknown	13.18	51.8	J
032768-54-0	Benzene, 1,2-dichloro-3-methyl-	13.23	196.4	JN
000464-49-3	Bicyclo[2.2.1]heptan-2-one, 1,7,7-	13.36	51.8	JN
000120-82-1	Benzene, 1,2,4-trichloro-	13.44	81.4	JN
000096-47-9	Furan, tetrahydro-2-methyl-	6.19	50.0	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009

Service Request: R1905844
Date Collected: 06/19/19 14:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	500 U	500	21	100	06/27/19 18:16	
1,1,2,2-Tetrachloroethane	500 U	500	20	100	06/27/19 18:16	
1,1,2-Trichloroethane	500 U	500	20	100	06/27/19 18:16	
1,1-Dichloroethane (1,1-DCA)	500 U	500	20	100	06/27/19 18:16	
1,1-Dichloroethene (1,1-DCE)	500 U	500	25	100	06/27/19 18:16	
1,2-Dichloroethane	500 U	500	20	100	06/27/19 18:16	
1,2-Dichloropropane	500 U	500	20	100	06/27/19 18:16	
2-Butanone (MEK)	1000 U	1000	78	100	06/27/19 18:16	
2-Hexanone	1000 U	1000	20	100	06/27/19 18:16	
4-Methyl-2-pentanone	1000 U	1000	20	100	06/27/19 18:16	
Acetone	1000 U	1000	210	100	06/27/19 18:16	
Benzene	5700 D	500	20	100	06/27/19 18:16	
Bromodichloromethane	500 U	500	22	100	06/27/19 18:16	
Bromoform	500 U	500	25	100	06/27/19 18:16	
Bromomethane	500 U	500	70	100	06/27/19 18:16	
Carbon Disulfide	1000 U	1000	25	100	06/27/19 18:16	
Carbon Tetrachloride	500 U	500	34	100	06/27/19 18:16	
Chlorobenzene	2400 D	500	20	100	06/27/19 18:16	
Chloroethane	500 U	500	23	100	06/27/19 18:16	
Chloroform	170 DJ	500	24	100	06/27/19 18:16	
Chloromethane	500 U	500	28	100	06/27/19 18:16	
Dibromochloromethane	500 U	500	20	100	06/27/19 18:16	
Dichloromethane	500 U	500	36	100	06/27/19 18:16	
Ethylbenzene	500 U	500	20	100	06/27/19 18:16	
Styrene	500 U	500	20	100	06/27/19 18:16	
Tetrachloroethene (PCE)	500 U	500	21	100	06/27/19 18:16	
Toluene	19000 D	500	20	100	06/27/19 18:16	
Trichloroethene (TCE)	35 DJ	500	20	100	06/27/19 18:16	
Vinyl Acetate	1000 U	1000	110	100	06/27/19 18:16	
Vinyl Chloride	500 U	500	20	100	06/27/19 18:16	
Xylenes, Total	42 DJ	500	23	100	06/27/19 18:16	
cis-1,2-Dichloroethene	500 U	500	23	100	06/27/19 18:16	
cis-1,3-Dichloropropene	500 U	500	20	100	06/27/19 18:16	
trans-1,2-Dichloroethene	35 DJ	500	20	100	06/27/19 18:16	
trans-1,3-Dichloropropene	500 U	500	23	100	06/27/19 18:16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	06/27/19 18:16	
Dibromofluoromethane	94	89 - 119	06/27/19 18:16	
Toluene-d8	100	87 - 121	06/27/19 18:16	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
000095-49-8	Benzene, 1-chloro-2-methyl-	11.16	13082.0	JN
000108-41-8	Benzene, 1-chloro-3-methyl-	11.25	6593.0	JN
000095-75-0	Benzene, 1,2-dichloro-4-methyl-	12.90	1176.0	JN



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: RB-9954-061919-SG-002
Lab Code: R1905844-001

Service Request: R1905844
Date Collected: 06/20/19 13:00

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 09:11	6/27/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 09:11	6/27/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 09:11	6/27/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 09:11	6/27/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 09:11	6/27/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 09:11	6/27/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 09:11	6/27/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 09:11	6/27/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 09:11	6/27/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 09:11	6/27/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 09:11	6/27/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 09:11	6/27/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 09:11	6/27/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 09:11	6/27/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 09:11	6/27/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 09:11	6/27/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 09:11	6/27/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 09:11	6/27/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 09:11	6/27/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 09:11	6/27/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 09:11	6/27/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 09:11	6/27/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 09:11	6/27/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 09:11	6/27/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 09:11	6/27/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: RB-9954-061919-SG-002
Lab Code: R1905844-001

Service Request: R1905844
Date Collected: 06/20/19 13:00

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 09:11	6/27/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 09:11	6/27/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 09:11	6/27/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 09:11	6/27/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 09:11	6/27/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 09:11	6/27/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 09:11	6/27/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 09:11	6/27/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 09:11	6/27/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 09:11	6/27/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 09:11	6/27/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 09:11	6/27/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 09:11	6/27/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 09:11	6/27/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 09:11	6/27/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 09:11	6/27/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 09:11	6/27/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 09:11	6/27/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 09:11	6/27/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 09:11	6/27/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 09:11	6/27/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	66	35 - 141	07/03/19 09:11	
2-Fluorobiphenyl	61	31 - 118	07/03/19 09:11	
2-Fluorophenol	31	10 - 105	07/03/19 09:11	
Nitrobenzene-d5	61	31 - 110	07/03/19 09:11	
Phenol-d6	21	10 - 107	07/03/19 09:11	
p-Terphenyl-d14	66	10 - 165	07/03/19 09:11	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
000541-02-6	Cyclopentasiloxane, decamethyl-	5.33	4.6	JN

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-031
Lab Code: R1905844-003

Service Request: R1905844
Date Collected: 06/19/19 12:15

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/01/19 13:23	6/26/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/01/19 13:23	6/26/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/01/19 13:23	6/26/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/01/19 13:23	6/26/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/01/19 13:23	6/26/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
2-Nitroaniline	47 U	47	2.4	1	07/01/19 13:23	6/26/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/01/19 13:23	6/26/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
3-Nitroaniline	47 U	47	1.8	1	07/01/19 13:23	6/26/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/01/19 13:23	6/26/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/01/19 13:23	6/26/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/01/19 13:23	6/26/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/01/19 13:23	6/26/19	
4-Nitroaniline	47 U	47	1.9	1	07/01/19 13:23	6/26/19	
4-Nitrophenol	47 U	47	3.0	1	07/01/19 13:23	6/26/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/01/19 13:23	6/26/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/01/19 13:23	6/26/19	
Anthracene	9.4 U	9.4	1.4	1	07/01/19 13:23	6/26/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/01/19 13:23	6/26/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/01/19 13:23	6/26/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/01/19 13:23	6/26/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/01/19 13:23	6/26/19	
Benzoic Acid	47 U	47	6.0	1	07/01/19 13:23	6/26/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/01/19 13:23	6/26/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/01/19 13:23	6/26/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
Chrysene	9.4 U	9.4	1.5	1	07/01/19 13:23	6/26/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-031
Lab Code: R1905844-003

Service Request: R1905844
Date Collected: 06/19/19 12:15

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/01/19 13:23	6/26/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/01/19 13:23	6/26/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/01/19 13:23	6/26/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/01/19 13:23	6/26/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/01/19 13:23	6/26/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/01/19 13:23	6/26/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/01/19 13:23	6/26/19	
Fluorene	9.4 U	9.4	1.6	1	07/01/19 13:23	6/26/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/01/19 13:23	6/26/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/01/19 13:23	6/26/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/01/19 13:23	6/26/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/01/19 13:23	6/26/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/01/19 13:23	6/26/19	
Isophorone	9.4 U	9.4	1.2	1	07/01/19 13:23	6/26/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/01/19 13:23	6/26/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/01/19 13:23	6/26/19	
Naphthalene	9.4 U	9.4	1.1	1	07/01/19 13:23	6/26/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/01/19 13:23	6/26/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/01/19 13:23	6/26/19	
Phenol	9.4 U	9.4	1.0	1	07/01/19 13:23	6/26/19	
Pyrene	9.4 U	9.4	1.8	1	07/01/19 13:23	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	89	35 - 141	07/01/19 13:23	
2-Fluorobiphenyl	83	31 - 118	07/01/19 13:23	
2-Fluorophenol	45	10 - 105	07/01/19 13:23	
Nitrobenzene-d5	87	31 - 110	07/01/19 13:23	
Phenol-d6	28	10 - 107	07/01/19 13:23	
p-Terphenyl-d14	91	10 - 165	07/01/19 13:23	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
000134-62-3	Diethyltoluamide	7.94	6.2	JN
000057-10-3	n-Hexadecanoic acid	9.57	4.2	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-032
Lab Code: R1905844-004

Service Request: R1905844
Date Collected: 06/19/19 09:35

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/01/19 13:55	6/26/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/01/19 13:55	6/26/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/01/19 13:55	6/26/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/01/19 13:55	6/26/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/01/19 13:55	6/26/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
2-Nitroaniline	47 U	47	2.4	1	07/01/19 13:55	6/26/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/01/19 13:55	6/26/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
3-Nitroaniline	47 U	47	1.8	1	07/01/19 13:55	6/26/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/01/19 13:55	6/26/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/01/19 13:55	6/26/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/01/19 13:55	6/26/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/01/19 13:55	6/26/19	
4-Nitroaniline	47 U	47	1.9	1	07/01/19 13:55	6/26/19	
4-Nitrophenol	47 U	47	3.0	1	07/01/19 13:55	6/26/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/01/19 13:55	6/26/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/01/19 13:55	6/26/19	
Anthracene	9.4 U	9.4	1.4	1	07/01/19 13:55	6/26/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/01/19 13:55	6/26/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/01/19 13:55	6/26/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/01/19 13:55	6/26/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/01/19 13:55	6/26/19	
Benzoic Acid	47 U	47	6.0	1	07/01/19 13:55	6/26/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/01/19 13:55	6/26/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/01/19 13:55	6/26/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
Chrysene	9.4 U	9.4	1.5	1	07/01/19 13:55	6/26/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-032
Lab Code: R1905844-004

Service Request: R1905844
Date Collected: 06/19/19 09:35

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/01/19 13:55	6/26/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/01/19 13:55	6/26/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/01/19 13:55	6/26/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/01/19 13:55	6/26/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/01/19 13:55	6/26/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/01/19 13:55	6/26/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/01/19 13:55	6/26/19	
Fluorene	9.4 U	9.4	1.6	1	07/01/19 13:55	6/26/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/01/19 13:55	6/26/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/01/19 13:55	6/26/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/01/19 13:55	6/26/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/01/19 13:55	6/26/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/01/19 13:55	6/26/19	
Isophorone	9.4 U	9.4	1.2	1	07/01/19 13:55	6/26/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/01/19 13:55	6/26/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/01/19 13:55	6/26/19	
Naphthalene	9.4 U	9.4	1.1	1	07/01/19 13:55	6/26/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/01/19 13:55	6/26/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/01/19 13:55	6/26/19	
Phenol	9.4 U	9.4	1.0	1	07/01/19 13:55	6/26/19	
Pyrene	9.4 U	9.4	1.8	1	07/01/19 13:55	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	97	35 - 141	07/01/19 13:55	
2-Fluorobiphenyl	83	31 - 118	07/01/19 13:55	
2-Fluorophenol	44	10 - 105	07/01/19 13:55	
Nitrobenzene-d5	85	31 - 110	07/01/19 13:55	
Phenol-d6	27	10 - 107	07/01/19 13:55	
p-Terphenyl-d14	83	10 - 165	07/01/19 13:55	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-033
Lab Code: R1905844-005

Service Request: R1905844
Date Collected: 06/19/19 10:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/01/19 14:26	6/26/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/01/19 14:26	6/26/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/01/19 14:26	6/26/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/01/19 14:26	6/26/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/01/19 14:26	6/26/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
2-Nitroaniline	47 U	47	2.4	1	07/01/19 14:26	6/26/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/01/19 14:26	6/26/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
3-Nitroaniline	47 U	47	1.8	1	07/01/19 14:26	6/26/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/01/19 14:26	6/26/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/01/19 14:26	6/26/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/01/19 14:26	6/26/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/01/19 14:26	6/26/19	
4-Nitroaniline	47 U	47	1.9	1	07/01/19 14:26	6/26/19	
4-Nitrophenol	47 U	47	3.0	1	07/01/19 14:26	6/26/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/01/19 14:26	6/26/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/01/19 14:26	6/26/19	
Anthracene	9.4 U	9.4	1.4	1	07/01/19 14:26	6/26/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/01/19 14:26	6/26/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/01/19 14:26	6/26/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/01/19 14:26	6/26/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/01/19 14:26	6/26/19	
Benzoic Acid	47 U	47	6.0	1	07/01/19 14:26	6/26/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/01/19 14:26	6/26/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/01/19 14:26	6/26/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
Chrysene	9.4 U	9.4	1.5	1	07/01/19 14:26	6/26/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-033
Lab Code: R1905844-005

Service Request: R1905844
Date Collected: 06/19/19 10:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/01/19 14:26	6/26/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/01/19 14:26	6/26/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/01/19 14:26	6/26/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/01/19 14:26	6/26/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/01/19 14:26	6/26/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/01/19 14:26	6/26/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/01/19 14:26	6/26/19	
Fluorene	9.4 U	9.4	1.6	1	07/01/19 14:26	6/26/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/01/19 14:26	6/26/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/01/19 14:26	6/26/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/01/19 14:26	6/26/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/01/19 14:26	6/26/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/01/19 14:26	6/26/19	
Isophorone	9.4 U	9.4	1.2	1	07/01/19 14:26	6/26/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/01/19 14:26	6/26/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/01/19 14:26	6/26/19	
Naphthalene	9.4 U	9.4	1.1	1	07/01/19 14:26	6/26/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/01/19 14:26	6/26/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/01/19 14:26	6/26/19	
Phenol	9.4 U	9.4	1.0	1	07/01/19 14:26	6/26/19	
Pyrene	9.4 U	9.4	1.8	1	07/01/19 14:26	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	82	35 - 141	07/01/19 14:26	
2-Fluorobiphenyl	70	31 - 118	07/01/19 14:26	
2-Fluorophenol	39	10 - 105	07/01/19 14:26	
Nitrobenzene-d5	73	31 - 110	07/01/19 14:26	
Phenol-d6	24	10 - 107	07/01/19 14:26	
p-Terphenyl-d14	87	10 - 165	07/01/19 14:26	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-034
Lab Code: R1905844-006

Service Request: R1905844
Date Collected: 06/19/19 11:55

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10	9.8	1.0	1	07/01/19 14:57	6/26/19	
1,2-Dichlorobenzene	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
1,3-Dichlorobenzene	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
1,4-Dichlorobenzene	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
2,4,5-Trichlorophenol	9.8 U	9.8	1.1	1	07/01/19 14:57	6/26/19	
2,4,6-Trichlorophenol	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
2,4-Dichlorophenol	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
2,4-Dimethylphenol	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
2,4-Dinitrophenol	49 U	49	7.0	1	07/01/19 14:57	6/26/19	
2,4-Dinitrotoluene	9.8 U	9.8	2.7	1	07/01/19 14:57	6/26/19	
2,6-Dinitrotoluene	9.8 U	9.8	1.5	1	07/01/19 14:57	6/26/19	
2-Chloronaphthalene	9.8 U	9.8	1.1	1	07/01/19 14:57	6/26/19	
2-Chlorophenol	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
2-Methylnaphthalene	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
2-Methylphenol	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
2-Nitroaniline	49 U	49	2.4	1	07/01/19 14:57	6/26/19	
2-Nitrophenol	9.8 U	9.8	1.5	1	07/01/19 14:57	6/26/19	
3,3'-Dichlorobenzidine	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
3- and 4-Methylphenol Coelution	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
3-Nitroaniline	49 U	49	1.8	1	07/01/19 14:57	6/26/19	
4,6-Dinitro-2-methylphenol	49 U	49	3.7	1	07/01/19 14:57	6/26/19	
4-Bromophenyl Phenyl Ether	9.8 U	9.8	1.4	1	07/01/19 14:57	6/26/19	
4-Chloro-3-methylphenol	9.8 U	9.8	1.1	1	07/01/19 14:57	6/26/19	
4-Chloroaniline	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
4-Chlorophenyl Phenyl Ether	9.8 U	9.8	1.2	1	07/01/19 14:57	6/26/19	
4-Nitroaniline	49 U	49	1.9	1	07/01/19 14:57	6/26/19	
4-Nitrophenol	49 U	49	3.0	1	07/01/19 14:57	6/26/19	
Acenaphthene	9.8 U	9.8	1.6	1	07/01/19 14:57	6/26/19	
Acenaphthylene	9.8 U	9.8	1.3	1	07/01/19 14:57	6/26/19	
Anthracene	9.8 U	9.8	1.4	1	07/01/19 14:57	6/26/19	
Benz(a)anthracene	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
Benzo(a)pyrene	9.8 U	9.8	1.3	1	07/01/19 14:57	6/26/19	
Benzo(b)fluoranthene	9.8 U	9.8	1.3	1	07/01/19 14:57	6/26/19	
Benzo(g,h,i)perylene	9.8 U	9.8	1.5	1	07/01/19 14:57	6/26/19	
Benzo(k)fluoranthene	9.8 U	9.8	1.5	1	07/01/19 14:57	6/26/19	
Benzoic Acid	49 U	49	6.0	1	07/01/19 14:57	6/26/19	
Benzyl Alcohol	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
2,2'-Oxybis(1-chloropropane)	9.8 U	9.8	1.4	1	07/01/19 14:57	6/26/19	
Bis(2-chloroethoxy)methane	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
Bis(2-chloroethyl) Ether	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
Bis(2-ethylhexyl) Phthalate	9.8 U	9.8	9.7	1	07/01/19 14:57	6/26/19	
Butyl Benzyl Phthalate	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
Chrysene	9.8 U	9.8	1.5	1	07/01/19 14:57	6/26/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-034
Lab Code: R1905844-006

Service Request: R1905844
Date Collected: 06/19/19 11:55

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.8 U	9.8	1.1	1	07/01/19 14:57	6/26/19	
Di-n-octyl Phthalate	9.8 U	9.8	1.8	1	07/01/19 14:57	6/26/19	
Dibenz(a,h)anthracene	9.8 U	9.8	1.4	1	07/01/19 14:57	6/26/19	
Dibenzofuran	9.8 U	9.8	1.3	1	07/01/19 14:57	6/26/19	
Diethyl Phthalate	9.8 U	9.8	1.2	1	07/01/19 14:57	6/26/19	
Dimethyl Phthalate	9.8 U	9.8	1.5	1	07/01/19 14:57	6/26/19	
Fluoranthene	9.8 U	9.8	1.4	1	07/01/19 14:57	6/26/19	
Fluorene	9.8 U	9.8	1.6	1	07/01/19 14:57	6/26/19	
Hexachlorobenzene	9.8 U	9.8	1.4	1	07/01/19 14:57	6/26/19	
Hexachlorobutadiene	9.8 U	9.8	1.1	1	07/01/19 14:57	6/26/19	
Hexachlorocyclopentadiene	9.8 U	9.8	1.5	1	07/01/19 14:57	6/26/19	
Hexachloroethane	9.8 U	9.8	1.2	1	07/01/19 14:57	6/26/19	
Indeno(1,2,3-cd)pyrene	9.8 U	9.8	1.4	1	07/01/19 14:57	6/26/19	
Isophorone	9.8 U	9.8	1.2	1	07/01/19 14:57	6/26/19	
N-Nitrosodi-n-propylamine	9.8 U	9.8	2.0	1	07/01/19 14:57	6/26/19	
N-Nitrosodiphenylamine	9.8 U	9.8	4.7	1	07/01/19 14:57	6/26/19	
Naphthalene	9.8 U	9.8	1.1	1	07/01/19 14:57	6/26/19	
Nitrobenzene	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
Pentachlorophenol (PCP)	49 U	49	6.0	1	07/01/19 14:57	6/26/19	
Phenanthrene	9.8 U	9.8	1.6	1	07/01/19 14:57	6/26/19	
Phenol	9.8 U	9.8	1.0	1	07/01/19 14:57	6/26/19	
Pyrene	9.8 U	9.8	1.8	1	07/01/19 14:57	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	93	35 - 141	07/01/19 14:57	
2-Fluorobiphenyl	78	31 - 118	07/01/19 14:57	
2-Fluorophenol	43	10 - 105	07/01/19 14:57	
Nitrobenzene-d5	83	31 - 110	07/01/19 14:57	
Phenol-d6	27	10 - 107	07/01/19 14:57	
p-Terphenyl-d14	86	10 - 165	07/01/19 14:57	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
000088-16-4	2-Chloro-benzotrifluoride	3.85	3.9	JN
000095-49-8	Benzene, 1-chloro-2-methyl-	4.25	4.3	JN
000134-62-3	Diethyltoluamide	7.94	4.9	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-035
Lab Code: R1905844-007

Service Request: R1905844
Date Collected: 06/19/19 13:35

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/01/19 15:29	6/26/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/01/19 15:29	6/26/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/01/19 15:29	6/26/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/01/19 15:29	6/26/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/01/19 15:29	6/26/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
2-Nitroaniline	47 U	47	2.4	1	07/01/19 15:29	6/26/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/01/19 15:29	6/26/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
3-Nitroaniline	47 U	47	1.8	1	07/01/19 15:29	6/26/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/01/19 15:29	6/26/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/01/19 15:29	6/26/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/01/19 15:29	6/26/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/01/19 15:29	6/26/19	
4-Nitroaniline	47 U	47	1.9	1	07/01/19 15:29	6/26/19	
4-Nitrophenol	47 U	47	3.0	1	07/01/19 15:29	6/26/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/01/19 15:29	6/26/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/01/19 15:29	6/26/19	
Anthracene	9.4 U	9.4	1.4	1	07/01/19 15:29	6/26/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/01/19 15:29	6/26/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/01/19 15:29	6/26/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/01/19 15:29	6/26/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/01/19 15:29	6/26/19	
Benzoic Acid	47 U	47	6.0	1	07/01/19 15:29	6/26/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/01/19 15:29	6/26/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/01/19 15:29	6/26/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
Chrysene	9.4 U	9.4	1.5	1	07/01/19 15:29	6/26/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-035
Lab Code: R1905844-007

Service Request: R1905844
Date Collected: 06/19/19 13:35

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/01/19 15:29	6/26/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/01/19 15:29	6/26/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/01/19 15:29	6/26/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/01/19 15:29	6/26/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/01/19 15:29	6/26/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/01/19 15:29	6/26/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/01/19 15:29	6/26/19	
Fluorene	9.4 U	9.4	1.6	1	07/01/19 15:29	6/26/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/01/19 15:29	6/26/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/01/19 15:29	6/26/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/01/19 15:29	6/26/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/01/19 15:29	6/26/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/01/19 15:29	6/26/19	
Isophorone	9.4 U	9.4	1.2	1	07/01/19 15:29	6/26/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/01/19 15:29	6/26/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/01/19 15:29	6/26/19	
Naphthalene	9.4 U	9.4	1.1	1	07/01/19 15:29	6/26/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/01/19 15:29	6/26/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/01/19 15:29	6/26/19	
Phenol	9.4 U	9.4	1.0	1	07/01/19 15:29	6/26/19	
Pyrene	9.4 U	9.4	1.8	1	07/01/19 15:29	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	81	35 - 141	07/01/19 15:29	
2-Fluorobiphenyl	70	31 - 118	07/01/19 15:29	
2-Fluorophenol	32	10 - 105	07/01/19 15:29	
Nitrobenzene-d5	75	31 - 110	07/01/19 15:29	
Phenol-d6	22	10 - 107	07/01/19 15:29	
p-Terphenyl-d14	80	10 - 165	07/01/19 15:29	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	28 J	190	20	20	07/08/19 11:08	6/26/19	
1,2-Dichlorobenzene	190 U	190	20	20	07/08/19 11:08	6/26/19	
1,3-Dichlorobenzene	190 U	190	20	20	07/08/19 11:08	6/26/19	
1,4-Dichlorobenzene	45 J	190	20	20	07/08/19 11:08	6/26/19	
2,4,5-Trichlorophenol	190 U	190	22	20	07/08/19 11:08	6/26/19	
2,4,6-Trichlorophenol	190 U	190	20	20	07/08/19 11:08	6/26/19	
2,4-Dichlorophenol	35 J	190	20	20	07/08/19 11:08	6/26/19	
2,4-Dimethylphenol	190 U	190	20	20	07/08/19 11:08	6/26/19	
2,4-Dinitrophenol	940 U	940	140	20	07/08/19 11:08	6/26/19	
2,4-Dinitrotoluene	190 U	190	54	20	07/08/19 11:08	6/26/19	
2,6-Dinitrotoluene	190 U	190	30	20	07/08/19 11:08	6/26/19	
2-Chloronaphthalene	190 U	190	22	20	07/08/19 11:08	6/26/19	
2-Chlorophenol	190 U	190	20	20	07/08/19 11:08	6/26/19	
2-Methylnaphthalene	190 U	190	20	20	07/08/19 11:08	6/26/19	
2-Methylphenol	190 U	190	20	20	07/08/19 11:08	6/26/19	
2-Nitroaniline	940 U	940	48	20	07/08/19 11:08	6/26/19	
2-Nitrophenol	190 U	190	30	20	07/08/19 11:08	6/26/19	
3,3'-Dichlorobenzidine	190 U	190	20	20	07/08/19 11:08	6/26/19	
3- and 4-Methylphenol Coelution	31 J	190	20	20	07/08/19 11:08	6/26/19	
3-Nitroaniline	940 U	940	36	20	07/08/19 11:08	6/26/19	
4,6-Dinitro-2-methylphenol	940 U	940	74	20	07/08/19 11:08	6/26/19	
4-Bromophenyl Phenyl Ether	190 U	190	28	20	07/08/19 11:08	6/26/19	
4-Chloro-3-methylphenol	190 U	190	22	20	07/08/19 11:08	6/26/19	
4-Chloroaniline	190 U	190	20	20	07/08/19 11:08	6/26/19	
4-Chlorophenyl Phenyl Ether	190 U	190	24	20	07/08/19 11:08	6/26/19	
4-Nitroaniline	940 U	940	38	20	07/08/19 11:08	6/26/19	
4-Nitrophenol	940 U	940	60	20	07/08/19 11:08	6/26/19	
Acenaphthene	190 U	190	32	20	07/08/19 11:08	6/26/19	
Acenaphthylene	190 U	190	26	20	07/08/19 11:08	6/26/19	
Anthracene	190 U	190	28	20	07/08/19 11:08	6/26/19	
Benz(a)anthracene	190 U	190	20	20	07/08/19 11:08	6/26/19	
Benzo(a)pyrene	190 U	190	26	20	07/08/19 11:08	6/26/19	
Benzo(b)fluoranthene	190 U	190	26	20	07/08/19 11:08	6/26/19	
Benzo(g,h,i)perylene	190 U	190	30	20	07/08/19 11:08	6/26/19	
Benzo(k)fluoranthene	190 U	190	30	20	07/08/19 11:08	6/26/19	
Benzoic Acid	1300	940	120	20	07/08/19 11:08	6/26/19	
Benzyl Alcohol	61 J	190	20	20	07/08/19 11:08	6/26/19	
2,2'-Oxybis(1-chloropropane)	190 U	190	28	20	07/08/19 11:08	6/26/19	
Bis(2-chloroethoxy)methane	190 U	190	20	20	07/08/19 11:08	6/26/19	
Bis(2-chloroethyl) Ether	190 U	190	20	20	07/08/19 11:08	6/26/19	
Bis(2-ethylhexyl) Phthalate	200 U	200	200	20	07/08/19 11:08	6/26/19	
Butyl Benzyl Phthalate	190 U	190	20	20	07/08/19 11:08	6/26/19	
Chrysene	190 U	190	30	20	07/08/19 11:08	6/26/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008

Service Request: R1905844
Date Collected: 06/19/19 14:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	190 U	190	22	20	07/08/19 11:08	6/26/19	
Di-n-octyl Phthalate	190 U	190	36	20	07/08/19 11:08	6/26/19	
Dibenz(a,h)anthracene	190 U	190	28	20	07/08/19 11:08	6/26/19	
Dibenzofuran	190 U	190	26	20	07/08/19 11:08	6/26/19	
Diethyl Phthalate	190 U	190	24	20	07/08/19 11:08	6/26/19	
Dimethyl Phthalate	190 U	190	30	20	07/08/19 11:08	6/26/19	
Fluoranthene	190 U	190	28	20	07/08/19 11:08	6/26/19	
Fluorene	190 U	190	32	20	07/08/19 11:08	6/26/19	
Hexachlorobenzene	190 U	190	28	20	07/08/19 11:08	6/26/19	
Hexachlorobutadiene	190 U	190	22	20	07/08/19 11:08	6/26/19	
Hexachlorocyclopentadiene	190 U	190	30	20	07/08/19 11:08	6/26/19	
Hexachloroethane	190 U	190	24	20	07/08/19 11:08	6/26/19	
Indeno(1,2,3-cd)pyrene	190 U	190	28	20	07/08/19 11:08	6/26/19	
Isophorone	190 U	190	24	20	07/08/19 11:08	6/26/19	
N-Nitrosodi-n-propylamine	190 U	190	40	20	07/08/19 11:08	6/26/19	
N-Nitrosodiphenylamine	190 U	190	94	20	07/08/19 11:08	6/26/19	
Naphthalene	190 U	190	22	20	07/08/19 11:08	6/26/19	
Nitrobenzene	190 U	190	20	20	07/08/19 11:08	6/26/19	
Pentachlorophenol (PCP)	940 U	940	120	20	07/08/19 11:08	6/26/19	
Phenanthrene	190 U	190	32	20	07/08/19 11:08	6/26/19	
Phenol	190 U	190	20	20	07/08/19 11:08	6/26/19	
Pyrene	190 U	190	36	20	07/08/19 11:08	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	0 *	35 - 141	07/08/19 11:08	D
2-Fluorobiphenyl	0 *	31 - 118	07/08/19 11:08	D
2-Fluorophenol	0 *	10 - 105	07/08/19 11:08	D
Nitrobenzene-d5	0 *	31 - 110	07/08/19 11:08	D
Phenol-d6	0 *	10 - 107	07/08/19 11:08	D
p-Terphenyl-d14	0 *	10 - 165	07/08/19 11:08	D

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
000123-91-1	1,4-Dioxane	2.41	100	JN
000108-93-0	Cyclohexanol	3.75	91	JN
000095-49-8	Benzene, 1-chloro-2-methyl-	4.23	2100	JN
000106-43-4	Benzene, 1-chloro-4-methyl-	4.28	1100	JN
032768-54-0	Benzene, 1,2-dichloro-3-methyl-	5.39	120	JN
000104-83-6	Benzene, 1-chloro-4-(chloromethyl)	5.41	110	JN
025186-47-4	Benzene, 1,3-dichloro-5-methyl-	5.58	120	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
017849-38-6	Benzenemethanol, 2-chloro-	5.98	220	JN
000074-11-3	Benzoic acid, 4-chloro-	6.74	3500	JN
000118-91-2	Benzoic acid, 2-chloro-	6.84	380	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009

Service Request: R1905844
Date Collected: 06/19/19 14:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	14 J	94	10	10	07/15/19 23:37	6/26/19	
1,2-Dichlorobenzene	94 U	94	10	10	07/15/19 23:37	6/26/19	
1,3-Dichlorobenzene	94 U	94	10	10	07/15/19 23:37	6/26/19	
1,4-Dichlorobenzene	21 J	94	10	10	07/15/19 23:37	6/26/19	
2,4,5-Trichlorophenol	94 U	94	11	10	07/15/19 23:37	6/26/19	
2,4,6-Trichlorophenol	94 U	94	10	10	07/15/19 23:37	6/26/19	
2,4-Dichlorophenol	94 U	94	10	10	07/15/19 23:37	6/26/19	
2,4-Dimethylphenol	94 U	94	10	10	07/15/19 23:37	6/26/19	
2,4-Dinitrophenol	470 U	470	70	10	07/15/19 23:37	6/26/19	
2,4-Dinitrotoluene	94 U	94	27	10	07/15/19 23:37	6/26/19	
2,6-Dinitrotoluene	94 U	94	15	10	07/15/19 23:37	6/26/19	
2-Chloronaphthalene	94 U	94	11	10	07/15/19 23:37	6/26/19	
2-Chlorophenol	94 U	94	10	10	07/15/19 23:37	6/26/19	
2-Methylnaphthalene	94 U	94	10	10	07/15/19 23:37	6/26/19	
2-Methylphenol	94 U	94	10	10	07/15/19 23:37	6/26/19	
2-Nitroaniline	470 U	470	24	10	07/15/19 23:37	6/26/19	
2-Nitrophenol	94 U	94	15	10	07/15/19 23:37	6/26/19	
3,3'-Dichlorobenzidine	94 U	94	10	10	07/15/19 23:37	6/26/19	
3- and 4-Methylphenol Coelution	94 U	94	10	10	07/15/19 23:37	6/26/19	
3-Nitroaniline	470 U	470	18	10	07/15/19 23:37	6/26/19	
4,6-Dinitro-2-methylphenol	470 U	470	37	10	07/15/19 23:37	6/26/19	
4-Bromophenyl Phenyl Ether	94 U	94	14	10	07/15/19 23:37	6/26/19	
4-Chloro-3-methylphenol	94 U	94	11	10	07/15/19 23:37	6/26/19	
4-Chloroaniline	94 U	94	10	10	07/15/19 23:37	6/26/19	
4-Chlorophenyl Phenyl Ether	94 U	94	12	10	07/15/19 23:37	6/26/19	
4-Nitroaniline	470 U	470	19	10	07/15/19 23:37	6/26/19	
4-Nitrophenol	470 U	470	30	10	07/15/19 23:37	6/26/19	
Acenaphthene	94 U	94	16	10	07/15/19 23:37	6/26/19	
Acenaphthylene	94 U	94	13	10	07/15/19 23:37	6/26/19	
Anthracene	94 U	94	14	10	07/15/19 23:37	6/26/19	
Benz(a)anthracene	94 U	94	10	10	07/15/19 23:37	6/26/19	
Benzo(a)pyrene	94 U	94	13	10	07/15/19 23:37	6/26/19	
Benzo(b)fluoranthene	94 U	94	13	10	07/15/19 23:37	6/26/19	
Benzo(g,h,i)perylene	94 U	94	15	10	07/15/19 23:37	6/26/19	
Benzo(k)fluoranthene	94 U	94	15	10	07/15/19 23:37	6/26/19	
Benzoic Acid	1100	470	60	10	07/15/19 23:37	6/26/19	
Benzyl Alcohol	43 J	94	10	10	07/15/19 23:37	6/26/19	
2,2'-Oxybis(1-chloropropane)	94 U	94	14	10	07/15/19 23:37	6/26/19	
Bis(2-chloroethoxy)methane	94 U	94	10	10	07/15/19 23:37	6/26/19	
Bis(2-chloroethyl) Ether	94 U	94	10	10	07/15/19 23:37	6/26/19	
Bis(2-ethylhexyl) Phthalate	97 U	97	97	10	07/15/19 23:37	6/26/19	
Butyl Benzyl Phthalate	94 U	94	10	10	07/15/19 23:37	6/26/19	
Chrysene	94 U	94	15	10	07/15/19 23:37	6/26/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009

Service Request: R1905844
Date Collected: 06/19/19 14:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	94 U	94	11	10	07/15/19 23:37	6/26/19	
Di-n-octyl Phthalate	94 U	94	18	10	07/15/19 23:37	6/26/19	
Dibenz(a,h)anthracene	94 U	94	14	10	07/15/19 23:37	6/26/19	
Dibenzofuran	94 U	94	13	10	07/15/19 23:37	6/26/19	
Diethyl Phthalate	94 U	94	12	10	07/15/19 23:37	6/26/19	
Dimethyl Phthalate	94 U	94	15	10	07/15/19 23:37	6/26/19	
Fluoranthene	94 U	94	14	10	07/15/19 23:37	6/26/19	
Fluorene	94 U	94	16	10	07/15/19 23:37	6/26/19	
Hexachlorobenzene	94 U	94	14	10	07/15/19 23:37	6/26/19	
Hexachlorobutadiene	94 U	94	11	10	07/15/19 23:37	6/26/19	
Hexachlorocyclopentadiene	94 U	94	15	10	07/15/19 23:37	6/26/19	
Hexachloroethane	94 U	94	12	10	07/15/19 23:37	6/26/19	
Indeno(1,2,3-cd)pyrene	94 U	94	14	10	07/15/19 23:37	6/26/19	
Isophorone	94 U	94	12	10	07/15/19 23:37	6/26/19	
N-Nitrosodi-n-propylamine	94 U	94	20	10	07/15/19 23:37	6/26/19	
N-Nitrosodiphenylamine	94 U	94	47	10	07/15/19 23:37	6/26/19	
Naphthalene	94 U	94	11	10	07/15/19 23:37	6/26/19	
Nitrobenzene	94 U	94	10	10	07/15/19 23:37	6/26/19	
Pentachlorophenol (PCP)	470 U	470	60	10	07/15/19 23:37	6/26/19	
Phenanthrene	94 U	94	16	10	07/15/19 23:37	6/26/19	
Phenol	94 U	94	10	10	07/15/19 23:37	6/26/19	
Pyrene	94 U	94	18	10	07/15/19 23:37	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	21 *	35 - 141	07/15/19 23:37	*
2-Fluorobiphenyl	17 *	31 - 118	07/15/19 23:37	*
2-Fluorophenol	5 *	10 - 105	07/15/19 23:37	*
Nitrobenzene-d5	14 *	31 - 110	07/15/19 23:37	*
Phenol-d6	4 *	10 - 107	07/15/19 23:37	*
p-Terphenyl-d14	15	10 - 165	07/15/19 23:37	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ppm	Q
000123-91-1	1,4-Dioxane	2.42	0.042	JN
000108-93-0	Cyclohexanol	3.75	0.045	JN
000095-49-8	Benzene, 1-chloro-2-methyl-	4.23	0.95	JN
000108-41-8	Benzene, 1-chloro-3-methyl-	4.28	0.51	JN
000095-73-8	Benzene, 2,4-dichloro-1-methyl-	5.39	0.051	JN
032768-54-0	Benzene, 1,2-dichloro-3-methyl-	5.42	0.056	JN
	unknown	5.59	0.058	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ppm	Q
	unknown	5.61	0.054	J
017849-38-6	Benzenemethanol, 2-chloro-	5.99	0.16	JN
000074-11-3	Benzoic acid, 4-chloro-	6.81	3.8	JN
000118-91-2	Benzoic acid, 2-chloro-	6.87	0.34	JN



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: RB-9954-061919-SG-002
Lab Code: R1905844-001

Service Request: R1905844
Date Collected: 06/20/19 13:00

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Aldrin	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Dieldrin	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Endrin	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Heptachlor	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
Toxaphene	0.50 U	0.50	0.50	1	07/11/19 12:43	6/26/19	
alpha-BHC	0.55	0.047	0.020	1	07/11/19 12:43	6/26/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
beta-BHC	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	
delta-BHC	0.11	0.047	0.020	1	07/11/19 12:43	6/26/19	
gamma-BHC (Lindane)	0.29	0.047	0.020	1	07/11/19 12:43	6/26/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/11/19 12:43	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	25	10 - 164	07/11/19 12:43	
Tetrachloro-m-xylene	66	10 - 147	07/11/19 12:43	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-031
Lab Code: R1905844-003

Service Request: R1905844
Date Collected: 06/19/19 12:15

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 15:06	6/26/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 15:06	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	64	10 - 164	07/03/19 15:06	
Tetrachloro-m-xylene	93	10 - 147	07/03/19 15:06	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-032
Lab Code: R1905844-004

Service Request: R1905844
Date Collected: 06/19/19 09:35

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
4,4'-DDE	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
4,4'-DDT	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Aldrin	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Dieldrin	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Endosulfan I	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Endosulfan II	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Endosulfan Sulfate	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Endrin	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Endrin Ketone	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Heptachlor	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Heptachlor Epoxide	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Methoxychlor	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
Toxaphene	0.53 U	0.53	0.53	1	07/03/19 15:24	6/26/19	
alpha-BHC	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
alpha-Chlordane	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
beta-BHC	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
delta-BHC	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
gamma-BHC (Lindane)	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	
gamma-Chlordane	0.053 U	0.053	0.022	1	07/03/19 15:24	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	21	10 - 164	07/03/19 15:24	
Tetrachloro-m-xylene	83	10 - 147	07/03/19 15:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-033
Lab Code: R1905844-005

Service Request: R1905844
Date Collected: 06/19/19 10:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 15:41	6/26/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 15:41	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	47	10 - 164	07/03/19 15:41	
Tetrachloro-m-xylene	75	10 - 147	07/03/19 15:41	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-034
Lab Code: R1905844-006

Service Request: R1905844
Date Collected: 06/19/19 11:55

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Aldrin	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Dieldrin	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Endrin	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Heptachlor	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
Toxaphene	0.50 U	0.50	0.50	1	07/11/19 13:01	6/26/19	
alpha-BHC	0.12	0.047	0.020	1	07/11/19 13:01	6/26/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
beta-BHC	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	
delta-BHC	0.046 J	0.047	0.020	1	07/11/19 13:01	6/26/19	
gamma-BHC (Lindane)	0.060	0.047	0.020	1	07/11/19 13:01	6/26/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/11/19 13:01	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	26	10 - 164	07/11/19 13:01	
Tetrachloro-m-xylene	58	10 - 147	07/11/19 13:01	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-035
Lab Code: R1905844-007

Service Request: R1905844
Date Collected: 06/19/19 13:35

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 16:17	6/26/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 16:17	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	18	10 - 164	07/03/19 16:17	
Tetrachloro-m-xylene	73	10 - 147	07/03/19 16:17	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008

Service Request: R1905844
Date Collected: 06/19/19 14:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
4,4'-DDE	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
4,4'-DDT	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Aldrin	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Dieldrin	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Endosulfan I	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Endosulfan II	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Endosulfan Sulfate	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Endrin	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Endrin Ketone	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Heptachlor	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Heptachlor Epoxide	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Methoxychlor	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
Toxaphene	10 U	10	10	20	07/11/19 13:19	6/26/19	
alpha-BHC	25	0.94	0.40	20	07/11/19 13:19	6/26/19	
alpha-Chlordane	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	
beta-BHC	6.7	0.94	0.40	20	07/11/19 13:19	6/26/19	
delta-BHC	7.6	0.94	0.40	20	07/11/19 13:19	6/26/19	
gamma-BHC (Lindane)	4.7	0.94	0.40	20	07/11/19 13:19	6/26/19	
gamma-Chlordane	0.94 U	0.94	0.40	20	07/11/19 13:19	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	16	10 - 164	07/11/19 13:19	
Tetrachloro-m-xylene	38	10 - 147	07/11/19 13:19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009

Service Request: R1905844
Date Collected: 06/19/19 14:50

Date Received: 06/21/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
4,4'-DDE	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
4,4'-DDT	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Aldrin	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Dieldrin	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Endosulfan I	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Endosulfan II	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Endosulfan Sulfate	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Endrin	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Endrin Ketone	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Heptachlor	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Heptachlor Epoxide	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Methoxychlor	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
Toxaphene	10 U	10	10	20	07/11/19 13:37	6/26/19	
alpha-BHC	26	0.94	0.40	20	07/11/19 13:37	6/26/19	
alpha-Chlordane	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	
beta-BHC	7.5	0.94	0.40	20	07/11/19 13:37	6/26/19	
delta-BHC	6.3	0.94	0.40	20	07/11/19 13:37	6/26/19	
gamma-BHC (Lindane)	4.4	0.94	0.40	20	07/11/19 13:37	6/26/19	
gamma-Chlordane	0.94 U	0.94	0.40	20	07/11/19 13:37	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	15	10 - 164	07/11/19 13:37	
Tetrachloro-m-xylene	44	10 - 147	07/11/19 13:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: RB-9954-061919-SG-002
Lab Code: R1905844-001

Service Request: R1905844
Date Collected: 06/20/19 13:00
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 16:51	6/26/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 16:51	6/26/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 16:51	6/26/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 16:51	6/26/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 16:51	6/26/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 16:51	6/26/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 16:51	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	34	10 - 152	07/02/19 16:51	
Tetrachloro-m-xylene	79	14 - 129	07/02/19 16:51	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-031
Lab Code: R1905844-003

Service Request: R1905844
Date Collected: 06/19/19 12:15
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 17:11	6/26/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 17:11	6/26/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 17:11	6/26/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 17:11	6/26/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 17:11	6/26/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 17:11	6/26/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 17:11	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	79	10 - 152	07/02/19 17:11	
Tetrachloro-m-xylene	90	14 - 129	07/02/19 17:11	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-032
Lab Code: R1905844-004

Service Request: R1905844
Date Collected: 06/19/19 09:35
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.1 U	1.1	0.53	1	07/02/19 17:31	6/26/19	
Aroclor 1221	2.1 U	2.1	1.1	1	07/02/19 17:31	6/26/19	
Aroclor 1232	1.1 U	1.1	0.53	1	07/02/19 17:31	6/26/19	
Aroclor 1242	1.1 U	1.1	0.53	1	07/02/19 17:31	6/26/19	
Aroclor 1248	1.1 U	1.1	0.53	1	07/02/19 17:31	6/26/19	
Aroclor 1254	1.1 U	1.1	0.53	1	07/02/19 17:31	6/26/19	
Aroclor 1260	1.1 U	1.1	0.53	1	07/02/19 17:31	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	35	10 - 152	07/02/19 17:31	
Tetrachloro-m-xylene	91	14 - 129	07/02/19 17:31	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-033
Lab Code: R1905844-005

Service Request: R1905844
Date Collected: 06/19/19 10:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/03/19 12:23	6/26/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/03/19 12:23	6/26/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/03/19 12:23	6/26/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/03/19 12:23	6/26/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/03/19 12:23	6/26/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/03/19 12:23	6/26/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/03/19 12:23	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	58	10 - 152	07/03/19 12:23	
Tetrachloro-m-xylene	71	14 - 129	07/03/19 12:23	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-034
Lab Code: R1905844-006

Service Request: R1905844
Date Collected: 06/19/19 11:55
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 18:10	6/26/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 18:10	6/26/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 18:10	6/26/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 18:10	6/26/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 18:10	6/26/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 18:10	6/26/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 18:10	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	42	10 - 152	07/02/19 18:10	
Tetrachloro-m-xylene	75	14 - 129	07/02/19 18:10	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-035
Lab Code: R1905844-007

Service Request: R1905844
Date Collected: 06/19/19 13:35
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 18:30	6/26/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 18:30	6/26/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 18:30	6/26/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 18:30	6/26/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 18:30	6/26/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 18:30	6/26/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 18:30	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	25	10 - 152	07/02/19 18:30	
Tetrachloro-m-xylene	72	14 - 129	07/02/19 18:30	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 18:50	6/26/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 18:50	6/26/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 18:50	6/26/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 18:50	6/26/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 18:50	6/26/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 18:50	6/26/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 18:50	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	26	10 - 152	07/02/19 18:50	
Tetrachloro-m-xylene	99	14 - 129	07/02/19 18:50	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 06/21/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 19:09	6/26/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 19:09	6/26/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 19:09	6/26/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 19:09	6/26/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 19:09	6/26/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 19:09	6/26/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 19:09	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	22	10 - 152	07/02/19 19:09	
Tetrachloro-m-xylene	100	14 - 129	07/02/19 19:09	



QC Summary Forms

ALS Environmental—Rochester Laboratory

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905844

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
RB-9954-061919-SG-002	R1905844-001	92	93	100
TB-9954-061919-SG-004	R1905844-002	89	91	95
WG-9954-061919-SG-031	R1905844-003	89	94	97
WG-9954-061919-SG-032	R1905844-004	92	94	98
WG-9954-061919-SG-033	R1905844-005	91	97	96
WG-9954-061919-SG-034	R1905844-006	92	97	97
WG-9954-061919-SG-035	R1905844-007	91	98	98
WG-9954-061919-SG-036	R1905844-008	90	93	99
WG-9954-061919-SG-036 DL	R1905844-008	93	95	98
WG-9954-061919-SG-037	R1905844-009	96	94	101
WG-9954-061919-SG-037 DL	R1905844-009	92	94	100
Method Blank	RQ1906455-04	90	93	97
Method Blank	RQ1906551-04	93	95	98
Lab Control Sample	RQ1906455-03	91	96	97
Lab Control Sample	RQ1906551-03	93	98	98

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/26/19 11:17
Date Extracted:

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1906455-04
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-12
File ID: I:\ACQUDATA\msvoa12\Data\062619\P28185.D\
Analysis Lot: 640886

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906455-03	I:\ACQUDATA\msvoa12\Data\062619\P28183.D\	06/26/19 10:20
RB-9954-061919-SG-002	R1905844-001	I:\ACQUDATA\msvoa12\Data\062619\P28196.D\	06/26/19 15:24
WG-9954-061919-SG-031	R1905844-003	I:\ACQUDATA\msvoa12\Data\062619\P28197.D\	06/26/19 15:46
WG-9954-061919-SG-032	R1905844-004	I:\ACQUDATA\msvoa12\Data\062619\P28198.D\	06/26/19 16:08
WG-9954-061919-SG-033	R1905844-005	I:\ACQUDATA\msvoa12\Data\062619\P28199.D\	06/26/19 16:30
WG-9954-061919-SG-034	R1905844-006	I:\ACQUDATA\msvoa12\Data\062619\P28200.D\	06/26/19 16:52
WG-9954-061919-SG-035	R1905844-007	I:\ACQUDATA\msvoa12\Data\062619\P28201.D\	06/26/19 17:14
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\msvoa12\Data\062619\P28202.D\	06/26/19 17:36
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\msvoa12\Data\062619\P28203.D\	06/26/19 17:57

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/27/19 14:08
Date Extracted:

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank**Instrument ID:**R-MS-12**Lab Code:** RQ1906551-04**File ID:**I:\ACQUDATA\msvoa12\Data\062719\P28221.D**Analysis Method:** 8260C**Analysis Lot:**641190**Prep Method:** EPA 5030C

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906551-03	I:\ACQUDATA\msvoa12\Data\062719\P28217.D\	06/27/19 12:40
TB-9954-061919-SG-004	R1905844-002	I:\ACQUDATA\msvoa12\Data\062719\P28230.D\	06/27/19 17:33
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\msvoa12\Data\062719\P28231.D\	06/27/19 17:54
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\msvoa12\Data\062719\P28232.D\	06/27/19 18:16

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906455-04

Service Request: R1905844
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/26/19 11:17	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/26/19 11:17	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/26/19 11:17	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/26/19 11:17	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/26/19 11:17	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/26/19 11:17	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/26/19 11:17	
2-Butanone (MEK)	10 U	10	0.78	1	06/26/19 11:17	
2-Hexanone	10 U	10	0.20	1	06/26/19 11:17	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/26/19 11:17	
Acetone	10 U	10	2.1	1	06/26/19 11:17	
Benzene	5.0 U	5.0	0.20	1	06/26/19 11:17	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/26/19 11:17	
Bromoform	5.0 U	5.0	0.25	1	06/26/19 11:17	
Bromomethane	5.0 U	5.0	0.70	1	06/26/19 11:17	
Carbon Disulfide	10 U	10	0.25	1	06/26/19 11:17	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/26/19 11:17	
Chlorobenzene	5.0 U	5.0	0.20	1	06/26/19 11:17	
Chloroethane	5.0 U	5.0	0.23	1	06/26/19 11:17	
Chloroform	5.0 U	5.0	0.24	1	06/26/19 11:17	
Chloromethane	5.0 U	5.0	0.28	1	06/26/19 11:17	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/26/19 11:17	
Dichloromethane	5.0 U	5.0	0.36	1	06/26/19 11:17	
Ethylbenzene	5.0 U	5.0	0.20	1	06/26/19 11:17	
Styrene	5.0 U	5.0	0.20	1	06/26/19 11:17	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/26/19 11:17	
Toluene	5.0 U	5.0	0.20	1	06/26/19 11:17	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/26/19 11:17	
Vinyl Acetate	10 U	10	1.1	1	06/26/19 11:17	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/26/19 11:17	
Xylenes, Total	5.0 U	5.0	0.23	1	06/26/19 11:17	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/26/19 11:17	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/26/19 11:17	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/26/19 11:17	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/26/19 11:17	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906455-04

Service Request: R1905844
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	06/26/19 11:17	
Dibromofluoromethane	93	89 - 119	06/26/19 11:17	
Toluene-d8	97	87 - 121	06/26/19 11:17	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: Method Blank
Lab Code: RQ1906455-04

Service Request: R1905844
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906551-04

Service Request: R1905844
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/27/19 14:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/27/19 14:08	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/27/19 14:08	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/27/19 14:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/27/19 14:08	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/27/19 14:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/27/19 14:08	
2-Butanone (MEK)	10 U	10	0.78	1	06/27/19 14:08	
2-Hexanone	10 U	10	0.20	1	06/27/19 14:08	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/27/19 14:08	
Acetone	5.6 J	10	2.1	1	06/27/19 14:08	
Benzene	5.0 U	5.0	0.20	1	06/27/19 14:08	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/27/19 14:08	
Bromoform	5.0 U	5.0	0.25	1	06/27/19 14:08	
Bromomethane	5.0 U	5.0	0.70	1	06/27/19 14:08	
Carbon Disulfide	10 U	10	0.25	1	06/27/19 14:08	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/27/19 14:08	
Chlorobenzene	5.0 U	5.0	0.20	1	06/27/19 14:08	
Chloroethane	5.0 U	5.0	0.23	1	06/27/19 14:08	
Chloroform	5.0 U	5.0	0.24	1	06/27/19 14:08	
Chloromethane	0.35 J	5.0	0.28	1	06/27/19 14:08	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/27/19 14:08	
Dichloromethane	5.0 U	5.0	0.36	1	06/27/19 14:08	
Ethylbenzene	5.0 U	5.0	0.20	1	06/27/19 14:08	
Styrene	5.0 U	5.0	0.20	1	06/27/19 14:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/27/19 14:08	
Toluene	0.45 J	5.0	0.20	1	06/27/19 14:08	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/27/19 14:08	
Vinyl Acetate	10 U	10	1.1	1	06/27/19 14:08	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/27/19 14:08	
Xylenes, Total	5.0 U	5.0	0.23	1	06/27/19 14:08	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/27/19 14:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/27/19 14:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/27/19 14:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/27/19 14:08	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906551-04

Service Request: R1905844
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/27/19 14:08	
Dibromofluoromethane	95	89 - 119	06/27/19 14:08	
Toluene-d8	98	87 - 121	06/27/19 14:08	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: Method Blank
Lab Code: RQ1906551-04

Service Request: R1905844
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/26/19 10:20
Date Extracted:

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample**Instrument ID:**R-MS-12**Lab Code:** RQ1906455-03**File ID:**I:\ACQUDATA\msvoa12\Data\062619\P28183.D**Analysis Method:** 8260C**Analysis Lot:**640886**Prep Method:** EPA 5030C

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906455-04	I:\ACQUDATA\msvoa12\Data\062619\P28185.D\	06/26/19 11:17
RB-9954-061919-SG-002	R1905844-001	I:\ACQUDATA\msvoa12\Data\062619\P28196.D\	06/26/19 15:24
WG-9954-061919-SG-031	R1905844-003	I:\ACQUDATA\msvoa12\Data\062619\P28197.D\	06/26/19 15:46
WG-9954-061919-SG-032	R1905844-004	I:\ACQUDATA\msvoa12\Data\062619\P28198.D\	06/26/19 16:08
WG-9954-061919-SG-033	R1905844-005	I:\ACQUDATA\msvoa12\Data\062619\P28199.D\	06/26/19 16:30
WG-9954-061919-SG-034	R1905844-006	I:\ACQUDATA\msvoa12\Data\062619\P28200.D\	06/26/19 16:52
WG-9954-061919-SG-035	R1905844-007	I:\ACQUDATA\msvoa12\Data\062619\P28201.D\	06/26/19 17:14
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\msvoa12\Data\062619\P28202.D\	06/26/19 17:36
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\msvoa12\Data\062619\P28203.D\	06/26/19 17:57

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/27/19 12:40
Date Extracted:

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample**Instrument ID:**R-MS-12**Lab Code:** RQ1906551-03**File ID:**I:\ACQUDATA\msvoa12\Data\062719\P28217.D**Analysis Method:** 8260C**Analysis Lot:**641190**Prep Method:** EPA 5030C

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906551-04	I:\ACQUDATA\msvoa12\Data\062719\P28221.D\	06/27/19 14:08
TB-9954-061919-SG-004	R1905844-002	I:\ACQUDATA\msvoa12\Data\062719\P28230.D\	06/27/19 17:33
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\msvoa12\Data\062719\P28231.D\	06/27/19 17:54
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\msvoa12\Data\062719\P28232.D\	06/27/19 18:16

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/26/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906455-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	18.3	20.0	91	75-125
1,1,2,2-Tetrachloroethane	8260C	18.6	20.0	93	78-126
1,1,2-Trichloroethane	8260C	18.1	20.0	90	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	18.3	20.0	91	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.3	20.0	96	71-118
1,2-Dichloroethane	8260C	16.3	20.0	82	71-127
1,2-Dichloropropane	8260C	18.8	20.0	94	80-119
2-Butanone (MEK)	8260C	17.3	20.0	86	61-137
2-Hexanone	8260C	15.8	20.0	79	63-124
4-Methyl-2-pentanone	8260C	16.3	20.0	82	66-124
Acetone	8260C	16.6	20.0	83	40-161
Benzene	8260C	18.7	20.0	94	79-119
Bromodichloromethane	8260C	18.3	20.0	92	81-123
Bromoform	8260C	16.6	20.0	83	65-146
Bromomethane	8260C	21.4	20.0	107	42-166
Carbon Disulfide	8260C	17.0	20.0	85	66-128
Carbon Tetrachloride	8260C	19.0	20.0	95	70-127
Chlorobenzene	8260C	19.3	20.0	97	80-121
Chloroethane	8260C	17.5	20.0	87	62-131
Chloroform	8260C	17.9	20.0	90	79-120
Chloromethane	8260C	16.9	20.0	85	65-135
Dibromochloromethane	8260C	19.1	20.0	96	72-128
Dichloromethane	8260C	17.5	20.0	88	73-122
Ethylbenzene	8260C	19.8	20.0	99	76-120
Styrene	8260C	20.1	20.0	100	80-124
Tetrachloroethene (PCE)	8260C	20.5	20.0	102	72-125
Toluene	8260C	19.6	20.0	98	79-119
Trichloroethene (TCE)	8260C	19.7	20.0	98	74-122
Vinyl Acetate	8260C	17.5	20.0	87	52-174
Vinyl Chloride	8260C	17.4	20.0	87	74-159
cis-1,2-Dichloroethene	8260C	19.1	20.0	95	80-121
cis-1,3-Dichloropropene	8260C	19.0	20.0	95	77-122
trans-1,2-Dichloroethene	8260C	18.7	20.0	94	73-118

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844**Date Analyzed:** 06/26/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1906455-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
trans-1,3-Dichloropropene	8260C	19.6	20.0	98	71-133

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/27/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906551-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	18.7	20.0	93	75-125
1,1,2,2-Tetrachloroethane	8260C	20.1	20.0	101	78-126
1,1,2-Trichloroethane	8260C	19.6	20.0	98	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	17.8	20.0	89	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.0	20.0	95	71-118
1,2-Dichloroethane	8260C	17.1	20.0	86	71-127
1,2-Dichloropropane	8260C	19.1	20.0	95	80-119
2-Butanone (MEK)	8260C	17.0	20.0	85	61-137
2-Hexanone	8260C	18.1	20.0	90	63-124
4-Methyl-2-pentanone	8260C	18.2	20.0	91	66-124
Acetone	8260C	17.8	20.0	89	40-161
Benzene	8260C	19.2	20.0	96	79-119
Bromodichloromethane	8260C	18.2	20.0	91	81-123
Bromoform	8260C	18.0	20.0	90	65-146
Bromomethane	8260C	19.7	20.0	99	42-166
Carbon Disulfide	8260C	16.9	20.0	84	66-128
Carbon Tetrachloride	8260C	19.7	20.0	98	70-127
Chlorobenzene	8260C	19.7	20.0	99	80-121
Chloroethane	8260C	16.2	20.0	81	62-131
Chloroform	8260C	18.0	20.0	90	79-120
Chloromethane	8260C	17.8	20.0	89	65-135
Dibromochloromethane	8260C	19.8	20.0	99	72-128
Dichloromethane	8260C	17.7	20.0	88	73-122
Ethylbenzene	8260C	19.2	20.0	96	76-120
Styrene	8260C	20.3	20.0	102	80-124
Tetrachloroethene (PCE)	8260C	20.1	20.0	100	72-125
Toluene	8260C	20.1	20.0	101	79-119
Trichloroethene (TCE)	8260C	19.2	20.0	96	74-122
Vinyl Acetate	8260C	19.1	20.0	95	52-174
Vinyl Chloride	8260C	18.3	20.0	91	74-159
cis-1,2-Dichloroethene	8260C	20.1	20.0	100	80-121
cis-1,3-Dichloropropene	8260C	19.7	20.0	99	77-122
trans-1,2-Dichloroethene	8260C	19.7	20.0	99	73-118

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/27/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906551-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
trans-1,3-Dichloropropene	8260C	20.1	20.0	101	71-133

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:06/26/19 08:50

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\062619\P28180.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 640886

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.18	18854	Pass
75	95	30	60	44.97	55869	Pass
95	95	100	100	100.00	124226	Pass
96	95	5	9	6.69	8314	Pass
173	174	0	2	0.86	1002	Pass
174	95	50	120	94.29	117138	Pass
175	174	5	9	7.24	8485	Pass
176	174	95	101	96.77	113358	Pass
177	176	5	9	6.63	7512	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1906455-02	I:\ACQUDATA\msvoa12\Data\062619\P28182.D\	06/26/19 09:48	
Lab Control Sample	RQ1906455-03	I:\ACQUDATA\msvoa12\Data\062619\P28183.D\	06/26/19 10:20	
Method Blank	RQ1906455-04	I:\ACQUDATA\msvoa12\Data\062619\P28185.D\	06/26/19 11:17	
RB-9954-061919-SG-002	R1905844-001	I:\ACQUDATA\msvoa12\Data\062619\P28196.D\	06/26/19 15:24	
WG-9954-061919-SG-031	R1905844-003	I:\ACQUDATA\msvoa12\Data\062619\P28197.D\	06/26/19 15:46	
WG-9954-061919-SG-032	R1905844-004	I:\ACQUDATA\msvoa12\Data\062619\P28198.D\	06/26/19 16:08	
WG-9954-061919-SG-033	R1905844-005	I:\ACQUDATA\msvoa12\Data\062619\P28199.D\	06/26/19 16:30	
WG-9954-061919-SG-034	R1905844-006	I:\ACQUDATA\msvoa12\Data\062619\P28200.D\	06/26/19 16:52	
WG-9954-061919-SG-035	R1905844-007	I:\ACQUDATA\msvoa12\Data\062619\P28201.D\	06/26/19 17:14	
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\msvoa12\Data\062619\P28202.D\	06/26/19 17:36	
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\msvoa12\Data\062619\P28203.D\	06/26/19 17:57	

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:06/27/19 11:18

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\062719\P28214.D\
Instrument ID: R-MS-12

Analytical Method: 8260C
Analysis Lot: 641190

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	15.15	19369	Pass
75	95	30	60	43.28	55350	Pass
95	95	100	100	100.00	127886	Pass
96	95	5	9	7.05	9015	Pass
173	174	0	2	0.48	581	Pass
174	95	50	120	94.51	120864	Pass
175	174	5	9	6.91	8352	Pass
176	174	95	101	97.53	117883	Pass
177	176	5	9	6.59	7765	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1906551-02	I:\ACQUDATA\msvoa12\Data\062719\P28216.D\	06/27/19 12:19	
Lab Control Sample	RQ1906551-03	I:\ACQUDATA\msvoa12\Data\062719\P28217.D\	06/27/19 12:40	
Method Blank	RQ1906551-04	I:\ACQUDATA\msvoa12\Data\062719\P28221.D\	06/27/19 14:08	
TB-9954-061919-SG-004	R1905844-002	I:\ACQUDATA\msvoa12\Data\062719\P28230.D\	06/27/19 17:33	
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\msvoa12\Data\062719\P28231.D\	06/27/19 17:54	
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\msvoa12\Data\062719\P28232.D\	06/27/19 18:16	

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dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:06/26/19 09:48

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\062619\P28182.D\
Instrument ID: R-MS-12
Analysis Method: 8260C

Lab Code:RQ1906455-02
Analysis Lot:640886
Signal ID:1

	1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
Result ==>	291,646	11.84	590,814	6.49	525,754	9.79
Upper Limit ==>	583,292	12.34	1,181,628	6.99	1,051,508	10.29
Lower Limit ==>	145,823	11.34	295,407	5.99	262,877	9.29

Associated Analyses

Lab Control Sample	RQ1906455-03	312160	11.84	628630	6.49	559653	9.79
Method Blank	RQ1906455-04	283997	11.84	573747	6.49	514761	9.79
RB-9954-061919-SG-002	R1905844-001	284587	11.84	590113	6.49	521895	9.79
WG-9954-061919-SG-031	R1905844-003	290945	11.84	582625	6.49	520781	9.79
WG-9954-061919-SG-032	R1905844-004	293782	11.84	589634	6.49	538875	9.79
WG-9954-061919-SG-033	R1905844-005	292850	11.84	598249	6.49	531070	9.79
WG-9954-061919-SG-034	R1905844-006	275267	11.84	556696	6.50	492964	9.79
WG-9954-061919-SG-035	R1905844-007	273792	11.84	566520	6.49	503976	9.79
WG-9954-061919-SG-036	R1905844-008	352435	11.85	747690	6.50	676941	9.81
WG-9954-061919-SG-037	R1905844-009	352622	11.85	681668	6.50	650178	9.80

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:06/26/19 09:48

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\062619\P28182.D\
Instrument ID: R-MS-12
Analysis Method: 8260C

Lab Code:RQ1906455-02
Analysis Lot:640886
Signal ID:1

	Pentafluorobenzene	
	Area	RT
Result ==>	410,012	5.41
Upper Limit ==>	820,024	5.91
Lower Limit ==>	205,006	4.91

Associated Analyses

Lab Control Sample	RQ1906455-03	443231	5.41
Method Blank	RQ1906455-04	412050	5.41
RB-9954-061919-SG-002	R1905844-001	414541	5.40
WG-9954-061919-SG-031	R1905844-003	412767	5.41
WG-9954-061919-SG-032	R1905844-004	411598	5.41
WG-9954-061919-SG-033	R1905844-005	420465	5.41
WG-9954-061919-SG-034	R1905844-006	393876	5.42
WG-9954-061919-SG-035	R1905844-007	398532	5.41
WG-9954-061919-SG-036	R1905844-008	526988	5.42
WG-9954-061919-SG-037	R1905844-009	482468	5.42

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:06/27/19 12:19

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\062719\P28216.D\
Instrument ID: R-MS-12
Analysis Method: 8260C

Lab Code:RQ1906551-02
Analysis Lot:641190
Signal ID:1

	1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
Result ==>	300,210	11.84	589,555	6.49	522,869	9.79
Upper Limit ==>	600,420	12.34	1,179,110	6.99	1,045,738	10.29
Lower Limit ==>	150,105	11.34	294,778	5.99	261,435	9.29

Associated Analyses

Lab Control Sample	RQ1906551-03	287471	11.84	568532	6.49	507509	9.79
Method Blank	RQ1906551-04	290178	11.84	596876	6.49	535963	9.79
TB-9954-061919-SG-004	R1905844-002	280846	11.84	572989	6.49	503155	9.79
WG-9954-061919-SG-036	R1905844-008	285141	11.84	583780	6.49	518719	9.79
WG-9954-061919-SG-037	R1905844-009	273696	11.84	554804	6.49	495296	9.79

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:06/27/19 12:19

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa12\Data\062719\P28216.D\
Instrument ID: R-MS-12
Analysis Method: 8260C

Lab Code:RQ1906551-02
Analysis Lot:641190
Signal ID:1

	Pentafluorobenzene	
	Area	RT
Result ==>	415,321	5.41
Upper Limit ==>	830,642	5.91
Lower Limit ==>	207,661	4.91

Associated Analyses

Lab Control Sample	RQ1906551-03	402078	5.41
Method Blank	RQ1906551-04	421885	5.41
TB-9954-061919-SG-004	R1905844-002	397397	5.41
WG-9954-061919-SG-036	R1905844-008	406086	5.41
WG-9954-061919-SG-037	R1905844-009	390475	5.41



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905844

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	2,4,6-Tribromophenol	2-Fluorobiphenyl	2-Fluorophenol
		35-141	31-118	10-105
RB-9954-061919-SG-002	R1905844-001	66	61	31
WG-9954-061919-SG-031	R1905844-003	89	83	45
WG-9954-061919-SG-032	R1905844-004	97	83	44
WG-9954-061919-SG-033	R1905844-005	82	70	39
WG-9954-061919-SG-034	R1905844-006	93	78	43
WG-9954-061919-SG-035	R1905844-007	81	70	32
WG-9954-061919-SG-036	R1905844-008	0*	0*	0*
WG-9954-061919-SG-037	R1905844-009	21*	17*	5*
Method Blank	RQ1906422-01	95	70	40
Method Blank	RQ1906491-05	71	66	40
Lab Control Sample	RQ1906422-02	107	82	44
Duplicate Lab Control Sample	RQ1906422-03	106	81	45
Lab Control Sample	RQ1906491-06	86	76	44
Duplicate Lab Control Sample	RQ1906491-07	77	69	40

ALS Group USA, Corp.
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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905844

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	Nitrobenzene-d5	Phenol-d6	p-Terphenyl-d14
		31-110	10-107	10-165
RB-9954-061919-SG-002	R1905844-001	61	21	66
WG-9954-061919-SG-031	R1905844-003	87	28	91
WG-9954-061919-SG-032	R1905844-004	85	27	83
WG-9954-061919-SG-033	R1905844-005	73	24	87
WG-9954-061919-SG-034	R1905844-006	83	27	86
WG-9954-061919-SG-035	R1905844-007	75	22	80
WG-9954-061919-SG-036	R1905844-008	0*	0*	0*
WG-9954-061919-SG-037	R1905844-009	14*	4*	15
Method Blank	RQ1906422-01	79	27	103
Method Blank	RQ1906491-05	68	26	88
Lab Control Sample	RQ1906422-02	90	30	91
Duplicate Lab Control Sample	RQ1906422-03	87	31	88
Lab Control Sample	RQ1906491-06	73	29	90
Duplicate Lab Control Sample	RQ1906491-07	68	26	75

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/28/19 11:04
Date Extracted: 06/26/19

Method Blank Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Method Blank **Instrument ID:** R-MS-54
Lab Code: RQ1906422-01 **File ID:** I:\ACQUDATA\5973D\Data\062819\BS190.D\
Analysis Method: 8270D **Analysis Lot:** 641477,641499,641500,642031,642032,643209
Prep Method: EPA 3510C **Extraction Lot:** 339396

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906422-02	I:\ACQUDATA\5973D\Data\062819\BS191.D\	06/28/19 11:35
Duplicate Lab Control Sample	RQ1906422-03	I:\ACQUDATA\5973D\Data\062819\BS192.D\	06/28/19 12:15
WG-9954-061919-SG-031	R1905844-003	I:\ACQUDATA\5973D\Data\070119\BS250.D\	07/01/19 13:23
WG-9954-061919-SG-032	R1905844-004	I:\ACQUDATA\5973D\Data\070119\BS251.D\	07/01/19 13:55
WG-9954-061919-SG-033	R1905844-005	I:\ACQUDATA\5973D\Data\070119\BS252.D\	07/01/19 14:26
WG-9954-061919-SG-034	R1905844-006	I:\ACQUDATA\5973D\Data\070119\BS253.D\	07/01/19 14:57
WG-9954-061919-SG-035	R1905844-007	I:\ACQUDATA\5973D\Data\070119\BS254.D\	07/01/19 15:29
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\5973D\Data\070819\BS367.D\	07/08/19 11:08
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\5973D\Data\071519\BS495.D\	07/15/19 23:37

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 07/02/19 23:09
Date Extracted: 06/27/19

Method Blank Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Method Blank **Instrument ID:** R-MS-54
Lab Code: RQ1906491-05 **File ID:** I:\ACQUDATA\5973D\Data\070219\BS312.D\
Analysis Method: 8270D **Analysis Lot:** 641477,641499,641500,642031,642032,643209
Prep Method: EPA 3510C **Extraction Lot:** 339517

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906491-06	I:\ACQUDATA\5973D\Data\070219\BS313.D\	07/02/19 23:37
Duplicate Lab Control Sample	RQ1906491-07	I:\ACQUDATA\5973D\Data\070219\BS314.D\	07/03/19 00:07
RB-9954-061919-SG-002	R1905844-001	I:\ACQUDATA\5973D\Data\070219\BS333.D\	07/03/19 09:11

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906422-01

Service Request: R1905844
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	06/28/19 11:04	6/26/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
2,4-Dichlorophenol	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
2,4-Dimethylphenol	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
2,4-Dinitrophenol	50 U	50	7.0	1	06/28/19 11:04	6/26/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	06/28/19 11:04	6/26/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	06/28/19 11:04	6/26/19	
2-Chloronaphthalene	10 U	10	1.1	1	06/28/19 11:04	6/26/19	
2-Chlorophenol	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
2-Methylnaphthalene	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
2-Methylphenol	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
2-Nitroaniline	50 U	50	2.4	1	06/28/19 11:04	6/26/19	
2-Nitrophenol	10 U	10	1.5	1	06/28/19 11:04	6/26/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
3-Nitroaniline	50 U	50	1.8	1	06/28/19 11:04	6/26/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	06/28/19 11:04	6/26/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	06/28/19 11:04	6/26/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	06/28/19 11:04	6/26/19	
4-Chloroaniline	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	06/28/19 11:04	6/26/19	
4-Nitroaniline	50 U	50	1.9	1	06/28/19 11:04	6/26/19	
4-Nitrophenol	50 U	50	3.0	1	06/28/19 11:04	6/26/19	
Acenaphthene	10 U	10	1.6	1	06/28/19 11:04	6/26/19	
Acenaphthylene	10 U	10	1.3	1	06/28/19 11:04	6/26/19	
Anthracene	10 U	10	1.4	1	06/28/19 11:04	6/26/19	
Benz(a)anthracene	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
Benzo(a)pyrene	10 U	10	1.3	1	06/28/19 11:04	6/26/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	06/28/19 11:04	6/26/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	06/28/19 11:04	6/26/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	06/28/19 11:04	6/26/19	
Benzoic Acid	50 U	50	6.0	1	06/28/19 11:04	6/26/19	
Benzyl Alcohol	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	06/28/19 11:04	6/26/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	06/28/19 11:04	6/26/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
Chrysene	10 U	10	1.5	1	06/28/19 11:04	6/26/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906422-01

Service Request: R1905844
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	06/28/19 11:04	6/26/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	06/28/19 11:04	6/26/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	06/28/19 11:04	6/26/19	
Dibenzofuran	10 U	10	1.3	1	06/28/19 11:04	6/26/19	
Diethyl Phthalate	10 U	10	1.2	1	06/28/19 11:04	6/26/19	
Dimethyl Phthalate	10 U	10	1.5	1	06/28/19 11:04	6/26/19	
Fluoranthene	10 U	10	1.4	1	06/28/19 11:04	6/26/19	
Fluorene	10 U	10	1.6	1	06/28/19 11:04	6/26/19	
Hexachlorobenzene	10 U	10	1.4	1	06/28/19 11:04	6/26/19	
Hexachlorobutadiene	10 U	10	1.1	1	06/28/19 11:04	6/26/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	06/28/19 11:04	6/26/19	
Hexachloroethane	10 U	10	1.2	1	06/28/19 11:04	6/26/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	06/28/19 11:04	6/26/19	
Isophorone	10 U	10	1.2	1	06/28/19 11:04	6/26/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	06/28/19 11:04	6/26/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	06/28/19 11:04	6/26/19	
Naphthalene	10 U	10	1.1	1	06/28/19 11:04	6/26/19	
Nitrobenzene	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	06/28/19 11:04	6/26/19	
Phenanthrene	10 U	10	1.6	1	06/28/19 11:04	6/26/19	
Phenol	10 U	10	1.0	1	06/28/19 11:04	6/26/19	
Pyrene	10 U	10	1.8	1	06/28/19 11:04	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	95	35 - 141	06/28/19 11:04	
2-Fluorobiphenyl	70	31 - 118	06/28/19 11:04	
2-Fluorophenol	40	10 - 105	06/28/19 11:04	
Nitrobenzene-d5	79	31 - 110	06/28/19 11:04	
Phenol-d6	27	10 - 107	06/28/19 11:04	
p-Terphenyl-d14	103	10 - 165	06/28/19 11:04	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906491-05

Service Request: R1905844
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	07/02/19 23:09	6/27/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
2,4-Dichlorophenol	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
2,4-Dimethylphenol	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
2,4-Dinitrophenol	50 U	50	7.0	1	07/02/19 23:09	6/27/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	07/02/19 23:09	6/27/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	07/02/19 23:09	6/27/19	
2-Chloronaphthalene	10 U	10	1.1	1	07/02/19 23:09	6/27/19	
2-Chlorophenol	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
2-Methylnaphthalene	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
2-Methylphenol	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
2-Nitroaniline	50 U	50	2.4	1	07/02/19 23:09	6/27/19	
2-Nitrophenol	10 U	10	1.5	1	07/02/19 23:09	6/27/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
3-Nitroaniline	50 U	50	1.8	1	07/02/19 23:09	6/27/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	07/02/19 23:09	6/27/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	07/02/19 23:09	6/27/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	07/02/19 23:09	6/27/19	
4-Chloroaniline	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	07/02/19 23:09	6/27/19	
4-Nitroaniline	50 U	50	1.9	1	07/02/19 23:09	6/27/19	
4-Nitrophenol	50 U	50	3.0	1	07/02/19 23:09	6/27/19	
Acenaphthene	10 U	10	1.6	1	07/02/19 23:09	6/27/19	
Acenaphthylene	10 U	10	1.3	1	07/02/19 23:09	6/27/19	
Anthracene	10 U	10	1.4	1	07/02/19 23:09	6/27/19	
Benz(a)anthracene	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
Benzo(a)pyrene	10 U	10	1.3	1	07/02/19 23:09	6/27/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	07/02/19 23:09	6/27/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	07/02/19 23:09	6/27/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	07/02/19 23:09	6/27/19	
Benzoic Acid	50 U	50	6.0	1	07/02/19 23:09	6/27/19	
Benzyl Alcohol	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	07/02/19 23:09	6/27/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	07/02/19 23:09	6/27/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
Chrysene	10 U	10	1.5	1	07/02/19 23:09	6/27/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906491-05

Service Request: R1905844
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	07/02/19 23:09	6/27/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	07/02/19 23:09	6/27/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	07/02/19 23:09	6/27/19	
Dibenzofuran	10 U	10	1.3	1	07/02/19 23:09	6/27/19	
Diethyl Phthalate	10 U	10	1.2	1	07/02/19 23:09	6/27/19	
Dimethyl Phthalate	10 U	10	1.5	1	07/02/19 23:09	6/27/19	
Fluoranthene	10 U	10	1.4	1	07/02/19 23:09	6/27/19	
Fluorene	10 U	10	1.6	1	07/02/19 23:09	6/27/19	
Hexachlorobenzene	10 U	10	1.4	1	07/02/19 23:09	6/27/19	
Hexachlorobutadiene	10 U	10	1.1	1	07/02/19 23:09	6/27/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	07/02/19 23:09	6/27/19	
Hexachloroethane	10 U	10	1.2	1	07/02/19 23:09	6/27/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	07/02/19 23:09	6/27/19	
Isophorone	10 U	10	1.2	1	07/02/19 23:09	6/27/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	07/02/19 23:09	6/27/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	07/02/19 23:09	6/27/19	
Naphthalene	10 U	10	1.1	1	07/02/19 23:09	6/27/19	
Nitrobenzene	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	07/02/19 23:09	6/27/19	
Phenanthrene	10 U	10	1.6	1	07/02/19 23:09	6/27/19	
Phenol	10 U	10	1.0	1	07/02/19 23:09	6/27/19	
Pyrene	10 U	10	1.8	1	07/02/19 23:09	6/27/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	71	35 - 141	07/02/19 23:09	
2-Fluorobiphenyl	66	31 - 118	07/02/19 23:09	
2-Fluorophenol	40	10 - 105	07/02/19 23:09	
Nitrobenzene-d5	68	31 - 110	07/02/19 23:09	
Phenol-d6	26	10 - 107	07/02/19 23:09	
p-Terphenyl-d14	88	10 - 165	07/02/19 23:09	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/28/19 11:35
Date Extracted: 06/26/19

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample **Instrument ID:** R-MS-54
Lab Code: RQ1906422-02 **File ID:** I:\ACQUDATA\5973D\Data\062819\BS191.D\
Analysis Method: 8270D **Analysis Lot:** 641477,641499,641500,642031,642032,643209
Prep Method: EPA 3510C **Extraction Lot:** 339396

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906422-01	I:\ACQUDATA\5973D\Data\062819\BS190.D\	06/28/19 11:04
Duplicate Lab Control Sample	RQ1906422-03	I:\ACQUDATA\5973D\Data\062819\BS192.D\	06/28/19 12:15
WG-9954-061919-SG-031	R1905844-003	I:\ACQUDATA\5973D\Data\070119\BS250.D\	07/01/19 13:23
WG-9954-061919-SG-032	R1905844-004	I:\ACQUDATA\5973D\Data\070119\BS251.D\	07/01/19 13:55
WG-9954-061919-SG-033	R1905844-005	I:\ACQUDATA\5973D\Data\070119\BS252.D\	07/01/19 14:26
WG-9954-061919-SG-034	R1905844-006	I:\ACQUDATA\5973D\Data\070119\BS253.D\	07/01/19 14:57
WG-9954-061919-SG-035	R1905844-007	I:\ACQUDATA\5973D\Data\070119\BS254.D\	07/01/19 15:29
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\5973D\Data\070819\BS367.D\	07/08/19 11:08
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\5973D\Data\071519\BS495.D\	07/15/19 23:37

ALS Group USA, Corp.

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 07/02/19 23:37
Date Extracted: 06/27/19

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample **Instrument ID:** R-MS-54
Lab Code: RQ1906491-06 **File ID:** I:\ACQUDATA\5973D\Data\070219\BS313.D\
Analysis Method: 8270D **Analysis Lot:** 641477,641499,641500,642031,642032,643209
Prep Method: EPA 3510C **Extraction Lot:** 339517

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906491-05	I:\ACQUDATA\5973D\Data\070219\BS312.D\	07/02/19 23:09
Duplicate Lab Control Sample	RQ1906491-07	I:\ACQUDATA\5973D\Data\070219\BS314.D\	07/03/19 00:07
RB-9954-061919-SG-002	R1905844-001	I:\ACQUDATA\5973D\Data\070219\BS333.D\	07/03/19 09:11

ALS Group USA, Corp.
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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/28/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample RQ1906422-02					Duplicate Lab Control Sample RQ1906422-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	8270D	35.0	50.0	70	31.2	50.0	62	10-127	12	30
1,2-Dichlorobenzene	8270D	33.5	50.0	67	29.7	50.0	59	23-130	13	30
1,3-Dichlorobenzene	8270D	31.9	50.0	64	28.0	50.0	56	21-90	13	30
1,4-Dichlorobenzene	8270D	31.8	50.0	64	28.0	50.0	56	10-124	13	30
2,4,5-Trichlorophenol	8270D	54.4	50.0	109	54.7	50.0	109	48-134	<1	30
2,4,6-Trichlorophenol	8270D	53.3	50.0	107	54.1	50.0	108	44-135	<1	30
2,4-Dichlorophenol	8270D	44.8	50.0	90	45.4	50.0	91	48-127	1	30
2,4-Dimethylphenol	8270D	45.9	50.0	92	47.2	50.0	94	59-113	2	30
2,4-Dinitrophenol	8270D	62.4	50.0	125	62.1	50.0	124	21-154	<1	30
2,4-Dinitrotoluene	8270D	58.2	50.0	116	59.3	50.0	119	54-130	3	30
2,6-Dinitrotoluene	8270D	54.1	50.0	108	55.8	50.0	112	51-127	4	30
2-Chloronaphthalene	8270D	35.5	50.0	71	33.4	50.0	67	40-108	6	30
2-Chlorophenol	8270D	37.7	50.0	75	37.4	50.0	75	42-112	<1	30
2-Methylnaphthalene	8270D	36.8	50.0	74	34.2	50.0	68	34-102	8	30
2-Methylphenol	8270D	34.8	50.0	70	35.9	50.0	72	47-100	3	30
2-Nitroaniline	8270D	44.0 J	50.0	88	45.7 J	50.0	91	52-133	3	30
2-Nitrophenol	8270D	48.7	50.0	97	48.1	50.0	96	43-131	1	30
3,3'-Dichlorobenzidine	8270D	59.2	50.0	118	55.9	50.0	112	43-126	5	30
3- and 4-Methylphenol Coelution	8270D	34.3	50.0	69	35.6	50.0	71	40-92	3	30
3-Nitroaniline	8270D	48.4 J	50.0	97	49.3 J	50.0	99	42-111	2	30
4,6-Dinitro-2-methylphenol	8270D	62.3	50.0	125	62.3	50.0	125	36-152	<1	30
4-Bromophenyl Phenyl Ether	8270D	45.3	50.0	91	45.3	50.0	91	48-114	<1	30
4-Chloro-3-methylphenol	8270D	47.6	50.0	95	48.9	50.0	98	52-113	3	30
4-Chloroaniline	8270D	39.2	50.0	78	40.9	50.0	82	44-109	5	30
4-Chlorophenyl Phenyl Ether	8270D	45.2	50.0	90	45.3	50.0	91	51-107	1	30
4-Nitroaniline	8270D	47.5 J	50.0	95	48.2 J	50.0	96	54-133	1	30
4-Nitrophenol	8270D	24.3 J	50.0	49	23.9 J	50.0	48	10-126	2	30
Acenaphthene	8270D	43.7	50.0	87	42.2	50.0	84	52-107	4	30
Acenaphthylene	8270D	44.4	50.0	89	42.8	50.0	86	55-109	3	30
Anthracene	8270D	52.3	50.0	105	50.9	50.0	102	55-116	3	30
Benz(a)anthracene	8270D	53.9	50.0	108	54.0	50.0	108	61-121	<1	30
Benzo(a)pyrene	8270D	51.7	50.0	103	52.1	50.0	104	44-114	<1	30
Benzo(b)fluoranthene	8270D	51.7	50.0	103	51.8	50.0	104	62-115	<1	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 06/28/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906422-02

Duplicate Lab Control Sample
RQ1906422-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(g,h,i)perylene	8270D	57.3	50.0	115	55.8	50.0	112	63-136	3	30
Benzo(k)fluoranthene	8270D	53.5	50.0	107	54.4	50.0	109	49-133	2	30
Benzoic Acid	8270D	65.6	150	44	68.2	150	45	10-94	2	30
Benzyl Alcohol	8270D	39.2	50.0	78	42.0	50.0	84	31-109	7	30
2,2'-Oxybis(1-chloropropane)	8270D	41.0	50.0	82	39.6	50.0	79	32-122	4	30
Bis(2-chloroethoxy)methane	8270D	47.0	50.0	94	47.4	50.0	95	55-110	1	30
Bis(2-chloroethyl) Ether	8270D	41.8	50.0	84	42.4	50.0	85	46-102	1	30
Bis(2-ethylhexyl) Phthalate	8270D	56.0	50.0	112	56.5	50.0	113	51-132	<1	30
Butyl Benzyl Phthalate	8270D	57.2	50.0	114	60.2	50.0	120	41-148	5	30
Chrysene	8270D	54.0	50.0	108	53.3	50.0	107	57-118	<1	30
Di-n-butyl Phthalate	8270D	59.1	50.0	118	58.1	50.0	116	57-128	2	30
Di-n-octyl Phthalate	8270D	54.7	50.0	109	55.5	50.0	111	62-124	2	30
Dibenz(a,h)anthracene	8270D	46.3	50.0	93	45.3	50.0	91	54-135	2	30
Dibenzofuran	8270D	44.9	50.0	90	44.5	50.0	89	55-110	1	30
Diethyl Phthalate	8270D	54.7	50.0	109	56.0	50.0	112	53-113	3	30
Dimethyl Phthalate	8270D	49.7	50.0	99	50.5	50.0	101	51-112	2	30
Fluoranthene	8270D	52.9	50.0	106	52.0	50.0	104	66-127	2	30
Fluorene	8270D	46.0	50.0	92	46.3	50.0	93	54-106	1	30
Hexachlorobenzene	8270D	47.4	50.0	95	46.6	50.0	93	53-123	2	30
Hexachlorobutadiene	8270D	37.1	50.0	74	33.0	50.0	66	16-95	11	30
Hexachlorocyclopentadiene	8270D	20.5	50.0	41	19.5	50.0	39	10-99	5	30
Hexachloroethane	8270D	31.6	50.0	63	27.1	50.0	54	15-92	15	30
Indeno(1,2,3-cd)pyrene	8270D	54.5	50.0	109	53.4	50.0	107	62-137	2	30
Isophorone	8270D	46.9	50.0	94	46.9	50.0	94	50-116	<1	30
N-Nitrosodi-n-propylamine	8270D	45.4	50.0	91	45.6	50.0	91	49-115	<1	30
N-Nitrosodiphenylamine	8270D	49.6	50.0	99	48.8	50.0	98	45-123	1	30
Naphthalene	8270D	37.2	50.0	74	34.0	50.0	68	38-99	8	30
Nitrobenzene	8270D	45.1	50.0	90	44.6	50.0	89	46-108	1	30
Pentachlorophenol (PCP)	8270D	65.2	50.0	130	65.7	50.0	131	29-164	<1	30
Phenanthrene	8270D	49.5	50.0	99	49.1	50.0	98	58-118	1	30
Phenol	8270D	17.6	50.0	35	18.9	50.0	38	10-113	8	30
Pyrene	8270D	53.8	50.0	108	54.0	50.0	108	61-122	<1	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 07/02/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1906491-06					RQ1906491-07					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	8270D	27.7	50.0	55	24.8	50.0	50	10-127	10	30
1,2-Dichlorobenzene	8270D	26.5	50.0	53	23.1	50.0	46	23-130	14	30
1,3-Dichlorobenzene	8270D	26.5	50.0	53	23.1	50.0	46	21-90	14	30
1,4-Dichlorobenzene	8270D	26.6	50.0	53	22.9	50.0	46	10-124	14	30
2,4,5-Trichlorophenol	8270D	45.9	50.0	92	41.7	50.0	83	48-134	10	30
2,4,6-Trichlorophenol	8270D	45.0	50.0	90	40.5	50.0	81	44-135	11	30
2,4-Dichlorophenol	8270D	39.4	50.0	79	37.3	50.0	75	48-127	5	30
2,4-Dimethylphenol	8270D	42.7	50.0	85	38.8	50.0	78	59-113	9	30
2,4-Dinitrophenol	8270D	48.2 J	50.0	96	46.2 J	50.0	92	21-154	4	30
2,4-Dinitrotoluene	8270D	50.4	50.0	101	44.6	50.0	89	54-130	13	30
2,6-Dinitrotoluene	8270D	48.3	50.0	97	43.3	50.0	87	51-127	11	30
2-Chloronaphthalene	8270D	34.1	50.0	68	29.6	50.0	59	40-108	14	30
2-Chlorophenol	8270D	35.0	50.0	70	32.4	50.0	65	42-112	7	30
2-Methylnaphthalene	8270D	30.3	50.0	61	26.5	50.0	53	34-102	14	30
2-Methylphenol	8270D	33.2	50.0	66	31.0	50.0	62	47-100	6	30
2-Nitroaniline	8270D	47.1 J	50.0	94	42.5 J	50.0	85	52-133	10	30
2-Nitrophenol	8270D	39.3	50.0	79	36.4	50.0	73	43-131	8	30
3,3'-Dichlorobenzidine	8270D	46.9	50.0	94	41.1	50.0	82	43-126	14	30
3- and 4-Methylphenol Coelution	8270D	29.6	50.0	59	28.3	50.0	57	40-92	3	30
3-Nitroaniline	8270D	43.4 J	50.0	87	38.3 J	50.0	77	42-111	12	30
4,6-Dinitro-2-methylphenol	8270D	44.9 J	50.0	90	40.8 J	50.0	82	36-152	9	30
4-Bromophenyl Phenyl Ether	8270D	37.8	50.0	76	33.9	50.0	68	48-114	11	30
4-Chloro-3-methylphenol	8270D	41.8	50.0	84	38.5	50.0	77	52-113	9	30
4-Chloroaniline	8270D	36.9	50.0	74	34.7	50.0	69	44-109	7	30
4-Chlorophenyl Phenyl Ether	8270D	40.0	50.0	80	34.2	50.0	68	51-107	16	30
4-Nitroaniline	8270D	45.8 J	50.0	92	40.0 J	50.0	80	54-133	14	30
4-Nitrophenol	8270D	21.3 J	50.0	43	18.7 J	50.0	37	10-126	15	30
Acenaphthene	8270D	36.7	50.0	73	31.8	50.0	64	52-107	13	30
Acenaphthylene	8270D	37.0	50.0	74	31.8	50.0	64	55-109	14	30
Anthracene	8270D	45.6	50.0	91	39.9	50.0	80	55-116	13	30
Benz(a)anthracene	8270D	44.0	50.0	88	39.3	50.0	79	61-121	11	30
Benzo(a)pyrene	8270D	45.3	50.0	91	41.7	50.0	83	44-114	9	30
Benzo(b)fluoranthene	8270D	42.8	50.0	86	39.5	50.0	79	62-115	8	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 07/02/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906491-06

Duplicate Lab Control Sample
RQ1906491-07

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(g,h,i)perylene	8270D	45.2	50.0	90	40.7	50.0	81	63-136	11	30
Benzo(k)fluoranthene	8270D	47.4	50.0	95	43.6	50.0	87	49-133	9	30
Benzoic Acid	8270D	53.1	150	35	51.5	150	34	10-94	3	30
Benzyl Alcohol	8270D	36.6	50.0	73	34.0	50.0	68	31-109	7	30
2,2'-Oxybis(1-chloropropane)	8270D	34.4	50.0	69	31.2	50.0	62	32-122	11	30
Bis(2-chloroethoxy)methane	8270D	40.5	50.0	81	37.7	50.0	75	55-110	8	30
Bis(2-chloroethyl) Ether	8270D	37.0	50.0	74	33.6	50.0	67	46-102	10	30
Bis(2-ethylhexyl) Phthalate	8270D	51.7	50.0	103	46.7	50.0	93	51-132	10	30
Butyl Benzyl Phthalate	8270D	48.7	50.0	97	43.6	50.0	87	41-148	11	30
Chrysene	8270D	44.0	50.0	88	39.3	50.0	79	57-118	11	30
Di-n-butyl Phthalate	8270D	49.5	50.0	99	43.4	50.0	87	57-128	13	30
Di-n-octyl Phthalate	8270D	50.9	50.0	102	47.8	50.0	96	62-124	6	30
Dibenz(a,h)anthracene	8270D	39.5	50.0	79	34.4	50.0	69	54-135	14	30
Dibenzofuran	8270D	40.5	50.0	81	35.0	50.0	70	55-110	15	30
Diethyl Phthalate	8270D	48.2	50.0	96	43.2	50.0	86	53-113	11	30
Dimethyl Phthalate	8270D	44.0	50.0	88	39.6	50.0	79	51-112	11	30
Fluoranthene	8270D	43.7	50.0	87	38.2	50.0	76	66-127	13	30
Fluorene	8270D	39.8	50.0	80	34.4	50.0	69	54-106	15	30
Hexachlorobenzene	8270D	41.7	50.0	83	36.4	50.0	73	53-123	13	30
Hexachlorobutadiene	8270D	28.9	50.0	58	26.1	50.0	52	16-95	11	30
Hexachlorocyclopentadiene	8270D	17.6	50.0	35	15.9	50.0	32	10-99	9	30
Hexachloroethane	8270D	25.5	50.0	51	22.0	50.0	44	15-92	15	30
Indeno(1,2,3-cd)pyrene	8270D	44.5	50.0	89	40.5	50.0	81	62-137	9	30
Isophorone	8270D	42.3	50.0	85	39.3	50.0	79	50-116	7	30
N-Nitrosodi-n-propylamine	8270D	39.7	50.0	79	36.8	50.0	74	49-115	7	30
N-Nitrosodiphenylamine	8270D	49.8	50.0	100	43.9	50.0	88	45-123	13	30
Naphthalene	8270D	29.8	50.0	60	26.1	50.0	52	38-99	14	30
Nitrobenzene	8270D	37.4	50.0	75	34.8	50.0	70	46-108	7	30
Pentachlorophenol (PCP)	8270D	57.8	50.0	116	51.9	50.0	104	29-164	11	30
Phenanthrene	8270D	41.5	50.0	83	36.7	50.0	73	58-118	13	30
Phenol	8270D	17.3	50.0	35	16.1	50.0	32	10-113	9	30
Pyrene	8270D	45.3	50.0	91	40.1	50.0	80	61-122	13	30

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:06/28/19 07:25

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\062819\BS188.D\
Instrument ID: R-MS-54

Analytical Method: 8270D
Analysis Lot: 641477

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	32.60	56470	Pass
68	69	0.00	2	1.42	1004	Pass
69	198	0.00	100	40.88	70824	Pass
70	69	0.00	2	0.41	292	Pass
127	198	10	80	51.32	88907	Pass
197	198	0.00	2	0.66	1150	Pass
198	198	100	100	100.00	173245	Pass
199	198	5	9	7.00	12125	Pass
275	198	10	60	20.10	34819	Pass
365	198	1	100	1.64	2839	Pass
441	442	0.01	24	18.71	22415	Pass
442	442	100	100	100.00	119773	Pass
443	442	15	24	20.33	24346	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1906662-02	I:\ACQUDATA\5973D\Data\062819\BS189.D\	06/28/19 10:25	
Method Blank	RQ1906422-01	I:\ACQUDATA\5973D\Data\062819\BS190.D\	06/28/19 11:04	
Lab Control Sample	RQ1906422-02	I:\ACQUDATA\5973D\Data\062819\BS191.D\	06/28/19 11:35	
Duplicate Lab Control Sample	RQ1906422-03	I:\ACQUDATA\5973D\Data\062819\BS192.D\	06/28/19 12:15	

ALS Group USA, Corp.
dba ALS Environmental

QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/01/19 09:33

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070119\BS243.D\
Instrument ID: R-MS-54

Analytical Method: 8270D
Analysis Lot: 641499

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	32.83	61225	Pass
68	69	0.00	2	1.48	1205	Pass
69	198	0.00	100	43.63	81357	Pass
70	69	0.00	2	0.74	602	Pass
127	198	10	80	53.16	99141	Pass
197	198	0.00	2	0.32	602	Pass
198	198	100	100	100.00	186488	Pass
199	198	5	9	6.65	12396	Pass
275	198	10	60	20.43	38102	Pass
365	198	1	100	2.08	3888	Pass
441	442	0.01	24	18.13	22892	Pass
442	442	100	100	100.00	126269	Pass
443	442	15	24	18.60	23490	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1906773-02	I:\ACQUDATA\5973D\Data\070119\BS244.D\	07/01/19 10:13	
WG-9954-061919-SG-031	R1905844-003	I:\ACQUDATA\5973D\Data\070119\BS250.D\	07/01/19 13:23	
WG-9954-061919-SG-032	R1905844-004	I:\ACQUDATA\5973D\Data\070119\BS251.D\	07/01/19 13:55	
WG-9954-061919-SG-033	R1905844-005	I:\ACQUDATA\5973D\Data\070119\BS252.D\	07/01/19 14:26	
WG-9954-061919-SG-034	R1905844-006	I:\ACQUDATA\5973D\Data\070119\BS253.D\	07/01/19 14:57	
WG-9954-061919-SG-035	R1905844-007	I:\ACQUDATA\5973D\Data\070119\BS254.D\	07/01/19 15:29	

ALS Group USA, Corp.
dba ALS Environmental

QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/02/19 13:00

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070219\BS295.D\
Instrument ID: R-MS-54

Analytical Method: 8270D
Analysis Lot: 641500

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.71	54000	Pass
68	69	0.00	2	1.39	1032	Pass
69	198	0.00	100	42.21	74220	Pass
70	69	0.00	2	0.19	143	Pass
127	198	10	80	52.81	92861	Pass
197	198	0.00	2	0.29	509	Pass
198	198	100	100	100.00	175853	Pass
199	198	5	9	6.86	12057	Pass
275	198	10	60	20.90	36748	Pass
365	198	1	100	2.00	3513	Pass
441	442	0.01	24	17.48	22533	Pass
442	442	100	100	100.00	128891	Pass
443	442	15	24	19.07	24581	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1906837-02	I:\ACQUDATA\5973D\Data\070219\BS307.D\	07/02/19 20:41	
Method Blank	RQ1906491-05	I:\ACQUDATA\5973D\Data\070219\BS312.D\	07/02/19 23:09	
Lab Control Sample	RQ1906491-06	I:\ACQUDATA\5973D\Data\070219\BS313.D\	07/02/19 23:37	
Duplicate Lab Control Sample	RQ1906491-07	I:\ACQUDATA\5973D\Data\070219\BS314.D\	07/03/19 00:07	

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/03/19 02:04

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070219\BS318.D\
Instrument ID: R-MS-54

Analytical Method: 8270D
Analysis Lot: 642031

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.90	58458	Pass
68	69	0.00	2	1.27	995	Pass
69	198	0.00	100	41.54	78584	Pass
70	69	0.00	2	0.53	414	Pass
127	198	10	80	52.58	99488	Pass
197	198	0.00	2	0.31	594	Pass
198	198	100	100	100.00	189195	Pass
199	198	5	9	6.87	13004	Pass
275	198	10	60	20.07	37973	Pass
365	198	1	100	2.05	3885	Pass
441	442	0.01	24	18.58	24840	Pass
442	442	100	100	100.00	133720	Pass
443	442	15	24	19.18	25647	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1906848-02	I:\ACQUDATA\5973D\Data\070219\BS319.D\	07/03/19 02:25	
RB-9954-061919-SG-002	R1905844-001	I:\ACQUDATA\5973D\Data\070219\BS333.D\	07/03/19 09:11	

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/08/19 09:07

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070819\BS363.D\
Instrument ID: R-MS-54

Analytical Method: 8270D
Analysis Lot: 642032

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.36	60575	Pass
68	69	0.00	2	1.27	1060	Pass
69	198	0.00	100	41.92	83626	Pass
70	69	0.00	2	0.52	435	Pass
127	198	10	80	52.36	104464	Pass
197	198	0.00	2	0.37	745	Pass
198	198	100	100	100.00	199509	Pass
199	198	5	9	6.73	13436	Pass
275	198	10	60	20.13	40155	Pass
365	198	1	100	1.94	3869	Pass
441	442	0.01	24	18.91	25843	Pass
442	442	100	100	100.00	136640	Pass
443	442	15	24	19.09	26083	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1907035-02	I:\ACQUDATA\5973D\Data\070819\BS364.D\	07/08/19 09:43	
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\5973D\Data\070819\BS367.D\	07/08/19 11:08	

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/15/19 14:08

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\071519\BS460.D\
Instrument ID: R-MS-54

Analytical Method: 8270D
Analysis Lot: 643209

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	33.24	82040	Pass
68	69	0.00	2	1.30	1340	Pass
69	198	0.00	100	41.61	102713	Pass
70	69	0.00	2	0.48	498	Pass
127	198	10	80	51.90	128103	Pass
197	198	0.00	2	0.68	1667	Pass
198	198	100	100	100.00	246848	Pass
199	198	5	9	6.36	15690	Pass
275	198	10	60	20.23	49936	Pass
365	198	1	100	1.83	4509	Pass
441	442	0.01	24	17.90	30280	Pass
442	442	100	100	100.00	169157	Pass
443	442	15	24	19.28	32608	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1907249-04	I:\ACQUDATA\5973D\Data\071519\BS462.D\	07/15/19 15:18	
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\5973D\Data\071519\BS495.D\	07/15/19 23:37	

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:06/28/19 10:25

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\062819\BS189.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1906662-02
Analysis Lot:641477
Signal ID:1

	1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
	Area	RT	Area	RT	Area	RT
Result ==>	332,078	4.69	658,055	7.56	905,452	12.25
Upper Limit ==>	664,156	5.19	1,316,110	8.06	1,810,904	12.75
Lower Limit ==>	166,039	4.19	329,028	7.06	452,726	11.75

Associated Analyses

Method Blank	RQ1906422-01	319085	4.69	646403	7.56	780785	12.24
Lab Control Sample	RQ1906422-02	337149	4.69	656713	7.56	888555	12.24
Duplicate Lab Control Sample	RQ1906422-03	330400	4.69	651805	7.56	898526	12.24

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:06/28/19 10:25

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\062819\BS189.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1906662-02
Analysis Lot:641477
Signal ID:1

	Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
	Area	RT	Area	RT	Area	RT
Result ==>	1,262,493	5.85	860,704	15.12	1,062,397	9.03
Upper Limit ==>	2,524,986	6.35	1,721,408	15.62	2,124,794	9.53
Lower Limit ==>	631,247	5.35	430,352	14.62	531,199	8.53

Associated Analyses

Method Blank	RQ1906422-01	1235358	5.85	806188	15.12	770689	9.02
Lab Control Sample	RQ1906422-02	1310554	5.85	864045	15.12	1010370	9.02
Duplicate Lab Control Sample	RQ1906422-03	1298306	5.85	839664	15.12	1040531	9.02

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/01/19 10:13

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070119\BS244.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1906773-02
Analysis Lot:641499
Signal ID:1

	1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
	Area	RT	Area	RT	Area	RT
Result ==>	377,967	4.69	737,627	7.56	1,017,758	12.26
Upper Limit ==>	755,934	5.19	1,475,254	8.06	2,035,516	12.76
Lower Limit ==>	188,984	4.19	368,814	7.06	508,879	11.76

Associated Analyses

WG-9954-061919-SG-031	R1905844-003	331454	4.69	638716	7.56	901824	12.24
WG-9954-061919-SG-032	R1905844-004	318427	4.69	632033	7.56	848414	12.24
WG-9954-061919-SG-033	R1905844-005	310344	4.69	623351	7.56	852087	12.24
WG-9954-061919-SG-034	R1905844-006	316402	4.69	625628	7.56	880749	12.24
WG-9954-061919-SG-035	R1905844-007	336931	4.69	651233	7.56	886239	12.24

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/01/19 10:13

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070119\BS244.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1906773-02
Analysis Lot:641499
Signal ID:1

	Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
	Area	RT	Area	RT	Area	RT
Result ==>	1,468,663	5.85	982,658	15.15	1,189,599	9.03
Upper Limit ==>	2,937,326	6.35	1,965,316	15.65	2,379,198	9.53
Lower Limit ==>	734,332	5.35	491,329	14.65	594,800	8.53

Associated Analyses

WG-9954-061919-SG-031	R1905844-003	1228863	5.85	861134	15.13	927849	9.02
WG-9954-061919-SG-032	R1905844-004	1204015	5.85	858163	15.13	889058	9.02
WG-9954-061919-SG-033	R1905844-005	1166215	5.85	790414	15.13	919419	9.02
WG-9954-061919-SG-034	R1905844-006	1170151	5.85	694553	15.13	941156	9.02
WG-9954-061919-SG-035	R1905844-007	1252966	5.85	831023	15.13	955492	9.02

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/02/19 20:41

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070219\BS307.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1906837-02
Analysis Lot:641500
Signal ID:1

	1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
	Area	RT	Area	RT	Area	RT
Result ==>	323,207	4.68	641,215	7.54	828,504	12.24
Upper Limit ==>	646,414	5.18	1,282,430	8.04	1,657,008	12.74
Lower Limit ==>	161,604	4.18	320,608	7.04	414,252	11.74

Associated Analyses

Method Blank	RQ1906491-05	337517	4.68	693134	7.54	891447	12.22
Lab Control Sample	RQ1906491-06	361123	4.68	687573	7.54	959429	12.23
Duplicate Lab Control Sample	RQ1906491-07	408542	4.68	795865	7.54	1106143	12.23

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/02/19 20:41

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070219\BS307.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1906837-02
Analysis Lot:641500
Signal ID:1

	Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
	Area	RT	Area	RT	Area	RT
Result ==>	1,238,183	5.84	775,911	15.11	1,014,744	9.02
Upper Limit ==>	2,476,366	6.34	1,551,822	15.61	2,029,488	9.52
Lower Limit ==>	619,092	5.34	387,956	14.61	507,372	8.52

Associated Analyses

Method Blank	RQ1906491-05	1295670	5.84	916271	15.11	782114	9.00
Lab Control Sample	RQ1906491-06	1387518	5.84	935219	15.11	1081776	9.01
Duplicate Lab Control Sample	RQ1906491-07	1570714	5.84	1008664	15.11	1257837	9.01

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/03/19 02:25

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070219\BS319.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1906848-02
Analysis Lot:642031
Signal ID:1

		1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
		Area	RT	Area	RT	Area	RT
Result ==>		342,211	4.68	681,457	7.54	862,780	12.24
Upper Limit ==>		684,422	5.18	1,362,914	8.04	1,725,560	12.74
Lower Limit ==>		171,106	4.18	340,729	7.04	431,390	11.74
Associated Analyses							
RB-9954-061919-SG-002	R1905844-001	330694	4.68	668824	7.54	911589	12.22

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/03/19 02:25

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070219\BS319.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1906848-02
Analysis Lot:642031
Signal ID:1

		Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
		Area	RT	Area	RT	Area	RT
	Result ==>	1,322,399	5.84	815,950	15.11	1,053,016	9.02
	Upper Limit ==>	2,644,798	6.34	1,631,900	15.61	2,106,032	9.52
	Lower Limit ==>	661,200	5.34	407,975	14.61	526,508	8.52
Associated Analyses							
RB-9954-061919-SG-002	R1905844-001	1249708	5.84	957133	15.10	833421	9.00

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/08/19 09:43

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070819\BS364.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1907035-02
Analysis Lot:642032
Signal ID:1

		1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
		Area	RT	Area	RT	Area	RT
	Result ==>	325,579	4.68	625,997	7.55	901,680	12.25
	Upper Limit ==>	651,158	5.18	1,251,994	8.05	1,803,360	12.75
	Lower Limit ==>	162,790	4.18	312,999	7.05	450,840	11.75
Associated Analyses							
WG-9954-061919-SG-036	R1905844-008	330783	4.68	669231	7.54	917877	12.22

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/08/19 09:43

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070819\BS364.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1907035-02
Analysis Lot:642032
Signal ID:1

		Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
		Area	RT	Area	RT	Area	RT
Result ==>		1,226,657	5.84	863,048	15.13	1,029,547	9.02
Upper Limit ==>		2,453,314	6.34	1,726,096	15.63	2,059,094	9.52
Lower Limit ==>		613,329	5.34	431,524	14.63	514,774	8.52
Associated Analyses							
WG-9954-061919-SG-036	R1905844-008	1263593	5.84	877006	15.11	845326	9.01

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/15/19 15:18

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\071519\BS462.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1907249-04
Analysis Lot:643209
Signal ID:1

		1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
		Area	RT	Area	RT	Area	RT
Result ==>		327,519	4.68	640,342	7.55	934,406	12.25
Upper Limit ==>		655,038	5.18	1,280,684	8.05	1,868,812	12.75
Lower Limit ==>		163,760	4.18	320,171	7.05	467,203	11.75
Associated Analyses							
WG-9954-061919-SG-037	R1905844-009	371271	4.68	765129	7.54	1113522	12.23

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905844
Date Analyzed:07/15/19 15:18

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\071519\BS462.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1907249-04
Analysis Lot:643209
Signal ID:1

		Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
		Area	RT	Area	RT	Area	RT
	Result ==>	1,256,376	5.84	930,459	15.14	1,027,602	9.02
	Upper Limit ==>	2,512,752	6.34	1,860,918	15.64	2,055,204	9.52
	Lower Limit ==>	628,188	5.34	465,230	14.64	513,801	8.52
Associated Analyses							
WG-9954-061919-SG-037	R1905844-009	1431240	5.84	1164656	15.13	996356	9.01



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905844

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10-164	10-147
RB-9954-061919-SG-002	R1905844-001	25	66
WG-9954-061919-SG-031	R1905844-003	64	93
WG-9954-061919-SG-032	R1905844-004	21	83
WG-9954-061919-SG-033	R1905844-005	47	75
WG-9954-061919-SG-034	R1905844-006	26	58
WG-9954-061919-SG-035	R1905844-007	18	73
WG-9954-061919-SG-036	R1905844-008	16	38
WG-9954-061919-SG-037	R1905844-009	15	44
Method Blank	RQ1906423-01	43	66
Lab Control Sample	RQ1906423-02	53	86
Duplicate Lab Control Sample	RQ1906423-03	53	84

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 07/03/19 04:59
Date Extracted: 06/26/19

Method Blank Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name: Method Blank
Lab Code: RQ1906423-01

Instrument ID:R-GC-63**File ID:**I:\ACQUDATA\7890N.net\data\070219\ae5169.D**Analysis Method:** 8081B**Analysis Lot:**642178,642187,642775**Prep Method:** EPA 3510C**Extraction Lot:**339397

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906423-02	I:\ACQUDATA\7890N.net\data\070219\ae5170.D\	07/03/19 05:17
Duplicate Lab Control Sample	RQ1906423-03	I:\ACQUDATA\7890N.net\data\070219\ae5171.D\	07/03/19 05:34
WG-9954-061919-SG-031	R1905844-003	I:\ACQUDATA\7890N.net\data\070319\ae5178.D\	07/03/19 15:06
WG-9954-061919-SG-032	R1905844-004	I:\ACQUDATA\7890N.net\data\070319\ae5179.D\	07/03/19 15:24
WG-9954-061919-SG-033	R1905844-005	I:\ACQUDATA\7890N.net\data\070319\ae5180.D\	07/03/19 15:41
WG-9954-061919-SG-035	R1905844-007	I:\ACQUDATA\7890N.net\data\070319\ae5182.D\	07/03/19 16:17
RB-9954-061919-SG-002	R1905844-001	I:\ACQUDATA\7890m\DATA\071119\ay488.D\	07/11/19 12:43
WG-9954-061919-SG-034	R1905844-006	I:\ACQUDATA\7890m\DATA\071119\ay489.D\	07/11/19 13:01
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\7890m\DATA\071119\ay490.D\	07/11/19 13:19
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\7890m\DATA\071119\ay491.D\	07/11/19 13:37

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906423-01

Service Request: R1905844
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
4,4'-DDE	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
4,4'-DDT	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Aldrin	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Dieldrin	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Endosulfan I	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Endosulfan II	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Endosulfan Sulfate	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Endrin	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Endrin Ketone	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Heptachlor	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Heptachlor Epoxide	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Methoxychlor	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 04:59	6/26/19	
alpha-BHC	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
alpha-Chlordane	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
beta-BHC	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
delta-BHC	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
gamma-BHC (Lindane)	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	
gamma-Chlordane	0.050 U	0.050	0.020	1	07/03/19 04:59	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	43	10 - 164	07/03/19 04:59	
Tetrachloro-m-xylene	66	10 - 147	07/03/19 04:59	

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 07/03/19 05:17
Date Extracted: 06/26/19

Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name: Lab Control Sample**Instrument ID:**R-GC-63**Lab Code:** RQ1906423-02**File ID:**I:\ACQUDATA\7890N.net\data\070219\ae5170.D**Analysis Method:** 8081B**Analysis Lot:**642178,642187,642775**Prep Method:** EPA 3510C**Extraction Lot:**339397

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906423-01	I:\ACQUDATA\7890N.net\data\070219\ae5169.D\	07/03/19 04:59
Duplicate Lab Control Sample	RQ1906423-03	I:\ACQUDATA\7890N.net\data\070219\ae5171.D\	07/03/19 05:34
WG-9954-061919-SG-031	R1905844-003	I:\ACQUDATA\7890N.net\data\070319\ae5178.D\	07/03/19 15:06
WG-9954-061919-SG-032	R1905844-004	I:\ACQUDATA\7890N.net\data\070319\ae5179.D\	07/03/19 15:24
WG-9954-061919-SG-033	R1905844-005	I:\ACQUDATA\7890N.net\data\070319\ae5180.D\	07/03/19 15:41
WG-9954-061919-SG-035	R1905844-007	I:\ACQUDATA\7890N.net\data\070319\ae5182.D\	07/03/19 16:17
RB-9954-061919-SG-002	R1905844-001	I:\ACQUDATA\7890m\DATA\071119\ay488.D\	07/11/19 12:43
WG-9954-061919-SG-034	R1905844-006	I:\ACQUDATA\7890m\DATA\071119\ay489.D\	07/11/19 13:01
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\7890m\DATA\071119\ay490.D\	07/11/19 13:19
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\7890m\DATA\071119\ay491.D\	07/11/19 13:37

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 07/03/19

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

Lab Control Sample RQ1906423-02					Duplicate Lab Control Sample RQ1906423-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	8081B	0.236	0.200	118	0.265	0.200	133	42-159	11	30
4,4'-DDE	8081B	0.215	0.200	107	0.236	0.200	118	47-147	10	30
4,4'-DDT	8081B	0.190	0.200	95	0.199	0.200	100	41-149	5	30
Aldrin	8081B	0.165	0.200	83	0.186	0.200	93	22-137	12	30
Dieldrin	8081B	0.217	0.200	109	0.244	0.200	122	52-144	12	30
Endosulfan I	8081B	0.213	0.200	106	0.237	0.200	118	52-136	11	30
Endosulfan II	8081B	0.234	0.200	117	0.260	0.200	130	57-138	11	30
Endosulfan Sulfate	8081B	0.212	0.200	106	0.237	0.200	119	34-156	12	30
Endrin	8081B	0.225	0.200	112	0.252	0.200	126	56-143	11	30
Endrin Ketone	8081B	0.216	0.200	108	0.246	0.200	123	59-143	13	30
Heptachlor	8081B	0.194	0.200	97	0.209	0.200	105	32-141	8	30
Heptachlor Epoxide	8081B	0.224	0.200	112	0.247	0.200	123	51-143	10	30
Methoxychlor	8081B	0.188	0.200	94	0.200	0.200	100	56-149	6	30
alpha-BHC	8081B	0.228	0.200	114	0.241	0.200	120	36-151	5	30
alpha-Chlordane	8081B	0.212	0.200	106	0.237	0.200	118	50-139	11	30
beta-BHC	8081B	0.245	0.200	122	0.264	0.200	132	55-149	8	30
delta-BHC	8081B	0.250	0.200	125	0.270	0.200	135	29-159	7	30
gamma-BHC (Lindane)	8081B	0.230	0.200	115	0.247	0.200	123	41-149	7	30
gamma-Chlordane	8081B	0.207	0.200	104	0.229	0.200	114	50-140	10	30

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844
Date Collected: 06/20/19 13:00
Date Received: 6/21/19

Sample Name: RB-9954-061919-SG-002
Lab Code: R1905844-001

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
alpha-BHC	0.020	0.55	0.60	9		1	07/11/19 12:43
delta-BHC	0.020	0.11	0.12	9		1	07/11/19 12:43
gamma-BHC (Lindane)	0.020	0.29	0.42	37		1	07/11/19 12:43

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844
Date Collected: 06/19/19 11:55
Date Received: 6/21/19

Sample Name: WG-9954-061919-SG-034
Lab Code: R1905844-006

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
alpha-BHC	0.020	0.12	0.12	<1		1	07/11/19 13:01
delta-BHC	0.020	0.046	0.046	<1	J	1	07/11/19 13:01
gamma-BHC (Lindane)	0.020	0.060	0.068	13		1	07/11/19 13:01

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 6/21/19

Sample Name: WG-9954-061919-SG-036
Lab Code: R1905844-008

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
alpha-BHC	0.40	25	27	8		20	07/11/19 13:19
beta-BHC	0.40	6.7	7.0	4		20	07/11/19 13:19
delta-BHC	0.40	7.6	8.5	11		20	07/11/19 13:19
gamma-BHC (Lindane)	0.40	4.7	6.1	26		20	07/11/19 13:19

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844
Date Collected: 06/19/19 14:50
Date Received: 6/21/19

Sample Name: WG-9954-061919-SG-037
Lab Code: R1905844-009

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
alpha-BHC	0.40	26	28	7		20	07/11/19 13:37
beta-BHC	0.40	7.5	8.3	10		20	07/11/19 13:37
delta-BHC	0.40	6.3	7.0	11		20	07/11/19 13:37
gamma-BHC (Lindane)	0.40	4.4	4.8	9		20	07/11/19 13:37

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844

Date Collected: NA

Date Received:

Sample Name: Lab Control Sample

Lab Code: RQ1906423-02

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B

Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	0.020	0.236	0.265	12		1	07/03/19 05:17
4,4'-DDE	0.020	0.215	0.218	1		1	07/03/19 05:17
4,4'-DDT	0.020	0.190	0.192	1		1	07/03/19 05:17
Aldrin	0.020	0.165	0.173	5		1	07/03/19 05:17
Dieldrin	0.020	0.217	0.232	7		1	07/03/19 05:17
Endosulfan I	0.020	0.213	0.228	7		1	07/03/19 05:17
Endosulfan II	0.020	0.234	0.248	6		1	07/03/19 05:17
Endosulfan Sulfate	0.020	0.212	0.225	6		1	07/03/19 05:17
Endrin	0.020	0.225	0.307	31		1	07/03/19 05:17
Endrin Ketone	0.020	0.216	0.236	9		1	07/03/19 05:17
Heptachlor	0.020	0.194	0.207	6		1	07/03/19 05:17
Heptachlor Epoxide	0.020	0.224	0.237	6		1	07/03/19 05:17
Methoxychlor	0.020	0.188	0.202	7		1	07/03/19 05:17
alpha-BHC	0.020	0.228	0.245	7		1	07/03/19 05:17
alpha-Chlordane	0.020	0.212	0.225	6		1	07/03/19 05:17
beta-BHC	0.020	0.245	0.268	9		1	07/03/19 05:17
delta-BHC	0.020	0.250	0.256	2		1	07/03/19 05:17
gamma-BHC (Lindane)	0.020	0.230	0.244	6		1	07/03/19 05:17
gamma-Chlordane	0.020	0.207	0.225	8		1	07/03/19 05:17

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dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844

Date Collected: NA

Date Received:

Sample Name: Duplicate Lab Control Sample

Lab Code: RQ1906423-03

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B

Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	0.020	0.265	0.291	9		1	07/03/19 05:34
4,4'-DDE	0.020	0.236	0.241	2		1	07/03/19 05:34
4,4'-DDT	0.020	0.199	0.208	4		1	07/03/19 05:34
Aldrin	0.020	0.186	0.192	3		1	07/03/19 05:34
Dieldrin	0.020	0.244	0.258	6		1	07/03/19 05:34
Endosulfan I	0.020	0.237	0.250	5		1	07/03/19 05:34
Endosulfan II	0.020	0.260	0.274	5		1	07/03/19 05:34
Endosulfan Sulfate	0.020	0.237	0.251	6		1	07/03/19 05:34
Endrin	0.020	0.252	0.325	25		1	07/03/19 05:34
Endrin Ketone	0.020	0.246	0.259	5		1	07/03/19 05:34
Heptachlor	0.020	0.209	0.216	3		1	07/03/19 05:34
Heptachlor Epoxide	0.020	0.247	0.259	5		1	07/03/19 05:34
Methoxychlor	0.020	0.200	0.214	7		1	07/03/19 05:34
alpha-BHC	0.020	0.241	0.256	6		1	07/03/19 05:34
alpha-Chlordane	0.020	0.237	0.248	5		1	07/03/19 05:34
beta-BHC	0.020	0.264	0.272	3		1	07/03/19 05:34
delta-BHC	0.020	0.270	0.276	2		1	07/03/19 05:34
gamma-BHC (Lindane)	0.020	0.247	0.257	4		1	07/03/19 05:34
gamma-Chlordane	0.020	0.229	0.248	8		1	07/03/19 05:34

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dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844

Date Collected: NA

Date Received:

Sample Name: Performance Evaluation

Lab Code: RQ1906904-13

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

8081B

Prep Method:

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDT	0.020	0.92	0.93	1		1	07/02/19 13:09
Endrin	0.020	0.47	0.49	4		1	07/02/19 13:09
Endrin Ketone	0.020	0.027	0.028	4	J	1	07/02/19 13:09
alpha-BHC	0.020	0.10	0.10	<1		1	07/02/19 13:09
beta-BHC	0.020	0.11	0.11	<1		1	07/02/19 13:09
gamma-BHC (Lindane)	0.020	0.10	0.10	<1		1	07/02/19 13:09

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844

Date Collected: NA

Date Received:

Sample Name: Performance Evaluation

Lab Code: RQ1906904-15

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

8081B

Prep Method:

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDT	0.020	0.90	0.91	1		1	07/02/19 18:31
Endrin	0.020	0.47	0.49	4		1	07/02/19 18:31
alpha-BHC	0.020	0.10	0.10	<1		1	07/02/19 18:31
beta-BHC	0.020	0.11	0.11	<1		1	07/02/19 18:31
gamma-BHC (Lindane)	0.020	0.10	0.10	<1		1	07/02/19 18:31

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844

Date Collected: NA

Date Received:

Sample Name: Performance Evaluation

Lab Code: RQ1906905-01

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

8081B

Prep Method:

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDT	0.020	0.83	0.84	1		1	07/03/19 12:56
Endrin	0.020	0.43	0.47	9		1	07/03/19 12:56
alpha-BHC	0.020	0.095	0.10	5		1	07/03/19 12:56
beta-BHC	0.020	0.10	0.11	10		1	07/03/19 12:56
gamma-BHC (Lindane)	0.020	0.096	0.099	3		1	07/03/19 12:56

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844

Date Collected: NA

Date Received:

Sample Name: Performance Evaluation

Lab Code: RQ1907077-01

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

8081B

Prep Method:

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	0.020	0.026	0.030	14	J	1	07/11/19 09:20
4,4'-DDT	0.020	0.87	0.95	9		1	07/11/19 09:20
Endrin	0.020	0.46	0.46	<1		1	07/11/19 09:20
Endrin Ketone	0.020	0.029	0.032	10	J	1	07/11/19 09:20
alpha-BHC	0.020	0.095	0.096	1		1	07/11/19 09:20
beta-BHC	0.020	0.099	0.099	<1		1	07/11/19 09:20
gamma-BHC (Lindane)	0.020	0.091	0.095	4		1	07/11/19 09:20

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905844

SURROGATE RECOVERY SUMMARY
Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10-152	14-129
RB-9954-061919-SG-002	R1905844-001	34	79
WG-9954-061919-SG-031	R1905844-003	79	90
WG-9954-061919-SG-032	R1905844-004	35	91
WG-9954-061919-SG-033	R1905844-005	58	71
WG-9954-061919-SG-034	R1905844-006	42	75
WG-9954-061919-SG-035	R1905844-007	25	72
WG-9954-061919-SG-036	R1905844-008	26	99
WG-9954-061919-SG-037	R1905844-009	22	100
Method Blank	RQ1906423-01	54	56
Lab Control Sample	RQ1906423-02	50	72
Duplicate Lab Control Sample	RQ1906423-03	46	55

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 07/02/19 15:32
Date Extracted: 06/26/19

Method Blank Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name: Method Blank
Lab Code: RQ1906423-01

Instrument ID: R-GC-54
File ID: I:\ACQUDATA\6890D\DATA\070219\GF676.D\

Analysis Method: 8082A

Analysis Lot: 641825,642170

Prep Method: EPA 3510C

Extraction Lot: 339397

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906423-02	I:\ACQUDATA\6890D\DATA\070219\GF677.D\	07/02/19 15:52
Duplicate Lab Control Sample	RQ1906423-03	I:\ACQUDATA\6890D\DATA\070219\GF678.D\	07/02/19 16:12
RB-9954-061919-SG-002	R1905844-001	I:\ACQUDATA\6890D\DATA\070219\GF680.D\	07/02/19 16:51
WG-9954-061919-SG-031	R1905844-003	I:\ACQUDATA\6890D\DATA\070219\GF681.D\	07/02/19 17:11
WG-9954-061919-SG-032	R1905844-004	I:\ACQUDATA\6890D\DATA\070219\GF682.D\	07/02/19 17:31
WG-9954-061919-SG-034	R1905844-006	I:\ACQUDATA\6890D\DATA\070219\GF684.D\	07/02/19 18:10
WG-9954-061919-SG-035	R1905844-007	I:\ACQUDATA\6890D\DATA\070219\GF685.D\	07/02/19 18:30
WG-9954-061919-SG-036	R1905844-008	I:\ACQUDATA\6890D\DATA\070219\GF686.D\	07/02/19 18:50
WG-9954-061919-SG-037	R1905844-009	I:\ACQUDATA\6890D\DATA\070219\GF687.D\	07/02/19 19:09
WG-9954-061919-SG-033	R1905844-005	I:\ACQUDATA\6890D\DATA\070319\GF715.D\	07/03/19 12:23

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906423-01

Service Request: R1905844
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.0 U	1.0	0.50	1	07/02/19 15:32	6/26/19	
Aroclor 1221	2.0 U	2.0	1.0	1	07/02/19 15:32	6/26/19	
Aroclor 1232	1.0 U	1.0	0.50	1	07/02/19 15:32	6/26/19	
Aroclor 1242	1.0 U	1.0	0.50	1	07/02/19 15:32	6/26/19	
Aroclor 1248	1.0 U	1.0	0.50	1	07/02/19 15:32	6/26/19	
Aroclor 1254	1.0 U	1.0	0.50	1	07/02/19 15:32	6/26/19	
Aroclor 1260	1.0 U	1.0	0.50	1	07/02/19 15:32	6/26/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	54	10 - 152	07/02/19 15:32	
Tetrachloro-m-xylene	56	14 - 129	07/02/19 15:32	

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 07/02/19 15:52
Date Extracted: 06/26/19

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name: Lab Control Sample**Instrument ID:**R-GC-54**Lab Code:** RQ1906423-02**File ID:**I:\ACQU\DATA\6890D\DATA\070219\GF677.D**Analysis Method:** 8082A**Analysis Lot:**641825,642170**Prep Method:** EPA 3510C**Extraction Lot:**339397

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906423-01	I:\ACQU\DATA\6890D\DATA\070219\GF676.D\	07/02/19 15:32
Duplicate Lab Control Sample	RQ1906423-03	I:\ACQU\DATA\6890D\DATA\070219\GF678.D\	07/02/19 16:12
RB-9954-061919-SG-002	R1905844-001	I:\ACQU\DATA\6890D\DATA\070219\GF680.D\	07/02/19 16:51
WG-9954-061919-SG-031	R1905844-003	I:\ACQU\DATA\6890D\DATA\070219\GF681.D\	07/02/19 17:11
WG-9954-061919-SG-032	R1905844-004	I:\ACQU\DATA\6890D\DATA\070219\GF682.D\	07/02/19 17:31
WG-9954-061919-SG-034	R1905844-006	I:\ACQU\DATA\6890D\DATA\070219\GF684.D\	07/02/19 18:10
WG-9954-061919-SG-035	R1905844-007	I:\ACQU\DATA\6890D\DATA\070219\GF685.D\	07/02/19 18:30
WG-9954-061919-SG-036	R1905844-008	I:\ACQU\DATA\6890D\DATA\070219\GF686.D\	07/02/19 18:50
WG-9954-061919-SG-037	R1905844-009	I:\ACQU\DATA\6890D\DATA\070219\GF687.D\	07/02/19 19:09
WG-9954-061919-SG-033	R1905844-005	I:\ACQU\DATA\6890D\DATA\070319\GF715.D\	07/03/19 12:23

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dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905844
Date Analyzed: 07/02/19

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1906423-02					RQ1906423-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	4.51	5.00	90	4.73	5.00	95	49-123	5	30
Aroclor 1260	8082A	4.45	5.00	89	4.95	5.00	99	57-135	11	30

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844

Date Collected: NA

Date Received:

Sample Name: Lab Control Sample

Lab Code: RQ1906423-02

Units: ug/L

Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A

Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1016	0.50	4.51	4.69	4		1	07/02/19 15:52
Aroclor 1260	0.50	4.45	4.56	2		1	07/02/19 15:52

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905844

Date Collected: NA

Date Received:

Sample Name: Duplicate Lab Control Sample

Lab Code: RQ1906423-03

Units: ug/L

Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A

Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1016	0.50	4.73	4.93	4		1	07/02/19 16:12
Aroclor 1260	0.50	4.95	4.96	<1		1	07/02/19 16:12



July 18, 2019

Service Request No:R1905920

Ms. Kathy Willy
GHD Services Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, NY 14304

Laboratory Results for: Love Canal:292-402-D02-3100

Dear Ms.Willy,

Enclosed are the results of the sample(s) submitted to our laboratory June 25, 2019
For your reference, these analyses have been assigned our service request number **R1905920**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

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Narrative Documents

ALS Environmental—Rochester Laboratory

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www.alsglobal.com

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100
Sample Matrix: Water

Service Request: R1905920
Date Received: 06/25/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Nine water samples were received for analysis at ALS Environmental on 06/25/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

Method 8270D, 07/12/19: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8270D, 07/16/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 07/09/2019: The Relative Percent Difference criterion was exceeded for one or more analytes in the Matrix Spike Sample (MS). Precision is also outside limits. The LCS/LCSD spike recoveries are within limits for all analytes. No further corrective action was appropriate.

Semivolatile GC:

Method 8081B, 07/08/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8081B, 07/08/2019: The Laboratory Control Sample (LCS) was broken and spilled during concentration. Therefore kepone/famphur were the only analytes reported for the LCS. Duplicate Laboratory Control Sample (DLCS) passed limits for all analytes. No further corrective action was taken.

Method 8081B, 07/03/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 07/09/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 07/03/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV) on the confirmation column. Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Volatiles by GC/MS:

No significant anomalies were noted with this analysis.

Approved by 

Date 07/18/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: TB-9954-062119-SG-005			Lab ID: R1905920-001			
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	12	B	2.1	10	ug/L	8260C

CLIENT ID: WG-9954-062119-SG-038			Lab ID: R1905920-002			
Analyte	Results	Flag	MDL	MRL	Units	Method
4-Methyl-2-pentanone	0.32	J	0.20	10	ug/L	8260C
Acetone	2.1	BJ	2.1	10	ug/L	8260C
Carbon Disulfide	1.6	J	0.25	10	ug/L	8260C
alpha-BHC	0.028	J	0.020	0.047	ug/L	8081B
delta-BHC	0.035	J	0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.026	J	0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-062119-SG-039			Lab ID: R1905920-003			
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	9.3	BJ	2.1	10	ug/L	8260C
Chloromethane	0.30	BJ	0.28	5.0	ug/L	8260C

CLIENT ID: WG-9954-062119-SG-040			Lab ID: R1905920-004			
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	8.7	BJ	2.1	10	ug/L	8260C
Chloromethane	0.32	BJ	0.28	5.0	ug/L	8260C

CLIENT ID: WG-9954-062119-SG-041			Lab ID: R1905920-005			
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	11	B	2.1	10	ug/L	8260C
Benzene	0.24	J	0.20	5.0	ug/L	8260C
Carbon Disulfide	0.25	J	0.25	10	ug/L	8260C
Toluene	0.60	J	0.20	5.0	ug/L	8260C
Xylenes, Total	0.86	J	0.23	5.0	ug/L	8260C
alpha-BHC	0.041	J	0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.023	J	0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-062119-SG-042			Lab ID: R1905920-006			
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	4.8	BJ	2.1	10	ug/L	8260C

CLIENT ID: WG-9954-062119-SG-043			Lab ID: R1905920-007			
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	8.6	BJ	2.1	10	ug/L	8260C
Carbon Disulfide	0.31	J	0.25	10	ug/L	8260C

CLIENT ID: WG-9954-062119-SG-044			Lab ID: R1905920-008			
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	7.4	BJ	2.1	10	ug/L	8260C

SAMPLE DETECTION SUMMARY**CLIENT ID: WG-9954-062119-SG-045****Lab ID: R1905920-009**

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	7.0	BJ	2.1	10	ug/L	8260C
Carbon Disulfide	1.5	J	0.25	10	ug/L	8260C
alpha-BHC	0.027	J	0.020	0.047	ug/L	8081B
delta-BHC	0.037	J	0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.026	J	0.020	0.047	ug/L	8081B



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Service Request:R1905920

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1905920-001	TB-9954-062119-SG-005	6/21/2019	0000
R1905920-002	WG-9954-062119-SG-038	6/21/2019	0925
R1905920-003	WG-9954-062119-SG-039	6/21/2019	1040
R1905920-004	WG-9954-062119-SG-040	6/21/2019	1120
R1905920-005	WG-9954-062119-SG-041	6/21/2019	1225
R1905920-006	WG-9954-062119-SG-042	6/21/2019	1310
R1905920-007	WG-9954-062119-SG-043	6/21/2019	1430
R1905920-008	WG-9954-062119-SG-044	6/21/2019	1510
R1905920-009	WG-9954-062119-SG-045	6/24/2019	1055

EVENT COMPLETE

CHAIN-OF-CUSTODY/Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Client Information	
GLEN SPRINGS HOLDINGS INC	Report To: Kathy Willy
805 97TH STREET	Copy To:
LOVE CANAL	
NIAGARA FALLS, NEW YORK 14304	Invoice To:
Phone: 716-283-0111	PO:
Fax: 716-283-2856	Project Name: LOVE CANAL ANNUAL GW
Email: kathy.willy@ghd.com	Project Number: 9954

Lab Information	
Laboratory: ALS	
Laboratory Location: 1565 JEFFERSON RD. BUILDING 300, SUITE 360 ROCHESTER, NY 14623	
Laboratory Contact: BRADY KALKMAN	
Requested Due Date:	TAT: 10
QA/QC Requirements:	

Event Information	
ID#: LC ANNUAL GW SAMPLING 2019-05-1	
SSOW Ref#:	
Sampler Name: S GARDNER, D TYRAN	

Sample Identification	Valid Matrix Code WG Groundwater WB Borehole Water WS Surface Water SO Soil SE Sediment	Matrix Code	Date Collected	Time Collected	PestPCBs(None)	SVOC(none)	VOA(HCI)	Remarks
TB-9954-062119-SG-005		WG	06/21/2019	00:00	0	0	3	
WG-9954-062119-SG-038		WG	06/21/2019	09:25	6	6	9	MS/MSD
WG-9954-062119-SG-039		WG	06/21/2019	10:40	2	2	3	
WG-9954-062119-SG-040		WG	06/21/2019	11:20	2	2	3	
WG-9954-062119-SG-041		WG	06/21/2019	12:25	2	2	3	
WG-9954-062119-SG-042		WG	06/21/2019	13:10	2	2	3	
WG-9954-062119-SG-043		WG	06/21/2019	14:30	2	2	3	
WG-9954-062119-SG-044		WG	06/21/2019	15:10	2	2	3	
WG-9954-062419-SG-045		WG	06/24/2019	10:55	2	2	3	
Total Bottles					20	20	33	Grand Total:73

Sample Condition	
Temp in C	
Received on ice	Y/N
Sealed Cooler	Y/N
Samples Intact	Y/N

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
Lab Courier	4	<i>Shawn Gardner</i>	6/24/19	1240	<i>Shawn Gardner</i>	6/25/19	1040
AIRBILL#:		<i>Shawn Gardner</i>	6/25/19	1600	<i>Shawn Gardner</i>	6/25/19	1600

R1905920

GHD Services Inc.
Love Canal:292-402-D02-3100



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CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

SR#

1565 Jefferson Road, Bldg 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 / FAX (585) 288-8475

www.alsglobal.com

004, 005, 006, 007, 008, 009, 010,
011, 012, 013

T030477

Project Name: Love Canal 292-402-D02-3100		NUMBER OF CONTAINERS	7D	14D	1	2	3	4	5	Remarks
Project Number: 9954 Annual Long Term Monitoring										
Report To: Kathy Willy										
Company / Address: GHD Services Inc. 2055 Niagara Falls Blvd., Suite 3 Niagara Falls NY, 14304										
Phone #: 716-297-2160										
FAX #: 716-297-2265		3081B / Pest OC	3082A / PCB	3270D / SVO	3260C / VOC FP					
Sampler Signature										
Sampler Printed Name										
CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix							
1.			Liquid							
2.			Liquid							
3.			Liquid							
4.			Liquid							
5.			Liquid							
6.			Liquid							
7.			Liquid							
8.			Liquid							
9.			Liquid							
10.			Liquid							

Special Instructions/Comments:

Turnaround Requirements

___ RUSH (SURCHARGES APPLY)

___ Standard (3 weeks)

REQUESTED FAX DATE

Requested Report Date

Report Requirements

___ I. Results Only

___ II. Results + QC Summaries (LCS,
DUP, MS/MSD as required)___ III. Results + QC and Calibration
Summaries☒ IV. Data Validation Report
with Raw Data

EData ___ Yes ___ No

Invoice Information

P.O.#

Bill To:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time
	6/25/19 1040	6/25/19	1600		



Cooler Receipt and Preservation Check Form

R1905920

GHD Services Inc.
Love Canal: 282-402-D02-3100



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Project/Client GHD Folder Number _____

Cooler received on 4/25/19 by: @

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<u>Y</u> <u>N</u>
2	Custody papers properly completed (ink, signed)?	<u>Y</u> <u>N</u>
3	Did all bottles arrive in good condition (unbroken)?	<u>Y</u> <u>N</u>
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<u>Y</u> <u>N</u>

5a	Perchlorate samples have required headspace?	<u>Y</u> <u>N</u> <u>NA</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	<u>Y</u> <u>N</u> <u>NA</u>
6	Where did the bottles originate?	<u>ALS/ROG</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<u>NA</u>

8. Temperature Readings Date: 4/25/19 Time: 1558 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>5.6</u>	<u>2.7</u>	<u>3.0</u>	<u>2.9</u>			
Correction Factor (°C)	<u>10.3</u>						
Corrected Temp (°C)	<u>5.9</u>	<u>3.0</u>	<u>3.3</u>	<u>3.2</u>			
Temp from: Type of bottle	<u>Cent tube</u>						
Within 0-6°C?	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>
If <0°C, were samples frozen?	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by @ on 4/25/19 at 16046
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 4/26/19 Time: 1335 by: @

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>4117090</u>					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 040819 DK 8-337-002

Explain all Discrepancies/ Other Comments:

Headspaces: TB-3 vials

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: @

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

ALS Group USA, Corp.
dba ALS Environmental

Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905920

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905920-001.01	8260C				
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		7/2/2019	1042	In Lab / DLIPANI	
		7/2/2019	1707	R-001-S10 / DLIPANI	
R1905920-001.02					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-001.03					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-002.01					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-002.02					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-002.03					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-002.04	8270D				
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	
R1905920-002.05	8081B,8082A				
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0757	In Lab / VSTAUFFER	
R1905920-002.06					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	

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dba ALS Environmental

Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905920

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905920-002.07					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	
R1905920-002.08					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	
R1905920-002.09					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	
R1905920-002.10					
	8260C				
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		7/2/2019	1042	In Lab / DLIPANI	
		7/2/2019	1708	R-001-S10 / DLIPANI	
R1905920-002.11					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-002.12					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-002.13					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-002.14					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-002.15					
		6/26/2019	1330	SMO / GLAFORCE	

ALS Group USA, Corp.
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Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905920

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905920-002.16		6/26/2019	1331	R-001 / GLAFORCE	
		6/26/2019	1331	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	
R1905920-002.17		6/26/2019	1331	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0757	In Lab / VSTAUFFER	
R1905920-002.18		6/26/2019	1331	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-002.19		6/26/2019	1331	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-002.20		6/26/2019	1331	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-002.21		6/26/2019	1331	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-003.01	8260C	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		7/2/2019	1042	In Lab / DLIPANI	
		7/2/2019	1708	R-001-S10 / DLIPANI	
R1905920-003.02		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-003.03					

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Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-003.04					
	8081B	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-003.07					
	8082A	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	
R1905920-003.08					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-003.09					
	8270D	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	
R1905920-004.01					
	8260C	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		7/2/2019	1043	In Lab / DLIPANI	
		7/2/2019	1707	R-001-S10 / DLIPANI	
R1905920-004.02					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-004.03					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-004.04					
	8081B	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	

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Internal Chain of Custody Report

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Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905920-004.07	8082A	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-004.08		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-004.09	8270D	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	
R1905920-005.01	8260C	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		7/2/2019	1043	In Lab / DLIPANI	
		7/2/2019	1708	R-001-S10 / DLIPANI	
R1905920-005.02		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-005.03		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-005.04	8081B	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0758	In Lab / VSTAUFFER	
R1905920-005.07	8082A	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-005.08		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	

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Service Request: R1905920

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Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905920-005.09	8270D				
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0758	In Lab / VSTAUFFER	
R1905920-006.01	8260C				
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		7/2/2019	1043	In Lab / DLIPANI	
		7/2/2019	1708	R-001-S10 / DLIPANI	
R1905920-006.02					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-006.03					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-006.04	8081B				
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0757	In Lab / VSTAUFFER	
R1905920-006.07	8082A				
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-006.08					
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-006.09	8270D				
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0758	In Lab / VSTAUFFER	
R1905920-007.01	8260C				
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	

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dba ALS Environmental

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Client: GHD Services Inc.

Service Request: R1905920

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
	8260C	7/2/2019	1043	In Lab / DLIPANI	
		7/2/2019	1708	R-001-S10 / DLIPANI	
		R1905920-007.02			
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		R1905920-007.03			
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		R1905920-007.04			
	8081B	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		R1905920-007.07			
	8082A	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0758	In Lab / VSTAUFFER	
	8270D	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0757	In Lab / VSTAUFFER	
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		R1905920-007.09			
	8260C	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		7/2/2019	1043	In Lab / DLIPANI	
		7/2/2019	1708	R-001-S10 / DLIPANI	
		R1905920-008.02			
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		R1905920-008.03			

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Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905920

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905920-008.04	8081B	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-008.07	8082A	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0758	In Lab / VSTAUFFER	
R1905920-008.08	8270D	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		6/28/2019	0756	In Lab / VSTAUFFER	
R1905920-008.09		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-009.01	8260C	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
		7/2/2019	1043	In Lab / DLIPANI	
		7/2/2019	1907	R-001-S10 / DLIPANI	
R1905920-009.02		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-009.03		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-001 / GLAFORCE	
R1905920-009.04	8081B,8082A	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		7/1/2019	0904	In Lab / BALLGEIER	

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Internal Chain of Custody Report

Client: GHD Services Inc.

Service Request: R1905920

Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Bottle ID	Methods	Date	Time	Sample Location / User	Disposed On
R1905920-009.07	8270D	6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
		7/1/2019	0903	In Lab / BALLGEIER	
R1905920-009.08		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	
R1905920-009.09		6/26/2019	1330	SMO / GLAFORCE	
		6/26/2019	1331	R-002 / GLAFORCE	



Miscellaneous Forms

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905920

Sample Name: TB-9954-062119-SG-005
Lab Code: R1905920-001
Sample Matrix: Water

Date Collected: 06/21/19
Date Received: 06/25/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002
Sample Matrix: Water

Date Collected: 06/21/19
Date Received: 06/25/19

Analysis Method
8081B
8082A
8260C
8270D

Extracted/Digested By
KSERCU
KSERCU
KSERCU

Analyzed By
AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-062119-SG-039
Lab Code: R1905920-003
Sample Matrix: Water

Date Collected: 06/21/19
Date Received: 06/25/19

Analysis Method
8081B
8082A
8260C
8270D

Extracted/Digested By
KSERCU
KSERCU
KSERCU

Analyzed By
AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-062119-SG-040
Lab Code: R1905920-004
Sample Matrix: Water

Date Collected: 06/21/19
Date Received: 06/25/19

Analysis Method
8081B
8082A
8260C
8270D

Extracted/Digested By
KSERCU
KSERCU
KSERCU

Analyzed By
AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905920

Sample Name: WG-9954-062119-SG-041
Lab Code: R1905920-005
Sample Matrix: Water

Date Collected: 06/21/19
Date Received: 06/25/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES
8082A	KSERCU	AMOSSES
8260C		DLIPANI
8270D	KSERCU	JMISIUREWICZ

Sample Name: WG-9954-062119-SG-042
Lab Code: R1905920-006
Sample Matrix: Water

Date Collected: 06/21/19
Date Received: 06/25/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES
8082A	KSERCU	AMOSSES
8260C		DLIPANI
8270D	KSERCU	JMISIUREWICZ

Sample Name: WG-9954-062119-SG-043
Lab Code: R1905920-007
Sample Matrix: Water

Date Collected: 06/21/19
Date Received: 06/25/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES
8082A	KSERCU	AMOSSES
8260C		DLIPANI
8270D	KSERCU	JMISIUREWICZ

Sample Name: WG-9954-062119-SG-044
Lab Code: R1905920-008
Sample Matrix: Water

Date Collected: 06/21/19
Date Received: 06/25/19

Analysis Method	Extracted/Digested By	Analyzed By
8081B	KSERCU	AMOSSES

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Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905920

Sample Name: WG-9954-062119-SG-044
Lab Code: R1905920-008
Sample Matrix: Water

Date Collected: 06/21/19
Date Received: 06/25/19

Analysis Method

8082A
8260C
8270D

Extracted/Digested By

KSERCU

KSERCU

Analyzed By

AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-062119-SG-045
Lab Code: R1905920-009
Sample Matrix: Water

Date Collected: 06/24/19
Date Received: 06/25/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

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Volatile Organic Compounds by GC/MS

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: TB-9954-062119-SG-005
Lab Code: R1905920-001

Service Request: R1905920
Date Collected: 06/21/19 00:00

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	07/02/19 11:33	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/02/19 11:33	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	07/02/19 11:33	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/02/19 11:33	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	07/02/19 11:33	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/02/19 11:33	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	07/02/19 11:33	
2-Butanone (MEK)	10 U	10	0.78	1	07/02/19 11:33	
2-Hexanone	10 U	10	0.20	1	07/02/19 11:33	
4-Methyl-2-pentanone	10 U	10	0.20	1	07/02/19 11:33	
Acetone	12 B	10	2.1	1	07/02/19 11:33	
Benzene	5.0 U	5.0	0.20	1	07/02/19 11:33	
Bromodichloromethane	5.0 U	5.0	0.22	1	07/02/19 11:33	
Bromoform	5.0 U	5.0	0.25	1	07/02/19 11:33	
Bromomethane	5.0 U	5.0	0.70	1	07/02/19 11:33	
Carbon Disulfide	10 U	10	0.25	1	07/02/19 11:33	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/02/19 11:33	
Chlorobenzene	5.0 U	5.0	0.20	1	07/02/19 11:33	
Chloroethane	5.0 U	5.0	0.23	1	07/02/19 11:33	
Chloroform	5.0 U	5.0	0.24	1	07/02/19 11:33	
Chloromethane	5.0 U	5.0	0.28	1	07/02/19 11:33	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/02/19 11:33	
Dichloromethane	5.0 U	5.0	0.36	1	07/02/19 11:33	
Ethylbenzene	5.0 U	5.0	0.20	1	07/02/19 11:33	
Styrene	5.0 U	5.0	0.20	1	07/02/19 11:33	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	07/02/19 11:33	
Toluene	5.0 U	5.0	0.20	1	07/02/19 11:33	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/02/19 11:33	
Vinyl Acetate	10 U	10	1.1	1	07/02/19 11:33	
Vinyl Chloride	5.0 U	5.0	0.20	1	07/02/19 11:33	
Xylenes, Total	5.0 U	5.0	0.23	1	07/02/19 11:33	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	07/02/19 11:33	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	07/02/19 11:33	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	07/02/19 11:33	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	07/02/19 11:33	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: TB-9954-062119-SG-005
Lab Code: R1905920-001

Service Request: R1905920
Date Collected: 06/21/19 00:00
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	07/02/19 11:33	
Dibromofluoromethane	101	89 - 119	07/02/19 11:33	
Toluene-d8	101	87 - 121	07/02/19 11:33	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: TB-9954-062119-SG-005
Lab Code: R1905920-001

Service Request: R1905920
Date Collected: 06/21/19 00:00
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
000067-63-0	Isopropyl Alcohol	2.46	8.2	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002

Service Request: R1905920
Date Collected: 06/21/19 09:25

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	07/02/19 17:02	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/02/19 17:02	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	07/02/19 17:02	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/02/19 17:02	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	07/02/19 17:02	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/02/19 17:02	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	07/02/19 17:02	
2-Butanone (MEK)	10 U	10	0.78	1	07/02/19 17:02	
2-Hexanone	10 U	10	0.20	1	07/02/19 17:02	
4-Methyl-2-pentanone	0.32 J	10	0.20	1	07/02/19 17:02	
Acetone	2.1 BJ	10	2.1	1	07/02/19 17:02	
Benzene	5.0 U	5.0	0.20	1	07/02/19 17:02	
Bromodichloromethane	5.0 U	5.0	0.22	1	07/02/19 17:02	
Bromoform	5.0 U	5.0	0.25	1	07/02/19 17:02	
Bromomethane	5.0 U	5.0	0.70	1	07/02/19 17:02	
Carbon Disulfide	1.6 J	10	0.25	1	07/02/19 17:02	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/02/19 17:02	
Chlorobenzene	5.0 U	5.0	0.20	1	07/02/19 17:02	
Chloroethane	5.0 U	5.0	0.23	1	07/02/19 17:02	
Chloroform	5.0 U	5.0	0.24	1	07/02/19 17:02	
Chloromethane	5.0 U	5.0	0.28	1	07/02/19 17:02	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/02/19 17:02	
Dichloromethane	5.0 U	5.0	0.36	1	07/02/19 17:02	
Ethylbenzene	5.0 U	5.0	0.20	1	07/02/19 17:02	
Styrene	5.0 U	5.0	0.20	1	07/02/19 17:02	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	07/02/19 17:02	
Toluene	5.0 U	5.0	0.20	1	07/02/19 17:02	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/02/19 17:02	
Vinyl Acetate	10 U	10	1.1	1	07/02/19 17:02	
Vinyl Chloride	5.0 U	5.0	0.20	1	07/02/19 17:02	
Xylenes, Total	5.0 U	5.0	0.23	1	07/02/19 17:02	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	07/02/19 17:02	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	07/02/19 17:02	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	07/02/19 17:02	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	07/02/19 17:02	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002

Service Request: R1905920
Date Collected: 06/21/19 09:25
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	07/02/19 17:02	
Dibromofluoromethane	100	89 - 119	07/02/19 17:02	
Toluene-d8	99	87 - 121	07/02/19 17:02	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002

Service Request: R1905920
Date Collected: 06/21/19 09:25
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	9.8	JN
	unknown	1.28	45.3	J

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-039
Lab Code: R1905920-003

Service Request: R1905920
Date Collected: 06/21/19 10:40

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	07/02/19 16:18	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/02/19 16:18	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	07/02/19 16:18	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/02/19 16:18	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	07/02/19 16:18	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/02/19 16:18	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	07/02/19 16:18	
2-Butanone (MEK)	10 U	10	0.78	1	07/02/19 16:18	
2-Hexanone	10 U	10	0.20	1	07/02/19 16:18	
4-Methyl-2-pentanone	10 U	10	0.20	1	07/02/19 16:18	
Acetone	9.3 BJ	10	2.1	1	07/02/19 16:18	
Benzene	5.0 U	5.0	0.20	1	07/02/19 16:18	
Bromodichloromethane	5.0 U	5.0	0.22	1	07/02/19 16:18	
Bromoform	5.0 U	5.0	0.25	1	07/02/19 16:18	
Bromomethane	5.0 U	5.0	0.70	1	07/02/19 16:18	
Carbon Disulfide	10 U	10	0.25	1	07/02/19 16:18	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/02/19 16:18	
Chlorobenzene	5.0 U	5.0	0.20	1	07/02/19 16:18	
Chloroethane	5.0 U	5.0	0.23	1	07/02/19 16:18	
Chloroform	5.0 U	5.0	0.24	1	07/02/19 16:18	
Chloromethane	0.30 BJ	5.0	0.28	1	07/02/19 16:18	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/02/19 16:18	
Dichloromethane	5.0 U	5.0	0.36	1	07/02/19 16:18	
Ethylbenzene	5.0 U	5.0	0.20	1	07/02/19 16:18	
Styrene	5.0 U	5.0	0.20	1	07/02/19 16:18	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	07/02/19 16:18	
Toluene	5.0 U	5.0	0.20	1	07/02/19 16:18	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/02/19 16:18	
Vinyl Acetate	10 U	10	1.1	1	07/02/19 16:18	
Vinyl Chloride	5.0 U	5.0	0.20	1	07/02/19 16:18	
Xylenes, Total	5.0 U	5.0	0.23	1	07/02/19 16:18	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	07/02/19 16:18	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	07/02/19 16:18	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	07/02/19 16:18	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	07/02/19 16:18	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-039
Lab Code: R1905920-003

Service Request: R1905920
Date Collected: 06/21/19 10:40
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	07/02/19 16:18	
Dibromofluoromethane	101	89 - 119	07/02/19 16:18	
Toluene-d8	100	87 - 121	07/02/19 16:18	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-039
Lab Code: R1905920-003

Service Request: R1905920
Date Collected: 06/21/19 10:40
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	7.2	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-040
Lab Code: R1905920-004

Service Request: R1905920
Date Collected: 06/21/19 11:20

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	07/02/19 16:40	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/02/19 16:40	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	07/02/19 16:40	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/02/19 16:40	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	07/02/19 16:40	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/02/19 16:40	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	07/02/19 16:40	
2-Butanone (MEK)	10 U	10	0.78	1	07/02/19 16:40	
2-Hexanone	10 U	10	0.20	1	07/02/19 16:40	
4-Methyl-2-pentanone	10 U	10	0.20	1	07/02/19 16:40	
Acetone	8.7 BJ	10	2.1	1	07/02/19 16:40	
Benzene	5.0 U	5.0	0.20	1	07/02/19 16:40	
Bromodichloromethane	5.0 U	5.0	0.22	1	07/02/19 16:40	
Bromoform	5.0 U	5.0	0.25	1	07/02/19 16:40	
Bromomethane	5.0 U	5.0	0.70	1	07/02/19 16:40	
Carbon Disulfide	10 U	10	0.25	1	07/02/19 16:40	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/02/19 16:40	
Chlorobenzene	5.0 U	5.0	0.20	1	07/02/19 16:40	
Chloroethane	5.0 U	5.0	0.23	1	07/02/19 16:40	
Chloroform	5.0 U	5.0	0.24	1	07/02/19 16:40	
Chloromethane	0.32 BJ	5.0	0.28	1	07/02/19 16:40	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/02/19 16:40	
Dichloromethane	5.0 U	5.0	0.36	1	07/02/19 16:40	
Ethylbenzene	5.0 U	5.0	0.20	1	07/02/19 16:40	
Styrene	5.0 U	5.0	0.20	1	07/02/19 16:40	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	07/02/19 16:40	
Toluene	5.0 U	5.0	0.20	1	07/02/19 16:40	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/02/19 16:40	
Vinyl Acetate	10 U	10	1.1	1	07/02/19 16:40	
Vinyl Chloride	5.0 U	5.0	0.20	1	07/02/19 16:40	
Xylenes, Total	5.0 U	5.0	0.23	1	07/02/19 16:40	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	07/02/19 16:40	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	07/02/19 16:40	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	07/02/19 16:40	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	07/02/19 16:40	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-040
Lab Code: R1905920-004

Service Request: R1905920
Date Collected: 06/21/19 11:20
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	07/02/19 16:40	
Dibromofluoromethane	99	89 - 119	07/02/19 16:40	
Toluene-d8	99	87 - 121	07/02/19 16:40	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-040
Lab Code: R1905920-004

Service Request: R1905920
Date Collected: 06/21/19 11:20
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	9.3	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-041
Lab Code: R1905920-005

Service Request: R1905920
Date Collected: 06/21/19 12:25

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	07/02/19 18:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/02/19 18:08	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	07/02/19 18:08	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/02/19 18:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	07/02/19 18:08	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/02/19 18:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	07/02/19 18:08	
2-Butanone (MEK)	10 U	10	0.78	1	07/02/19 18:08	
2-Hexanone	10 U	10	0.20	1	07/02/19 18:08	
4-Methyl-2-pentanone	10 U	10	0.20	1	07/02/19 18:08	
Acetone	11 B	10	2.1	1	07/02/19 18:08	
Benzene	0.24 J	5.0	0.20	1	07/02/19 18:08	
Bromodichloromethane	5.0 U	5.0	0.22	1	07/02/19 18:08	
Bromoform	5.0 U	5.0	0.25	1	07/02/19 18:08	
Bromomethane	5.0 U	5.0	0.70	1	07/02/19 18:08	
Carbon Disulfide	0.25 J	10	0.25	1	07/02/19 18:08	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/02/19 18:08	
Chlorobenzene	5.0 U	5.0	0.20	1	07/02/19 18:08	
Chloroethane	5.0 U	5.0	0.23	1	07/02/19 18:08	
Chloroform	5.0 U	5.0	0.24	1	07/02/19 18:08	
Chloromethane	5.0 U	5.0	0.28	1	07/02/19 18:08	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/02/19 18:08	
Dichloromethane	5.0 U	5.0	0.36	1	07/02/19 18:08	
Ethylbenzene	5.0 U	5.0	0.20	1	07/02/19 18:08	
Styrene	5.0 U	5.0	0.20	1	07/02/19 18:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	07/02/19 18:08	
Toluene	0.60 J	5.0	0.20	1	07/02/19 18:08	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/02/19 18:08	
Vinyl Acetate	10 U	10	1.1	1	07/02/19 18:08	
Vinyl Chloride	5.0 U	5.0	0.20	1	07/02/19 18:08	
Xylenes, Total	0.86 J	5.0	0.23	1	07/02/19 18:08	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	07/02/19 18:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	07/02/19 18:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	07/02/19 18:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	07/02/19 18:08	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-041
Lab Code: R1905920-005

Service Request: R1905920
Date Collected: 06/21/19 12:25
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	07/02/19 18:08	
Dibromofluoromethane	104	89 - 119	07/02/19 18:08	
Toluene-d8	103	87 - 121	07/02/19 18:08	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-041
Lab Code: R1905920-005

Service Request: R1905920
Date Collected: 06/21/19 12:25
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-042
Lab Code: R1905920-006

Service Request: R1905920
Date Collected: 06/21/19 13:10

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	07/02/19 18:30	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/02/19 18:30	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	07/02/19 18:30	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/02/19 18:30	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	07/02/19 18:30	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/02/19 18:30	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	07/02/19 18:30	
2-Butanone (MEK)	10 U	10	0.78	1	07/02/19 18:30	
2-Hexanone	10 U	10	0.20	1	07/02/19 18:30	
4-Methyl-2-pentanone	10 U	10	0.20	1	07/02/19 18:30	
Acetone	4.8 BJ	10	2.1	1	07/02/19 18:30	
Benzene	5.0 U	5.0	0.20	1	07/02/19 18:30	
Bromodichloromethane	5.0 U	5.0	0.22	1	07/02/19 18:30	
Bromoform	5.0 U	5.0	0.25	1	07/02/19 18:30	
Bromomethane	5.0 U	5.0	0.70	1	07/02/19 18:30	
Carbon Disulfide	10 U	10	0.25	1	07/02/19 18:30	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/02/19 18:30	
Chlorobenzene	5.0 U	5.0	0.20	1	07/02/19 18:30	
Chloroethane	5.0 U	5.0	0.23	1	07/02/19 18:30	
Chloroform	5.0 U	5.0	0.24	1	07/02/19 18:30	
Chloromethane	5.0 U	5.0	0.28	1	07/02/19 18:30	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/02/19 18:30	
Dichloromethane	5.0 U	5.0	0.36	1	07/02/19 18:30	
Ethylbenzene	5.0 U	5.0	0.20	1	07/02/19 18:30	
Styrene	5.0 U	5.0	0.20	1	07/02/19 18:30	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	07/02/19 18:30	
Toluene	5.0 U	5.0	0.20	1	07/02/19 18:30	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/02/19 18:30	
Vinyl Acetate	10 U	10	1.1	1	07/02/19 18:30	
Vinyl Chloride	5.0 U	5.0	0.20	1	07/02/19 18:30	
Xylenes, Total	5.0 U	5.0	0.23	1	07/02/19 18:30	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	07/02/19 18:30	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	07/02/19 18:30	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	07/02/19 18:30	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	07/02/19 18:30	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-042
Lab Code: R1905920-006

Service Request: R1905920
Date Collected: 06/21/19 13:10
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	85 - 122	07/02/19 18:30	
Dibromofluoromethane	105	89 - 119	07/02/19 18:30	
Toluene-d8	102	87 - 121	07/02/19 18:30	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: WG-9954-062119-SG-042
Lab Code: R1905920-006

Service Request: R1905920
Date Collected: 06/21/19 13:10
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	39.4	JN

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-043
Lab Code: R1905920-007

Service Request: R1905920
Date Collected: 06/21/19 14:30

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	07/02/19 18:52	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/02/19 18:52	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	07/02/19 18:52	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/02/19 18:52	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	07/02/19 18:52	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/02/19 18:52	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	07/02/19 18:52	
2-Butanone (MEK)	10 U	10	0.78	1	07/02/19 18:52	
2-Hexanone	10 U	10	0.20	1	07/02/19 18:52	
4-Methyl-2-pentanone	10 U	10	0.20	1	07/02/19 18:52	
Acetone	8.6 BJ	10	2.1	1	07/02/19 18:52	
Benzene	5.0 U	5.0	0.20	1	07/02/19 18:52	
Bromodichloromethane	5.0 U	5.0	0.22	1	07/02/19 18:52	
Bromoform	5.0 U	5.0	0.25	1	07/02/19 18:52	
Bromomethane	5.0 U	5.0	0.70	1	07/02/19 18:52	
Carbon Disulfide	0.31 J	10	0.25	1	07/02/19 18:52	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/02/19 18:52	
Chlorobenzene	5.0 U	5.0	0.20	1	07/02/19 18:52	
Chloroethane	5.0 U	5.0	0.23	1	07/02/19 18:52	
Chloroform	5.0 U	5.0	0.24	1	07/02/19 18:52	
Chloromethane	5.0 U	5.0	0.28	1	07/02/19 18:52	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/02/19 18:52	
Dichloromethane	5.0 U	5.0	0.36	1	07/02/19 18:52	
Ethylbenzene	5.0 U	5.0	0.20	1	07/02/19 18:52	
Styrene	5.0 U	5.0	0.20	1	07/02/19 18:52	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	07/02/19 18:52	
Toluene	5.0 U	5.0	0.20	1	07/02/19 18:52	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/02/19 18:52	
Vinyl Acetate	10 U	10	1.1	1	07/02/19 18:52	
Vinyl Chloride	5.0 U	5.0	0.20	1	07/02/19 18:52	
Xylenes, Total	5.0 U	5.0	0.23	1	07/02/19 18:52	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	07/02/19 18:52	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	07/02/19 18:52	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	07/02/19 18:52	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	07/02/19 18:52	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-043
Lab Code: R1905920-007

Service Request: R1905920
Date Collected: 06/21/19 14:30
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	07/02/19 18:52	
Dibromofluoromethane	99	89 - 119	07/02/19 18:52	
Toluene-d8	98	87 - 121	07/02/19 18:52	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-043
Lab Code: R1905920-007

Service Request: R1905920
Date Collected: 06/21/19 14:30
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	34.1	JN
000096-47-9	Furan, tetrahydro-2-methyl-	6.11	26.0	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-044
Lab Code: R1905920-008

Service Request: R1905920
Date Collected: 06/21/19 15:10

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	07/02/19 19:14	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/02/19 19:14	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	07/02/19 19:14	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/02/19 19:14	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	07/02/19 19:14	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/02/19 19:14	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	07/02/19 19:14	
2-Butanone (MEK)	10 U	10	0.78	1	07/02/19 19:14	
2-Hexanone	10 U	10	0.20	1	07/02/19 19:14	
4-Methyl-2-pentanone	10 U	10	0.20	1	07/02/19 19:14	
Acetone	7.4 BJ	10	2.1	1	07/02/19 19:14	
Benzene	5.0 U	5.0	0.20	1	07/02/19 19:14	
Bromodichloromethane	5.0 U	5.0	0.22	1	07/02/19 19:14	
Bromoform	5.0 U	5.0	0.25	1	07/02/19 19:14	
Bromomethane	5.0 U	5.0	0.70	1	07/02/19 19:14	
Carbon Disulfide	10 U	10	0.25	1	07/02/19 19:14	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/02/19 19:14	
Chlorobenzene	5.0 U	5.0	0.20	1	07/02/19 19:14	
Chloroethane	5.0 U	5.0	0.23	1	07/02/19 19:14	
Chloroform	5.0 U	5.0	0.24	1	07/02/19 19:14	
Chloromethane	5.0 U	5.0	0.28	1	07/02/19 19:14	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/02/19 19:14	
Dichloromethane	5.0 U	5.0	0.36	1	07/02/19 19:14	
Ethylbenzene	5.0 U	5.0	0.20	1	07/02/19 19:14	
Styrene	5.0 U	5.0	0.20	1	07/02/19 19:14	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	07/02/19 19:14	
Toluene	5.0 U	5.0	0.20	1	07/02/19 19:14	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/02/19 19:14	
Vinyl Acetate	10 U	10	1.1	1	07/02/19 19:14	
Vinyl Chloride	5.0 U	5.0	0.20	1	07/02/19 19:14	
Xylenes, Total	5.0 U	5.0	0.23	1	07/02/19 19:14	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	07/02/19 19:14	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	07/02/19 19:14	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	07/02/19 19:14	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	07/02/19 19:14	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-044
Lab Code: R1905920-008

Service Request: R1905920
Date Collected: 06/21/19 15:10
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	85 - 122	07/02/19 19:14	
Dibromofluoromethane	102	89 - 119	07/02/19 19:14	
Toluene-d8	102	87 - 121	07/02/19 19:14	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: WG-9954-062119-SG-044
Lab Code: R1905920-008

Service Request: R1905920
Date Collected: 06/21/19 15:10
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	15.9	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-045
Lab Code: R1905920-009

Service Request: R1905920
Date Collected: 06/24/19 10:55

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	07/02/19 17:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/02/19 17:24	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	07/02/19 17:24	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/02/19 17:24	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	07/02/19 17:24	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/02/19 17:24	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	07/02/19 17:24	
2-Butanone (MEK)	10 U	10	0.78	1	07/02/19 17:24	
2-Hexanone	10 U	10	0.20	1	07/02/19 17:24	
4-Methyl-2-pentanone	10 U	10	0.20	1	07/02/19 17:24	
Acetone	7.0 BJ	10	2.1	1	07/02/19 17:24	
Benzene	5.0 U	5.0	0.20	1	07/02/19 17:24	
Bromodichloromethane	5.0 U	5.0	0.22	1	07/02/19 17:24	
Bromoform	5.0 U	5.0	0.25	1	07/02/19 17:24	
Bromomethane	5.0 U	5.0	0.70	1	07/02/19 17:24	
Carbon Disulfide	1.5 J	10	0.25	1	07/02/19 17:24	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/02/19 17:24	
Chlorobenzene	5.0 U	5.0	0.20	1	07/02/19 17:24	
Chloroethane	5.0 U	5.0	0.23	1	07/02/19 17:24	
Chloroform	5.0 U	5.0	0.24	1	07/02/19 17:24	
Chloromethane	5.0 U	5.0	0.28	1	07/02/19 17:24	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/02/19 17:24	
Dichloromethane	5.0 U	5.0	0.36	1	07/02/19 17:24	
Ethylbenzene	5.0 U	5.0	0.20	1	07/02/19 17:24	
Styrene	5.0 U	5.0	0.20	1	07/02/19 17:24	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	07/02/19 17:24	
Toluene	5.0 U	5.0	0.20	1	07/02/19 17:24	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/02/19 17:24	
Vinyl Acetate	10 U	10	1.1	1	07/02/19 17:24	
Vinyl Chloride	5.0 U	5.0	0.20	1	07/02/19 17:24	
Xylenes, Total	5.0 U	5.0	0.23	1	07/02/19 17:24	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	07/02/19 17:24	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	07/02/19 17:24	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	07/02/19 17:24	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	07/02/19 17:24	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-045
Lab Code: R1905920-009

Service Request: R1905920
Date Collected: 06/24/19 10:55
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	07/02/19 17:24	
Dibromofluoromethane	103	89 - 119	07/02/19 17:24	
Toluene-d8	100	87 - 121	07/02/19 17:24	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-045
Lab Code: R1905920-009

Service Request: R1905920
Date Collected: 06/24/19 10:55
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	1.23	20.0	J
007446-09-5	Sulfur dioxide	1.28	62.3	JN



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002

Service Request: R1905920
Date Collected: 06/21/19 09:25

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/09/19 14:02	6/28/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/09/19 14:02	6/28/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/09/19 14:02	6/28/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/09/19 14:02	6/28/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/09/19 14:02	6/28/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
2-Nitroaniline	47 U	47	2.4	1	07/09/19 14:02	6/28/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/09/19 14:02	6/28/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
3-Nitroaniline	47 U	47	1.8	1	07/09/19 14:02	6/28/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/09/19 14:02	6/28/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/09/19 14:02	6/28/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/09/19 14:02	6/28/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/09/19 14:02	6/28/19	
4-Nitroaniline	47 U	47	1.9	1	07/09/19 14:02	6/28/19	
4-Nitrophenol	47 U	47	3.0	1	07/09/19 14:02	6/28/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/09/19 14:02	6/28/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/09/19 14:02	6/28/19	
Anthracene	9.4 U	9.4	1.4	1	07/09/19 14:02	6/28/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/09/19 14:02	6/28/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/09/19 14:02	6/28/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/09/19 14:02	6/28/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/09/19 14:02	6/28/19	
Benzoic Acid	47 U	47	6.0	1	07/09/19 14:02	6/28/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/09/19 14:02	6/28/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/09/19 14:02	6/28/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
Chrysene	9.4 U	9.4	1.5	1	07/09/19 14:02	6/28/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002

Service Request: R1905920
Date Collected: 06/21/19 09:25

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/09/19 14:02	6/28/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/09/19 14:02	6/28/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/09/19 14:02	6/28/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/09/19 14:02	6/28/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/09/19 14:02	6/28/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/09/19 14:02	6/28/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/09/19 14:02	6/28/19	
Fluorene	9.4 U	9.4	1.6	1	07/09/19 14:02	6/28/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/09/19 14:02	6/28/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/09/19 14:02	6/28/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/09/19 14:02	6/28/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/09/19 14:02	6/28/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/09/19 14:02	6/28/19	
Isophorone	9.4 U	9.4	1.2	1	07/09/19 14:02	6/28/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/09/19 14:02	6/28/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/09/19 14:02	6/28/19	
Naphthalene	9.4 U	9.4	1.1	1	07/09/19 14:02	6/28/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/09/19 14:02	6/28/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/09/19 14:02	6/28/19	
Phenol	9.4 U	9.4	1.0	1	07/09/19 14:02	6/28/19	
Pyrene	9.4 U	9.4	1.8	1	07/09/19 14:02	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	88	35 - 141	07/09/19 14:02	
2-Fluorobiphenyl	86	31 - 118	07/09/19 14:02	
2-Fluorophenol	47	10 - 105	07/09/19 14:02	
Nitrobenzene-d5	80	31 - 110	07/09/19 14:02	
Phenol-d6	29	10 - 107	07/09/19 14:02	
p-Terphenyl-d14	91	10 - 165	07/09/19 14:02	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
1000190-13-7	Octadec-9-enoic acid	10.30	6.3	JN
000057-11-4	Octadecanoic acid	10.39	9.9	JN
	unknown hydrocarbon	13.36	4.7	J
000057-10-3	n-Hexadecanoic acid	9.57	8.9	JN

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-039
Lab Code: R1905920-003

Service Request: R1905920
Date Collected: 06/21/19 10:40

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/09/19 15:31	6/28/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/09/19 15:31	6/28/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/09/19 15:31	6/28/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/09/19 15:31	6/28/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/09/19 15:31	6/28/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
2-Nitroaniline	47 U	47	2.4	1	07/09/19 15:31	6/28/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/09/19 15:31	6/28/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
3-Nitroaniline	47 U	47	1.8	1	07/09/19 15:31	6/28/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/09/19 15:31	6/28/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/09/19 15:31	6/28/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/09/19 15:31	6/28/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/09/19 15:31	6/28/19	
4-Nitroaniline	47 U	47	1.9	1	07/09/19 15:31	6/28/19	
4-Nitrophenol	47 U	47	3.0	1	07/09/19 15:31	6/28/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/09/19 15:31	6/28/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/09/19 15:31	6/28/19	
Anthracene	9.4 U	9.4	1.4	1	07/09/19 15:31	6/28/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/09/19 15:31	6/28/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/09/19 15:31	6/28/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/09/19 15:31	6/28/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/09/19 15:31	6/28/19	
Benzoic Acid	47 U	47	6.0	1	07/09/19 15:31	6/28/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/09/19 15:31	6/28/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/09/19 15:31	6/28/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
Chrysene	9.4 U	9.4	1.5	1	07/09/19 15:31	6/28/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-039
Lab Code: R1905920-003

Service Request: R1905920
Date Collected: 06/21/19 10:40

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/09/19 15:31	6/28/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/09/19 15:31	6/28/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/09/19 15:31	6/28/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/09/19 15:31	6/28/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/09/19 15:31	6/28/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/09/19 15:31	6/28/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/09/19 15:31	6/28/19	
Fluorene	9.4 U	9.4	1.6	1	07/09/19 15:31	6/28/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/09/19 15:31	6/28/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/09/19 15:31	6/28/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/09/19 15:31	6/28/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/09/19 15:31	6/28/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/09/19 15:31	6/28/19	
Isophorone	9.4 U	9.4	1.2	1	07/09/19 15:31	6/28/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/09/19 15:31	6/28/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/09/19 15:31	6/28/19	
Naphthalene	9.4 U	9.4	1.1	1	07/09/19 15:31	6/28/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/09/19 15:31	6/28/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/09/19 15:31	6/28/19	
Phenol	9.4 U	9.4	1.0	1	07/09/19 15:31	6/28/19	
Pyrene	9.4 U	9.4	1.8	1	07/09/19 15:31	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	81	35 - 141	07/09/19 15:31	
2-Fluorobiphenyl	77	31 - 118	07/09/19 15:31	
2-Fluorophenol	43	10 - 105	07/09/19 15:31	
Nitrobenzene-d5	80	31 - 110	07/09/19 15:31	
Phenol-d6	26	10 - 107	07/09/19 15:31	
p-Terphenyl-d14	43	10 - 165	07/09/19 15:31	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	3.39	3.9	J

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-040
Lab Code: R1905920-004

Service Request: R1905920
Date Collected: 06/21/19 11:20

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/09/19 16:00	6/28/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/09/19 16:00	6/28/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/09/19 16:00	6/28/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/09/19 16:00	6/28/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/09/19 16:00	6/28/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
2-Nitroaniline	47 U	47	2.4	1	07/09/19 16:00	6/28/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/09/19 16:00	6/28/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
3-Nitroaniline	47 U	47	1.8	1	07/09/19 16:00	6/28/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/09/19 16:00	6/28/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/09/19 16:00	6/28/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/09/19 16:00	6/28/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/09/19 16:00	6/28/19	
4-Nitroaniline	47 U	47	1.9	1	07/09/19 16:00	6/28/19	
4-Nitrophenol	47 U	47	3.0	1	07/09/19 16:00	6/28/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/09/19 16:00	6/28/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/09/19 16:00	6/28/19	
Anthracene	9.4 U	9.4	1.4	1	07/09/19 16:00	6/28/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/09/19 16:00	6/28/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/09/19 16:00	6/28/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/09/19 16:00	6/28/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/09/19 16:00	6/28/19	
Benzoic Acid	47 U	47	6.0	1	07/09/19 16:00	6/28/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/09/19 16:00	6/28/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/09/19 16:00	6/28/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
Chrysene	9.4 U	9.4	1.5	1	07/09/19 16:00	6/28/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-040
Lab Code: R1905920-004

Service Request: R1905920
Date Collected: 06/21/19 11:20

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/09/19 16:00	6/28/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/09/19 16:00	6/28/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/09/19 16:00	6/28/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/09/19 16:00	6/28/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/09/19 16:00	6/28/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/09/19 16:00	6/28/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/09/19 16:00	6/28/19	
Fluorene	9.4 U	9.4	1.6	1	07/09/19 16:00	6/28/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/09/19 16:00	6/28/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/09/19 16:00	6/28/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/09/19 16:00	6/28/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/09/19 16:00	6/28/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/09/19 16:00	6/28/19	
Isophorone	9.4 U	9.4	1.2	1	07/09/19 16:00	6/28/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/09/19 16:00	6/28/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/09/19 16:00	6/28/19	
Naphthalene	9.4 U	9.4	1.1	1	07/09/19 16:00	6/28/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/09/19 16:00	6/28/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/09/19 16:00	6/28/19	
Phenol	9.4 U	9.4	1.0	1	07/09/19 16:00	6/28/19	
Pyrene	9.4 U	9.4	1.8	1	07/09/19 16:00	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	79	35 - 141	07/09/19 16:00	
2-Fluorobiphenyl	83	31 - 118	07/09/19 16:00	
2-Fluorophenol	41	10 - 105	07/09/19 16:00	
Nitrobenzene-d5	81	31 - 110	07/09/19 16:00	
Phenol-d6	27	10 - 107	07/09/19 16:00	
p-Terphenyl-d14	63	10 - 165	07/09/19 16:00	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-041
Lab Code: R1905920-005

Service Request: R1905920
Date Collected: 06/21/19 12:25

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/09/19 16:31	6/28/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/09/19 16:31	6/28/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/09/19 16:31	6/28/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/09/19 16:31	6/28/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/09/19 16:31	6/28/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
2-Nitroaniline	47 U	47	2.4	1	07/09/19 16:31	6/28/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/09/19 16:31	6/28/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
3-Nitroaniline	47 U	47	1.8	1	07/09/19 16:31	6/28/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/09/19 16:31	6/28/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/09/19 16:31	6/28/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/09/19 16:31	6/28/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/09/19 16:31	6/28/19	
4-Nitroaniline	47 U	47	1.9	1	07/09/19 16:31	6/28/19	
4-Nitrophenol	47 U	47	3.0	1	07/09/19 16:31	6/28/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/09/19 16:31	6/28/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/09/19 16:31	6/28/19	
Anthracene	9.4 U	9.4	1.4	1	07/09/19 16:31	6/28/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/09/19 16:31	6/28/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/09/19 16:31	6/28/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/09/19 16:31	6/28/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/09/19 16:31	6/28/19	
Benzoic Acid	47 U	47	6.0	1	07/09/19 16:31	6/28/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/09/19 16:31	6/28/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/09/19 16:31	6/28/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
Chrysene	9.4 U	9.4	1.5	1	07/09/19 16:31	6/28/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-041
Lab Code: R1905920-005

Service Request: R1905920
Date Collected: 06/21/19 12:25

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/09/19 16:31	6/28/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/09/19 16:31	6/28/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/09/19 16:31	6/28/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/09/19 16:31	6/28/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/09/19 16:31	6/28/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/09/19 16:31	6/28/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/09/19 16:31	6/28/19	
Fluorene	9.4 U	9.4	1.6	1	07/09/19 16:31	6/28/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/09/19 16:31	6/28/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/09/19 16:31	6/28/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/09/19 16:31	6/28/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/09/19 16:31	6/28/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/09/19 16:31	6/28/19	
Isophorone	9.4 U	9.4	1.2	1	07/09/19 16:31	6/28/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/09/19 16:31	6/28/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/09/19 16:31	6/28/19	
Naphthalene	9.4 U	9.4	1.1	1	07/09/19 16:31	6/28/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/09/19 16:31	6/28/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/09/19 16:31	6/28/19	
Phenol	9.4 U	9.4	1.0	1	07/09/19 16:31	6/28/19	
Pyrene	9.4 U	9.4	1.8	1	07/09/19 16:31	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	45	35 - 141	07/09/19 16:31	
2-Fluorobiphenyl	61	31 - 118	07/09/19 16:31	
2-Fluorophenol	32	10 - 105	07/09/19 16:31	
Nitrobenzene-d5	60	31 - 110	07/09/19 16:31	
Phenol-d6	21	10 - 107	07/09/19 16:31	
p-Terphenyl-d14	57	10 - 165	07/09/19 16:31	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-042
Lab Code: R1905920-006

Service Request: R1905920
Date Collected: 06/21/19 13:10

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/09/19 17:00	6/28/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/09/19 17:00	6/28/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/09/19 17:00	6/28/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/09/19 17:00	6/28/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/09/19 17:00	6/28/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
2-Nitroaniline	47 U	47	2.4	1	07/09/19 17:00	6/28/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/09/19 17:00	6/28/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
3-Nitroaniline	47 U	47	1.8	1	07/09/19 17:00	6/28/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/09/19 17:00	6/28/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/09/19 17:00	6/28/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/09/19 17:00	6/28/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/09/19 17:00	6/28/19	
4-Nitroaniline	47 U	47	1.9	1	07/09/19 17:00	6/28/19	
4-Nitrophenol	47 U	47	3.0	1	07/09/19 17:00	6/28/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/09/19 17:00	6/28/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/09/19 17:00	6/28/19	
Anthracene	9.4 U	9.4	1.4	1	07/09/19 17:00	6/28/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/09/19 17:00	6/28/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/09/19 17:00	6/28/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/09/19 17:00	6/28/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/09/19 17:00	6/28/19	
Benzoic Acid	47 U	47	6.0	1	07/09/19 17:00	6/28/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/09/19 17:00	6/28/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/09/19 17:00	6/28/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
Chrysene	9.4 U	9.4	1.5	1	07/09/19 17:00	6/28/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-042
Lab Code: R1905920-006

Service Request: R1905920
Date Collected: 06/21/19 13:10

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/09/19 17:00	6/28/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/09/19 17:00	6/28/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/09/19 17:00	6/28/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/09/19 17:00	6/28/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/09/19 17:00	6/28/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/09/19 17:00	6/28/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/09/19 17:00	6/28/19	
Fluorene	9.4 U	9.4	1.6	1	07/09/19 17:00	6/28/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/09/19 17:00	6/28/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/09/19 17:00	6/28/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/09/19 17:00	6/28/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/09/19 17:00	6/28/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/09/19 17:00	6/28/19	
Isophorone	9.4 U	9.4	1.2	1	07/09/19 17:00	6/28/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/09/19 17:00	6/28/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/09/19 17:00	6/28/19	
Naphthalene	9.4 U	9.4	1.1	1	07/09/19 17:00	6/28/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/09/19 17:00	6/28/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/09/19 17:00	6/28/19	
Phenol	9.4 U	9.4	1.0	1	07/09/19 17:00	6/28/19	
Pyrene	9.4 U	9.4	1.8	1	07/09/19 17:00	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	73	35 - 141	07/09/19 17:00	
2-Fluorobiphenyl	71	31 - 118	07/09/19 17:00	
2-Fluorophenol	40	10 - 105	07/09/19 17:00	
Nitrobenzene-d5	69	31 - 110	07/09/19 17:00	
Phenol-d6	25	10 - 107	07/09/19 17:00	
p-Terphenyl-d14	76	10 - 165	07/09/19 17:00	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-043
Lab Code: R1905920-007

Service Request: R1905920
Date Collected: 06/21/19 14:30

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/09/19 17:30	6/28/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/09/19 17:30	6/28/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/09/19 17:30	6/28/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/09/19 17:30	6/28/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/09/19 17:30	6/28/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
2-Nitroaniline	47 U	47	2.4	1	07/09/19 17:30	6/28/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/09/19 17:30	6/28/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
3-Nitroaniline	47 U	47	1.8	1	07/09/19 17:30	6/28/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/09/19 17:30	6/28/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/09/19 17:30	6/28/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/09/19 17:30	6/28/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/09/19 17:30	6/28/19	
4-Nitroaniline	47 U	47	1.9	1	07/09/19 17:30	6/28/19	
4-Nitrophenol	47 U	47	3.0	1	07/09/19 17:30	6/28/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/09/19 17:30	6/28/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/09/19 17:30	6/28/19	
Anthracene	9.4 U	9.4	1.4	1	07/09/19 17:30	6/28/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/09/19 17:30	6/28/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/09/19 17:30	6/28/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/09/19 17:30	6/28/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/09/19 17:30	6/28/19	
Benzoic Acid	47 U	47	6.0	1	07/09/19 17:30	6/28/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/09/19 17:30	6/28/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/09/19 17:30	6/28/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
Chrysene	9.4 U	9.4	1.5	1	07/09/19 17:30	6/28/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-043
Lab Code: R1905920-007

Service Request: R1905920
Date Collected: 06/21/19 14:30

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/09/19 17:30	6/28/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/09/19 17:30	6/28/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/09/19 17:30	6/28/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/09/19 17:30	6/28/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/09/19 17:30	6/28/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/09/19 17:30	6/28/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/09/19 17:30	6/28/19	
Fluorene	9.4 U	9.4	1.6	1	07/09/19 17:30	6/28/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/09/19 17:30	6/28/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/09/19 17:30	6/28/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/09/19 17:30	6/28/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/09/19 17:30	6/28/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/09/19 17:30	6/28/19	
Isophorone	9.4 U	9.4	1.2	1	07/09/19 17:30	6/28/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/09/19 17:30	6/28/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/09/19 17:30	6/28/19	
Naphthalene	9.4 U	9.4	1.1	1	07/09/19 17:30	6/28/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/09/19 17:30	6/28/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/09/19 17:30	6/28/19	
Phenol	9.4 U	9.4	1.0	1	07/09/19 17:30	6/28/19	
Pyrene	9.4 U	9.4	1.8	1	07/09/19 17:30	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	81	35 - 141	07/09/19 17:30	
2-Fluorobiphenyl	80	31 - 118	07/09/19 17:30	
2-Fluorophenol	44	10 - 105	07/09/19 17:30	
Nitrobenzene-d5	77	31 - 110	07/09/19 17:30	
Phenol-d6	28	10 - 107	07/09/19 17:30	
p-Terphenyl-d14	89	10 - 165	07/09/19 17:30	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	7.18	29	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-044
Lab Code: R1905920-008

Service Request: R1905920
Date Collected: 06/21/19 15:10

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/09/19 17:59	6/28/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/09/19 17:59	6/28/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/09/19 17:59	6/28/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/09/19 17:59	6/28/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/09/19 17:59	6/28/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
2-Nitroaniline	47 U	47	2.4	1	07/09/19 17:59	6/28/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/09/19 17:59	6/28/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
3-Nitroaniline	47 U	47	1.8	1	07/09/19 17:59	6/28/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/09/19 17:59	6/28/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/09/19 17:59	6/28/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/09/19 17:59	6/28/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/09/19 17:59	6/28/19	
4-Nitroaniline	47 U	47	1.9	1	07/09/19 17:59	6/28/19	
4-Nitrophenol	47 U	47	3.0	1	07/09/19 17:59	6/28/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/09/19 17:59	6/28/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/09/19 17:59	6/28/19	
Anthracene	9.4 U	9.4	1.4	1	07/09/19 17:59	6/28/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/09/19 17:59	6/28/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/09/19 17:59	6/28/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/09/19 17:59	6/28/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/09/19 17:59	6/28/19	
Benzoic Acid	47 U	47	6.0	1	07/09/19 17:59	6/28/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/09/19 17:59	6/28/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/09/19 17:59	6/28/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
Chrysene	9.4 U	9.4	1.5	1	07/09/19 17:59	6/28/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-044
Lab Code: R1905920-008

Service Request: R1905920
Date Collected: 06/21/19 15:10

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/09/19 17:59	6/28/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/09/19 17:59	6/28/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/09/19 17:59	6/28/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/09/19 17:59	6/28/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/09/19 17:59	6/28/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/09/19 17:59	6/28/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/09/19 17:59	6/28/19	
Fluorene	9.4 U	9.4	1.6	1	07/09/19 17:59	6/28/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/09/19 17:59	6/28/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/09/19 17:59	6/28/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/09/19 17:59	6/28/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/09/19 17:59	6/28/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/09/19 17:59	6/28/19	
Isophorone	9.4 U	9.4	1.2	1	07/09/19 17:59	6/28/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/09/19 17:59	6/28/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/09/19 17:59	6/28/19	
Naphthalene	9.4 U	9.4	1.1	1	07/09/19 17:59	6/28/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/09/19 17:59	6/28/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/09/19 17:59	6/28/19	
Phenol	9.4 U	9.4	1.0	1	07/09/19 17:59	6/28/19	
Pyrene	9.4 U	9.4	1.8	1	07/09/19 17:59	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	79	35 - 141	07/09/19 17:59	
2-Fluorobiphenyl	79	31 - 118	07/09/19 17:59	
2-Fluorophenol	45	10 - 105	07/09/19 17:59	
Nitrobenzene-d5	80	31 - 110	07/09/19 17:59	
Phenol-d6	29	10 - 107	07/09/19 17:59	
p-Terphenyl-d14	67	10 - 165	07/09/19 17:59	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-045
Lab Code: R1905920-009

Service Request: R1905920
Date Collected: 06/24/19 10:55

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/16/19 16:15	7/1/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/16/19 16:15	7/1/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/16/19 16:15	7/1/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/16/19 16:15	7/1/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/16/19 16:15	7/1/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
2-Nitroaniline	47 U	47	2.4	1	07/16/19 16:15	7/1/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/16/19 16:15	7/1/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
3-Nitroaniline	47 U	47	1.8	1	07/16/19 16:15	7/1/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/16/19 16:15	7/1/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/16/19 16:15	7/1/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/16/19 16:15	7/1/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/16/19 16:15	7/1/19	
4-Nitroaniline	47 U	47	1.9	1	07/16/19 16:15	7/1/19	
4-Nitrophenol	47 U	47	3.0	1	07/16/19 16:15	7/1/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/16/19 16:15	7/1/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/16/19 16:15	7/1/19	
Anthracene	9.4 U	9.4	1.4	1	07/16/19 16:15	7/1/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/16/19 16:15	7/1/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/16/19 16:15	7/1/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/16/19 16:15	7/1/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/16/19 16:15	7/1/19	
Benzoic Acid	47 U	47	6.0	1	07/16/19 16:15	7/1/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/16/19 16:15	7/1/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/16/19 16:15	7/1/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
Chrysene	9.4 U	9.4	1.5	1	07/16/19 16:15	7/1/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-045
Lab Code: R1905920-009

Service Request: R1905920
Date Collected: 06/24/19 10:55

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/16/19 16:15	7/1/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/16/19 16:15	7/1/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/16/19 16:15	7/1/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/16/19 16:15	7/1/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/16/19 16:15	7/1/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/16/19 16:15	7/1/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/16/19 16:15	7/1/19	
Fluorene	9.4 U	9.4	1.6	1	07/16/19 16:15	7/1/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/16/19 16:15	7/1/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/16/19 16:15	7/1/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/16/19 16:15	7/1/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/16/19 16:15	7/1/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/16/19 16:15	7/1/19	
Isophorone	9.4 U	9.4	1.2	1	07/16/19 16:15	7/1/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/16/19 16:15	7/1/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/16/19 16:15	7/1/19	
Naphthalene	9.4 U	9.4	1.1	1	07/16/19 16:15	7/1/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/16/19 16:15	7/1/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/16/19 16:15	7/1/19	
Phenol	9.4 U	9.4	1.0	1	07/16/19 16:15	7/1/19	
Pyrene	9.4 U	9.4	1.8	1	07/16/19 16:15	7/1/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	79	35 - 141	07/16/19 16:15	
2-Fluorobiphenyl	71	31 - 118	07/16/19 16:15	
2-Fluorophenol	42	10 - 105	07/16/19 16:15	
Nitrobenzene-d5	67	31 - 110	07/16/19 16:15	
Phenol-d6	29	10 - 107	07/16/19 16:15	
p-Terphenyl-d14	73	10 - 165	07/16/19 16:15	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	13.23	4.2	J
	unknown hydrocarbon	14.71	12	J
	unknown	16.24	17	J
000057-88-5	Cholesterol	16.45	9.5	JN
000541-02-6	Cyclopentasiloxane, decamethyl-	5.29	5.5	JN
	unknown	7.77	7.7	J
000057-10-3	n-Hexadecanoic acid	9.48	4.6	JN



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002

Service Request: R1905920
Date Collected: 06/21/19 09:25

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 21:33	6/28/19	
alpha-BHC	0.028 J	0.047	0.020	1	07/03/19 21:33	6/28/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	
delta-BHC	0.035 J	0.047	0.020	1	07/03/19 21:33	6/28/19	
gamma-BHC (Lindane)	0.026 J	0.047	0.020	1	07/03/19 21:33	6/28/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 21:33	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	49	10 - 164	07/03/19 21:33	
Tetrachloro-m-xylene	66	10 - 147	07/03/19 21:33	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-039
Lab Code: R1905920-003

Service Request: R1905920
Date Collected: 06/21/19 10:40

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 22:25	6/28/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 22:25	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	11	10 - 164	07/03/19 22:25	
Tetrachloro-m-xylene	56	10 - 147	07/03/19 22:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-040
Lab Code: R1905920-004

Service Request: R1905920
Date Collected: 06/21/19 11:20

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 22:43	6/28/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 22:43	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	11	10 - 164	07/03/19 22:43	
Tetrachloro-m-xylene	76	10 - 147	07/03/19 22:43	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-041
Lab Code: R1905920-005

Service Request: R1905920
Date Collected: 06/21/19 12:25

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Aldrin	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Dieldrin	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Endrin	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Heptachlor	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
Toxaphene	0.50 U	0.50	0.50	1	07/11/19 14:31	6/28/19	
alpha-BHC	0.041 J	0.047	0.020	1	07/11/19 14:31	6/28/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
beta-BHC	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
delta-BHC	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	
gamma-BHC (Lindane)	0.023 J	0.047	0.020	1	07/11/19 14:31	6/28/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/11/19 14:31	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	15	10 - 164	07/11/19 14:31	
Tetrachloro-m-xylene	64	10 - 147	07/11/19 14:31	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-042
Lab Code: R1905920-006

Service Request: R1905920
Date Collected: 06/21/19 13:10

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 23:18	6/28/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 23:18	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	35	10 - 164	07/03/19 23:18	
Tetrachloro-m-xylene	100	10 - 147	07/03/19 23:18	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-043
Lab Code: R1905920-007

Service Request: R1905920
Date Collected: 06/21/19 14:30

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 23:35	6/28/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 23:35	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	43	10 - 164	07/03/19 23:35	
Tetrachloro-m-xylene	98	10 - 147	07/03/19 23:35	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-044
Lab Code: R1905920-008

Service Request: R1905920
Date Collected: 06/21/19 15:10

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 21:15	6/28/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 21:15	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	25	10 - 164	07/03/19 21:15	
Tetrachloro-m-xylene	84	10 - 147	07/03/19 21:15	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-062119-SG-045
Lab Code: R1905920-009

Service Request: R1905920
Date Collected: 06/24/19 10:55

Date Received: 06/25/19 16:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Aldrin	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Dieldrin	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Endrin	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Heptachlor	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
Toxaphene	0.50 U	0.50	0.50	1	07/08/19 20:42	7/1/19	
alpha-BHC	0.027 J	0.047	0.020	1	07/08/19 20:42	7/1/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
beta-BHC	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	
delta-BHC	0.037 J	0.047	0.020	1	07/08/19 20:42	7/1/19	
gamma-BHC (Lindane)	0.026 J	0.047	0.020	1	07/08/19 20:42	7/1/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/08/19 20:42	7/1/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	53	10 - 164	07/08/19 20:42	
Tetrachloro-m-xylene	88	10 - 147	07/08/19 20:42	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002

Service Request: R1905920
Date Collected: 06/21/19 09:25
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 22:35	6/28/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 22:35	6/28/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 22:35	6/28/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 22:35	6/28/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 22:35	6/28/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 22:35	6/28/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 22:35	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	45	10 - 152	07/02/19 22:35	
Tetrachloro-m-xylene	50	14 - 129	07/02/19 22:35	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-039
Lab Code: R1905920-003

Service Request: R1905920
Date Collected: 06/21/19 10:40
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 23:37	6/28/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 23:37	6/28/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 23:37	6/28/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 23:37	6/28/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 23:37	6/28/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 23:37	6/28/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 23:37	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	10	10 - 152	07/02/19 23:37	
Tetrachloro-m-xylene	40	14 - 129	07/02/19 23:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-040
Lab Code: R1905920-004

Service Request: R1905920
Date Collected: 06/21/19 11:20
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 23:57	6/28/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 23:57	6/28/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 23:57	6/28/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 23:57	6/28/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 23:57	6/28/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 23:57	6/28/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 23:57	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	12	10 - 152	07/02/19 23:57	
Tetrachloro-m-xylene	59	14 - 129	07/02/19 23:57	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-041
Lab Code: R1905920-005

Service Request: R1905920
Date Collected: 06/21/19 12:25
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/03/19 00:17	6/28/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/03/19 00:17	6/28/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/03/19 00:17	6/28/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/03/19 00:17	6/28/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/03/19 00:17	6/28/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/03/19 00:17	6/28/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/03/19 00:17	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	18	10 - 152	07/03/19 00:17	
Tetrachloro-m-xylene	52	14 - 129	07/03/19 00:17	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-042
Lab Code: R1905920-006

Service Request: R1905920
Date Collected: 06/21/19 13:10
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/03/19 00:58	6/28/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/03/19 00:58	6/28/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/03/19 00:58	6/28/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/03/19 00:58	6/28/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/03/19 00:58	6/28/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/03/19 00:58	6/28/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/03/19 00:58	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	24	10 - 152	07/03/19 00:58	
Tetrachloro-m-xylene	59	14 - 129	07/03/19 00:58	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-043
Lab Code: R1905920-007

Service Request: R1905920
Date Collected: 06/21/19 14:30
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/03/19 01:18	6/28/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/03/19 01:18	6/28/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/03/19 01:18	6/28/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/03/19 01:18	6/28/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/03/19 01:18	6/28/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/03/19 01:18	6/28/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/03/19 01:18	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	25	10 - 152	07/03/19 01:18	
Tetrachloro-m-xylene	54	14 - 129	07/03/19 01:18	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-044
Lab Code: R1905920-008

Service Request: R1905920
Date Collected: 06/21/19 15:10
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/03/19 01:39	6/28/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/03/19 01:39	6/28/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/03/19 01:39	6/28/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/03/19 01:39	6/28/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/03/19 01:39	6/28/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/03/19 01:39	6/28/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/03/19 01:39	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	25	10 - 152	07/03/19 01:39	
Tetrachloro-m-xylene	62	14 - 129	07/03/19 01:39	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-062119-SG-045
Lab Code: R1905920-009

Service Request: R1905920
Date Collected: 06/24/19 10:55
Date Received: 06/25/19 16:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/09/19 02:28	7/1/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/09/19 02:28	7/1/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/09/19 02:28	7/1/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/09/19 02:28	7/1/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/09/19 02:28	7/1/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/09/19 02:28	7/1/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/09/19 02:28	7/1/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	87	10 - 152	07/09/19 02:28	
Tetrachloro-m-xylene	97	14 - 129	07/09/19 02:28	



QC Summary Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905920

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
TB-9954-062119-SG-005	R1905920-001	99	101	101
WG-9954-062119-SG-038	R1905920-002	100	100	99
WG-9954-062119-SG-039	R1905920-003	99	101	100
WG-9954-062119-SG-040	R1905920-004	99	99	99
WG-9954-062119-SG-041	R1905920-005	100	104	103
WG-9954-062119-SG-042	R1905920-006	103	105	102
WG-9954-062119-SG-043	R1905920-007	99	99	98
WG-9954-062119-SG-044	R1905920-008	102	102	102
WG-9954-062119-SG-045	R1905920-009	98	103	100
Method Blank	RQ1906810-04	99	99	99
Lab Control Sample	RQ1906810-03	99	102	101
WG-9954-062119-SG-038 MS	RQ1906810-05	102	103	102
WG-9954-062119-SG-038 DMS	RQ1906810-06	96	98	97

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Collected: 06/21/19
Date Received: 06/25/19
Date Analyzed: 07/2/19
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1906810-05			Duplicate Matrix Spike RQ1906810-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	5.0 U	45.0	50.0	90	43.8	50.0	88	74-127	3	30
1,1,2,2-Tetrachloroethane	5.0 U	41.9	50.0	84	43.2	50.0	86	72-122	3	30
1,1,2-Trichloroethane	5.0 U	40.4	50.0	81 *	38.9	50.0	78 *	82-121	4	30
1,1-Dichloroethane (1,1-DCA)	5.0 U	45.1	50.0	90	43.9	50.0	88	74-132	3	30
1,1-Dichloroethene (1,1-DCE)	5.0 U	44.7	50.0	89	43.7	50.0	87	71-118	2	30
1,2-Dichloroethane	5.0 U	43.3	50.0	87	41.2	50.0	82	68-130	5	30
1,2-Dichloropropane	5.0 U	44.4	50.0	89	41.6	50.0	83	79-124	6	30
2-Butanone (MEK)	10 U	46.4	50.0	93	45.9	50.0	92	61-137	<1	30
2-Hexanone	10 U	45.4	50.0	91	44.3	50.0	89	56-132	2	30
4-Methyl-2-pentanone	0.32 J	45.2	50.0	90	44.6	50.0	89	60-141	1	30
Acetone	2.1 BJ	46.0	50.0	88	43.4	50.0	83	35-183	6	30
Benzene	5.0 U	43.7	50.0	87	41.8	50.0	84	76-129	4	30
Bromodichloromethane	5.0 U	40.9	50.0	82	39.6	50.0	79	78-133	3	30
Bromoform	5.0 U	39.7	50.0	79	38.8	50.0	78	58-133	2	30
Bromomethane	5.0 U	34.9	50.0	70	31.6	50.0	63	10-184	10	30
Carbon Disulfide	1.6 J	44.8	50.0	86	42.8	50.0	82	59-140	4	30
Carbon Tetrachloride	5.0 U	42.7	50.0	85	40.8	50.0	82	65-135	5	30
Chlorobenzene	5.0 U	42.0	50.0	84	41.0	50.0	82	76-125	2	30
Chloroethane	5.0 U	41.2	50.0	82	44.8	50.0	90	48-146	8	30
Chloroform	5.0 U	44.5	50.0	89	43.2	50.0	86	75-130	3	30
Chloromethane	5.0 U	46.2	50.0	92	44.4	50.0	89	55-160	4	30
Dibromochloromethane	5.0 U	41.3	50.0	83	41.3	50.0	83	72-128	<1	30
Dichloromethane	5.0 U	42.6	50.0	85	41.0	50.0	82	73-122	4	30
Ethylbenzene	5.0 U	42.6	50.0	85	41.9	50.0	84	72-134	2	30
Styrene	5.0 U	42.9	50.0	86	42.0	50.0	84	74-136	2	30
Tetrachloroethene (PCE)	5.0 U	41.9	50.0	84	40.7	50.0	81	72-125	3	30
Toluene	5.0 U	43.8	50.0	88	41.9	50.0	84	79-119	5	30
Trichloroethene (TCE)	5.0 U	42.1	50.0	84	39.3	50.0	79	74-122	7	30
Vinyl Acetate	10 U	50.6	50.0	101	49.5	50.0	99	48-172	2	30
Vinyl Chloride	5.0 U	46.1	50.0	92	44.3	50.0	89	74-159	4	30
cis-1,2-Dichloroethene	5.0 U	44.9	50.0	90	43.7	50.0	87	77-127	3	30
cis-1,3-Dichloropropene	5.0 U	43.1	50.0	86	40.9	50.0	82	52-134	5	30
trans-1,2-Dichloroethene	5.0 U	45.2	50.0	90	44.2	50.0	88	73-118	2	30
trans-1,3-Dichloropropene	5.0 U	42.1	50.0	84	39.9	50.0	80	71-133	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/02/19 11:11
Date Extracted:

Method Blank Summary
Volatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1906810-04
Analysis Method: 8260C
Prep Method: EPA 5030C

Instrument ID: R-MS-10
File ID: I:\ACQUDATA\msvoa10\data\070219\E2352.D\
Analysis Lot: 641638

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906810-03	I:\ACQUDATA\msvoa10\data\070219\E2349.D\	07/02/19 09:57
TB-9954-062119-SG-005	R1905920-001	I:\ACQUDATA\msvoa10\data\070219\E2353.D\	07/02/19 11:33
WG-9954-062119-SG-039	R1905920-003	I:\ACQUDATA\msvoa10\data\070219\E2366.D\	07/02/19 16:18
WG-9954-062119-SG-040	R1905920-004	I:\ACQUDATA\msvoa10\data\070219\E2367.D\	07/02/19 16:40
WG-9954-062119-SG-038	R1905920-002	I:\ACQUDATA\msvoa10\data\070219\E2368.D\	07/02/19 17:02
WG-9954-062119-SG-045	R1905920-009	I:\ACQUDATA\msvoa10\data\070219\E2369.D\	07/02/19 17:24
WG-9954-062119-SG-041	R1905920-005	I:\ACQUDATA\msvoa10\data\070219\E2371.D\	07/02/19 18:08
WG-9954-062119-SG-042	R1905920-006	I:\ACQUDATA\msvoa10\data\070219\E2372.D\	07/02/19 18:30
WG-9954-062119-SG-043	R1905920-007	I:\ACQUDATA\msvoa10\data\070219\E2373.D\	07/02/19 18:52
WG-9954-062119-SG-044	R1905920-008	I:\ACQUDATA\msvoa10\data\070219\E2374.D\	07/02/19 19:14
WG-9954-062119-SG-038MS	RQ1906810-05	I:\ACQUDATA\msvoa10\data\070219\E2375.D\	07/02/19 19:36
WG-9954-062119-SG-038DMS	RQ1906810-06	I:\ACQUDATA\msvoa10\data\070219\E2376.D\	07/02/19 19:57

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906810-04

Service Request: R1905920
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	07/02/19 11:11	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/02/19 11:11	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	07/02/19 11:11	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/02/19 11:11	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	07/02/19 11:11	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/02/19 11:11	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	07/02/19 11:11	
2-Butanone (MEK)	10 U	10	0.78	1	07/02/19 11:11	
2-Hexanone	10 U	10	0.20	1	07/02/19 11:11	
4-Methyl-2-pentanone	10 U	10	0.20	1	07/02/19 11:11	
Acetone	7.1 J	10	2.1	1	07/02/19 11:11	
Benzene	5.0 U	5.0	0.20	1	07/02/19 11:11	
Bromodichloromethane	5.0 U	5.0	0.22	1	07/02/19 11:11	
Bromoform	5.0 U	5.0	0.25	1	07/02/19 11:11	
Bromomethane	5.0 U	5.0	0.70	1	07/02/19 11:11	
Carbon Disulfide	10 U	10	0.25	1	07/02/19 11:11	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/02/19 11:11	
Chlorobenzene	5.0 U	5.0	0.20	1	07/02/19 11:11	
Chloroethane	5.0 U	5.0	0.23	1	07/02/19 11:11	
Chloroform	5.0 U	5.0	0.24	1	07/02/19 11:11	
Chloromethane	0.28 J	5.0	0.28	1	07/02/19 11:11	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/02/19 11:11	
Dichloromethane	5.0 U	5.0	0.36	1	07/02/19 11:11	
Ethylbenzene	5.0 U	5.0	0.20	1	07/02/19 11:11	
Styrene	5.0 U	5.0	0.20	1	07/02/19 11:11	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	07/02/19 11:11	
Toluene	5.0 U	5.0	0.20	1	07/02/19 11:11	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/02/19 11:11	
Vinyl Acetate	10 U	10	1.1	1	07/02/19 11:11	
Vinyl Chloride	5.0 U	5.0	0.20	1	07/02/19 11:11	
Xylenes, Total	5.0 U	5.0	0.23	1	07/02/19 11:11	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	07/02/19 11:11	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	07/02/19 11:11	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	07/02/19 11:11	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	07/02/19 11:11	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906810-04

Service Request: R1905920
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	07/02/19 11:11	
Dibromofluoromethane	99	89 - 119	07/02/19 11:11	
Toluene-d8	99	87 - 121	07/02/19 11:11	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906810-04

Service Request: R1905920
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/02/19 09:57
Date Extracted:

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample**Instrument ID:**R-MS-10**Lab Code:** RQ1906810-03**File ID:**I:\ACQUDATA\msvoa10\data\070219\E2349.D**Analysis Method:** 8260C**Analysis Lot:**641638**Prep Method:** EPA 5030C

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906810-04	I:\ACQUDATA\msvoa10\data\070219\E2352.D\	07/02/19 11:11
TB-9954-062119-SG-005	R1905920-001	I:\ACQUDATA\msvoa10\data\070219\E2353.D\	07/02/19 11:33
WG-9954-062119-SG-039	R1905920-003	I:\ACQUDATA\msvoa10\data\070219\E2366.D\	07/02/19 16:18
WG-9954-062119-SG-040	R1905920-004	I:\ACQUDATA\msvoa10\data\070219\E2367.D\	07/02/19 16:40
WG-9954-062119-SG-038	R1905920-002	I:\ACQUDATA\msvoa10\data\070219\E2368.D\	07/02/19 17:02
WG-9954-062119-SG-045	R1905920-009	I:\ACQUDATA\msvoa10\data\070219\E2369.D\	07/02/19 17:24
WG-9954-062119-SG-041	R1905920-005	I:\ACQUDATA\msvoa10\data\070219\E2371.D\	07/02/19 18:08
WG-9954-062119-SG-042	R1905920-006	I:\ACQUDATA\msvoa10\data\070219\E2372.D\	07/02/19 18:30
WG-9954-062119-SG-043	R1905920-007	I:\ACQUDATA\msvoa10\data\070219\E2373.D\	07/02/19 18:52
WG-9954-062119-SG-044	R1905920-008	I:\ACQUDATA\msvoa10\data\070219\E2374.D\	07/02/19 19:14
WG-9954-062119-SG-038MS	RQ1906810-05	I:\ACQUDATA\msvoa10\data\070219\E2375.D\	07/02/19 19:36
WG-9954-062119-SG-038DMS	RQ1906810-06	I:\ACQUDATA\msvoa10\data\070219\E2376.D\	07/02/19 19:57

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/02/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906810-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	18.1	20.0	90	75-125
1,1,2,2-Tetrachloroethane	8260C	16.5	20.0	82	78-126
1,1,2-Trichloroethane	8260C	17.2	20.0	86	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	17.9	20.0	89	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	18.0	20.0	90	71-118
1,2-Dichloroethane	8260C	17.8	20.0	89	71-127
1,2-Dichloropropane	8260C	18.3	20.0	91	80-119
2-Butanone (MEK)	8260C	17.3	20.0	87	61-137
2-Hexanone	8260C	17.2	20.0	86	63-124
4-Methyl-2-pentanone	8260C	17.8	20.0	89	66-124
Acetone	8260C	18.3	20.0	92	40-161
Benzene	8260C	17.8	20.0	89	79-119
Bromodichloromethane	8260C	17.2	20.0	86	81-123
Bromoform	8260C	16.7	20.0	83	65-146
Bromomethane	8260C	17.6	20.0	88	42-166
Carbon Disulfide	8260C	17.8	20.0	89	66-128
Carbon Tetrachloride	8260C	17.2	20.0	86	70-127
Chlorobenzene	8260C	17.4	20.0	87	80-121
Chloroethane	8260C	14.2	20.0	71	62-131
Chloroform	8260C	18.1	20.0	91	79-120
Chloromethane	8260C	16.9	20.0	84	65-135
Dibromochloromethane	8260C	17.3	20.0	86	72-128
Dichloromethane	8260C	16.9	20.0	84	73-122
Ethylbenzene	8260C	17.1	20.0	85	76-120
Styrene	8260C	17.3	20.0	87	80-124
Tetrachloroethene (PCE)	8260C	17.3	20.0	87	72-125
Toluene	8260C	17.7	20.0	88	79-119
Trichloroethene (TCE)	8260C	17.6	20.0	88	74-122
Vinyl Acetate	8260C	21.0	20.0	105	52-174
Vinyl Chloride	8260C	16.7	20.0	84	74-159
cis-1,2-Dichloroethene	8260C	18.3	20.0	92	80-121
cis-1,3-Dichloropropene	8260C	17.4	20.0	87	77-122
trans-1,2-Dichloroethene	8260C	18.4	20.0	92	73-118

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920**Date Analyzed:** 07/02/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1906810-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
trans-1,3-Dichloropropene	8260C	17.8	20.0	89	71-133

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/02/19 08:52

Tune Summary
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\070219\E2347.D\
Instrument ID: R-MS-10

Analytical Method: 8260C
Analysis Lot: 641638

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	21.38	29163	Pass
75	95	30	60	49.86	68019	Pass
95	95	100	100	100.00	136413	Pass
96	95	5	9	6.39	8710	Pass
173	174	0	2	1.72	1906	Pass
174	95	50	120	81.10	110637	Pass
175	174	5	9	8.07	8932	Pass
176	174	95	101	96.07	106289	Pass
177	176	5	9	6.53	6943	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1906810-02	I:\ACQUDATA\msvoa10\data\070219\E2348.D\	07/02/19 09:23	
Lab Control Sample	RQ1906810-03	I:\ACQUDATA\msvoa10\data\070219\E2349.D\	07/02/19 09:57	
Method Blank	RQ1906810-04	I:\ACQUDATA\msvoa10\data\070219\E2352.D\	07/02/19 11:11	
TB-9954-062119-SG-005	R1905920-001	I:\ACQUDATA\msvoa10\data\070219\E2353.D\	07/02/19 11:33	
WG-9954-062119-SG-039	R1905920-003	I:\ACQUDATA\msvoa10\data\070219\E2366.D\	07/02/19 16:18	
WG-9954-062119-SG-040	R1905920-004	I:\ACQUDATA\msvoa10\data\070219\E2367.D\	07/02/19 16:40	
WG-9954-062119-SG-038	R1905920-002	I:\ACQUDATA\msvoa10\data\070219\E2368.D\	07/02/19 17:02	
WG-9954-062119-SG-045	R1905920-009	I:\ACQUDATA\msvoa10\data\070219\E2369.D\	07/02/19 17:24	
WG-9954-062119-SG-041	R1905920-005	I:\ACQUDATA\msvoa10\data\070219\E2371.D\	07/02/19 18:08	
WG-9954-062119-SG-042	R1905920-006	I:\ACQUDATA\msvoa10\data\070219\E2372.D\	07/02/19 18:30	
WG-9954-062119-SG-043	R1905920-007	I:\ACQUDATA\msvoa10\data\070219\E2373.D\	07/02/19 18:52	
WG-9954-062119-SG-044	R1905920-008	I:\ACQUDATA\msvoa10\data\070219\E2374.D\	07/02/19 19:14	
WG-9954-062119-SG-038	RQ1906810-05	I:\ACQUDATA\msvoa10\data\070219\E2375.D\	07/02/19 19:36	
WG-9954-062119-SG-038	RQ1906810-06	I:\ACQUDATA\msvoa10\data\070219\E2376.D\	07/02/19 19:57	

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/02/19 09:23

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\070219\E2348.D\
Instrument ID: R-MS-10
Analysis Method: 8260C

Lab Code:RQ1906810-02
Analysis Lot:641638
Signal ID:1

	1,4-Dichlorobenzene-d4		1,4-Difluorobenzene		Chlorobenzene-d5	
	Area	RT	Area	RT	Area	RT
Result ==>	186,529	11.85	384,640	6.49	339,768	9.80
Upper Limit ==>	373,058	12.35	769,280	6.99	679,536	10.30
Lower Limit ==>	93,265	11.35	192,320	5.99	169,884	9.30

Associated Analyses

Lab Control Sample	RQ1906810-03	187276	11.85	387777	6.49	338390	9.80
Method Blank	RQ1906810-04	178997	11.85	389046	6.49	336140	9.80
TB-9954-062119-SG-005	R1905920-001	178102	11.85	390004	6.49	339547	9.80
WG-9954-062119-SG-039	R1905920-003	177554	11.85	381765	6.49	330067	9.80
WG-9954-062119-SG-040	R1905920-004	177984	11.85	382672	6.49	330870	9.80
WG-9954-062119-SG-038	R1905920-002	175995	11.85	379296	6.49	327039	9.80
WG-9954-062119-SG-045	R1905920-009	173288	11.85	374641	6.49	324331	9.80
WG-9954-062119-SG-041	R1905920-005	175821	11.85	376504	6.49	325255	9.80
WG-9954-062119-SG-042	R1905920-006	169665	11.85	371841	6.49	322250	9.80
WG-9954-062119-SG-043	R1905920-007	173616	11.85	382268	6.49	323470	9.80
WG-9954-062119-SG-044	R1905920-008	172320	11.85	383755	6.49	330318	9.80
WG-9954-062119-SG-038MS	RQ1906810-05	175398	11.85	369217	6.49	322455	9.80
WG-9954-062119-SG-038DMS	RQ1906810-06	174677	11.85	385291	6.49	328587	9.80

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/02/19 09:23

Internal Standard Area and RT SUMMARY
Volatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\msvoa10\data\070219\E2348.D\
Instrument ID: R-MS-10
Analysis Method: 8260C

Lab Code:RQ1906810-02
Analysis Lot:641638
Signal ID:1

	Pentafluorobenzene	
	Area	RT
Result ==>	262,327	5.39
Upper Limit ==>	524,654	5.89
Lower Limit ==>	131,164	4.89

Associated Analyses

Lab Control Sample	RQ1906810-03	268668	5.39
Method Blank	RQ1906810-04	273008	5.40
TB-9954-062119-SG-005	R1905920-001	266840	5.39
WG-9954-062119-SG-039	R1905920-003	261279	5.39
WG-9954-062119-SG-040	R1905920-004	262732	5.39
WG-9954-062119-SG-038	R1905920-002	259230	5.39
WG-9954-062119-SG-045	R1905920-009	257026	5.39
WG-9954-062119-SG-041	R1905920-005	259072	5.39
WG-9954-062119-SG-042	R1905920-006	255253	5.39
WG-9954-062119-SG-043	R1905920-007	257595	5.39
WG-9954-062119-SG-044	R1905920-008	262107	5.39
WG-9954-062119-SG-038MS	RQ1906810-05	251401	5.39
WG-9954-062119-SG-038DMS	RQ1906810-06	258169	5.39



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905920

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	2,4,6-Tribromophenol	2-Fluorobiphenyl	2-Fluorophenol
		35-141	31-118	10-105
WG-9954-062119-SG-038	R1905920-002	88	86	47
WG-9954-062119-SG-039	R1905920-003	81	77	43
WG-9954-062119-SG-040	R1905920-004	79	83	41
WG-9954-062119-SG-041	R1905920-005	45	61	32
WG-9954-062119-SG-042	R1905920-006	73	71	40
WG-9954-062119-SG-043	R1905920-007	81	80	44
WG-9954-062119-SG-044	R1905920-008	79	79	45
WG-9954-062119-SG-045	R1905920-009	79	71	42
Method Blank	RQ1906578-05	83	70	41
Method Blank	RQ1906656-01	78	70	39
Lab Control Sample	RQ1906578-06	93	92	50
Duplicate Lab Control Sample	RQ1906578-07	88	87	47
Lab Control Sample	RQ1906656-02	81	81	41
Duplicate Lab Control Sample	RQ1906656-03	85	88	46
WG-9954-062119-SG-038 MS	RQ1906578-03	92	92	50
WG-9954-062119-SG-038 DMS	RQ1906578-04	84	85	44

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905920

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	Nitrobenzene-d5	Phenol-d6	p-Terphenyl-d14
		31-110	10-107	10-165
WG-9954-062119-SG-038	R1905920-002	80	29	91
WG-9954-062119-SG-039	R1905920-003	80	26	43
WG-9954-062119-SG-040	R1905920-004	81	27	63
WG-9954-062119-SG-041	R1905920-005	60	21	57
WG-9954-062119-SG-042	R1905920-006	69	25	76
WG-9954-062119-SG-043	R1905920-007	77	28	89
WG-9954-062119-SG-044	R1905920-008	80	29	67
WG-9954-062119-SG-045	R1905920-009	67	29	73
Method Blank	RQ1906578-05	72	27	89
Method Blank	RQ1906656-01	58	27	95
Lab Control Sample	RQ1906578-06	84	33	97
Duplicate Lab Control Sample	RQ1906578-07	81	32	90
Lab Control Sample	RQ1906656-02	76	30	98
Duplicate Lab Control Sample	RQ1906656-03	68	32	116
WG-9954-062119-SG-038 MS	RQ1906578-03	87	32	94
WG-9954-062119-SG-038 DMS	RQ1906578-04	80	29	86

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Collected: 06/21/19
Date Received: 06/25/19
Date Analyzed: 07/9/19
Date Extracted: 06/28/19

Duplicate Matrix Spike Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002
Analysis Method: 8270D
Prep Method: EPA 3510C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1906578-03			Duplicate Matrix Spike RQ1906578-04			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,2,4-Trichlorobenzene	9.4 U	35.0	47.2	74	32.8	47.2	69	10-127	7	30
1,2-Dichlorobenzene	9.4 U	32.7	47.2	69	30.2	47.2	64	17-105	8	30
1,3-Dichlorobenzene	9.4 U	32.2	47.2	68	29.5	47.2	63	21-99	8	30
1,4-Dichlorobenzene	9.4 U	32.7	47.2	69	29.4	47.2	62	10-124	11	30
2,4,5-Trichlorophenol	9.4 U	49.0	47.2	104	45.1	47.2	96	48-134	8	30
2,4,6-Trichlorophenol	9.4 U	48.6	47.2	103	45.1	47.2	96	44-135	7	30
2,4-Dichlorophenol	9.4 U	44.8	47.2	95	41.2	47.2	87	40-130	9	30
2,4-Dimethylphenol	9.4 U	47.8	47.2	101	44.0	47.2	93	42-121	8	30
2,4-Dinitrophenol	47 U	31.9 J	47.2	68	34.3 J	47.2	73	21-168	7	30
2,4-Dinitrotoluene	9.4 U	49.7	47.2	105	45.8	47.2	97	37-143	8	30
2,6-Dinitrotoluene	9.4 U	48.3	47.2	102	45.4	47.2	96	39-136	6	30
2-Chloronaphthalene	9.4 U	41.4	47.2	88	38.6	47.2	82	40-108	7	30
2-Chlorophenol	9.4 U	38.6	47.2	82	35.3	47.2	75	37-112	9	30
2-Methylnaphthalene	9.4 U	38.0	47.2	80	35.8	47.2	76	34-102	5	30
2-Methylphenol	9.4 U	37.7	47.2	80	33.4	47.2	71	37-102	12	30
2-Nitroaniline	47 U	47.7	47.2	101	44.3 J	47.2	94	40-136	7	30
2-Nitrophenol	9.4 U	43.9	47.2	93	41.1	47.2	87	27-143	7	30
3,3'-Dichlorobenzidine	9.4 U	48.7	47.2	103	45.8	47.2	97	11-131	6	30
3- and 4-Methylphenol Coelution	9.4 U	33.1	47.2	70	30.5	47.2	65	30-95	7	30
3-Nitroaniline	47 U	42.6 J	47.2	90	40.1 J	47.2	85	19-117	6	30
4,6-Dinitro-2-methylphenol	47 U	29.7 J	47.2	63	34.5 J	47.2	73	25-154	15	30
4-Bromophenyl Phenyl Ether	9.4 U	42.0	47.2	89	38.4	47.2	81	39-115	9	30
4-Chloro-3-methylphenol	9.4 U	46.5	47.2	99	44.1	47.2	94	41-126	5	30
4-Chloroaniline	9.4 U	36.8	47.2	78	34.5	47.2	73	19-111	7	30
4-Chlorophenyl Phenyl Ether	9.4 U	43.0	47.2	91	40.5	47.2	86	41-111	6	30
4-Nitroaniline	47 U	46.5 J	47.2	98	44.2 J	47.2	94	18-143	4	30
4-Nitrophenol	47 U	20.6 J	47.2	44	17.2 J	47.2	36	10-126	20	30
Acenaphthene	9.4 U	42.1	47.2	89	39.8	47.2	84	43-117	6	30
Acenaphthylene	9.4 U	42.0	47.2	89	39.7	47.2	84	45-119	6	30
Anthracene	9.4 U	46.6	47.2	99	44.5	47.2	94	45-127	5	30
Benz(a)anthracene	9.4 U	45.8	47.2	97	43.0	47.2	91	46-126	6	30
Benzo(a)pyrene	9.4 U	49.7	47.2	105	47.5	47.2	101	44-114	4	30
Benzo(b)fluoranthene	9.4 U	44.4	47.2	94	42.0	47.2	89	41-127	5	30
Benzo(g,h,i)perylene	9.4 U	53.3	47.2	113	50.1	47.2	106	50-143	6	30
Benzo(k)fluoranthene	9.4 U	49.1	47.2	104	46.0	47.2	98	46-139	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client:	GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)	Service Request:	R1905920
Project:	Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring	Date Collected:	06/21/19
Sample Matrix:	Water	Date Received:	06/25/19
		Date Analyzed:	07/9/19
		Date Extracted:	06/28/19

Duplicate Matrix Spike Summary
Semivolatile Organic Compounds by GC/MS

Sample Name:	WG-9954-062119-SG-038	Units:	ug/L
Lab Code:	R1905920-002	Basis:	NA
Analysis Method:	8270D		
Prep Method:	EPA 3510C		

Analyte Name	Matrix Spike RQ1906578-03				Duplicate Matrix Spike RQ1906578-04				RPD	RPD Limit
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits		
Benzoic Acid	47 U	64.9	142	46	59.9	142	42	10-94	9	30
Benzyl Alcohol	9.4 U	40.6	47.2	86	36.4	47.2	77	31-109	11	30
2,2'-Oxybis(1-chloropropane)	9.4 U	38.9	47.2	82	36.4	47.2	77	21-126	6	30
Bis(2-chloroethoxy)methane	9.4 U	43.8	47.2	93	40.9	47.2	87	41-118	7	30
Bis(2-chloroethyl) Ether	9.4 U	41.7	47.2	88	39.8	47.2	84	33-108	5	30
Bis(2-ethylhexyl) Phthalate	9.7 U	54.9	47.2	116	93.9	47.2	199 *	41-132	53*	30
Butyl Benzyl Phthalate	9.4 U	52.9	47.2	112	49.3	47.2	105	41-148	6	30
Chrysene	9.4 U	46.3	47.2	98	42.9	47.2	91	47-126	7	30
Di-n-butyl Phthalate	9.4 U	49.9	47.2	106	47.8	47.2	101	43-130	5	30
Di-n-octyl Phthalate	9.4 U	52.9	47.2	112	49.0	47.2	104	40-139	7	30
Dibenz(a,h)anthracene	9.4 U	45.7	47.2	97	41.8	47.2	89	43-136	9	30
Dibenzofuran	9.4 U	44.6	47.2	95	42.5	47.2	90	46-119	5	30
Diethyl Phthalate	9.4 U	48.5	47.2	103	43.8	47.2	93	36-122	10	30
Dimethyl Phthalate	9.4 U	44.5	47.2	94	40.2	47.2	85	33-123	10	30
Fluoranthene	9.4 U	44.0	47.2	93	42.1	47.2	89	43-135	4	30
Fluorene	9.4 U	41.6	47.2	88	39.6	47.2	84	43-113	5	30
Hexachlorobenzene	9.4 U	42.5	47.2	90	41.2	47.2	87	42-125	3	30
Hexachlorobutadiene	9.4 U	36.0	47.2	76	33.0	47.2	70	10-111	8	30
Hexachlorocyclopentadiene	9.4 U	21.2	47.2	45	14.5	47.2	31	10-103	37*	30
Hexachloroethane	9.4 U	30.3	47.2	64	27.4	47.2	58	12-101	10	30
Indeno(1,2,3-cd)pyrene	9.4 U	51.8	47.2	110	48.1	47.2	102	49-140	8	30
Isophorone	9.4 U	44.9	47.2	95	42.6	47.2	90	40-111	5	30
N-Nitrosodi-n-propylamine	9.4 U	42.1	47.2	89	39.9	47.2	85	35-108	5	30
N-Nitrosodiphenylamine	9.4 U	52.9	47.2	112	48.9	47.2	104	43-127	7	30
Naphthalene	9.4 U	36.7	47.2	78	34.4	47.2	73	37-108	7	30
Nitrobenzene	9.4 U	42.3	47.2	90	38.8	47.2	82	35-112	9	30
Pentachlorophenol (PCP)	47 U	53.6	47.2	114	44.6 J	47.2	94	29-164	19	30
Phenanthrene	9.4 U	43.0	47.2	91	40.9	47.2	87	46-123	4	30
Phenol	9.4 U	18.4	47.2	39	16.5	47.2	35	10-113	11	30
Pyrene	9.4 U	49.0	47.2	104	45.7	47.2	97	44-129	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/08/19 15:27
Date Extracted: 06/28/19

Method Blank Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1906578-05

Instrument ID: R-MS-54
File ID: I:\ACQUDATA\5973D\Data\070819\BS376.D\

Analysis Method: 8270D

Analysis Lot: 642032,642564,642513,643039

Prep Method: EPA 3510C

Extraction Lot: 339608

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906578-06	I:\ACQUDATA\5973D\Data\070819\BS377.D\	07/08/19 15:56
Duplicate Lab Control Sample	RQ1906578-07	I:\ACQUDATA\5973D\Data\070819\BS378.D\	07/08/19 16:25
WG-9954-062119-SG-038	R1905920-002	I:\ACQUDATA\5973D\Data\070919\BS403.D\	07/09/19 14:02
WG-9954-062119-SG-038MS	RQ1906578-03	I:\ACQUDATA\5973D\Data\070919\BS404.D\	07/09/19 14:31
WG-9954-062119-SG-038DMS	RQ1906578-04	I:\ACQUDATA\5973D\Data\070919\BS405.D\	07/09/19 15:01
WG-9954-062119-SG-039	R1905920-003	I:\ACQUDATA\5973D\Data\070919\BS406.D\	07/09/19 15:31
WG-9954-062119-SG-040	R1905920-004	I:\ACQUDATA\5973D\Data\070919\BS407.D\	07/09/19 16:00
WG-9954-062119-SG-041	R1905920-005	I:\ACQUDATA\5973D\Data\070919\BS408.D\	07/09/19 16:31
WG-9954-062119-SG-042	R1905920-006	I:\ACQUDATA\5973D\Data\070919\BS409.D\	07/09/19 17:00
WG-9954-062119-SG-043	R1905920-007	I:\ACQUDATA\5973D\Data\070919\BS410.D\	07/09/19 17:30
WG-9954-062119-SG-044	R1905920-008	I:\ACQUDATA\5973D\Data\070919\BS411.D\	07/09/19 17:59

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/12/19 07:16
Date Extracted: 07/01/19

Method Blank Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Method Blank
Lab Code: RQ1906656-01

Instrument ID:R-MS-51**File ID:**I:\ACQUDATA\5973A\DATA\071219\DS876.D**Analysis Method:** 8270D**Analysis Lot:**642032,642564,642513,643039**Prep Method:** EPA 3510C**Extraction Lot:**339699

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906656-02	I:\ACQUDATA\5973A\DATA\071219\DS877.D\	07/12/19 07:45
Duplicate Lab Control Sample	RQ1906656-03	I:\ACQUDATA\5973A\DATA\071219\DS878.D\	07/12/19 10:28
WG-9954-062119-SG-045	R1905920-009	I:\ACQUDATA\5973A\DATA\071619\DS906.D\	07/16/19 16:15

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906578-05

Service Request: R1905920
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	07/08/19 15:27	6/28/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
2,4-Dichlorophenol	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
2,4-Dimethylphenol	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
2,4-Dinitrophenol	50 U	50	7.0	1	07/08/19 15:27	6/28/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	07/08/19 15:27	6/28/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	07/08/19 15:27	6/28/19	
2-Chloronaphthalene	10 U	10	1.1	1	07/08/19 15:27	6/28/19	
2-Chlorophenol	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
2-Methylnaphthalene	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
2-Methylphenol	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
2-Nitroaniline	50 U	50	2.4	1	07/08/19 15:27	6/28/19	
2-Nitrophenol	10 U	10	1.5	1	07/08/19 15:27	6/28/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
3-Nitroaniline	50 U	50	1.8	1	07/08/19 15:27	6/28/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	07/08/19 15:27	6/28/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	07/08/19 15:27	6/28/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	07/08/19 15:27	6/28/19	
4-Chloroaniline	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	07/08/19 15:27	6/28/19	
4-Nitroaniline	50 U	50	1.9	1	07/08/19 15:27	6/28/19	
4-Nitrophenol	50 U	50	3.0	1	07/08/19 15:27	6/28/19	
Acenaphthene	10 U	10	1.6	1	07/08/19 15:27	6/28/19	
Acenaphthylene	10 U	10	1.3	1	07/08/19 15:27	6/28/19	
Anthracene	10 U	10	1.4	1	07/08/19 15:27	6/28/19	
Benz(a)anthracene	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
Benzo(a)pyrene	10 U	10	1.3	1	07/08/19 15:27	6/28/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	07/08/19 15:27	6/28/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	07/08/19 15:27	6/28/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	07/08/19 15:27	6/28/19	
Benzoic Acid	50 U	50	6.0	1	07/08/19 15:27	6/28/19	
Benzyl Alcohol	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	07/08/19 15:27	6/28/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	07/08/19 15:27	6/28/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
Chrysene	10 U	10	1.5	1	07/08/19 15:27	6/28/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906578-05

Service Request: R1905920
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	07/08/19 15:27	6/28/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	07/08/19 15:27	6/28/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	07/08/19 15:27	6/28/19	
Dibenzofuran	10 U	10	1.3	1	07/08/19 15:27	6/28/19	
Diethyl Phthalate	10 U	10	1.2	1	07/08/19 15:27	6/28/19	
Dimethyl Phthalate	10 U	10	1.5	1	07/08/19 15:27	6/28/19	
Fluoranthene	10 U	10	1.4	1	07/08/19 15:27	6/28/19	
Fluorene	10 U	10	1.6	1	07/08/19 15:27	6/28/19	
Hexachlorobenzene	10 U	10	1.4	1	07/08/19 15:27	6/28/19	
Hexachlorobutadiene	10 U	10	1.1	1	07/08/19 15:27	6/28/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	07/08/19 15:27	6/28/19	
Hexachloroethane	10 U	10	1.2	1	07/08/19 15:27	6/28/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	07/08/19 15:27	6/28/19	
Isophorone	10 U	10	1.2	1	07/08/19 15:27	6/28/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	07/08/19 15:27	6/28/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	07/08/19 15:27	6/28/19	
Naphthalene	10 U	10	1.1	1	07/08/19 15:27	6/28/19	
Nitrobenzene	10 U	10	1.0	1	07/08/19 15:27	6/28/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	07/08/19 15:27	6/28/19	
Phenanthrene	10 U	10	1.6	1	07/08/19 15:27	6/28/19	
Phenol	1.5 J	10	1.0	1	07/08/19 15:27	6/28/19	
Pyrene	10 U	10	1.8	1	07/08/19 15:27	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	83	35 - 141	07/08/19 15:27	
2-Fluorobiphenyl	70	31 - 118	07/08/19 15:27	
2-Fluorophenol	41	10 - 105	07/08/19 15:27	
Nitrobenzene-d5	72	31 - 110	07/08/19 15:27	
Phenol-d6	27	10 - 107	07/08/19 15:27	
p-Terphenyl-d14	89	10 - 165	07/08/19 15:27	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown hydrocarbon	11.52	4.1	J
	unknown hydrocarbon	12.08	7.0	J
	unknown hydrocarbon	12.70	9.8	J
	unknown hydrocarbon	13.37	9.5	J
	unknown hydrocarbon	14.09	9.8	J
	unknown hydrocarbon	14.86	8.7	J
	unknown hydrocarbon	15.66	7.3	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: Method Blank
Lab Code: RQ1906578-05

Service Request: R1905920
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown hydrocarbon	16.35	5.1	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906656-01

Service Request: R1905920
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	07/12/19 07:16	7/1/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
2,4-Dichlorophenol	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
2,4-Dimethylphenol	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
2,4-Dinitrophenol	50 U	50	7.0	1	07/12/19 07:16	7/1/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	07/12/19 07:16	7/1/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	07/12/19 07:16	7/1/19	
2-Chloronaphthalene	10 U	10	1.1	1	07/12/19 07:16	7/1/19	
2-Chlorophenol	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
2-Methylnaphthalene	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
2-Methylphenol	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
2-Nitroaniline	50 U	50	2.4	1	07/12/19 07:16	7/1/19	
2-Nitrophenol	10 U	10	1.5	1	07/12/19 07:16	7/1/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
3-Nitroaniline	50 U	50	1.8	1	07/12/19 07:16	7/1/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	07/12/19 07:16	7/1/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	07/12/19 07:16	7/1/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	07/12/19 07:16	7/1/19	
4-Chloroaniline	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	07/12/19 07:16	7/1/19	
4-Nitroaniline	50 U	50	1.9	1	07/12/19 07:16	7/1/19	
4-Nitrophenol	50 U	50	3.0	1	07/12/19 07:16	7/1/19	
Acenaphthene	10 U	10	1.6	1	07/12/19 07:16	7/1/19	
Acenaphthylene	10 U	10	1.3	1	07/12/19 07:16	7/1/19	
Anthracene	10 U	10	1.4	1	07/12/19 07:16	7/1/19	
Benz(a)anthracene	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
Benzo(a)pyrene	10 U	10	1.3	1	07/12/19 07:16	7/1/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	07/12/19 07:16	7/1/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	07/12/19 07:16	7/1/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	07/12/19 07:16	7/1/19	
Benzoic Acid	50 U	50	6.0	1	07/12/19 07:16	7/1/19	
Benzyl Alcohol	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	07/12/19 07:16	7/1/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	07/12/19 07:16	7/1/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
Chrysene	10 U	10	1.5	1	07/12/19 07:16	7/1/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906656-01

Service Request: R1905920
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	07/12/19 07:16	7/1/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	07/12/19 07:16	7/1/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	07/12/19 07:16	7/1/19	
Dibenzofuran	10 U	10	1.3	1	07/12/19 07:16	7/1/19	
Diethyl Phthalate	10 U	10	1.2	1	07/12/19 07:16	7/1/19	
Dimethyl Phthalate	10 U	10	1.5	1	07/12/19 07:16	7/1/19	
Fluoranthene	10 U	10	1.4	1	07/12/19 07:16	7/1/19	
Fluorene	10 U	10	1.6	1	07/12/19 07:16	7/1/19	
Hexachlorobenzene	10 U	10	1.4	1	07/12/19 07:16	7/1/19	
Hexachlorobutadiene	10 U	10	1.1	1	07/12/19 07:16	7/1/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	07/12/19 07:16	7/1/19	
Hexachloroethane	10 U	10	1.2	1	07/12/19 07:16	7/1/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	07/12/19 07:16	7/1/19	
Isophorone	10 U	10	1.2	1	07/12/19 07:16	7/1/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	07/12/19 07:16	7/1/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	07/12/19 07:16	7/1/19	
Naphthalene	10 U	10	1.1	1	07/12/19 07:16	7/1/19	
Nitrobenzene	10 U	10	1.0	1	07/12/19 07:16	7/1/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	07/12/19 07:16	7/1/19	
Phenanthrene	10 U	10	1.6	1	07/12/19 07:16	7/1/19	
Phenol	1.4 J	10	1.0	1	07/12/19 07:16	7/1/19	
Pyrene	10 U	10	1.8	1	07/12/19 07:16	7/1/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	78	35 - 141	07/12/19 07:16	
2-Fluorobiphenyl	70	31 - 118	07/12/19 07:16	
2-Fluorophenol	39	10 - 105	07/12/19 07:16	
Nitrobenzene-d5	58	31 - 110	07/12/19 07:16	
Phenol-d6	27	10 - 107	07/12/19 07:16	
p-Terphenyl-d14	95	10 - 165	07/12/19 07:16	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/08/19 15:56
Date Extracted: 06/28/19

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample**Instrument ID:**R-MS-54**Lab Code:** RQ1906578-06**File ID:**I:\ACQUDATA\5973D\Data\070819\BS377.D**Analysis Method:** 8270D**Analysis Lot:**642032,642564,642513,643039**Prep Method:** EPA 3510C**Extraction Lot:**339608

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906578-05	I:\ACQUDATA\5973D\Data\070819\BS376.D\	07/08/19 15:27
Duplicate Lab Control Sample	RQ1906578-07	I:\ACQUDATA\5973D\Data\070819\BS378.D\	07/08/19 16:25
WG-9954-062119-SG-038	R1905920-002	I:\ACQUDATA\5973D\Data\070919\BS403.D\	07/09/19 14:02
WG-9954-062119-SG-038MS	RQ1906578-03	I:\ACQUDATA\5973D\Data\070919\BS404.D\	07/09/19 14:31
WG-9954-062119-SG-038DMS	RQ1906578-04	I:\ACQUDATA\5973D\Data\070919\BS405.D\	07/09/19 15:01
WG-9954-062119-SG-039	R1905920-003	I:\ACQUDATA\5973D\Data\070919\BS406.D\	07/09/19 15:31
WG-9954-062119-SG-040	R1905920-004	I:\ACQUDATA\5973D\Data\070919\BS407.D\	07/09/19 16:00
WG-9954-062119-SG-041	R1905920-005	I:\ACQUDATA\5973D\Data\070919\BS408.D\	07/09/19 16:31
WG-9954-062119-SG-042	R1905920-006	I:\ACQUDATA\5973D\Data\070919\BS409.D\	07/09/19 17:00
WG-9954-062119-SG-043	R1905920-007	I:\ACQUDATA\5973D\Data\070919\BS410.D\	07/09/19 17:30
WG-9954-062119-SG-044	R1905920-008	I:\ACQUDATA\5973D\Data\070919\BS411.D\	07/09/19 17:59

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/12/19 07:45
Date Extracted: 07/01/19

Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Sample Name: Lab Control Sample**Instrument ID:**R-MS-51**Lab Code:** RQ1906656-02**File ID:**I:\ACQUDATA\5973A\DATA\071219\DS877.D**Analysis Method:** 8270D**Analysis Lot:**642032,642564,642513,643039**Prep Method:** EPA 3510C**Extraction Lot:**339699

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906656-01	I:\ACQUDATA\5973A\DATA\071219\DS876.D\	07/12/19 07:16
Duplicate Lab Control Sample	RQ1906656-03	I:\ACQUDATA\5973A\DATA\071219\DS878.D\	07/12/19 10:28
WG-9954-062119-SG-045	R1905920-009	I:\ACQUDATA\5973A\DATA\071619\DS906.D\	07/16/19 16:15

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/08/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1906578-06					RQ1906578-07					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	8270D	34.5	50.0	69	31.7	50.0	63	10-127	9	30
1,2-Dichlorobenzene	8270D	31.5	50.0	63	29.1	50.0	58	23-130	8	30
1,3-Dichlorobenzene	8270D	30.8	50.0	62	28.2	50.0	56	21-90	10	30
1,4-Dichlorobenzene	8270D	30.7	50.0	61	28.3	50.0	57	10-124	7	30
2,4,5-Trichlorophenol	8270D	49.2	50.0	98	46.9	50.0	94	48-134	4	30
2,4,6-Trichlorophenol	8270D	50.1	50.0	100	47.4	50.0	95	44-135	5	30
2,4-Dichlorophenol	8270D	45.1	50.0	90	42.7	50.0	85	48-127	6	30
2,4-Dimethylphenol	8270D	48.9	50.0	98	45.5	50.0	91	59-113	7	30
2,4-Dinitrophenol	8270D	46.3 J	50.0	93	45.2 J	50.0	90	21-154	3	30
2,4-Dinitrotoluene	8270D	52.3	50.0	105	49.6	50.0	99	54-130	6	30
2,6-Dinitrotoluene	8270D	51.6	50.0	103	48.1	50.0	96	51-127	7	30
2-Chloronaphthalene	8270D	43.2	50.0	86	39.6	50.0	79	40-108	8	30
2-Chlorophenol	8270D	38.6	50.0	77	36.3	50.0	73	42-112	5	30
2-Methylnaphthalene	8270D	38.8	50.0	78	35.7	50.0	71	34-102	9	30
2-Methylphenol	8270D	38.3	50.0	77	36.5	50.0	73	47-100	5	30
2-Nitroaniline	8270D	49.8 J	50.0	100	46.8 J	50.0	94	52-133	6	30
2-Nitrophenol	8270D	44.3	50.0	89	42.9	50.0	86	43-131	3	30
3,3'-Dichlorobenzidine	8270D	50.6	50.0	101	46.6	50.0	93	43-126	8	30
3- and 4-Methylphenol Coelution	8270D	34.4	50.0	69	33.1	50.0	66	40-92	4	30
3-Nitroaniline	8270D	45.3 J	50.0	91	43.3 J	50.0	87	42-111	4	30
4,6-Dinitro-2-methylphenol	8270D	44.3 J	50.0	89	40.9 J	50.0	82	36-152	8	30
4-Bromophenyl Phenyl Ether	8270D	44.5	50.0	89	41.5	50.0	83	48-114	7	30
4-Chloro-3-methylphenol	8270D	47.0	50.0	94	44.4	50.0	89	52-113	5	30
4-Chloroaniline	8270D	41.9	50.0	84	39.3	50.0	79	44-109	6	30
4-Chlorophenyl Phenyl Ether	8270D	45.9	50.0	92	43.3	50.0	87	51-107	6	30
4-Nitroaniline	8270D	50.3	50.0	101	47.2 J	50.0	94	54-133	7	30
4-Nitrophenol	8270D	22.1 J	50.0	44	20.4 J	50.0	41	10-126	7	30
Acenaphthene	8270D	45.1	50.0	90	41.6	50.0	83	52-107	8	30
Acenaphthylene	8270D	44.5	50.0	89	41.7	50.0	83	55-109	7	30
Anthracene	8270D	51.5	50.0	103	47.7	50.0	95	55-116	8	30
Benz(a)anthracene	8270D	49.1	50.0	98	44.6	50.0	89	61-121	10	30
Benzo(a)pyrene	8270D	53.1	50.0	106	49.0	50.0	98	44-114	8	30
Benzo(b)fluoranthene	8270D	48.4	50.0	97	45.1	50.0	90	62-115	7	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/08/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1906578-06					RQ1906578-07					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(g,h,i)perylene	8270D	55.9	50.0	112	51.8	50.0	104	63-136	7	30
Benzo(k)fluoranthene	8270D	53.4	50.0	107	49.3	50.0	99	49-133	8	30
Benzoic Acid	8270D	60.3	150	40	55.7	150	37	10-94	8	30
Benzyl Alcohol	8270D	41.8	50.0	84	40.0	50.0	80	31-109	5	30
2,2'-Oxybis(1-chloropropane)	8270D	40.6	50.0	81	38.5	50.0	77	32-122	5	30
Bis(2-chloroethoxy)methane	8270D	46.0	50.0	92	43.4	50.0	87	55-110	6	30
Bis(2-chloroethyl) Ether	8270D	41.7	50.0	83	39.5	50.0	79	46-102	5	30
Bis(2-ethylhexyl) Phthalate	8270D	57.6	50.0	115	53.0	50.0	106	51-132	8	30
Butyl Benzyl Phthalate	8270D	54.8	50.0	110	49.2	50.0	98	41-148	12	30
Chrysene	8270D	49.3	50.0	99	45.3	50.0	91	57-118	8	30
Di-n-butyl Phthalate	8270D	54.0	50.0	108	49.6	50.0	99	57-128	9	30
Di-n-octyl Phthalate	8270D	57.5	50.0	115	52.6	50.0	105	62-124	9	30
Dibenz(a,h)anthracene	8270D	46.8	50.0	94	45.3	50.0	91	54-135	3	30
Dibenzofuran	8270D	47.2	50.0	94	44.5	50.0	89	55-110	5	30
Diethyl Phthalate	8270D	52.3	50.0	105	48.1	50.0	96	53-113	9	30
Dimethyl Phthalate	8270D	47.5	50.0	95	44.6	50.0	89	51-112	7	30
Fluoranthene	8270D	47.9	50.0	96	44.7	50.0	89	66-127	8	30
Fluorene	8270D	46.1	50.0	92	43.5	50.0	87	54-106	6	30
Hexachlorobenzene	8270D	46.1	50.0	92	43.7	50.0	87	53-123	6	30
Hexachlorobutadiene	8270D	35.1	50.0	70	32.2	50.0	64	16-95	9	30
Hexachlorocyclopentadiene	8270D	23.5	50.0	47	20.6	50.0	41	10-99	14	30
Hexachloroethane	8270D	28.8	50.0	58	26.4	50.0	53	15-92	9	30
Indeno(1,2,3-cd)pyrene	8270D	53.7	50.0	107	50.0	50.0	100	62-137	7	30
Isophorone	8270D	47.7	50.0	95	44.7	50.0	89	50-116	7	30
N-Nitrosodi-n-propylamine	8270D	44.8	50.0	90	42.0	50.0	84	49-115	7	30
N-Nitrosodiphenylamine	8270D	55.6	50.0	111	50.9	50.0	102	45-123	8	30
Naphthalene	8270D	36.9	50.0	74	34.9	50.0	70	38-99	6	30
Nitrobenzene	8270D	42.9	50.0	86	41.2	50.0	82	46-108	5	30
Pentachlorophenol (PCP)	8270D	59.7	50.0	119	55.4	50.0	111	29-164	7	30
Phenanthrene	8270D	47.2	50.0	94	43.5	50.0	87	58-118	8	30
Phenol	8270D	20.8	50.0	42	19.4	50.0	39	10-113	7	30
Pyrene	8270D	50.6	50.0	101	46.2	50.0	92	61-122	9	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/12/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1906656-02					RQ1906656-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	8270D	24.2	50.0	48	25.1	50.0	50	10-127	4	30
1,2-Dichlorobenzene	8270D	22.8	50.0	46	21.1	50.0	42	23-130	9	30
1,3-Dichlorobenzene	8270D	22.0	50.0	44	22.5	50.0	45	21-90	2	30
1,4-Dichlorobenzene	8270D	21.2	50.0	42	22.8	50.0	46	10-124	9	30
2,4,5-Trichlorophenol	8270D	50.7	50.0	101	64.8	50.0	130	48-134	25	30
2,4,6-Trichlorophenol	8270D	49.4	50.0	99	55.7	50.0	111	44-135	11	30
2,4-Dichlorophenol	8270D	39.6	50.0	79	41.5	50.0	83	48-127	5	30
2,4-Dimethylphenol	8270D	35.0	50.0	70	44.0	50.0	88	59-113	23	30
2,4-Dinitrophenol	8270D	46.3 J	50.0	93	53.9	50.0	108	21-154	15	30
2,4-Dinitrotoluene	8270D	51.7	50.0	103	56.9	50.0	114	54-130	10	30
2,6-Dinitrotoluene	8270D	52.1	50.0	104	53.1	50.0	106	51-127	2	30
2-Chloronaphthalene	8270D	37.7	50.0	75	45.2	50.0	90	40-108	18	30
2-Chlorophenol	8270D	34.8	50.0	70	35.7	50.0	71	42-112	1	30
2-Methylnaphthalene	8270D	31.9	50.0	64	30.8	50.0	62	34-102	3	30
2-Methylphenol	8270D	36.5	50.0	73	35.2	50.0	70	47-100	4	30
2-Nitroaniline	8270D	56.9	50.0	114	64.3	50.0	129	52-133	12	30
2-Nitrophenol	8270D	37.4	50.0	75	38.1	50.0	76	43-131	1	30
3,3'-Dichlorobenzidine	8270D	50.9	50.0	102	53.5	50.0	107	43-126	5	30
3- and 4-Methylphenol Coelution	8270D	33.0	50.0	66	33.0	50.0	66	40-92	<1	30
3-Nitroaniline	8270D	49.5 J	50.0	99	51.7	50.0	103	42-111	4	30
4,6-Dinitro-2-methylphenol	8270D	49.3 J	50.0	99	47.5 J	50.0	95	36-152	4	30
4-Bromophenyl Phenyl Ether	8270D	46.6	50.0	93	43.6	50.0	87	48-114	7	30
4-Chloro-3-methylphenol	8270D	49.5	50.0	99	47.5	50.0	95	52-113	4	30
4-Chloroaniline	8270D	39.3	50.0	79	41.7	50.0	83	44-109	5	30
4-Chlorophenyl Phenyl Ether	8270D	42.5	50.0	85	44.6	50.0	89	51-107	5	30
4-Nitroaniline	8270D	54.6	50.0	109	59.2	50.0	118	54-133	8	30
4-Nitrophenol	8270D	24.6 J	50.0	49	26.8 J	50.0	54	10-126	10	30
Acenaphthene	8270D	39.7	50.0	79	41.3	50.0	83	52-107	5	30
Acenaphthylene	8270D	41.5	50.0	83	42.6	50.0	85	55-109	2	30
Anthracene	8270D	51.3	50.0	103	56.2	50.0	112	55-116	8	30
Benz(a)anthracene	8270D	50.1	50.0	100	51.6	50.0	103	61-121	3	30
Benzo(a)pyrene	8270D	49.6	50.0	99	52.3	50.0	105	44-114	6	30
Benzo(b)fluoranthene	8270D	48.3	50.0	97	45.5	50.0	91	62-115	6	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/12/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1906656-02					RQ1906656-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(g,h,i)perylene	8270D	62.2	50.0	124	70.5	50.0	141 *	63-136	13	30
Benzo(k)fluoranthene	8270D	53.9	50.0	108	55.4	50.0	111	49-133	3	30
Benzoic Acid	8270D	62.8	150	42	73.8	150	49	10-94	15	30
Benzyl Alcohol	8270D	40.6	50.0	81	39.4	50.0	79	31-109	3	30
2,2'-Oxybis(1-chloropropane)	8270D	34.5	50.0	69	32.9	50.0	66	32-122	4	30
Bis(2-chloroethoxy)methane	8270D	43.6	50.0	87	45.2	50.0	90	55-110	3	30
Bis(2-chloroethyl) Ether	8270D	35.8	50.0	72	37.8	50.0	76	46-102	5	30
Bis(2-ethylhexyl) Phthalate	8270D	58.4	50.0	117	58.7	50.0	117	51-132	<1	30
Butyl Benzyl Phthalate	8270D	58.5	50.0	117	57.2	50.0	114	41-148	3	30
Chrysene	8270D	52.0	50.0	104	53.4	50.0	107	57-118	3	30
Di-n-butyl Phthalate	8270D	61.2	50.0	122	51.8	50.0	104	57-128	16	30
Di-n-octyl Phthalate	8270D	63.3	50.0	127 *	45.5	50.0	91	62-124	33*	30
Dibenz(a,h)anthracene	8270D	44.4	50.0	89	48.3	50.0	97	54-135	9	30
Dibenzofuran	8270D	45.1	50.0	90	47.6	50.0	95	55-110	5	30
Diethyl Phthalate	8270D	48.2	50.0	96	48.5	50.0	97	53-113	1	30
Dimethyl Phthalate	8270D	49.1	50.0	98	47.9	50.0	96	51-112	2	30
Fluoranthene	8270D	54.7	50.0	109	54.8	50.0	110	66-127	<1	30
Fluorene	8270D	44.4	50.0	89	46.1	50.0	92	54-106	3	30
Hexachlorobenzene	8270D	49.0	50.0	98	46.7	50.0	93	53-123	5	30
Hexachlorobutadiene	8270D	26.5	50.0	53	23.2	50.0	46	16-95	14	30
Hexachlorocyclopentadiene	8270D	19.7	50.0	39	21.3	50.0	43	10-99	10	30
Hexachloroethane	8270D	22.3	50.0	45	19.5	50.0	39	15-92	14	30
Indeno(1,2,3-cd)pyrene	8270D	57.2	50.0	114	63.3	50.0	127	62-137	11	30
Isophorone	8270D	45.4	50.0	91	49.3	50.0	99	50-116	8	30
N-Nitrosodi-n-propylamine	8270D	42.3	50.0	85	36.6	50.0	73	49-115	15	30
N-Nitrosodiphenylamine	8270D	52.1	50.0	104	48.4	50.0	97	45-123	7	30
Naphthalene	8270D	30.2	50.0	60	30.9	50.0	62	38-99	3	30
Nitrobenzene	8270D	40.2	50.0	80	39.6	50.0	79	46-108	1	30
Pentachlorophenol (PCP)	8270D	53.5	50.0	107	56.1	50.0	112	29-164	5	30
Phenanthrene	8270D	49.4	50.0	99	53.1	50.0	106	58-118	7	30
Phenol	8270D	18.2	50.0	36	21.0	50.0	42	10-113	15	30
Pyrene	8270D	53.1	50.0	106	71.1	50.0	142 *	61-122	29	30

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/08/19 09:07

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070819\BS363.D\
Instrument ID: R-MS-54

Analytical Method: 8270D
Analysis Lot: 642032

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	30.36	60575	Pass
68	69	0.00	2	1.27	1060	Pass
69	198	0.00	100	41.92	83626	Pass
70	69	0.00	2	0.52	435	Pass
127	198	10	80	52.36	104464	Pass
197	198	0.00	2	0.37	745	Pass
198	198	100	100	100.00	199509	Pass
199	198	5	9	6.73	13436	Pass
275	198	10	60	20.13	40155	Pass
365	198	1	100	1.94	3869	Pass
441	442	0.01	24	18.91	25843	Pass
442	442	100	100	100.00	136640	Pass
443	442	15	24	19.09	26083	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1907035-02	I:\ACQUDATA\5973D\Data\070819\BS364.D\	07/08/19 09:43	
Method Blank	RQ1906578-05	I:\ACQUDATA\5973D\Data\070819\BS376.D\	07/08/19 15:27	
Lab Control Sample	RQ1906578-06	I:\ACQUDATA\5973D\Data\070819\BS377.D\	07/08/19 15:56	
Duplicate Lab Control Sample	RQ1906578-07	I:\ACQUDATA\5973D\Data\070819\BS378.D\	07/08/19 16:25	

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/12/19 06:13

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973A\DATA\071219\DS874.D\
Instrument ID: R-MS-51

Analytical Method: 8270D
Analysis Lot: 642513

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	58.53	32151	Pass
68	69	0.00	2	1.19	367	Pass
69	198	0.00	100	56.14	30839	Pass
70	69	0.00	2	0.77	236	Pass
127	198	10	80	61.90	34001	Pass
197	198	0.00	2	1.39	764	Pass
198	198	100	100	100.00	54928	Pass
199	198	5	9	8.38	4603	Pass
275	198	10	60	29.27	16076	Pass
365	198	1	100	5.03	2761	Pass
441	442	0.01	24	17.74	14247	Pass
442	442	100	100	100.00	80315	Pass
443	442	15	24	19.53	15689	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1907013-02	I:\ACQUDATA\5973A\DATA\071219\DS875.D\	07/12/19 06:39	
Method Blank	RQ1906656-01	I:\ACQUDATA\5973A\DATA\071219\DS876.D\	07/12/19 07:16	
Lab Control Sample	RQ1906656-02	I:\ACQUDATA\5973A\DATA\071219\DS877.D\	07/12/19 07:45	
Duplicate Lab Control Sample	RQ1906656-03	I:\ACQUDATA\5973A\DATA\071219\DS878.D\	07/12/19 10:28	

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/09/19 09:29

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070919\BS394.D\
Instrument ID: R-MS-54

Analytical Method: 8270D
Analysis Lot: 642564

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	33.44	66966	Pass
68	69	0.00	2	1.50	1310	Pass
69	198	0.00	100	43.51	87123	Pass
70	69	0.00	2	0.48	421	Pass
127	198	10	80	52.80	105736	Pass
197	198	0.00	2	0.69	1376	Pass
198	198	100	100	100.00	200256	Pass
199	198	5	9	6.58	13185	Pass
275	198	10	60	19.66	39362	Pass
365	198	1	100	1.70	3410	Pass
441	442	0.01	24	17.90	21978	Pass
442	442	100	100	100.00	122781	Pass
443	442	15	24	19.05	23389	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1907036-02	I:\ACQUDATA\5973D\Data\070919\BS395.D\	07/09/19 09:52	
WG-9954-062119-SG-038	R1905920-002	I:\ACQUDATA\5973D\Data\070919\BS403.D\	07/09/19 14:02	
WG-9954-062119-SG-038	RQ1906578-03	I:\ACQUDATA\5973D\Data\070919\BS404.D\	07/09/19 14:31	
WG-9954-062119-SG-038	RQ1906578-04	I:\ACQUDATA\5973D\Data\070919\BS405.D\	07/09/19 15:01	
WG-9954-062119-SG-039	R1905920-003	I:\ACQUDATA\5973D\Data\070919\BS406.D\	07/09/19 15:31	
WG-9954-062119-SG-040	R1905920-004	I:\ACQUDATA\5973D\Data\070919\BS407.D\	07/09/19 16:00	
WG-9954-062119-SG-041	R1905920-005	I:\ACQUDATA\5973D\Data\070919\BS408.D\	07/09/19 16:31	
WG-9954-062119-SG-042	R1905920-006	I:\ACQUDATA\5973D\Data\070919\BS409.D\	07/09/19 17:00	
WG-9954-062119-SG-043	R1905920-007	I:\ACQUDATA\5973D\Data\070919\BS410.D\	07/09/19 17:30	
WG-9954-062119-SG-044	R1905920-008	I:\ACQUDATA\5973D\Data\070919\BS411.D\	07/09/19 17:59	

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QC/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/16/19 10:40

Tune Summary
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973A\DATA\071619\DS901.D\
Instrument ID: R-MS-51

Analytical Method: 8270D
Analysis Lot: 643039

Target Mass	Relative to Mass	Lower Limit %	Upper Limit %	Relative Abundance %	Raw Abundance	Result Pass/Fail
51	198	10	80	51.43	40470	Pass
68	69	0.00	2	0.00	0	Pass
69	198	0.00	100	50.86	40021	Pass
70	69	0.00	2	0.23	93	Pass
127	198	10	80	55.29	43509	Pass
197	198	0.00	2	0.86	679	Pass
198	198	100	100	100.00	78693	Pass
199	198	5	9	7.14	5622	Pass
275	198	10	60	27.68	21781	Pass
365	198	1	100	4.79	3769	Pass
441	442	0.01	24	19.51	20295	Pass
442	442	100	100	100.00	104027	Pass
443	442	15	24	18.73	19483	Pass

Sample Name	Lab Code	File ID:	Date Analyzed:	Q
Continuing Calibration Verification	RQ1907327-02	I:\ACQUDATA\5973A\DATA\071619\DS902.D\	07/16/19 11:13	
WG-9954-062119-SG-045	R1905920-009	I:\ACQUDATA\5973A\DATA\071619\DS906.D\	07/16/19 16:15	

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/08/19 09:43

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070819\BS364.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1907035-02
Analysis Lot:642032
Signal ID:1

	1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
	Area	RT	Area	RT	Area	RT
Result ==>	325,579	4.68	625,997	7.55	901,680	12.25
Upper Limit ==>	651,158	5.18	1,251,994	8.05	1,803,360	12.75
Lower Limit ==>	162,790	4.18	312,999	7.05	450,840	11.75

Associated Analyses

Method Blank	RQ1906578-05	322272	4.68	646999	7.54	907749	12.22
Lab Control Sample	RQ1906578-06	331379	4.68	652363	7.54	895881	12.24
Duplicate Lab Control Sample	RQ1906578-07	335726	4.68	654922	7.54	919497	12.23

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/08/19 09:43

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070819\BS364.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1907035-02
Analysis Lot:642032
Signal ID:1

	Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
	Area	RT	Area	RT	Area	RT
Result ==>	1,226,657	5.84	863,048	15.13	1,029,547	9.02
Upper Limit ==>	2,453,314	6.34	1,726,096	15.63	2,059,094	9.52
Lower Limit ==>	613,329	5.34	431,524	14.63	514,774	8.52

Associated Analyses

Method Blank	RQ1906578-05	1231334	5.84	925570	15.11	864767	9.01
Lab Control Sample	RQ1906578-06	1282878	5.84	866822	15.12	1018311	9.01
Duplicate Lab Control Sample	RQ1906578-07	1303724	5.84	884349	15.12	1021674	9.01

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/09/19 09:52

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070919\BS395.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1907036-02
Analysis Lot:642564
Signal ID:1

	1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
	Area	RT	Area	RT	Area	RT
Result ==>	314,658	4.68	625,253	7.54	835,092	12.24
Upper Limit ==>	629,316	5.18	1,250,506	8.04	1,670,184	12.74
Lower Limit ==>	157,329	4.18	312,627	7.04	417,546	11.74

Associated Analyses

WG-9954-062119-SG-038	R1905920-002	330987	4.68	670863	7.54	848219	12.22
WG-9954-062119-SG-038MS	RQ1906578-03	346430	4.68	691640	7.54	863796	12.24
WG-9954-062119-SG-038DMS	RQ1906578-04	307727	4.68	627859	7.54	772142	12.23
WG-9954-062119-SG-039	R1905920-003	320231	4.68	627830	7.54	814825	12.22
WG-9954-062119-SG-040	R1905920-004	313833	4.68	610239	7.54	819033	12.22
WG-9954-062119-SG-041	R1905920-005	352004	4.68	699873	7.54	886301	12.22
WG-9954-062119-SG-042	R1905920-006	324269	4.68	638826	7.54	831785	12.22
WG-9954-062119-SG-043	R1905920-007	335812	4.68	667471	7.54	834826	12.22
WG-9954-062119-SG-044	R1905920-008	330107	4.68	653460	7.54	834763	12.22

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/09/19 09:52

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973D\Data\070919\BS395.D\
Instrument ID: R-MS-54
Analysis Method: 8270D

Lab Code:RQ1907036-02
Analysis Lot:642564
Signal ID:1

	Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
	Area	RT	Area	RT	Area	RT
Result ==>	1,206,795	5.84	815,410	15.12	988,898	9.02
Upper Limit ==>	2,413,590	6.34	1,630,820	15.62	1,977,796	9.52
Lower Limit ==>	603,398	5.34	407,705	14.62	494,449	8.52

Associated Analyses

WG-9954-062119-SG-038	R1905920-002	1268907	5.84	810770	15.11	982934	9.01
WG-9954-062119-SG-038MS	RQ1906578-03	1349230	5.84	871897	15.12	1051980	9.01
WG-9954-062119-SG-038DMS	RQ1906578-04	1201923	5.84	776437	15.12	933011	9.01
WG-9954-062119-SG-039	R1905920-003	1200128	5.84	796131	15.11	887183	9.01
WG-9954-062119-SG-040	R1905920-004	1174106	5.84	813861	15.11	831175	9.01
WG-9954-062119-SG-041	R1905920-005	1335516	5.84	889828	15.11	963313	9.01
WG-9954-062119-SG-042	R1905920-006	1238949	5.84	841914	15.11	865546	9.01
WG-9954-062119-SG-043	R1905920-007	1272509	5.84	786704	15.11	941623	9.01
WG-9954-062119-SG-044	R1905920-008	1250980	5.84	812197	15.11	890694	9.01

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/12/19 06:39

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973A\DATA\071219\DS875.D\
Instrument ID: R-MS-51
Analysis Method: 8270D

Lab Code:RQ1907013-02
Analysis Lot:642513
Signal ID:1

	1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
	Area	RT	Area	RT	Area	RT
Result ==>	94,429	4.61	177,575	7.47	285,657	12.09
Upper Limit ==>	188,858	5.11	355,150	7.97	571,314	12.59
Lower Limit ==>	47,215	4.11	88,788	6.97	142,829	11.59

Associated Analyses

Method Blank	RQ1906656-01	101639	4.61	188675	7.47	311743	12.08
Lab Control Sample	RQ1906656-02	98902	4.61	177755	7.47	317061	12.09
Duplicate Lab Control Sample	RQ1906656-03	79544	4.61	116764	7.48	196539	12.09

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/12/19 06:39

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973A\DATA\071219\DS875.D\
Instrument ID: R-MS-51
Analysis Method: 8270D

Lab Code:RQ1907013-02
Analysis Lot:642513
Signal ID:1

	Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
	Area	RT	Area	RT	Area	RT
Result ==>	357,493	5.78	287,270	14.90	289,884	8.94
Upper Limit ==>	714,986	6.28	574,540	15.40	579,768	9.44
Lower Limit ==>	178,747	5.28	143,635	14.40	144,942	8.44

Associated Analyses

Method Blank	RQ1906656-01	380192	5.77	321068	14.90	286245	8.93
Lab Control Sample	RQ1906656-02	361213	5.77	306708	14.90	271527	8.93
Duplicate Lab Control Sample	RQ1906656-03	265749	5.77	254988	14.90	213424	8.93

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/16/19 11:13

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973A\DATA\071619\DS902.D\
Instrument ID: R-MS-51
Analysis Method: 8270D

Lab Code:RQ1907327-02
Analysis Lot:643039
Signal ID:1

		1,4-Dichlorobenzene-d4		Acenaphthene-d10		Chrysene-d12	
		Area	RT	Area	RT	Area	RT
Result ==>		84,291	4.59	159,329	7.46	270,583	12.06
Upper Limit ==>		168,582	5.09	318,658	7.96	541,166	12.56
Lower Limit ==>		42,146	4.09	79,665	6.96	135,292	11.56
Associated Analyses							
WG-9954-062119-SG-045	R1905920-009	105504	4.59	206107	7.45	334148	12.05

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term

Service Request:R1905920
Date Analyzed:07/16/19 11:13

Internal Standard Area and RT SUMMARY
Semivolatile Organic Compounds by GC/MS

File ID: I:\ACQUDATA\5973A\DATA\071619\DS902.D\
Instrument ID: R-MS-51
Analysis Method: 8270D

Lab Code:RQ1907327-02
Analysis Lot:643039
Signal ID:1

		Naphthalene-d8		Perylene-d12		Phenanthrene-d10	
		Area	RT	Area	RT	Area	RT
	Result ==>	304,765	5.76	262,603	14.86	271,072	8.92
	Upper Limit ==>	609,530	6.26	525,206	15.36	542,144	9.42
	Lower Limit ==>	152,383	5.26	131,302	14.36	135,536	8.42
Associated Analyses							
WG-9954-062119-SG-045	R1905920-009	387753	5.75	327855	14.86	341594	8.91



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905920

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10-164	10-147
WG-9954-062119-SG-038	R1905920-002	49	66
WG-9954-062119-SG-039	R1905920-003	11	56
WG-9954-062119-SG-040	R1905920-004	11	76
WG-9954-062119-SG-041	R1905920-005	15	64
WG-9954-062119-SG-042	R1905920-006	35	100
WG-9954-062119-SG-043	R1905920-007	43	98
WG-9954-062119-SG-044	R1905920-008	25	84
WG-9954-062119-SG-045	R1905920-009	53	88
Method Blank	RQ1906575-05	81	90
Method Blank	RQ1906654-01	65	100
Lab Control Sample	RQ1906575-06	60	91
Duplicate Lab Control Sample	RQ1906575-07	73	103
Duplicate Lab Control Sample	RQ1906654-03	69	100
WG-9954-062119-SG-038 MS	RQ1906575-01	54	78
WG-9954-062119-SG-038 DMS	RQ1906575-02	58	87

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QA/QC Report

Client:	GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)	Service Request:	R1905920
Project:	Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring	Date Collected:	06/21/19
Sample Matrix:	Water	Date Received:	06/25/19
		Date Analyzed:	07/3/19
		Date Extracted:	06/28/19

Duplicate Matrix Spike Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name:	WG-9954-062119-SG-038	Units:	ug/L
Lab Code:	R1905920-002	Basis:	NA
Analysis Method:	8081B		
Prep Method:	EPA 3510C		

Analyte Name	Sample Result	Matrix Spike			Duplicate Matrix Spike					
		Result	RQ1906575-01		Result	RQ1906575-02		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
4,4'-DDD	0.047 U	0.150	0.189	80	0.176	0.189	93	38-157	16	30
4,4'-DDE	0.047 U	0.138	0.189	73	0.150	0.189	80	10-200	8	30
4,4'-DDT	0.047 U	0.136	0.189	72	0.153	0.189	81	19-154	12	30
Aldrin	0.047 U	0.139	0.189	74	0.152	0.189	81	26-149	9	30
Dieldrin	0.047 U	0.135	0.189	72	0.156	0.189	83	41-164	14	30
Endosulfan I	0.047 U	0.132	0.189	70	0.144	0.189	76	47-149	8	30
Endosulfan II	0.047 U	0.144	0.189	76	0.155	0.189	82	51-148	7	30
Endosulfan Sulfate	0.047 U	0.137	0.189	73	0.154	0.189	82	10-170	12	30
Endrin	0.047 U	0.148	0.189	78	0.160	0.189	85	48-165	8	30
Endrin Ketone	0.047 U	0.148	0.189	78	0.156	0.189	83	48-162	6	30
Heptachlor	0.047 U	0.151	0.189	80	0.162	0.189	86	29-168	7	30
Heptachlor Epoxide	0.047 U	0.137	0.189	72	0.141	0.189	75	29-180	3	30
Methoxychlor	0.047 U	0.150	0.189	80	0.174	0.189	92	38-162	14	30
alpha-BHC	0.028 J	0.188	0.189	85	0.244	0.189	115	27-154	26	30
alpha-Chlordane	0.047 U	0.135	0.189	71	0.146	0.189	77	35-160	8	30
beta-BHC	0.047 U	0.177	0.189	94	0.184	0.189	98	32-184	4	30
delta-BHC	0.035 J	0.196	0.189	85	0.254	0.189	116	10-182	26	30
gamma-BHC (Lindane)	0.026 J	0.180	0.189	81	0.251	0.189	119	43-164	33*	30
gamma-Chlordane	0.047 U	0.132	0.189	70	0.143	0.189	76	35-165	8	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/03/19 18:37
Date Extracted: 06/28/19

Method Blank Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name: Method Blank
Lab Code: RQ1906575-05

Instrument ID:R-GC-63**File ID:**I:\ACQUDATA\7890N.net\data\070319\ae5190.D**Analysis Method:** 8081B**Analysis Lot:**642187,642530,642775**Prep Method:** EPA 3510C**Extraction Lot:**339606

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906575-06	I:\ACQUDATA\7890N.net\data\070319\ae5191.D\	07/03/19 18:55
Duplicate Lab Control Sample	RQ1906575-07	I:\ACQUDATA\7890N.net\data\070319\ae5192.D\	07/03/19 19:12
WG-9954-062119-SG-044	R1905920-008	I:\ACQUDATA\7890N.net\data\070319\ae5199.D\	07/03/19 21:15
WG-9954-062119-SG-038	R1905920-002	I:\ACQUDATA\7890N.net\data\070319\ae5200.D\	07/03/19 21:33
WG-9954-062119-SG-038MS	RQ1906575-01	I:\ACQUDATA\7890N.net\data\070319\ae5201.D\	07/03/19 21:50
WG-9954-062119-SG-038DMS	RQ1906575-02	I:\ACQUDATA\7890N.net\data\070319\ae5202.D\	07/03/19 22:08
WG-9954-062119-SG-039	R1905920-003	I:\ACQUDATA\7890N.net\data\070319\ae5203.D\	07/03/19 22:25
WG-9954-062119-SG-040	R1905920-004	I:\ACQUDATA\7890N.net\data\070319\ae5204.D\	07/03/19 22:43
WG-9954-062119-SG-042	R1905920-006	I:\ACQUDATA\7890N.net\data\070319\ae5206.D\	07/03/19 23:18
WG-9954-062119-SG-043	R1905920-007	I:\ACQUDATA\7890N.net\data\070319\ae5207.D\	07/03/19 23:35
WG-9954-062119-SG-041	R1905920-005	I:\ACQUDATA\7890m\DATA\071119\ay494.D\	07/11/19 14:31

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/08/19 20:59
Date Extracted: 07/01/19

Method Blank Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name: Method Blank**Instrument ID:**R-GC-63**Lab Code:** RQ1906654-01**File ID:**I:\ACQUDATA\7890N.net\data\070819\ae5236.D**Analysis Method:** 8081B**Analysis Lot:**642187,642530,642775**Prep Method:** EPA 3510C**Extraction Lot:**339697

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
WG-9954-062119-SG-045	R1905920-009	I:\ACQUDATA\7890N.net\data\070819\ae5235.D\	07/08/19 20:42
Duplicate Lab Control Sample	RQ1906654-03	I:\ACQUDATA\7890N.net\data\070819\ae5237.D\	07/08/19 21:17

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906575-05

Service Request: R1905920
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
4,4'-DDE	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
4,4'-DDT	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Aldrin	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Dieldrin	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Endosulfan I	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Endosulfan II	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Endosulfan Sulfate	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Endrin	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Endrin Ketone	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Heptachlor	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Heptachlor Epoxide	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Methoxychlor	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 18:37	6/28/19	
alpha-BHC	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
alpha-Chlordane	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
beta-BHC	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
delta-BHC	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
gamma-BHC (Lindane)	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	
gamma-Chlordane	0.050 U	0.050	0.020	1	07/03/19 18:37	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	81	10 - 164	07/03/19 18:37	
Tetrachloro-m-xylene	90	10 - 147	07/03/19 18:37	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906654-01

Service Request: R1905920
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
4,4'-DDE	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
4,4'-DDT	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Aldrin	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Dieldrin	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Endosulfan I	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Endosulfan II	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Endosulfan Sulfate	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Endrin	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Endrin Ketone	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Heptachlor	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Heptachlor Epoxide	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Methoxychlor	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
Toxaphene	0.50 U	0.50	0.50	1	07/08/19 20:59	7/1/19	
alpha-BHC	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
alpha-Chlordane	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
beta-BHC	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
delta-BHC	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
gamma-BHC (Lindane)	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	
gamma-Chlordane	0.050 U	0.050	0.020	1	07/08/19 20:59	7/1/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	65	10 - 164	07/08/19 20:59	
Tetrachloro-m-xylene	100	10 - 147	07/08/19 20:59	

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/03/19 18:55
Date Extracted: 06/28/19

Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name: Lab Control Sample**Instrument ID:**R-GC-63**Lab Code:** RQ1906575-06**File ID:**I:\ACQUDATA\7890N.net\data\070319\ae5191.D**Analysis Method:** 8081B**Analysis Lot:**642187,642530,642775**Prep Method:** EPA 3510C**Extraction Lot:**339606

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906575-05	I:\ACQUDATA\7890N.net\data\070319\ae5190.D\	07/03/19 18:37
Duplicate Lab Control Sample	RQ1906575-07	I:\ACQUDATA\7890N.net\data\070319\ae5192.D\	07/03/19 19:12
WG-9954-062119-SG-044	R1905920-008	I:\ACQUDATA\7890N.net\data\070319\ae5199.D\	07/03/19 21:15
WG-9954-062119-SG-038	R1905920-002	I:\ACQUDATA\7890N.net\data\070319\ae5200.D\	07/03/19 21:33
WG-9954-062119-SG-038MS	RQ1906575-01	I:\ACQUDATA\7890N.net\data\070319\ae5201.D\	07/03/19 21:50
WG-9954-062119-SG-038DMS	RQ1906575-02	I:\ACQUDATA\7890N.net\data\070319\ae5202.D\	07/03/19 22:08
WG-9954-062119-SG-039	R1905920-003	I:\ACQUDATA\7890N.net\data\070319\ae5203.D\	07/03/19 22:25
WG-9954-062119-SG-040	R1905920-004	I:\ACQUDATA\7890N.net\data\070319\ae5204.D\	07/03/19 22:43
WG-9954-062119-SG-042	R1905920-006	I:\ACQUDATA\7890N.net\data\070319\ae5206.D\	07/03/19 23:18
WG-9954-062119-SG-043	R1905920-007	I:\ACQUDATA\7890N.net\data\070319\ae5207.D\	07/03/19 23:35
WG-9954-062119-SG-041	R1905920-005	I:\ACQUDATA\7890m\DATA\071119\ay494.D\	07/11/19 14:31

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: NA
Date Extracted: 07/01/19

Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name:**Instrument ID:****Lab Code:****File ID:****Analysis Method:** 8081B**Analysis Lot:**642187,642530,642775**Prep Method:** EPA 3510C**Extraction Lot:**339697

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
WG-9954-062119-SG-045	R1905920-009	I:\ACQUDATA\7890N.net\data\070819\ae5235.D\	07/08/19 20:42
Method Blank	RQ1906654-01	I:\ACQUDATA\7890N.net\data\070819\ae5236.D\	07/08/19 20:59
Duplicate Lab Control Sample	RQ1906654-03	I:\ACQUDATA\7890N.net\data\070819\ae5237.D\	07/08/19 21:17

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/03/19

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

Lab Control Sample RQ1906575-06					Duplicate Lab Control Sample RQ1906575-07					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	8081B	0.204	0.200	102	0.232	0.200	116	42-159	13	30
4,4'-DDE	8081B	0.206	0.200	103	0.237	0.200	118	47-147	14	30
4,4'-DDT	8081B	0.208	0.200	104	0.237	0.200	118	41-149	13	30
Aldrin	8081B	0.190	0.200	95	0.210	0.200	105	22-137	10	30
Dieldrin	8081B	0.202	0.200	101	0.232	0.200	116	52-144	14	30
Endosulfan I	8081B	0.197	0.200	99	0.226	0.200	113	52-136	14	30
Endosulfan II	8081B	0.204	0.200	102	0.229	0.200	114	57-138	11	30
Endosulfan Sulfate	8081B	0.195	0.200	98	0.216	0.200	108	34-156	10	30
Endrin	8081B	0.214	0.200	107	0.244	0.200	122	56-143	13	30
Endrin Ketone	8081B	0.200	0.200	100	0.227	0.200	113	59-143	13	30
Heptachlor	8081B	0.210	0.200	105	0.238	0.200	119	32-141	12	30
Heptachlor Epoxide	8081B	0.209	0.200	104	0.240	0.200	120	51-143	14	30
Methoxychlor	8081B	0.215	0.200	107	0.243	0.200	121	56-149	12	30
alpha-BHC	8081B	0.218	0.200	109	0.250	0.200	125	36-151	14	30
alpha-Chlordane	8081B	0.201	0.200	101	0.229	0.200	115	50-139	13	30
beta-BHC	8081B	0.231	0.200	115	0.262	0.200	131	55-149	13	30
delta-BHC	8081B	0.219	0.200	109	0.259	0.200	129	29-159	17	30
gamma-BHC (Lindane)	8081B	0.219	0.200	109	0.250	0.200	125	41-149	14	30
gamma-Chlordane	8081B	0.200	0.200	100	0.228	0.200	114	50-140	13	30

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dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/08/19

Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906654-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits	
4,4'-DDD	8081B	0.196	0.200	98	42-159	NC
4,4'-DDE	8081B	0.211	0.200	106	47-147	NC
4,4'-DDT	8081B	0.213	0.200	107	41-149	NC
Aldrin	8081B	0.197	0.200	99	22-137	NC
Dieldrin	8081B	0.211	0.200	105	52-144	NC
Endosulfan I	8081B	0.205	0.200	103	52-136	NC
Endosulfan II	8081B	0.213	0.200	106	57-138	NC
Endosulfan Sulfate	8081B	0.198	0.200	99	34-156	NC
Endrin	8081B	0.223	0.200	112	56-143	NC
Endrin Ketone	8081B	0.202	0.200	101	59-143	NC
Heptachlor	8081B	0.220	0.200	110	32-141	NC
Heptachlor Epoxide	8081B	0.217	0.200	109	51-143	NC
Methoxychlor	8081B	0.194	0.200	97	56-149	NC
alpha-BHC	8081B	0.225	0.200	113	36-151	NC
alpha-Chlordane	8081B	0.209	0.200	105	50-139	NC
beta-BHC	8081B	0.239	0.200	119	55-149	NC
delta-BHC	8081B	0.231	0.200	116	29-159	NC
gamma-BHC (Lindane)	8081B	0.228	0.200	114	41-149	NC
gamma-Chlordane	8081B	0.208	0.200	104	50-140	NC

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920
Date Collected: 06/21/19 09:25
Date Received: 6/25/19

Sample Name: WG-9954-062119-SG-038
Lab Code: R1905920-002

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
alpha-BHC	0.020	0.028	0.029	4	J	1	07/03/19 21:33
delta-BHC	0.020	0.035	0.038	8	J	1	07/03/19 21:33
gamma-BHC (Lindane)	0.020	0.026	0.027	4	J	1	07/03/19 21:33

ALS Group USA, Corp.
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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920
Date Collected: 06/21/19 12:25
Date Received: 6/25/19

Sample Name: WG-9954-062119-SG-041
Lab Code: R1905920-005

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
alpha-BHC	0.020	0.041	0.041	<1	J	1	07/11/19 14:31
gamma-BHC (Lindane)	0.020	0.023	0.027	16	J	1	07/11/19 14:31

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920
Date Collected: 06/24/19 10:55
Date Received: 6/25/19

Sample Name: WG-9954-062119-SG-045
Lab Code: R1905920-009

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
alpha-BHC	0.020	0.027	0.031	14	J	1	07/08/19 20:42
delta-BHC	0.020	0.037	0.044	17	J	1	07/08/19 20:42
gamma-BHC (Lindane)	0.020	0.026	0.027	4	J	1	07/08/19 20:42

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dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Sample Name: WG-9954-062119-SG-038
Lab Code: RQ1906575-01

Service Request: R1905920
Date Collected: 06/21/19 09:25
Date Received: 6/25/19

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	0.020	0.150	0.153	2		1	07/03/19 21:50
4,4'-DDE	0.020	0.138	0.141	2		1	07/03/19 21:50
4,4'-DDT	0.020	0.136	0.141	4		1	07/03/19 21:50
Aldrin	0.020	0.139	0.142	2		1	07/03/19 21:50
Dieldrin	0.020	0.135	0.143	6		1	07/03/19 21:50
Endosulfan I	0.020	0.132	0.139	5		1	07/03/19 21:50
Endosulfan II	0.020	0.144	0.159	10		1	07/03/19 21:50
Endosulfan Sulfate	0.020	0.137	0.141	3		1	07/03/19 21:50
Endrin	0.020	0.148	0.179	19		1	07/03/19 21:50
Endrin Ketone	0.020	0.148	0.154	4		1	07/03/19 21:50
Heptachlor	0.020	0.151	0.154	2		1	07/03/19 21:50
Heptachlor Epoxide	0.020	0.137	0.139	1		1	07/03/19 21:50
Methoxychlor	0.020	0.150	0.154	3		1	07/03/19 21:50
alpha-BHC	0.020	0.188	0.193	3		1	07/03/19 21:50
alpha-Chlordane	0.020	0.135	0.141	4		1	07/03/19 21:50
beta-BHC	0.020	0.177	0.181	2		1	07/03/19 21:50
delta-BHC	0.020	0.196	0.196	<1		1	07/03/19 21:50
gamma-BHC (Lindane)	0.020	0.180	0.183	2		1	07/03/19 21:50
gamma-Chlordane	0.020	0.132	0.142	7		1	07/03/19 21:50

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dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Sample Name: WG-9954-062119-SG-038
Lab Code: RQ1906575-02

Service Request: R1905920
Date Collected: 06/21/19 09:25
Date Received: 6/25/19

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	0.020	0.176	0.187	6		1	07/03/19 22:08
4,4'-DDE	0.020	0.150	0.152	1		1	07/03/19 22:08
4,4'-DDT	0.020	0.153	0.161	5		1	07/03/19 22:08
Aldrin	0.020	0.152	0.153	<1		1	07/03/19 22:08
Dieldrin	0.020	0.156	0.157	<1		1	07/03/19 22:08
Endosulfan I	0.020	0.144	0.151	5		1	07/03/19 22:08
Endosulfan II	0.020	0.155	0.175	12		1	07/03/19 22:08
Endosulfan Sulfate	0.020	0.154	0.160	4		1	07/03/19 22:08
Endrin	0.020	0.160	0.217	30		1	07/03/19 22:08
Endrin Ketone	0.020	0.156	0.165	6		1	07/03/19 22:08
Heptachlor	0.020	0.162	0.163	<1		1	07/03/19 22:08
Heptachlor Epoxide	0.020	0.141	0.150	6		1	07/03/19 22:08
Methoxychlor	0.020	0.174	0.178	2		1	07/03/19 22:08
alpha-BHC	0.020	0.244	0.262	7		1	07/03/19 22:08
alpha-Chlordane	0.020	0.146	0.152	4		1	07/03/19 22:08
beta-BHC	0.020	0.184	0.193	5		1	07/03/19 22:08
delta-BHC	0.020	0.254	0.260	2		1	07/03/19 22:08
gamma-BHC (Lindane)	0.020	0.251	0.254	1		1	07/03/19 22:08
gamma-Chlordane	0.020	0.143	0.153	7		1	07/03/19 22:08

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920

Date Collected: NA

Date Received:

Sample Name: Lab Control Sample

Lab Code: RQ1906575-06

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B

Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	0.020	0.204	0.214	5		1	07/03/19 18:55
4,4'-DDE	0.020	0.206	0.206	<1		1	07/03/19 18:55
4,4'-DDT	0.020	0.208	0.214	3		1	07/03/19 18:55
Aldrin	0.020	0.190	0.193	2		1	07/03/19 18:55
Dieldrin	0.020	0.202	0.213	5		1	07/03/19 18:55
Endosulfan I	0.020	0.197	0.210	6		1	07/03/19 18:55
Endosulfan II	0.020	0.204	0.223	9		1	07/03/19 18:55
Endosulfan Sulfate	0.020	0.195	0.196	<1		1	07/03/19 18:55
Endrin	0.020	0.214	0.241	12		1	07/03/19 18:55
Endrin Ketone	0.020	0.200	0.203	1		1	07/03/19 18:55
Heptachlor	0.020	0.210	0.213	1		1	07/03/19 18:55
Heptachlor Epoxide	0.020	0.209	0.217	4		1	07/03/19 18:55
Methoxychlor	0.020	0.215	0.217	<1		1	07/03/19 18:55
alpha-BHC	0.020	0.218	0.229	5		1	07/03/19 18:55
alpha-Chlordane	0.020	0.201	0.210	4		1	07/03/19 18:55
beta-BHC	0.020	0.231	0.231	<1		1	07/03/19 18:55
delta-BHC	0.020	0.219	0.227	4		1	07/03/19 18:55
gamma-BHC (Lindane)	0.020	0.219	0.226	3		1	07/03/19 18:55
gamma-Chlordane	0.020	0.200	0.209	4		1	07/03/19 18:55

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920

Date Collected: NA

Date Received:

Sample Name: Duplicate Lab Control Sample

Lab Code: RQ1906575-07

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B

Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	0.020	0.232	0.241	4		1	07/03/19 19:12
4,4'-DDE	0.020	0.237	0.237	<1		1	07/03/19 19:12
4,4'-DDT	0.020	0.237	0.241	2		1	07/03/19 19:12
Aldrin	0.020	0.210	0.213	1		1	07/03/19 19:12
Dieldrin	0.020	0.232	0.242	4		1	07/03/19 19:12
Endosulfan I	0.020	0.226	0.238	5		1	07/03/19 19:12
Endosulfan II	0.020	0.229	0.249	8		1	07/03/19 19:12
Endosulfan Sulfate	0.020	0.216	0.228	5		1	07/03/19 19:12
Endrin	0.020	0.244	0.269	10		1	07/03/19 19:12
Endrin Ketone	0.020	0.227	0.232	2		1	07/03/19 19:12
Heptachlor	0.020	0.238	0.241	1		1	07/03/19 19:12
Heptachlor Epoxide	0.020	0.240	0.247	3		1	07/03/19 19:12
Methoxychlor	0.020	0.243	0.247	2		1	07/03/19 19:12
alpha-BHC	0.020	0.250	0.263	5		1	07/03/19 19:12
alpha-Chlordane	0.020	0.229	0.239	4		1	07/03/19 19:12
beta-BHC	0.020	0.262	0.264	<1		1	07/03/19 19:12
delta-BHC	0.020	0.259	0.261	<1		1	07/03/19 19:12
gamma-BHC (Lindane)	0.020	0.250	0.259	4		1	07/03/19 19:12
gamma-Chlordane	0.020	0.228	0.237	4		1	07/03/19 19:12

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920

Date Collected: NA

Date Received:

Sample Name: Duplicate Lab Control Sample

Lab Code: RQ1906654-03

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analytical Method: 8081B

Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	0.020	0.196	0.223	13		1	07/08/19 21:17
4,4'-DDE	0.020	0.211	0.220	4		1	07/08/19 21:17
4,4'-DDT	0.020	0.213	0.215	<1		1	07/08/19 21:17
Aldrin	0.020	0.197	0.211	7		1	07/08/19 21:17
Dieldrin	0.020	0.211	0.231	9		1	07/08/19 21:17
Endosulfan I	0.020	0.205	0.224	9		1	07/08/19 21:17
Endosulfan II	0.020	0.213	0.222	4		1	07/08/19 21:17
Endosulfan Sulfate	0.020	0.198	0.212	7		1	07/08/19 21:17
Endrin	0.020	0.223	0.261	16		1	07/08/19 21:17
Endrin Ketone	0.020	0.202	0.213	5		1	07/08/19 21:17
Heptachlor	0.020	0.220	0.235	7		1	07/08/19 21:17
Heptachlor Epoxide	0.020	0.217	0.234	8		1	07/08/19 21:17
Methoxychlor	0.020	0.194	0.205	6		1	07/08/19 21:17
alpha-BHC	0.020	0.225	0.249	10		1	07/08/19 21:17
alpha-Chlordane	0.020	0.209	0.226	8		1	07/08/19 21:17
beta-BHC	0.020	0.239	0.251	5		1	07/08/19 21:17
delta-BHC	0.020	0.231	0.251	8		1	07/08/19 21:17
gamma-BHC (Lindane)	0.020	0.228	0.246	8		1	07/08/19 21:17
gamma-Chlordane	0.020	0.208	0.225	8		1	07/08/19 21:17

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920

Date Collected: NA

Date Received:

Sample Name: Performance Evaluation

Lab Code: RQ1906905-01

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

8081B

Prep Method:

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDT	0.020	0.83	0.84	1		1	07/03/19 12:56
Endrin	0.020	0.43	0.47	9		1	07/03/19 12:56
alpha-BHC	0.020	0.095	0.10	5		1	07/03/19 12:56
beta-BHC	0.020	0.10	0.11	10		1	07/03/19 12:56
gamma-BHC (Lindane)	0.020	0.096	0.099	3		1	07/03/19 12:56

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920

Date Collected: NA

Date Received:

Sample Name: Performance Evaluation

Lab Code: RQ1907024-01

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

8081B

Prep Method:

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDT	0.020	0.87	0.95	9		1	07/08/19 16:53
Endrin	0.020	0.48	0.51	6		1	07/08/19 16:53
alpha-BHC	0.020	0.11	0.11	<1		1	07/08/19 16:53
beta-BHC	0.020	0.11	0.12	9		1	07/08/19 16:53
gamma-BHC (Lindane)	0.020	0.11	0.11	<1		1	07/08/19 16:53

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Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920

Date Collected: NA

Date Received:

Sample Name: Performance Evaluation

Lab Code: RQ1907077-01

Units: ug/L

Basis: NA

Organochlorine Pesticides by Gas Chromatography

8081B

Prep Method:

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
4,4'-DDD	0.020	0.026	0.030	14	J	1	07/11/19 09:20
4,4'-DDT	0.020	0.87	0.95	9		1	07/11/19 09:20
Endrin	0.020	0.46	0.46	<1		1	07/11/19 09:20
Endrin Ketone	0.020	0.029	0.032	10	J	1	07/11/19 09:20
alpha-BHC	0.020	0.095	0.096	1		1	07/11/19 09:20
beta-BHC	0.020	0.099	0.099	<1		1	07/11/19 09:20
gamma-BHC (Lindane)	0.020	0.091	0.095	4		1	07/11/19 09:20

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905920

SURROGATE RECOVERY SUMMARY
Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10-152	14-129
WG-9954-062119-SG-038	R1905920-002	45	50
WG-9954-062119-SG-039	R1905920-003	10	40
WG-9954-062119-SG-040	R1905920-004	12	59
WG-9954-062119-SG-041	R1905920-005	18	52
WG-9954-062119-SG-042	R1905920-006	24	59
WG-9954-062119-SG-043	R1905920-007	25	54
WG-9954-062119-SG-044	R1905920-008	25	62
WG-9954-062119-SG-045	R1905920-009	87	97
Method Blank	RQ1906575-05	67	62
Method Blank	RQ1906654-01	85	93
Lab Control Sample	RQ1906575-06	69	64
Duplicate Lab Control Sample	RQ1906575-07	54	71
Lab Control Sample	RQ1906654-02	69	75
Duplicate Lab Control Sample	RQ1906654-03	89	101
WG-9954-062119-SG-038 MS	RQ1906575-01	43	56
WG-9954-062119-SG-038 DMS	RQ1906575-02	32	46

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QA/QC Report

Client:	GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)	Service Request:	R1905920
Project:	Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring	Date Collected:	06/21/19
Sample Matrix:	Water	Date Received:	06/25/19
		Date Analyzed:	07/2/19
		Date Extracted:	06/28/19

Duplicate Matrix Spike Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name:	WG-9954-062119-SG-038	Units:	ug/L
Lab Code:	R1905920-002	Basis:	NA
Analysis Method:	8082A		
Prep Method:	EPA 3510C		

Analyte Name	Matrix Spike RQ1906575-01				Duplicate Matrix Spike RQ1906575-02				% Rec Limits	RPD	RPD Limit
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec				
Aroclor 1016	0.94 U	3.35	4.72	71	2.71	4.72	58	32-142	21		30
Aroclor 1260	0.94 U	2.70	4.72	57	1.93	4.72	41	28-142	33*		30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/02/19 21:15
Date Extracted: 06/28/19

Method Blank Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name:	Method Blank	Instrument ID:	R-GC-58
Lab Code:	RQ1906575-05	File ID:	I:\ACQUDATA\6890G\Data\070219\BH914.D\
Analysis Method:	8082A	Analysis Lot:	641807,642370
Prep Method:	EPA 3510C	Extraction Lot:	339606

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906575-06	I:\ACQUDATA\6890G\Data\070219\BH915.D\	07/02/19 21:36
Duplicate Lab Control Sample	RQ1906575-07	I:\ACQUDATA\6890G\Data\070219\BH916.D\	07/02/19 21:55
WG-9954-062119-SG-038	R1905920-002	I:\ACQUDATA\6890G\Data\070219\BH918.D\	07/02/19 22:35
WG-9954-062119-SG-038MS	RQ1906575-01	I:\ACQUDATA\6890G\Data\070219\BH919.D\	07/02/19 22:56
WG-9954-062119-SG-038DMS	RQ1906575-02	I:\ACQUDATA\6890G\Data\070219\BH920.D\	07/02/19 23:16
WG-9954-062119-SG-039	R1905920-003	I:\ACQUDATA\6890G\Data\070219\BH921.D\	07/02/19 23:37
WG-9954-062119-SG-040	R1905920-004	I:\ACQUDATA\6890G\Data\070219\BH922.D\	07/02/19 23:57
WG-9954-062119-SG-041	R1905920-005	I:\ACQUDATA\6890G\Data\070219\BH923.D\	07/03/19 00:17
WG-9954-062119-SG-042	R1905920-006	I:\ACQUDATA\6890G\Data\070219\BH925.D\	07/03/19 00:58
WG-9954-062119-SG-043	R1905920-007	I:\ACQUDATA\6890G\Data\070219\BH926.D\	07/03/19 01:18
WG-9954-062119-SG-044	R1905920-008	I:\ACQUDATA\6890G\Data\070219\BH927.D\	07/03/19 01:39

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/09/19 00:10
Date Extracted: 07/01/19

Method Blank Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name:	Method Blank	Instrument ID:	R-GC-54
Lab Code:	RQ1906654-01	File ID:	I:\ACQU\DATA\6890D\DATA\070819\GF768.D\
Analysis Method:	8082A	Analysis Lot:	641807,642370
Prep Method:	EPA 3510C	Extraction Lot:	339697

This Method Blank applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Lab Control Sample	RQ1906654-02	I:\ACQU\DATA\6890D\DATA\070819\GF769.D\	07/09/19 00:29
Duplicate Lab Control Sample	RQ1906654-03	I:\ACQU\DATA\6890D\DATA\070819\GF770.D\	07/09/19 00:49
WG-9954-062119-SG-045	R1905920-009	I:\ACQU\DATA\6890D\DATA\070819\GF775.D\	07/09/19 02:28

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906575-05

Service Request: R1905920
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.0 U	1.0	0.50	1	07/02/19 21:15	6/28/19	
Aroclor 1221	2.0 U	2.0	1.0	1	07/02/19 21:15	6/28/19	
Aroclor 1232	1.0 U	1.0	0.50	1	07/02/19 21:15	6/28/19	
Aroclor 1242	1.0 U	1.0	0.50	1	07/02/19 21:15	6/28/19	
Aroclor 1248	1.0 U	1.0	0.50	1	07/02/19 21:15	6/28/19	
Aroclor 1254	1.0 U	1.0	0.50	1	07/02/19 21:15	6/28/19	
Aroclor 1260	1.0 U	1.0	0.50	1	07/02/19 21:15	6/28/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	67	10 - 152	07/02/19 21:15	
Tetrachloro-m-xylene	62	14 - 129	07/02/19 21:15	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906654-01

Service Request: R1905920
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.0 U	1.0	0.50	1	07/09/19 00:10	7/1/19	
Aroclor 1221	2.0 U	2.0	1.0	1	07/09/19 00:10	7/1/19	
Aroclor 1232	1.0 U	1.0	0.50	1	07/09/19 00:10	7/1/19	
Aroclor 1242	1.0 U	1.0	0.50	1	07/09/19 00:10	7/1/19	
Aroclor 1248	1.0 U	1.0	0.50	1	07/09/19 00:10	7/1/19	
Aroclor 1254	1.0 U	1.0	0.50	1	07/09/19 00:10	7/1/19	
Aroclor 1260	1.0 U	1.0	0.50	1	07/09/19 00:10	7/1/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	85	10 - 152	07/09/19 00:10	
Tetrachloro-m-xylene	93	14 - 129	07/09/19 00:10	

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/02/19 21:36
Date Extracted: 06/28/19

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name: Lab Control Sample **Instrument ID:** R-GC-58
Lab Code: RQ1906575-06 **File ID:** I:\ACQUDATA\6890G\Data\070219\BH915.D\
Analysis Method: 8082A **Analysis Lot:** 641807,642370
Prep Method: EPA 3510C **Extraction Lot:** 339606

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906575-05	I:\ACQUDATA\6890G\Data\070219\BH914.D\	07/02/19 21:15
Duplicate Lab Control Sample	RQ1906575-07	I:\ACQUDATA\6890G\Data\070219\BH916.D\	07/02/19 21:55
WG-9954-062119-SG-038	R1905920-002	I:\ACQUDATA\6890G\Data\070219\BH918.D\	07/02/19 22:35
WG-9954-062119-SG-038MS	RQ1906575-01	I:\ACQUDATA\6890G\Data\070219\BH919.D\	07/02/19 22:56
WG-9954-062119-SG-038DMS	RQ1906575-02	I:\ACQUDATA\6890G\Data\070219\BH920.D\	07/02/19 23:16
WG-9954-062119-SG-039	R1905920-003	I:\ACQUDATA\6890G\Data\070219\BH921.D\	07/02/19 23:37
WG-9954-062119-SG-040	R1905920-004	I:\ACQUDATA\6890G\Data\070219\BH922.D\	07/02/19 23:57
WG-9954-062119-SG-041	R1905920-005	I:\ACQUDATA\6890G\Data\070219\BH923.D\	07/03/19 00:17
WG-9954-062119-SG-042	R1905920-006	I:\ACQUDATA\6890G\Data\070219\BH925.D\	07/03/19 00:58
WG-9954-062119-SG-043	R1905920-007	I:\ACQUDATA\6890G\Data\070219\BH926.D\	07/03/19 01:18
WG-9954-062119-SG-044	R1905920-008	I:\ACQUDATA\6890G\Data\070219\BH927.D\	07/03/19 01:39

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/09/19 00:29
Date Extracted: 07/01/19

Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name: Lab Control Sample**Instrument ID:**R-GC-54**Lab Code:** RQ1906654-02**File ID:**I:\ACQUDATA\6890D\DATA\070819\GF769.D**Analysis Method:** 8082A**Analysis Lot:**641807,642370**Prep Method:** EPA 3510C**Extraction Lot:**339697

This Lab Control Sample applies to the following analyses.

Sample Name	Lab Code	File ID	Date Analyzed
Method Blank	RQ1906654-01	I:\ACQUDATA\6890D\DATA\070819\GF768.D\	07/09/19 00:10
Duplicate Lab Control Sample	RQ1906654-03	I:\ACQUDATA\6890D\DATA\070819\GF770.D\	07/09/19 00:49
WG-9954-062119-SG-045	R1905920-009	I:\ACQUDATA\6890D\DATA\070819\GF775.D\	07/09/19 02:28

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/02/19

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1906575-06					RQ1906575-07					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	4.02	5.00	80	4.52	5.00	90	49-123	12	30
Aroclor 1260	8082A	4.05	5.00	81	4.24	5.00	85	57-135	4	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905920
Date Analyzed: 07/09/19

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1906654-02					RQ1906654-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	4.62	5.00	92	5.88	5.00	118	49-123	24	30
Aroclor 1260	8082A	4.85	5.00	97	6.15	5.00	123	57-135	24	30

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water
Sample Name: WG-9954-062119-SG-038
Lab Code: RQ1906575-01

Service Request: R1905920
Date Collected: 06/21/19 09:25
Date Received: 6/25/19

Units: ug/L

Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1016	0.50	3.35	3.86	14		1	07/02/19 22:56
Aroclor 1260	0.50	2.70	3.59	28		1	07/02/19 22:56

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water
Sample Name: WG-9954-062119-SG-038
Lab Code: RQ1906575-02

Service Request: R1905920
Date Collected: 06/21/19 09:25
Date Received: 6/25/19

Units: ug/L

Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1016	0.50	2.71	3.08	13		1	07/02/19 23:16
Aroclor 1260	0.50	1.93	2.55	28		1	07/02/19 23:16

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920

Date Collected: NA

Date Received:

Sample Name: Lab Control Sample

Lab Code: RQ1906575-06

Units: ug/L

Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A

Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1016	0.50	4.02	4.49	11		1	07/02/19 21:36
Aroclor 1260	0.50	4.05	4.92	19		1	07/02/19 21:36

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: RQ1906575-07

Service Request: R1905920
Date Collected: NA
Date Received:

Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1016	0.50	4.52	5.01	10		1	07/02/19 21:55
Aroclor 1260	0.50	4.24	5.05	17		1	07/02/19 21:55

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water

Service Request: R1905920

Date Collected: NA

Date Received:

Sample Name: Lab Control Sample

Lab Code: RQ1906654-02

Units: ug/L

Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A

Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1016	0.50	4.62	4.63	<1		1	07/09/19 00:29
Aroclor 1260	0.50	4.85	4.92	1		1	07/09/19 00:29

ALS Group USA, Corp.
dba ALS Environmental

Confirmation Results

Client: GHD Services Inc. (Formerly Conestoga-Rovers &
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
SRM Matrix: Water
Sample Name: Duplicate Lab Control Sample
Lab Code: RQ1906654-03

Service Request: R1905920
Date Collected: NA
Date Received:

Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analytical Method: 8082A
Prep Method: EPA 3510C

	MDL	Primary Result	Confirmation Result	RPD	Q	Dilution Factor	Date Analyzed
Aroclor 1016	0.50	5.88	5.90	<1		1	07/09/19 00:49
Aroclor 1260	0.50	6.15	6.25	2		1	07/09/19 00:49



July 12, 2019

Service Request No:R1905556

Ms. Kathy Willy
GHD Services Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, NY 14304

Laboratory Results for: Love Canal:292-402-D02-3100

Dear Ms.Willy,

Enclosed are the results of the sample(s) submitted to our laboratory June 14, 2019
For your reference, these analyses have been assigned our service request number **R1905556**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100
Sample Matrix: Water

Service Request: R1905556

Date Received: 06/14/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Ten water samples were received for analysis at ALS Environmental on 06/14/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

Method 8270D, 07/01/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 07/01/2019: The Method Blank contained a low level of one or more analytes at concentrations above the Method Reporting Limit (MRL). Since there were no detections of the analyte(s) in the associated field samples, the data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 06/20/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 06/20/2019: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 06/20/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 06/20/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 06/20/2019: The control limit was exceeded for one or more surrogates in the Continuing Calibration Verification (CCV). The surrogates were within acceptance limits for the associated field samples. The data quality was not significantly affected and no further corrective action was taken.

Semivolatile GC:

Method 8081B, 06/28/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8081B, 06/21/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration

Approved by

Date

07/12/2019



Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8081B, 06/19/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 06/21/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 06/19/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Volatiles by GC/MS:

Method 8260C, 06/22/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Approved by

A handwritten signature in black ink, appearing to read "Brady Knutson".

Date

07/12/2019



SAMPLE DETECTION SUMMARY

CLIENT ID: TB-9954-061119-SG-001				Lab ID: R1905556-001		
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	3.1	J	2.1	10	ug/L	8260C

CLIENT ID: WG-9954-061219-SG-002				Lab ID: R1905556-003		
Analyte	Results	Flag	MDL	MRL	Units	Method
Phenol	1.8	J	1.0	10	ug/L	8270D

CLIENT ID: WG-9954-061219-SG-004				Lab ID: R1905556-005		
Analyte	Results	Flag	MDL	MRL	Units	Method
2-Butanone (MEK)	1.9	J	0.78	10	ug/L	8260C
Acetone	15		2.1	10	ug/L	8260C
Carbon Disulfide	0.66	J	0.25	10	ug/L	8260C
Xylenes, Total	0.32	J	0.23	5.0	ug/L	8260C
beta-BHC	0.026	J	0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-061219-SG-005				Lab ID: R1905556-006		
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	2.7	J	2.1	10	ug/L	8260C
Carbon Disulfide	2.5	J	0.25	10	ug/L	8260C
alpha-BHC	0.39		0.020	0.047	ug/L	8081B
beta-BHC	0.024	J	0.020	0.047	ug/L	8081B
delta-BHC	0.26		0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.38		0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-061319-SG-006				Lab ID: R1905556-007		
Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	0.46	J	0.25	10	ug/L	8260C
alpha-BHC	0.10		0.020	0.047	ug/L	8081B
delta-BHC	0.074		0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.093		0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-061319-SG-007				Lab ID: R1905556-008		
Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	0.87	J	0.25	10	ug/L	8260C
delta-BHC	0.026	J	0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-061319-SG-008				Lab ID: R1905556-009		
Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	2.7	J	0.25	10	ug/L	8260C
delta-BHC	0.046	J	0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-061319-SG-009				Lab ID: R1905556-010		
Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	2.6	J	0.25	10	ug/L	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Service Request:R1905556

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1905556-001	TB-9954-061119-SG-001	6/11/2019	0000
R1905556-002	WG-9954-061119-SG-001	6/11/2019	1335
R1905556-003	WG-9954-061219-SG-002	6/12/2019	1040
R1905556-004	WG-9954-061219-SG-003	6/12/2019	1115
R1905556-005	WG-9954-061219-SG-004	6/12/2019	1330
R1905556-006	WG-9954-061219-SG-005	6/12/2019	1425
R1905556-007	WG-9954-061319-SG-006	6/13/2019	1200
R1905556-008	WG-9954-061319-SG-007	6/13/2019	1315
R1905556-009	WG-9954-061319-SG-008	6/13/2019	1315
R1905556-010	WG-9954-061319-SG-009	6/13/2019	1440

CHAIN-OF-CUSTODY/Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Client Information	
GLEN SPRINGS HOLDINGS INC	Report To: Kathy Willy
805 97TH STREET	Copy To:
LOVE CANAL	
NIAGARA FALLS, NEW YORK 14304	Invoice To:
Phone: 716-283-0111	PO:
Fax: 716-283-2856	Project Name: LOVE CANAL ANNUAL GW
Email: kathy.willy@ghd.com	Project Number: 9954

Lab Information	
Laboratory: ALS	
Laboratory Location: 1565 JEFFERSON RD. BUILDING 300, SUITE 360 ROCHESTER, NY 14623	
Laboratory Contact: BRADY KALKMAN	
Requested Due Date:	TAT: 10
QA/QC Requirements:	

Event Information	
ID#: LC ANNUAL GW SAMPLING 2019-01-1	
SSOW Ref#:	
Sampler Name: S GARDNER, D TYRAN	

Sample Identification	Valid Matrix Code WG Groundwater WB Borehole Water WS Surface Water SO Soil SE Sediment	Matrix Code	Date Collected	Time Collected	PestPCBs(None)	SVOC(none)	VOA(HCI)	Remarks
TB-9954-061119-SG-001		WG	06/11/2019	00:00	0	0	3	
WG-9954-061119-SG-001		WG	06/11/2019	13:35	2	2	3	
WG-9954-061219-SG-002		WG	06/12/2019	10:40	2	2	3	
WG-9954-061219-SG-003		WG	06/12/2019	11:15	2	2	3	
WG-9954-061219-SG-004		WG	06/12/2019	13:30	2	2	3	
WG-9954-061219-SG-005		WG	06/12/2019	14:25	2	2	3	
WG-9954-061319-SG-006		WG	06/13/2019	12:00	2	2	3	
WG-9954-061319-SG-007		WG	06/13/2019	13:15	2	2	3	
WG-9954-061319-SG-008		WG	06/13/2019	13:15	2	2	3	
WG-9954-061319-SG-009		WG	06/13/2019	14:40	2	2	3	
Total Bottles					18	18	30	Grand Total:66

Sample Condition

Temp in C	
Received on ice	Y/N
Sealed Cooler	Y/N
Samples Intact	Y/N

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY:	DATE	TIME	RECIEVED BY:	DATE	TIME
Lab Courier	4	<i>[Signature]</i>	6/13/19	1600	<i>[Signature]</i>	6/14/19	1055
LABBILL#:		<i>[Signature]</i>	6/14/19	1220	<i>[Signature]</i>	6/14/19	1220

R1905556

GHD Services Inc.
Love Canal:282-402-002-3100



5



CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

SR#

1565 Jefferson Road, Bldg 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 / FAX (585) 288-8475

www.alsglobal.com

004, 005, 006, 007, 008, 009, 010,
011, 012, 013

T030477

Project Name: Love Canal:292-402-D02-3100		NUMBER OF CONTAINERS	7D	14D	1	2	3	4	5	Remarks
Project Number: 9954 Annual Long Term Monitoring										
Report To: Kathy Willy										
Company / Address: GHD Services Inc. 2055 Niagara Falls Blvd., Suite 3 Niagara Falls NY, 14304										
Phone #: 716-297-2160										
FAX #: 716-297-2265		3081B / Pest OC	3082A / PCB	3270D / SVO	3260C / VOC FP					
Sampler Signature		Sampler Printed Name								

CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix																	
1.			Liquid																	
2.			Liquid																	
3.			Liquid																	
4.			Liquid																	
5.			Liquid																	
6.			Liquid																	
7.			Liquid																	
8.			Liquid																	
9.			Liquid																	
10.			Liquid																	

Special Instructions/Comments:

Turnaround Requirements

___ RUSH (SURCHARGES APPLY)

___ Standard (3 weeks)

REQUESTED FAX DATE

Requested Report Date

Report Requirements

___ I. Results Only

___ II. Results + QC Summaries (LCS,
DUP, MS/MSD as required)___ III. Results + QC and Calibration
Summaries☒ IV. Data Validation Report
with Raw Data

EData ___ Yes ___ No

Invoice Information

P.O.#

Bill To:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time

R1905556

GHD Services Inc.
Love Canal:292-402-002-3100

5





Cooler Receipt and Preservation Check Form

Project/Client GHD Folder Number _____

Cooler received on 6/14/19 by JE

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	<u>Y</u> <u>N</u>
2	Custody papers properly completed (ink, signed)?	<u>Y</u> <u>N</u>
3	Did all bottles arrive in good condition (unbroken)?	<u>Y</u> <u>N</u>
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	<u>Y</u> <u>N</u>

5a	Perchlorate samples have required headspace?	<u>Y</u> <u>N</u> <u>NA</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	<u>Y</u> <u>N</u> <u>NA</u>
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	<u>NA</u>

8. Temperature Readings Date: 6/14/19 Time: 12:45 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>3.5</u>	<u>3.4</u>	<u>2.4</u>	<u>1.4</u>			
Correction Factor (°C)	<u>+0.3</u>	<u>+0.3</u>	<u>+0.3</u>	<u>+0.3</u>			
Corrected Temp (°C)	<u>3.8</u>	<u>3.7</u>	<u>2.7</u>	<u>1.7</u>			
Temp from: Type of bottle	<u>1 liter Amber</u>		<u>cont tube</u>	<u>cent tube</u>			
Within 0-6°C?	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>
If <0°C, were samples frozen?	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>	<u>Y</u> <u>N</u>

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: ROC by JE on 6/14/19 at 13:00
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 6/17/19 Time: 11:40 by: JE

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
- Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
>12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		Zn Acetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 042219 10x Client correct
Explain all Discrepancies/ Other Comments: _____

*Trip Blank: 2 of 3 vials

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: JE
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905556

Sample Name: TB-9954-061119-SG-001
Lab Code: R1905556-001
Sample Matrix: Water

Date Collected: 06/11/19
Date Received: 06/14/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: WG-9954-061119-SG-001
Lab Code: R1905556-002
Sample Matrix: Water

Date Collected: 06/11/19
Date Received: 06/14/19

Analysis Method
8081B
8082A
8260C
8270D

Extracted/Digested By
AMOSSES
AMOSSES

KSERCU

Analyzed By
AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061219-SG-002
Lab Code: R1905556-003
Sample Matrix: Water

Date Collected: 06/12/19
Date Received: 06/14/19

Analysis Method
8081B
8082A
8260C
8270D

Extracted/Digested By
AMOSSES
AMOSSES

KSERCU

Analyzed By
AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061219-SG-003
Lab Code: R1905556-004
Sample Matrix: Water

Date Collected: 06/12/19
Date Received: 06/14/19

Analysis Method
8081B
8082A
8260C
8270D

Extracted/Digested By
AMOSSES
AMOSSES

KSERCU

Analyzed By
AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905556

Sample Name: WG-9954-061219-SG-004
Lab Code: R1905556-005
Sample Matrix: Water

Date Collected: 06/12/19

Date Received: 06/14/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

AMOSSES
AMOSSES
KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061219-SG-005
Lab Code: R1905556-006
Sample Matrix: Water

Date Collected: 06/12/19

Date Received: 06/14/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

AMOSSES
AMOSSES
KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061319-SG-006
Lab Code: R1905556-007
Sample Matrix: Water

Date Collected: 06/13/19

Date Received: 06/14/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU
KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061319-SG-007
Lab Code: R1905556-008
Sample Matrix: Water

Date Collected: 06/13/19

Date Received: 06/14/19

Analysis Method

8081B

Extracted/Digested By

KSERCU

Analyzed By

AMOSSES

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Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905556

Sample Name: WG-9954-061319-SG-007
Lab Code: R1905556-008
Sample Matrix: Water

Date Collected: 06/13/19
Date Received: 06/14/19

Analysis Method

8082A
8260C
8270D

Extracted/Digested By

KSERCU

KSERCU

Analyzed By

AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061319-SG-008
Lab Code: R1905556-009
Sample Matrix: Water

Date Collected: 06/13/19
Date Received: 06/14/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061319-SG-009
Lab Code: R1905556-010
Sample Matrix: Water

Date Collected: 06/13/19
Date Received: 06/14/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: TB-9954-061119-SG-001
Lab Code: R1905556-001

Service Request: R1905556
Date Collected: 06/11/19 00:00

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/21/19 23:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/21/19 23:08	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/21/19 23:08	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/21/19 23:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/21/19 23:08	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/21/19 23:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/21/19 23:08	
2-Butanone (MEK)	10 U	10	0.78	1	06/21/19 23:08	
2-Hexanone	10 U	10	0.20	1	06/21/19 23:08	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/21/19 23:08	
Acetone	3.1 J	10	2.1	1	06/21/19 23:08	
Benzene	5.0 U	5.0	0.20	1	06/21/19 23:08	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/21/19 23:08	
Bromoform	5.0 U	5.0	0.25	1	06/21/19 23:08	
Bromomethane	5.0 U	5.0	0.70	1	06/21/19 23:08	
Carbon Disulfide	10 U	10	0.25	1	06/21/19 23:08	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/21/19 23:08	
Chlorobenzene	5.0 U	5.0	0.20	1	06/21/19 23:08	
Chloroethane	5.0 U	5.0	0.23	1	06/21/19 23:08	
Chloroform	5.0 U	5.0	0.24	1	06/21/19 23:08	
Chloromethane	5.0 U	5.0	0.28	1	06/21/19 23:08	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/21/19 23:08	
Dichloromethane	5.0 U	5.0	0.36	1	06/21/19 23:08	
Ethylbenzene	5.0 U	5.0	0.20	1	06/21/19 23:08	
Styrene	5.0 U	5.0	0.20	1	06/21/19 23:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/21/19 23:08	
Toluene	5.0 U	5.0	0.20	1	06/21/19 23:08	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/21/19 23:08	
Vinyl Acetate	10 U	10	1.1	1	06/21/19 23:08	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/21/19 23:08	
Xylenes, Total	5.0 U	5.0	0.23	1	06/21/19 23:08	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/21/19 23:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/21/19 23:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/21/19 23:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/21/19 23:08	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: TB-9954-061119-SG-001
Lab Code: R1905556-001

Service Request: R1905556
Date Collected: 06/11/19 00:00
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	06/21/19 23:08	
Dibromofluoromethane	100	89 - 119	06/21/19 23:08	
Toluene-d8	100	87 - 121	06/21/19 23:08	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water
Sample Name: TB-9954-061119-SG-001
Lab Code: R1905556-001

Service Request: R1905556
Date Collected: 06/11/19 00:00
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061119-SG-001
Lab Code: R1905556-002

Service Request: R1905556
Date Collected: 06/11/19 13:35

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 00:58	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 00:58	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 00:58	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 00:58	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 00:58	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 00:58	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 00:58	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 00:58	
2-Hexanone	10 U	10	0.20	1	06/22/19 00:58	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 00:58	
Acetone	10 U	10	2.1	1	06/22/19 00:58	
Benzene	5.0 U	5.0	0.20	1	06/22/19 00:58	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 00:58	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 00:58	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 00:58	
Carbon Disulfide	10 U	10	0.25	1	06/22/19 00:58	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 00:58	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 00:58	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 00:58	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 00:58	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 00:58	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 00:58	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 00:58	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 00:58	
Styrene	5.0 U	5.0	0.20	1	06/22/19 00:58	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 00:58	
Toluene	5.0 U	5.0	0.20	1	06/22/19 00:58	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 00:58	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 00:58	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 00:58	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 00:58	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 00:58	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 00:58	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 00:58	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 00:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061119-SG-001
Lab Code: R1905556-002

Service Request: R1905556
Date Collected: 06/11/19 13:35
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	06/22/19 00:58	
Dibromofluoromethane	98	89 - 119	06/22/19 00:58	
Toluene-d8	99	87 - 121	06/22/19 00:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061119-SG-001
Lab Code: R1905556-002

Service Request: R1905556
Date Collected: 06/11/19 13:35
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-002
Lab Code: R1905556-003

Service Request: R1905556
Date Collected: 06/12/19 10:40

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 01:20	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 01:20	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 01:20	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 01:20	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 01:20	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 01:20	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 01:20	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 01:20	
2-Hexanone	10 U	10	0.20	1	06/22/19 01:20	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 01:20	
Acetone	10 U	10	2.1	1	06/22/19 01:20	
Benzene	5.0 U	5.0	0.20	1	06/22/19 01:20	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 01:20	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 01:20	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 01:20	
Carbon Disulfide	10 U	10	0.25	1	06/22/19 01:20	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 01:20	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 01:20	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 01:20	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 01:20	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 01:20	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 01:20	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 01:20	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 01:20	
Styrene	5.0 U	5.0	0.20	1	06/22/19 01:20	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 01:20	
Toluene	5.0 U	5.0	0.20	1	06/22/19 01:20	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 01:20	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 01:20	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 01:20	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 01:20	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 01:20	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 01:20	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 01:20	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 01:20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-002
Lab Code: R1905556-003

Service Request: R1905556
Date Collected: 06/12/19 10:40
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/22/19 01:20	
Dibromofluoromethane	96	89 - 119	06/22/19 01:20	
Toluene-d8	100	87 - 121	06/22/19 01:20	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-002
Lab Code: R1905556-003

Service Request: R1905556
Date Collected: 06/12/19 10:40
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-003
Lab Code: R1905556-004

Service Request: R1905556
Date Collected: 06/12/19 11:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 01:42	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 01:42	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 01:42	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 01:42	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 01:42	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 01:42	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 01:42	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 01:42	
2-Hexanone	10 U	10	0.20	1	06/22/19 01:42	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 01:42	
Acetone	10 U	10	2.1	1	06/22/19 01:42	
Benzene	5.0 U	5.0	0.20	1	06/22/19 01:42	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 01:42	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 01:42	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 01:42	
Carbon Disulfide	10 U	10	0.25	1	06/22/19 01:42	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 01:42	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 01:42	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 01:42	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 01:42	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 01:42	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 01:42	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 01:42	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 01:42	
Styrene	5.0 U	5.0	0.20	1	06/22/19 01:42	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 01:42	
Toluene	5.0 U	5.0	0.20	1	06/22/19 01:42	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 01:42	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 01:42	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 01:42	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 01:42	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 01:42	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 01:42	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 01:42	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 01:42	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-003
Lab Code: R1905556-004

Service Request: R1905556
Date Collected: 06/12/19 11:15
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	06/22/19 01:42	
Dibromofluoromethane	98	89 - 119	06/22/19 01:42	
Toluene-d8	100	87 - 121	06/22/19 01:42	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-003
Lab Code: R1905556-004

Service Request: R1905556
Date Collected: 06/12/19 11:15
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-004
Lab Code: R1905556-005

Service Request: R1905556
Date Collected: 06/12/19 13:30

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 02:03	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 02:03	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 02:03	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 02:03	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 02:03	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 02:03	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 02:03	
2-Butanone (MEK)	1.9 J	10	0.78	1	06/22/19 02:03	
2-Hexanone	10 U	10	0.20	1	06/22/19 02:03	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 02:03	
Acetone	15	10	2.1	1	06/22/19 02:03	
Benzene	5.0 U	5.0	0.20	1	06/22/19 02:03	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 02:03	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 02:03	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 02:03	
Carbon Disulfide	0.66 J	10	0.25	1	06/22/19 02:03	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 02:03	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 02:03	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 02:03	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 02:03	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 02:03	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 02:03	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 02:03	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 02:03	
Styrene	5.0 U	5.0	0.20	1	06/22/19 02:03	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 02:03	
Toluene	5.0 U	5.0	0.20	1	06/22/19 02:03	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 02:03	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 02:03	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 02:03	
Xylenes, Total	0.32 J	5.0	0.23	1	06/22/19 02:03	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 02:03	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 02:03	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 02:03	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 02:03	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-004
Lab Code: R1905556-005

Service Request: R1905556
Date Collected: 06/12/19 13:30
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/22/19 02:03	
Dibromofluoromethane	101	89 - 119	06/22/19 02:03	
Toluene-d8	102	87 - 121	06/22/19 02:03	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: WG-9954-061219-SG-004
Lab Code: R1905556-005

Service Request: R1905556
Date Collected: 06/12/19 13:30
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	5.8	JN

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-005
Lab Code: R1905556-006

Service Request: R1905556
Date Collected: 06/12/19 14:25

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 02:25	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 02:25	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 02:25	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 02:25	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 02:25	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 02:25	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 02:25	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 02:25	
2-Hexanone	10 U	10	0.20	1	06/22/19 02:25	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 02:25	
Acetone	2.7 J	10	2.1	1	06/22/19 02:25	
Benzene	5.0 U	5.0	0.20	1	06/22/19 02:25	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 02:25	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 02:25	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 02:25	
Carbon Disulfide	2.5 J	10	0.25	1	06/22/19 02:25	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 02:25	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 02:25	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 02:25	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 02:25	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 02:25	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 02:25	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 02:25	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 02:25	
Styrene	5.0 U	5.0	0.20	1	06/22/19 02:25	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 02:25	
Toluene	5.0 U	5.0	0.20	1	06/22/19 02:25	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 02:25	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 02:25	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 02:25	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 02:25	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 02:25	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 02:25	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 02:25	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 02:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-005
Lab Code: R1905556-006

Service Request: R1905556
Date Collected: 06/12/19 14:25
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/22/19 02:25	
Dibromofluoromethane	95	89 - 119	06/22/19 02:25	
Toluene-d8	98	87 - 121	06/22/19 02:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: WG-9954-061219-SG-005
Lab Code: R1905556-006

Service Request: R1905556
Date Collected: 06/12/19 14:25
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	14.4	JN

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-006
Lab Code: R1905556-007

Service Request: R1905556
Date Collected: 06/13/19 12:00

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 02:47	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 02:47	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 02:47	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 02:47	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 02:47	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 02:47	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 02:47	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 02:47	
2-Hexanone	10 U	10	0.20	1	06/22/19 02:47	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 02:47	
Acetone	10 U	10	2.1	1	06/22/19 02:47	
Benzene	5.0 U	5.0	0.20	1	06/22/19 02:47	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 02:47	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 02:47	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 02:47	
Carbon Disulfide	0.46 J	10	0.25	1	06/22/19 02:47	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 02:47	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 02:47	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 02:47	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 02:47	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 02:47	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 02:47	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 02:47	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 02:47	
Styrene	5.0 U	5.0	0.20	1	06/22/19 02:47	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 02:47	
Toluene	5.0 U	5.0	0.20	1	06/22/19 02:47	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 02:47	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 02:47	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 02:47	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 02:47	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 02:47	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 02:47	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 02:47	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 02:47	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-006
Lab Code: R1905556-007

Service Request: R1905556
Date Collected: 06/13/19 12:00
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	06/22/19 02:47	
Dibromofluoromethane	103	89 - 119	06/22/19 02:47	
Toluene-d8	103	87 - 121	06/22/19 02:47	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-006
Lab Code: R1905556-007

Service Request: R1905556
Date Collected: 06/13/19 12:00
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	38.8	JN
	unknown	1.26	27.3	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-007
Lab Code: R1905556-008

Service Request: R1905556
Date Collected: 06/13/19 13:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 03:09	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 03:09	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 03:09	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 03:09	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 03:09	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 03:09	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 03:09	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 03:09	
2-Hexanone	10 U	10	0.20	1	06/22/19 03:09	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 03:09	
Acetone	10 U	10	2.1	1	06/22/19 03:09	
Benzene	5.0 U	5.0	0.20	1	06/22/19 03:09	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 03:09	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 03:09	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 03:09	
Carbon Disulfide	0.87 J	10	0.25	1	06/22/19 03:09	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 03:09	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 03:09	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 03:09	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 03:09	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 03:09	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 03:09	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 03:09	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 03:09	
Styrene	5.0 U	5.0	0.20	1	06/22/19 03:09	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 03:09	
Toluene	5.0 U	5.0	0.20	1	06/22/19 03:09	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 03:09	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 03:09	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 03:09	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 03:09	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 03:09	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 03:09	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 03:09	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 03:09	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-007
Lab Code: R1905556-008

Service Request: R1905556
Date Collected: 06/13/19 13:15
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/22/19 03:09	
Dibromofluoromethane	97	89 - 119	06/22/19 03:09	
Toluene-d8	99	87 - 121	06/22/19 03:09	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-007
Lab Code: R1905556-008

Service Request: R1905556
Date Collected: 06/13/19 13:15
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	39.1	JN
	unknown	1.26	34.9	J

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-008
Lab Code: R1905556-009

Service Request: R1905556
Date Collected: 06/13/19 13:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 03:31	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 03:31	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 03:31	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 03:31	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 03:31	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 03:31	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 03:31	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 03:31	
2-Hexanone	10 U	10	0.20	1	06/22/19 03:31	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 03:31	
Acetone	10 U	10	2.1	1	06/22/19 03:31	
Benzene	5.0 U	5.0	0.20	1	06/22/19 03:31	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 03:31	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 03:31	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 03:31	
Carbon Disulfide	2.7 J	10	0.25	1	06/22/19 03:31	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 03:31	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 03:31	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 03:31	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 03:31	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 03:31	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 03:31	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 03:31	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 03:31	
Styrene	5.0 U	5.0	0.20	1	06/22/19 03:31	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 03:31	
Toluene	5.0 U	5.0	0.20	1	06/22/19 03:31	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 03:31	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 03:31	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 03:31	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 03:31	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 03:31	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 03:31	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 03:31	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 03:31	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-008
Lab Code: R1905556-009

Service Request: R1905556
Date Collected: 06/13/19 13:15
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/22/19 03:31	
Dibromofluoromethane	97	89 - 119	06/22/19 03:31	
Toluene-d8	99	87 - 121	06/22/19 03:31	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-008
Lab Code: R1905556-009

Service Request: R1905556
Date Collected: 06/13/19 13:15
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	42.3	JN
	unknown	1.54	6.7	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-009
Lab Code: R1905556-010

Service Request: R1905556
Date Collected: 06/13/19 14:40

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 03:53	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 03:53	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 03:53	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 03:53	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 03:53	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 03:53	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 03:53	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 03:53	
2-Hexanone	10 U	10	0.20	1	06/22/19 03:53	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 03:53	
Acetone	10 U	10	2.1	1	06/22/19 03:53	
Benzene	5.0 U	5.0	0.20	1	06/22/19 03:53	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 03:53	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 03:53	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 03:53	
Carbon Disulfide	2.6 J	10	0.25	1	06/22/19 03:53	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 03:53	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 03:53	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 03:53	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 03:53	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 03:53	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 03:53	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 03:53	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 03:53	
Styrene	5.0 U	5.0	0.20	1	06/22/19 03:53	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 03:53	
Toluene	5.0 U	5.0	0.20	1	06/22/19 03:53	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 03:53	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 03:53	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 03:53	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 03:53	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 03:53	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 03:53	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 03:53	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 03:53	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-009
Lab Code: R1905556-010

Service Request: R1905556
Date Collected: 06/13/19 14:40
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	06/22/19 03:53	
Dibromofluoromethane	101	89 - 119	06/22/19 03:53	
Toluene-d8	100	87 - 121	06/22/19 03:53	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: WG-9954-061319-SG-009
Lab Code: R1905556-010

Service Request: R1905556
Date Collected: 06/13/19 14:40
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	39.5	JN



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061119-SG-001
Lab Code: R1905556-002

Service Request: R1905556
Date Collected: 06/11/19 13:35

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/20/19 01:00	6/18/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/20/19 01:00	6/18/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/20/19 01:00	6/18/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/20/19 01:00	6/18/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/20/19 01:00	6/18/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
2-Nitroaniline	47 U	47	2.4	1	06/20/19 01:00	6/18/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/20/19 01:00	6/18/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
3-Nitroaniline	47 U	47	1.8	1	06/20/19 01:00	6/18/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/20/19 01:00	6/18/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/20/19 01:00	6/18/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/20/19 01:00	6/18/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/20/19 01:00	6/18/19	
4-Nitroaniline	47 U	47	1.9	1	06/20/19 01:00	6/18/19	
4-Nitrophenol	47 U	47	3.0	1	06/20/19 01:00	6/18/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/20/19 01:00	6/18/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/20/19 01:00	6/18/19	
Anthracene	9.4 U	9.4	1.4	1	06/20/19 01:00	6/18/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/20/19 01:00	6/18/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/20/19 01:00	6/18/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/20/19 01:00	6/18/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/20/19 01:00	6/18/19	
Benzoic Acid	47 U	47	6.0	1	06/20/19 01:00	6/18/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/20/19 01:00	6/18/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/20/19 01:00	6/18/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
Chrysene	9.4 U	9.4	1.5	1	06/20/19 01:00	6/18/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061119-SG-001
Lab Code: R1905556-002

Service Request: R1905556
Date Collected: 06/11/19 13:35

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/20/19 01:00	6/18/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/20/19 01:00	6/18/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/20/19 01:00	6/18/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/20/19 01:00	6/18/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/20/19 01:00	6/18/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/20/19 01:00	6/18/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/20/19 01:00	6/18/19	
Fluorene	9.4 U	9.4	1.6	1	06/20/19 01:00	6/18/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/20/19 01:00	6/18/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/20/19 01:00	6/18/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/20/19 01:00	6/18/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/20/19 01:00	6/18/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/20/19 01:00	6/18/19	
Isophorone	9.4 U	9.4	1.2	1	06/20/19 01:00	6/18/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/20/19 01:00	6/18/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/20/19 01:00	6/18/19	
Naphthalene	9.4 U	9.4	1.1	1	06/20/19 01:00	6/18/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/20/19 01:00	6/18/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/20/19 01:00	6/18/19	
Phenol	9.4 U	9.4	1.0	1	06/20/19 01:00	6/18/19	
Pyrene	9.4 U	9.4	1.8	1	06/20/19 01:00	6/18/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	116	35 - 141	06/20/19 01:00	
2-Fluorobiphenyl	75	31 - 118	06/20/19 01:00	
2-Fluorophenol	39	10 - 105	06/20/19 01:00	
Nitrobenzene-d5	74	31 - 110	06/20/19 01:00	
Phenol-d6	26	10 - 107	06/20/19 01:00	
p-Terphenyl-d14	76	10 - 165	06/20/19 01:00	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-002
Lab Code: R1905556-003

Service Request: R1905556
Date Collected: 06/12/19 10:40

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	06/20/19 11:36	6/18/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
2,4-Dichlorophenol	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
2,4-Dimethylphenol	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
2,4-Dinitrophenol	50 U	50	7.0	1	06/20/19 11:36	6/18/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	06/20/19 11:36	6/18/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	06/20/19 11:36	6/18/19	
2-Chloronaphthalene	10 U	10	1.1	1	06/20/19 11:36	6/18/19	
2-Chlorophenol	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
2-Methylnaphthalene	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
2-Methylphenol	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
2-Nitroaniline	50 U	50	2.4	1	06/20/19 11:36	6/18/19	
2-Nitrophenol	10 U	10	1.5	1	06/20/19 11:36	6/18/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
3-Nitroaniline	50 U	50	1.8	1	06/20/19 11:36	6/18/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	06/20/19 11:36	6/18/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	06/20/19 11:36	6/18/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	06/20/19 11:36	6/18/19	
4-Chloroaniline	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	06/20/19 11:36	6/18/19	
4-Nitroaniline	50 U	50	1.9	1	06/20/19 11:36	6/18/19	
4-Nitrophenol	50 U	50	3.0	1	06/20/19 11:36	6/18/19	
Acenaphthene	10 U	10	1.6	1	06/20/19 11:36	6/18/19	
Acenaphthylene	10 U	10	1.3	1	06/20/19 11:36	6/18/19	
Anthracene	10 U	10	1.4	1	06/20/19 11:36	6/18/19	
Benz(a)anthracene	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
Benzo(a)pyrene	10 U	10	1.3	1	06/20/19 11:36	6/18/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	06/20/19 11:36	6/18/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	06/20/19 11:36	6/18/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	06/20/19 11:36	6/18/19	
Benzoic Acid	50 U	50	6.0	1	06/20/19 11:36	6/18/19	
Benzyl Alcohol	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	06/20/19 11:36	6/18/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	06/20/19 11:36	6/18/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
Chrysene	10 U	10	1.5	1	06/20/19 11:36	6/18/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-002
Lab Code: R1905556-003

Service Request: R1905556
Date Collected: 06/12/19 10:40

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	06/20/19 11:36	6/18/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	06/20/19 11:36	6/18/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	06/20/19 11:36	6/18/19	
Dibenzofuran	10 U	10	1.3	1	06/20/19 11:36	6/18/19	
Diethyl Phthalate	10 U	10	1.2	1	06/20/19 11:36	6/18/19	
Dimethyl Phthalate	10 U	10	1.5	1	06/20/19 11:36	6/18/19	
Fluoranthene	10 U	10	1.4	1	06/20/19 11:36	6/18/19	
Fluorene	10 U	10	1.6	1	06/20/19 11:36	6/18/19	
Hexachlorobenzene	10 U	10	1.4	1	06/20/19 11:36	6/18/19	
Hexachlorobutadiene	10 U	10	1.1	1	06/20/19 11:36	6/18/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	06/20/19 11:36	6/18/19	
Hexachloroethane	10 U	10	1.2	1	06/20/19 11:36	6/18/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	06/20/19 11:36	6/18/19	
Isophorone	10 U	10	1.2	1	06/20/19 11:36	6/18/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	06/20/19 11:36	6/18/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	06/20/19 11:36	6/18/19	
Naphthalene	10 U	10	1.1	1	06/20/19 11:36	6/18/19	
Nitrobenzene	10 U	10	1.0	1	06/20/19 11:36	6/18/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	06/20/19 11:36	6/18/19	
Phenanthrene	10 U	10	1.6	1	06/20/19 11:36	6/18/19	
Phenol	1.8 J	10	1.0	1	06/20/19 11:36	6/18/19	
Pyrene	10 U	10	1.8	1	06/20/19 11:36	6/18/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	120	35 - 141	06/20/19 11:36	
2-Fluorobiphenyl	81	31 - 118	06/20/19 11:36	
2-Fluorophenol	40	10 - 105	06/20/19 11:36	
Nitrobenzene-d5	83	31 - 110	06/20/19 11:36	
Phenol-d6	25	10 - 107	06/20/19 11:36	
p-Terphenyl-d14	84	10 - 165	06/20/19 11:36	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-003
Lab Code: R1905556-004

Service Request: R1905556
Date Collected: 06/12/19 11:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	06/20/19 12:04	6/18/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
2,4-Dichlorophenol	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
2,4-Dimethylphenol	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
2,4-Dinitrophenol	50 U	50	7.0	1	06/20/19 12:04	6/18/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	06/20/19 12:04	6/18/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	06/20/19 12:04	6/18/19	
2-Chloronaphthalene	10 U	10	1.1	1	06/20/19 12:04	6/18/19	
2-Chlorophenol	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
2-Methylnaphthalene	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
2-Methylphenol	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
2-Nitroaniline	50 U	50	2.4	1	06/20/19 12:04	6/18/19	
2-Nitrophenol	10 U	10	1.5	1	06/20/19 12:04	6/18/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
3-Nitroaniline	50 U	50	1.8	1	06/20/19 12:04	6/18/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	06/20/19 12:04	6/18/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	06/20/19 12:04	6/18/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	06/20/19 12:04	6/18/19	
4-Chloroaniline	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	06/20/19 12:04	6/18/19	
4-Nitroaniline	50 U	50	1.9	1	06/20/19 12:04	6/18/19	
4-Nitrophenol	50 U	50	3.0	1	06/20/19 12:04	6/18/19	
Acenaphthene	10 U	10	1.6	1	06/20/19 12:04	6/18/19	
Acenaphthylene	10 U	10	1.3	1	06/20/19 12:04	6/18/19	
Anthracene	10 U	10	1.4	1	06/20/19 12:04	6/18/19	
Benz(a)anthracene	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
Benzo(a)pyrene	10 U	10	1.3	1	06/20/19 12:04	6/18/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	06/20/19 12:04	6/18/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	06/20/19 12:04	6/18/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	06/20/19 12:04	6/18/19	
Benzoic Acid	50 U	50	6.0	1	06/20/19 12:04	6/18/19	
Benzyl Alcohol	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	06/20/19 12:04	6/18/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	06/20/19 12:04	6/18/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
Chrysene	10 U	10	1.5	1	06/20/19 12:04	6/18/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-003
Lab Code: R1905556-004

Service Request: R1905556
Date Collected: 06/12/19 11:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	06/20/19 12:04	6/18/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	06/20/19 12:04	6/18/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	06/20/19 12:04	6/18/19	
Dibenzofuran	10 U	10	1.3	1	06/20/19 12:04	6/18/19	
Diethyl Phthalate	10 U	10	1.2	1	06/20/19 12:04	6/18/19	
Dimethyl Phthalate	10 U	10	1.5	1	06/20/19 12:04	6/18/19	
Fluoranthene	10 U	10	1.4	1	06/20/19 12:04	6/18/19	
Fluorene	10 U	10	1.6	1	06/20/19 12:04	6/18/19	
Hexachlorobenzene	10 U	10	1.4	1	06/20/19 12:04	6/18/19	
Hexachlorobutadiene	10 U	10	1.1	1	06/20/19 12:04	6/18/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	06/20/19 12:04	6/18/19	
Hexachloroethane	10 U	10	1.2	1	06/20/19 12:04	6/18/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	06/20/19 12:04	6/18/19	
Isophorone	10 U	10	1.2	1	06/20/19 12:04	6/18/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	06/20/19 12:04	6/18/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	06/20/19 12:04	6/18/19	
Naphthalene	10 U	10	1.1	1	06/20/19 12:04	6/18/19	
Nitrobenzene	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	06/20/19 12:04	6/18/19	
Phenanthrene	10 U	10	1.6	1	06/20/19 12:04	6/18/19	
Phenol	10 U	10	1.0	1	06/20/19 12:04	6/18/19	
Pyrene	10 U	10	1.8	1	06/20/19 12:04	6/18/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	113	35 - 141	06/20/19 12:04	
2-Fluorobiphenyl	79	31 - 118	06/20/19 12:04	
2-Fluorophenol	38	10 - 105	06/20/19 12:04	
Nitrobenzene-d5	80	31 - 110	06/20/19 12:04	
Phenol-d6	25	10 - 107	06/20/19 12:04	
p-Terphenyl-d14	86	10 - 165	06/20/19 12:04	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-004
Lab Code: R1905556-005

Service Request: R1905556
Date Collected: 06/12/19 13:30

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	06/20/19 12:33	6/18/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
2,4-Dichlorophenol	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
2,4-Dimethylphenol	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
2,4-Dinitrophenol	50 U	50	7.0	1	06/20/19 12:33	6/18/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	06/20/19 12:33	6/18/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	06/20/19 12:33	6/18/19	
2-Chloronaphthalene	10 U	10	1.1	1	06/20/19 12:33	6/18/19	
2-Chlorophenol	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
2-Methylnaphthalene	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
2-Methylphenol	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
2-Nitroaniline	50 U	50	2.4	1	06/20/19 12:33	6/18/19	
2-Nitrophenol	10 U	10	1.5	1	06/20/19 12:33	6/18/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
3-Nitroaniline	50 U	50	1.8	1	06/20/19 12:33	6/18/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	06/20/19 12:33	6/18/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	06/20/19 12:33	6/18/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	06/20/19 12:33	6/18/19	
4-Chloroaniline	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	06/20/19 12:33	6/18/19	
4-Nitroaniline	50 U	50	1.9	1	06/20/19 12:33	6/18/19	
4-Nitrophenol	50 U	50	3.0	1	06/20/19 12:33	6/18/19	
Acenaphthene	10 U	10	1.6	1	06/20/19 12:33	6/18/19	
Acenaphthylene	10 U	10	1.3	1	06/20/19 12:33	6/18/19	
Anthracene	10 U	10	1.4	1	06/20/19 12:33	6/18/19	
Benz(a)anthracene	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
Benzo(a)pyrene	10 U	10	1.3	1	06/20/19 12:33	6/18/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	06/20/19 12:33	6/18/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	06/20/19 12:33	6/18/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	06/20/19 12:33	6/18/19	
Benzoic Acid	50 U	50	6.0	1	06/20/19 12:33	6/18/19	
Benzyl Alcohol	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	06/20/19 12:33	6/18/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	06/20/19 12:33	6/18/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
Chrysene	10 U	10	1.5	1	06/20/19 12:33	6/18/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-004
Lab Code: R1905556-005

Service Request: R1905556
Date Collected: 06/12/19 13:30

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	06/20/19 12:33	6/18/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	06/20/19 12:33	6/18/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	06/20/19 12:33	6/18/19	
Dibenzofuran	10 U	10	1.3	1	06/20/19 12:33	6/18/19	
Diethyl Phthalate	10 U	10	1.2	1	06/20/19 12:33	6/18/19	
Dimethyl Phthalate	10 U	10	1.5	1	06/20/19 12:33	6/18/19	
Fluoranthene	10 U	10	1.4	1	06/20/19 12:33	6/18/19	
Fluorene	10 U	10	1.6	1	06/20/19 12:33	6/18/19	
Hexachlorobenzene	10 U	10	1.4	1	06/20/19 12:33	6/18/19	
Hexachlorobutadiene	10 U	10	1.1	1	06/20/19 12:33	6/18/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	06/20/19 12:33	6/18/19	
Hexachloroethane	10 U	10	1.2	1	06/20/19 12:33	6/18/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	06/20/19 12:33	6/18/19	
Isophorone	10 U	10	1.2	1	06/20/19 12:33	6/18/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	06/20/19 12:33	6/18/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	06/20/19 12:33	6/18/19	
Naphthalene	10 U	10	1.1	1	06/20/19 12:33	6/18/19	
Nitrobenzene	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	06/20/19 12:33	6/18/19	
Phenanthrene	10 U	10	1.6	1	06/20/19 12:33	6/18/19	
Phenol	10 U	10	1.0	1	06/20/19 12:33	6/18/19	
Pyrene	10 U	10	1.8	1	06/20/19 12:33	6/18/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	112	35 - 141	06/20/19 12:33	
2-Fluorobiphenyl	75	31 - 118	06/20/19 12:33	
2-Fluorophenol	38	10 - 105	06/20/19 12:33	
Nitrobenzene-d5	77	31 - 110	06/20/19 12:33	
Phenol-d6	26	10 - 107	06/20/19 12:33	
p-Terphenyl-d14	79	10 - 165	06/20/19 12:33	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-005
Lab Code: R1905556-006

Service Request: R1905556
Date Collected: 06/12/19 14:25

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	06/20/19 13:03	6/18/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
2,4-Dichlorophenol	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
2,4-Dimethylphenol	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
2,4-Dinitrophenol	50 U	50	7.0	1	06/20/19 13:03	6/18/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	06/20/19 13:03	6/18/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	06/20/19 13:03	6/18/19	
2-Chloronaphthalene	10 U	10	1.1	1	06/20/19 13:03	6/18/19	
2-Chlorophenol	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
2-Methylnaphthalene	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
2-Methylphenol	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
2-Nitroaniline	50 U	50	2.4	1	06/20/19 13:03	6/18/19	
2-Nitrophenol	10 U	10	1.5	1	06/20/19 13:03	6/18/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
3-Nitroaniline	50 U	50	1.8	1	06/20/19 13:03	6/18/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	06/20/19 13:03	6/18/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	06/20/19 13:03	6/18/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	06/20/19 13:03	6/18/19	
4-Chloroaniline	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	06/20/19 13:03	6/18/19	
4-Nitroaniline	50 U	50	1.9	1	06/20/19 13:03	6/18/19	
4-Nitrophenol	50 U	50	3.0	1	06/20/19 13:03	6/18/19	
Acenaphthene	10 U	10	1.6	1	06/20/19 13:03	6/18/19	
Acenaphthylene	10 U	10	1.3	1	06/20/19 13:03	6/18/19	
Anthracene	10 U	10	1.4	1	06/20/19 13:03	6/18/19	
Benz(a)anthracene	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
Benzo(a)pyrene	10 U	10	1.3	1	06/20/19 13:03	6/18/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	06/20/19 13:03	6/18/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	06/20/19 13:03	6/18/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	06/20/19 13:03	6/18/19	
Benzoic Acid	50 U	50	6.0	1	06/20/19 13:03	6/18/19	
Benzyl Alcohol	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	06/20/19 13:03	6/18/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	06/20/19 13:03	6/18/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
Chrysene	10 U	10	1.5	1	06/20/19 13:03	6/18/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-005
Lab Code: R1905556-006

Service Request: R1905556
Date Collected: 06/12/19 14:25

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	06/20/19 13:03	6/18/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	06/20/19 13:03	6/18/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	06/20/19 13:03	6/18/19	
Dibenzofuran	10 U	10	1.3	1	06/20/19 13:03	6/18/19	
Diethyl Phthalate	10 U	10	1.2	1	06/20/19 13:03	6/18/19	
Dimethyl Phthalate	10 U	10	1.5	1	06/20/19 13:03	6/18/19	
Fluoranthene	10 U	10	1.4	1	06/20/19 13:03	6/18/19	
Fluorene	10 U	10	1.6	1	06/20/19 13:03	6/18/19	
Hexachlorobenzene	10 U	10	1.4	1	06/20/19 13:03	6/18/19	
Hexachlorobutadiene	10 U	10	1.1	1	06/20/19 13:03	6/18/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	06/20/19 13:03	6/18/19	
Hexachloroethane	10 U	10	1.2	1	06/20/19 13:03	6/18/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	06/20/19 13:03	6/18/19	
Isophorone	10 U	10	1.2	1	06/20/19 13:03	6/18/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	06/20/19 13:03	6/18/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	06/20/19 13:03	6/18/19	
Naphthalene	10 U	10	1.1	1	06/20/19 13:03	6/18/19	
Nitrobenzene	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	06/20/19 13:03	6/18/19	
Phenanthrene	10 U	10	1.6	1	06/20/19 13:03	6/18/19	
Phenol	10 U	10	1.0	1	06/20/19 13:03	6/18/19	
Pyrene	10 U	10	1.8	1	06/20/19 13:03	6/18/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	124	35 - 141	06/20/19 13:03	
2-Fluorobiphenyl	82	31 - 118	06/20/19 13:03	
2-Fluorophenol	40	10 - 105	06/20/19 13:03	
Nitrobenzene-d5	82	31 - 110	06/20/19 13:03	
Phenol-d6	26	10 - 107	06/20/19 13:03	
p-Terphenyl-d14	95	10 - 165	06/20/19 13:03	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-006
Lab Code: R1905556-007

Service Request: R1905556
Date Collected: 06/13/19 12:00

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/01/19 20:45	6/20/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/01/19 20:45	6/20/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/01/19 20:45	6/20/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/01/19 20:45	6/20/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/01/19 20:45	6/20/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
2-Nitroaniline	47 U	47	2.4	1	07/01/19 20:45	6/20/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/01/19 20:45	6/20/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
3-Nitroaniline	47 U	47	1.8	1	07/01/19 20:45	6/20/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/01/19 20:45	6/20/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/01/19 20:45	6/20/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/01/19 20:45	6/20/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/01/19 20:45	6/20/19	
4-Nitroaniline	47 U	47	1.9	1	07/01/19 20:45	6/20/19	
4-Nitrophenol	47 U	47	3.0	1	07/01/19 20:45	6/20/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/01/19 20:45	6/20/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/01/19 20:45	6/20/19	
Anthracene	9.4 U	9.4	1.4	1	07/01/19 20:45	6/20/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/01/19 20:45	6/20/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/01/19 20:45	6/20/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/01/19 20:45	6/20/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/01/19 20:45	6/20/19	
Benzoic Acid	47 U	47	6.0	1	07/01/19 20:45	6/20/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/01/19 20:45	6/20/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/01/19 20:45	6/20/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
Chrysene	9.4 U	9.4	1.5	1	07/01/19 20:45	6/20/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-006
Lab Code: R1905556-007

Service Request: R1905556
Date Collected: 06/13/19 12:00

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/01/19 20:45	6/20/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/01/19 20:45	6/20/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/01/19 20:45	6/20/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/01/19 20:45	6/20/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/01/19 20:45	6/20/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/01/19 20:45	6/20/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/01/19 20:45	6/20/19	
Fluorene	9.4 U	9.4	1.6	1	07/01/19 20:45	6/20/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/01/19 20:45	6/20/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/01/19 20:45	6/20/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/01/19 20:45	6/20/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/01/19 20:45	6/20/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/01/19 20:45	6/20/19	
Isophorone	9.4 U	9.4	1.2	1	07/01/19 20:45	6/20/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/01/19 20:45	6/20/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/01/19 20:45	6/20/19	
Naphthalene	9.4 U	9.4	1.1	1	07/01/19 20:45	6/20/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/01/19 20:45	6/20/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/01/19 20:45	6/20/19	
Phenol	9.4 U	9.4	1.0	1	07/01/19 20:45	6/20/19	
Pyrene	9.4 U	9.4	1.8	1	07/01/19 20:45	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	88	35 - 141	07/01/19 20:45	
2-Fluorobiphenyl	66	31 - 118	07/01/19 20:45	
2-Fluorophenol	37	10 - 105	07/01/19 20:45	
Nitrobenzene-d5	69	31 - 110	07/01/19 20:45	
Phenol-d6	23	10 - 107	07/01/19 20:45	
p-Terphenyl-d14	91	10 - 165	07/01/19 20:45	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
082304-66-3	7,9-Di-tert-butyl-1-oxaspiro(4,5)d	9.42	4.3	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-007
Lab Code: R1905556-008

Service Request: R1905556
Date Collected: 06/13/19 13:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/28/19 23:57	6/20/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/28/19 23:57	6/20/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/28/19 23:57	6/20/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/28/19 23:57	6/20/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/28/19 23:57	6/20/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
2-Nitroaniline	47 U	47	2.4	1	06/28/19 23:57	6/20/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/28/19 23:57	6/20/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
3-Nitroaniline	47 U	47	1.8	1	06/28/19 23:57	6/20/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/28/19 23:57	6/20/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/28/19 23:57	6/20/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/28/19 23:57	6/20/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/28/19 23:57	6/20/19	
4-Nitroaniline	47 U	47	1.9	1	06/28/19 23:57	6/20/19	
4-Nitrophenol	47 U	47	3.0	1	06/28/19 23:57	6/20/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/28/19 23:57	6/20/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/28/19 23:57	6/20/19	
Anthracene	9.4 U	9.4	1.4	1	06/28/19 23:57	6/20/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/28/19 23:57	6/20/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/28/19 23:57	6/20/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/28/19 23:57	6/20/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/28/19 23:57	6/20/19	
Benzoic Acid	47 U	47	6.0	1	06/28/19 23:57	6/20/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/28/19 23:57	6/20/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/28/19 23:57	6/20/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
Chrysene	9.4 U	9.4	1.5	1	06/28/19 23:57	6/20/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-007
Lab Code: R1905556-008

Service Request: R1905556
Date Collected: 06/13/19 13:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/28/19 23:57	6/20/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/28/19 23:57	6/20/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/28/19 23:57	6/20/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/28/19 23:57	6/20/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/28/19 23:57	6/20/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/28/19 23:57	6/20/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/28/19 23:57	6/20/19	
Fluorene	9.4 U	9.4	1.6	1	06/28/19 23:57	6/20/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/28/19 23:57	6/20/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/28/19 23:57	6/20/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/28/19 23:57	6/20/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/28/19 23:57	6/20/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/28/19 23:57	6/20/19	
Isophorone	9.4 U	9.4	1.2	1	06/28/19 23:57	6/20/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/28/19 23:57	6/20/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/28/19 23:57	6/20/19	
Naphthalene	9.4 U	9.4	1.1	1	06/28/19 23:57	6/20/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/28/19 23:57	6/20/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/28/19 23:57	6/20/19	
Phenol	9.4 U	9.4	1.0	1	06/28/19 23:57	6/20/19	
Pyrene	9.4 U	9.4	1.8	1	06/28/19 23:57	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	87	35 - 141	06/28/19 23:57	
2-Fluorobiphenyl	67	31 - 118	06/28/19 23:57	
2-Fluorophenol	35	10 - 105	06/28/19 23:57	
Nitrobenzene-d5	67	31 - 110	06/28/19 23:57	
Phenol-d6	22	10 - 107	06/28/19 23:57	
p-Terphenyl-d14	93	10 - 165	06/28/19 23:57	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	8.44	8.5	J
000057-10-3	n-Hexadecanoic acid	9.57	7.8	JN

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-008
Lab Code: R1905556-009

Service Request: R1905556
Date Collected: 06/13/19 13:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 00:28	6/20/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 00:28	6/20/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 00:28	6/20/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 00:28	6/20/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 00:28	6/20/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 00:28	6/20/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 00:28	6/20/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 00:28	6/20/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 00:28	6/20/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 00:28	6/20/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 00:28	6/20/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 00:28	6/20/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 00:28	6/20/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 00:28	6/20/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 00:28	6/20/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 00:28	6/20/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 00:28	6/20/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 00:28	6/20/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 00:28	6/20/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 00:28	6/20/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 00:28	6/20/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 00:28	6/20/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 00:28	6/20/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 00:28	6/20/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 00:28	6/20/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-008
Lab Code: R1905556-009

Service Request: R1905556
Date Collected: 06/13/19 13:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 00:28	6/20/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 00:28	6/20/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 00:28	6/20/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 00:28	6/20/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 00:28	6/20/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 00:28	6/20/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 00:28	6/20/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 00:28	6/20/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 00:28	6/20/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 00:28	6/20/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 00:28	6/20/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 00:28	6/20/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 00:28	6/20/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 00:28	6/20/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 00:28	6/20/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 00:28	6/20/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 00:28	6/20/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 00:28	6/20/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 00:28	6/20/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 00:28	6/20/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 00:28	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	103	35 - 141	06/29/19 00:28	
2-Fluorobiphenyl	80	31 - 118	06/29/19 00:28	
2-Fluorophenol	40	10 - 105	06/29/19 00:28	
Nitrobenzene-d5	77	31 - 110	06/29/19 00:28	
Phenol-d6	27	10 - 107	06/29/19 00:28	
p-Terphenyl-d14	107	10 - 165	06/29/19 00:28	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	8.44	13	J
000057-10-3	n-Hexadecanoic acid	9.58	13	JN

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-009
Lab Code: R1905556-010

Service Request: R1905556
Date Collected: 06/13/19 14:40

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 00:59	6/20/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 00:59	6/20/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 00:59	6/20/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 00:59	6/20/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 00:59	6/20/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 00:59	6/20/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 00:59	6/20/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 00:59	6/20/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 00:59	6/20/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 00:59	6/20/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 00:59	6/20/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 00:59	6/20/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 00:59	6/20/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 00:59	6/20/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 00:59	6/20/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 00:59	6/20/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 00:59	6/20/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 00:59	6/20/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 00:59	6/20/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 00:59	6/20/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 00:59	6/20/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 00:59	6/20/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 00:59	6/20/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 00:59	6/20/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 00:59	6/20/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-009
Lab Code: R1905556-010

Service Request: R1905556
Date Collected: 06/13/19 14:40

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 00:59	6/20/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 00:59	6/20/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 00:59	6/20/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 00:59	6/20/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 00:59	6/20/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 00:59	6/20/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 00:59	6/20/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 00:59	6/20/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 00:59	6/20/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 00:59	6/20/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 00:59	6/20/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 00:59	6/20/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 00:59	6/20/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 00:59	6/20/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 00:59	6/20/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 00:59	6/20/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 00:59	6/20/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 00:59	6/20/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 00:59	6/20/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 00:59	6/20/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 00:59	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	70	35 - 141	06/29/19 00:59	
2-Fluorobiphenyl	64	31 - 118	06/29/19 00:59	
2-Fluorophenol	31	10 - 105	06/29/19 00:59	
Nitrobenzene-d5	64	31 - 110	06/29/19 00:59	
Phenol-d6	20	10 - 107	06/29/19 00:59	
p-Terphenyl-d14	88	10 - 165	06/29/19 00:59	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	8.44	4.1	J



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061119-SG-001
Lab Code: R1905556-002

Service Request: R1905556
Date Collected: 06/11/19 13:35

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
4,4'-DDE	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
4,4'-DDT	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Aldrin	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Dieldrin	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Endosulfan I	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Endosulfan II	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Endrin	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Endrin Ketone	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Heptachlor	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Methoxychlor	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
Toxaphene	0.50 U	0.50	0.50	1	06/19/19 20:02	6/18/19	
alpha-BHC	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
beta-BHC	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
delta-BHC	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	06/19/19 20:02	6/18/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	28	10 - 164	06/19/19 20:02	
Tetrachloro-m-xylene	79	10 - 147	06/19/19 20:02	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-002
Lab Code: R1905556-003

Service Request: R1905556
Date Collected: 06/12/19 10:40
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
4,4'-DDE	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
4,4'-DDT	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Aldrin	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Dieldrin	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Endosulfan I	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Endosulfan II	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Endrin	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Endrin Ketone	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Heptachlor	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Methoxychlor	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
Toxaphene	0.50 U	0.50	0.50	1	06/21/19 00:51	6/19/19	
alpha-BHC	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
beta-BHC	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
delta-BHC	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	06/21/19 00:51	6/19/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	60	10 - 164	06/21/19 00:51	
Tetrachloro-m-xylene	93	10 - 147	06/21/19 00:51	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-003
Lab Code: R1905556-004

Service Request: R1905556
Date Collected: 06/12/19 11:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
4,4'-DDE	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
4,4'-DDT	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Aldrin	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Dieldrin	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Endosulfan I	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Endosulfan II	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Endrin	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Endrin Ketone	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Heptachlor	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Methoxychlor	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
Toxaphene	0.50 U	0.50	0.50	1	06/21/19 01:09	6/19/19	
alpha-BHC	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
beta-BHC	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
delta-BHC	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	06/21/19 01:09	6/19/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	65	10 - 164	06/21/19 01:09	
Tetrachloro-m-xylene	76	10 - 147	06/21/19 01:09	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-004
Lab Code: R1905556-005

Service Request: R1905556
Date Collected: 06/12/19 13:30

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
4,4'-DDE	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
4,4'-DDT	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Aldrin	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Dieldrin	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Endosulfan I	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Endosulfan II	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Endrin	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Endrin Ketone	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Heptachlor	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Methoxychlor	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
Toxaphene	0.50 U	0.50	0.50	1	06/21/19 01:26	6/19/19	
alpha-BHC	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
beta-BHC	0.026 J	0.047	0.020	1	06/21/19 01:26	6/19/19	
delta-BHC	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	06/21/19 01:26	6/19/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	84	10 - 164	06/21/19 01:26	
Tetrachloro-m-xylene	87	10 - 147	06/21/19 01:26	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061219-SG-005
Lab Code: R1905556-006

Service Request: R1905556
Date Collected: 06/12/19 14:25

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
4,4'-DDE	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
4,4'-DDT	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Aldrin	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Dieldrin	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Endosulfan I	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Endosulfan II	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Endrin	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Endrin Ketone	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Heptachlor	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Methoxychlor	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
Toxaphene	0.50 U	0.50	0.50	1	06/21/19 10:40	6/19/19	
alpha-BHC	0.39	0.047	0.020	1	06/21/19 10:40	6/19/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	
beta-BHC	0.024 J	0.047	0.020	1	06/21/19 10:40	6/19/19	
delta-BHC	0.26	0.047	0.020	1	06/21/19 10:40	6/19/19	
gamma-BHC (Lindane)	0.38	0.047	0.020	1	06/21/19 10:40	6/19/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	06/21/19 10:40	6/19/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	70	10 - 164	06/21/19 10:40	
Tetrachloro-m-xylene	84	10 - 147	06/21/19 10:40	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-006
Lab Code: R1905556-007

Service Request: R1905556
Date Collected: 06/13/19 12:00

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Aldrin	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Dieldrin	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Endrin	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Heptachlor	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
Toxaphene	0.50 U	0.50	0.50	1	07/02/19 13:43	6/20/19	
alpha-BHC	0.10	0.047	0.020	1	07/02/19 13:43	6/20/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
beta-BHC	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	
delta-BHC	0.074	0.047	0.020	1	07/02/19 13:43	6/20/19	
gamma-BHC (Lindane)	0.093	0.047	0.020	1	07/02/19 13:43	6/20/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/02/19 13:43	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	35	10 - 164	07/02/19 13:43	
Tetrachloro-m-xylene	78	10 - 147	07/02/19 13:43	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-007
Lab Code: R1905556-008

Service Request: R1905556
Date Collected: 06/13/19 13:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
4,4'-DDE	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
4,4'-DDT	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Aldrin	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Dieldrin	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Endosulfan I	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Endosulfan II	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Endrin	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Endrin Ketone	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Heptachlor	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Methoxychlor	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
Toxaphene	0.50 U	0.50	0.50	1	06/28/19 09:52	6/20/19	
alpha-BHC	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
beta-BHC	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
delta-BHC	0.026 J	0.047	0.020	1	06/28/19 09:52	6/20/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	06/28/19 09:52	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	31	10 - 164	06/28/19 09:52	
Tetrachloro-m-xylene	91	10 - 147	06/28/19 09:52	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-008
Lab Code: R1905556-009

Service Request: R1905556
Date Collected: 06/13/19 13:15

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Aldrin	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Dieldrin	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Endrin	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Heptachlor	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
Toxaphene	0.50 U	0.50	0.50	1	07/02/19 14:00	6/20/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
beta-BHC	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
delta-BHC	0.046 J	0.047	0.020	1	07/02/19 14:00	6/20/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/02/19 14:00	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	36	10 - 164	07/02/19 14:00	
Tetrachloro-m-xylene	94	10 - 147	07/02/19 14:00	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061319-SG-009
Lab Code: R1905556-010

Service Request: R1905556
Date Collected: 06/13/19 14:40

Date Received: 06/14/19 12:20

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
4,4'-DDE	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
4,4'-DDT	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Aldrin	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Dieldrin	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Endosulfan I	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Endosulfan II	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Endrin	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Endrin Ketone	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Heptachlor	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Methoxychlor	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
Toxaphene	0.50 U	0.50	0.50	1	06/28/19 09:17	6/20/19	
alpha-BHC	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
beta-BHC	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
delta-BHC	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	06/28/19 09:17	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	69	10 - 164	06/28/19 09:17	
Tetrachloro-m-xylene	88	10 - 147	06/28/19 09:17	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061119-SG-001
Lab Code: R1905556-002

Service Request: R1905556
Date Collected: 06/11/19 13:35
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/19/19 18:43	6/18/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/19/19 18:43	6/18/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/19/19 18:43	6/18/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/19/19 18:43	6/18/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/19/19 18:43	6/18/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/19/19 18:43	6/18/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/19/19 18:43	6/18/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	31	10 - 152	06/19/19 18:43	
Tetrachloro-m-xylene	69	14 - 129	06/19/19 18:43	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-002
Lab Code: R1905556-003

Service Request: R1905556
Date Collected: 06/12/19 10:40
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/21/19 18:22	6/19/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/21/19 18:22	6/19/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/21/19 18:22	6/19/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/21/19 18:22	6/19/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/21/19 18:22	6/19/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/21/19 18:22	6/19/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/21/19 18:22	6/19/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	60	10 - 152	06/21/19 18:22	
Tetrachloro-m-xylene	66	14 - 129	06/21/19 18:22	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-003
Lab Code: R1905556-004

Service Request: R1905556
Date Collected: 06/12/19 11:15
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/21/19 18:42	6/19/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/21/19 18:42	6/19/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/21/19 18:42	6/19/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/21/19 18:42	6/19/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/21/19 18:42	6/19/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/21/19 18:42	6/19/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/21/19 18:42	6/19/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	55	10 - 152	06/21/19 18:42	
Tetrachloro-m-xylene	44	14 - 129	06/21/19 18:42	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-004
Lab Code: R1905556-005

Service Request: R1905556
Date Collected: 06/12/19 13:30
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/21/19 19:01	6/19/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/21/19 19:01	6/19/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/21/19 19:01	6/19/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/21/19 19:01	6/19/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/21/19 19:01	6/19/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/21/19 19:01	6/19/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/21/19 19:01	6/19/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	86	10 - 152	06/21/19 19:01	
Tetrachloro-m-xylene	61	14 - 129	06/21/19 19:01	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061219-SG-005
Lab Code: R1905556-006

Service Request: R1905556
Date Collected: 06/12/19 14:25
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/21/19 19:21	6/19/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/21/19 19:21	6/19/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/21/19 19:21	6/19/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/21/19 19:21	6/19/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/21/19 19:21	6/19/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/21/19 19:21	6/19/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/21/19 19:21	6/19/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	69	10 - 152	06/21/19 19:21	
Tetrachloro-m-xylene	55	14 - 129	06/21/19 19:21	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-006
Lab Code: R1905556-007

Service Request: R1905556
Date Collected: 06/13/19 12:00
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/26/19 16:00	6/20/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/26/19 16:00	6/20/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/26/19 16:00	6/20/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/26/19 16:00	6/20/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/26/19 16:00	6/20/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/26/19 16:00	6/20/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/26/19 16:00	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	45	10 - 152	06/26/19 16:00	
Tetrachloro-m-xylene	67	14 - 129	06/26/19 16:00	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-007
Lab Code: R1905556-008

Service Request: R1905556
Date Collected: 06/13/19 13:15
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/27/19 23:08	6/20/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/27/19 23:08	6/20/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/27/19 23:08	6/20/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/27/19 23:08	6/20/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/27/19 23:08	6/20/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/27/19 23:08	6/20/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/27/19 23:08	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	34	10 - 152	06/27/19 23:08	
Tetrachloro-m-xylene	69	14 - 129	06/27/19 23:08	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-008
Lab Code: R1905556-009

Service Request: R1905556
Date Collected: 06/13/19 13:15
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/27/19 22:48	6/20/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/27/19 22:48	6/20/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/27/19 22:48	6/20/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/27/19 22:48	6/20/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/27/19 22:48	6/20/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/27/19 22:48	6/20/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/27/19 22:48	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	45	10 - 152	06/27/19 22:48	
Tetrachloro-m-xylene	72	14 - 129	06/27/19 22:48	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061319-SG-009
Lab Code: R1905556-010

Service Request: R1905556
Date Collected: 06/13/19 14:40
Date Received: 06/14/19 12:20
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/27/19 22:28	6/20/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/27/19 22:28	6/20/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/27/19 22:28	6/20/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/27/19 22:28	6/20/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/27/19 22:28	6/20/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/27/19 22:28	6/20/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/27/19 22:28	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	79	10 - 152	06/27/19 22:28	
Tetrachloro-m-xylene	65	14 - 129	06/27/19 22:28	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905556

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
TB-9954-061119-SG-001	R1905556-001	96	100	100
WG-9954-061119-SG-001	R1905556-002	96	98	99
WG-9954-061219-SG-002	R1905556-003	94	96	100
WG-9954-061219-SG-003	R1905556-004	92	98	100
WG-9954-061219-SG-004	R1905556-005	98	101	102
WG-9954-061219-SG-005	R1905556-006	95	95	98
WG-9954-061319-SG-006	R1905556-007	99	103	103
WG-9954-061319-SG-007	R1905556-008	93	97	99
WG-9954-061319-SG-008	R1905556-009	94	97	99
WG-9954-061319-SG-009	R1905556-010	97	101	100
Method Blank	RQ1906465-04	98	97	105
Lab Control Sample	RQ1906465-03	98	98	102

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906465-04

Service Request: R1905556
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/21/19 22:02	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/21/19 22:02	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/21/19 22:02	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/21/19 22:02	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/21/19 22:02	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/21/19 22:02	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/21/19 22:02	
2-Butanone (MEK)	10 U	10	0.78	1	06/21/19 22:02	
2-Hexanone	10 U	10	0.20	1	06/21/19 22:02	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/21/19 22:02	
Acetone	10 U	10	2.1	1	06/21/19 22:02	
Benzene	5.0 U	5.0	0.20	1	06/21/19 22:02	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/21/19 22:02	
Bromoform	5.0 U	5.0	0.25	1	06/21/19 22:02	
Bromomethane	5.0 U	5.0	0.70	1	06/21/19 22:02	
Carbon Disulfide	10 U	10	0.25	1	06/21/19 22:02	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/21/19 22:02	
Chlorobenzene	5.0 U	5.0	0.20	1	06/21/19 22:02	
Chloroethane	5.0 U	5.0	0.23	1	06/21/19 22:02	
Chloroform	5.0 U	5.0	0.24	1	06/21/19 22:02	
Chloromethane	5.0 U	5.0	0.28	1	06/21/19 22:02	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/21/19 22:02	
Dichloromethane	5.0 U	5.0	0.36	1	06/21/19 22:02	
Ethylbenzene	5.0 U	5.0	0.20	1	06/21/19 22:02	
Styrene	5.0 U	5.0	0.20	1	06/21/19 22:02	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/21/19 22:02	
Toluene	5.0 U	5.0	0.20	1	06/21/19 22:02	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/21/19 22:02	
Vinyl Acetate	10 U	10	1.1	1	06/21/19 22:02	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/21/19 22:02	
Xylenes, Total	5.0 U	5.0	0.23	1	06/21/19 22:02	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/21/19 22:02	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/21/19 22:02	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/21/19 22:02	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/21/19 22:02	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906465-04

Service Request: R1905556
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/21/19 22:02	
Dibromofluoromethane	97	89 - 119	06/21/19 22:02	
Toluene-d8	105	87 - 121	06/21/19 22:02	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906465-04

Service Request: R1905556
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 06/21/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906465-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	17.9	20.0	90	75-125
1,1,2,2-Tetrachloroethane	8260C	17.3	20.0	86	78-126
1,1,2-Trichloroethane	8260C	17.4	20.0	87	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	19.3	20.0	97	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	20.5	20.0	102	71-118
1,2-Dichloroethane	8260C	18.2	20.0	91	71-127
1,2-Dichloropropane	8260C	18.7	20.0	94	80-119
2-Butanone (MEK)	8260C	19.3	20.0	96	61-137
2-Hexanone	8260C	18.2	20.0	91	63-124
4-Methyl-2-pentanone	8260C	18.1	20.0	91	66-124
Acetone	8260C	24.0	20.0	120	40-161
Benzene	8260C	18.2	20.0	91	79-119
Bromodichloromethane	8260C	17.6	20.0	88	81-123
Bromoform	8260C	16.6	20.0	83	65-146
Bromomethane	8260C	16.1	20.0	81	42-166
Carbon Disulfide	8260C	17.7	20.0	89	66-128
Carbon Tetrachloride	8260C	18.4	20.0	92	70-127
Chlorobenzene	8260C	18.3	20.0	92	80-121
Chloroethane	8260C	14.6	20.0	73	62-131
Chloroform	8260C	18.1	20.0	91	79-120
Chloromethane	8260C	15.1	20.0	76	65-135
Dibromochloromethane	8260C	17.5	20.0	88	72-128
Dichloromethane	8260C	18.5	20.0	92	73-122
Ethylbenzene	8260C	19.1	20.0	96	76-120
Styrene	8260C	19.1	20.0	96	80-124
Tetrachloroethene (PCE)	8260C	18.3	20.0	91	72-125
Toluene	8260C	17.8	20.0	89	79-119
Trichloroethene (TCE)	8260C	18.3	20.0	92	74-122
Vinyl Acetate	8260C	21.5	20.0	108	52-174
Vinyl Chloride	8260C	16.7	20.0	83	74-159
cis-1,2-Dichloroethene	8260C	18.0	20.0	90	80-121
cis-1,3-Dichloropropene	8260C	19.4	20.0	97	77-122
trans-1,2-Dichloroethene	8260C	20.0	20.0	100	73-118

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556**Date Analyzed:** 06/21/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1906465-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
trans-1,3-Dichloropropene	8260C	22.0	20.0	110	71-133



Semivolatile Organic Compounds by GC/MS

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905556

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	2,4,6-Tribromophenol	2-Fluorobiphenyl	2-Fluorophenol
		35-141	31-118	10-105
WG-9954-061119-SG-001	R1905556-002	116	75	39
WG-9954-061219-SG-002	R1905556-003	120	81	40
WG-9954-061219-SG-003	R1905556-004	113	79	38
WG-9954-061219-SG-004	R1905556-005	112	75	38
WG-9954-061219-SG-005	R1905556-006	124	82	40
WG-9954-061319-SG-006	R1905556-007	88	66	37
WG-9954-061319-SG-007	R1905556-008	87	67	35
WG-9954-061319-SG-008	R1905556-009	103	80	40
WG-9954-061319-SG-009	R1905556-010	70	64	31
Method Blank	RQ1905998-01	100	61	34
Method Blank	RQ1906142-01	100	60	31
Method Blank	RQ1906142-01	92	69	37
Lab Control Sample	RQ1905998-02	93	64	36
Duplicate Lab Control Sample	RQ1905998-03	103	70	38
Lab Control Sample	RQ1906142-02	100	69	37
Lab Control Sample	RQ1906142-02	104	81	43
Duplicate Lab Control Sample	RQ1906142-03	101	70	41
Duplicate Lab Control Sample	RQ1906142-03	104	81	49

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905556

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	Nitrobenzene-d5	Phenol-d6	p-Terphenyl-d14
		31-110	10-107	10-165
WG-9954-061119-SG-001	R1905556-002	74	26	76
WG-9954-061219-SG-002	R1905556-003	83	25	84
WG-9954-061219-SG-003	R1905556-004	80	25	86
WG-9954-061219-SG-004	R1905556-005	77	26	79
WG-9954-061219-SG-005	R1905556-006	82	26	95
WG-9954-061319-SG-006	R1905556-007	69	23	91
WG-9954-061319-SG-007	R1905556-008	67	22	93
WG-9954-061319-SG-008	R1905556-009	77	27	107
WG-9954-061319-SG-009	R1905556-010	64	20	88
Method Blank	RQ1905998-01	61	23	81
Method Blank	RQ1906142-01	58	21	95
Method Blank	RQ1906142-01	71	24	116
Lab Control Sample	RQ1905998-02	61	25	77
Duplicate Lab Control Sample	RQ1905998-03	69	27	89
Lab Control Sample	RQ1906142-02	66	25	93
Lab Control Sample	RQ1906142-02	82	29	113
Duplicate Lab Control Sample	RQ1906142-03	67	27	91
Duplicate Lab Control Sample	RQ1906142-03	86	32	107

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1905998-01

Service Request: R1905556
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	06/19/19 16:20	6/18/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
2,4-Dichlorophenol	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
2,4-Dimethylphenol	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
2,4-Dinitrophenol	50 U	50	7.0	1	06/19/19 16:20	6/18/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	06/19/19 16:20	6/18/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	06/19/19 16:20	6/18/19	
2-Chloronaphthalene	10 U	10	1.1	1	06/19/19 16:20	6/18/19	
2-Chlorophenol	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
2-Methylnaphthalene	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
2-Methylphenol	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
2-Nitroaniline	50 U	50	2.4	1	06/19/19 16:20	6/18/19	
2-Nitrophenol	10 U	10	1.5	1	06/19/19 16:20	6/18/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
3-Nitroaniline	50 U	50	1.8	1	06/19/19 16:20	6/18/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	06/19/19 16:20	6/18/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	06/19/19 16:20	6/18/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	06/19/19 16:20	6/18/19	
4-Chloroaniline	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	06/19/19 16:20	6/18/19	
4-Nitroaniline	50 U	50	1.9	1	06/19/19 16:20	6/18/19	
4-Nitrophenol	50 U	50	3.0	1	06/19/19 16:20	6/18/19	
Acenaphthene	10 U	10	1.6	1	06/19/19 16:20	6/18/19	
Acenaphthylene	10 U	10	1.3	1	06/19/19 16:20	6/18/19	
Anthracene	10 U	10	1.4	1	06/19/19 16:20	6/18/19	
Benz(a)anthracene	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
Benzo(a)pyrene	10 U	10	1.3	1	06/19/19 16:20	6/18/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	06/19/19 16:20	6/18/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	06/19/19 16:20	6/18/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	06/19/19 16:20	6/18/19	
Benzoic Acid	50 U	50	6.0	1	06/19/19 16:20	6/18/19	
Benzyl Alcohol	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	06/19/19 16:20	6/18/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	06/19/19 16:20	6/18/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
Chrysene	10 U	10	1.5	1	06/19/19 16:20	6/18/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1905998-01

Service Request: R1905556
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	06/19/19 16:20	6/18/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	06/19/19 16:20	6/18/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	06/19/19 16:20	6/18/19	
Dibenzofuran	10 U	10	1.3	1	06/19/19 16:20	6/18/19	
Diethyl Phthalate	10 U	10	1.2	1	06/19/19 16:20	6/18/19	
Dimethyl Phthalate	10 U	10	1.5	1	06/19/19 16:20	6/18/19	
Fluoranthene	10 U	10	1.4	1	06/19/19 16:20	6/18/19	
Fluorene	10 U	10	1.6	1	06/19/19 16:20	6/18/19	
Hexachlorobenzene	10 U	10	1.4	1	06/19/19 16:20	6/18/19	
Hexachlorobutadiene	10 U	10	1.1	1	06/19/19 16:20	6/18/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	06/19/19 16:20	6/18/19	
Hexachloroethane	10 U	10	1.2	1	06/19/19 16:20	6/18/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	06/19/19 16:20	6/18/19	
Isophorone	10 U	10	1.2	1	06/19/19 16:20	6/18/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	06/19/19 16:20	6/18/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	06/19/19 16:20	6/18/19	
Naphthalene	10 U	10	1.1	1	06/19/19 16:20	6/18/19	
Nitrobenzene	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	06/19/19 16:20	6/18/19	
Phenanthrene	10 U	10	1.6	1	06/19/19 16:20	6/18/19	
Phenol	10 U	10	1.0	1	06/19/19 16:20	6/18/19	
Pyrene	10 U	10	1.8	1	06/19/19 16:20	6/18/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	100	35 - 141	06/19/19 16:20	
2-Fluorobiphenyl	61	31 - 118	06/19/19 16:20	
2-Fluorophenol	34	10 - 105	06/19/19 16:20	
Nitrobenzene-d5	61	31 - 110	06/19/19 16:20	
Phenol-d6	23	10 - 107	06/19/19 16:20	
p-Terphenyl-d14	81	10 - 165	06/19/19 16:20	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906142-01

Service Request: R1905556
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	06/21/19 12:12	6/20/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
2,4-Dichlorophenol	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
2,4-Dimethylphenol	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
2,4-Dinitrophenol	50 U	50	7.0	1	06/21/19 12:12	6/20/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	06/21/19 12:12	6/20/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	06/21/19 12:12	6/20/19	
2-Chloronaphthalene	10 U	10	1.1	1	06/21/19 12:12	6/20/19	
2-Chlorophenol	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
2-Methylnaphthalene	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
2-Methylphenol	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
2-Nitroaniline	50 U	50	2.4	1	06/21/19 12:12	6/20/19	
2-Nitrophenol	10 U	10	1.5	1	06/21/19 12:12	6/20/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
3-Nitroaniline	50 U	50	1.8	1	06/21/19 12:12	6/20/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	06/21/19 12:12	6/20/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	06/21/19 12:12	6/20/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	06/21/19 12:12	6/20/19	
4-Chloroaniline	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	06/21/19 12:12	6/20/19	
4-Nitroaniline	50 U	50	1.9	1	06/21/19 12:12	6/20/19	
4-Nitrophenol	50 U	50	3.0	1	06/21/19 12:12	6/20/19	
Acenaphthene	10 U	10	1.6	1	06/21/19 12:12	6/20/19	
Acenaphthylene	10 U	10	1.3	1	06/21/19 12:12	6/20/19	
Anthracene	10 U	10	1.4	1	06/21/19 12:12	6/20/19	
Benz(a)anthracene	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
Benzo(a)pyrene	10 U	10	1.3	1	06/21/19 12:12	6/20/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	06/21/19 12:12	6/20/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	06/21/19 12:12	6/20/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	06/21/19 12:12	6/20/19	
Benzoic Acid	50 U	50	6.0	1	06/21/19 12:12	6/20/19	
Benzyl Alcohol	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	06/21/19 12:12	6/20/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	06/21/19 12:12	6/20/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
Chrysene	10 U	10	1.5	1	06/21/19 12:12	6/20/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906142-01

Service Request: R1905556
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	06/21/19 12:12	6/20/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	06/21/19 12:12	6/20/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	06/21/19 12:12	6/20/19	
Dibenzofuran	10 U	10	1.3	1	06/21/19 12:12	6/20/19	
Diethyl Phthalate	10 U	10	1.2	1	06/21/19 12:12	6/20/19	
Dimethyl Phthalate	10 U	10	1.5	1	06/21/19 12:12	6/20/19	
Fluoranthene	10 U	10	1.4	1	06/21/19 12:12	6/20/19	
Fluorene	10 U	10	1.6	1	06/21/19 12:12	6/20/19	
Hexachlorobenzene	10 U	10	1.4	1	06/21/19 12:12	6/20/19	
Hexachlorobutadiene	10 U	10	1.1	1	06/21/19 12:12	6/20/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	06/21/19 12:12	6/20/19	
Hexachloroethane	10 U	10	1.2	1	06/21/19 12:12	6/20/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	06/21/19 12:12	6/20/19	
Isophorone	10 U	10	1.2	1	06/21/19 12:12	6/20/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	06/21/19 12:12	6/20/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	06/21/19 12:12	6/20/19	
Naphthalene	10 U	10	1.1	1	06/21/19 12:12	6/20/19	
Nitrobenzene	10 U	10	1.0	1	06/21/19 12:12	6/20/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	06/21/19 12:12	6/20/19	
Phenanthrene	10 U	10	1.6	1	06/21/19 12:12	6/20/19	
Phenol	6.2 J	10	1.0	1	06/21/19 12:12	6/20/19	
Pyrene	10 U	10	1.8	1	06/21/19 12:12	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	100	35 - 141	06/21/19 12:12	
2-Fluorobiphenyl	60	31 - 118	06/21/19 12:12	
2-Fluorophenol	31	10 - 105	06/21/19 12:12	
Nitrobenzene-d5	58	31 - 110	06/21/19 12:12	
Phenol-d6	21	10 - 107	06/21/19 12:12	
p-Terphenyl-d14	95	10 - 165	06/21/19 12:12	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906142-01

Service Request: R1905556
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	07/01/19 19:10	6/20/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
2,4-Dichlorophenol	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
2,4-Dimethylphenol	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
2,4-Dinitrophenol	50 U	50	7.0	1	07/01/19 19:10	6/20/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	07/01/19 19:10	6/20/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	07/01/19 19:10	6/20/19	
2-Chloronaphthalene	10 U	10	1.1	1	07/01/19 19:10	6/20/19	
2-Chlorophenol	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
2-Methylnaphthalene	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
2-Methylphenol	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
2-Nitroaniline	50 U	50	2.4	1	07/01/19 19:10	6/20/19	
2-Nitrophenol	10 U	10	1.5	1	07/01/19 19:10	6/20/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
3-Nitroaniline	50 U	50	1.8	1	07/01/19 19:10	6/20/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	07/01/19 19:10	6/20/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	07/01/19 19:10	6/20/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	07/01/19 19:10	6/20/19	
4-Chloroaniline	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	07/01/19 19:10	6/20/19	
4-Nitroaniline	50 U	50	1.9	1	07/01/19 19:10	6/20/19	
4-Nitrophenol	50 U	50	3.0	1	07/01/19 19:10	6/20/19	
Acenaphthene	10 U	10	1.6	1	07/01/19 19:10	6/20/19	
Acenaphthylene	10 U	10	1.3	1	07/01/19 19:10	6/20/19	
Anthracene	10 U	10	1.4	1	07/01/19 19:10	6/20/19	
Benz(a)anthracene	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
Benzo(a)pyrene	10 U	10	1.3	1	07/01/19 19:10	6/20/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	07/01/19 19:10	6/20/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	07/01/19 19:10	6/20/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	07/01/19 19:10	6/20/19	
Benzoic Acid	50 U	50	6.0	1	07/01/19 19:10	6/20/19	
Benzyl Alcohol	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	07/01/19 19:10	6/20/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	07/01/19 19:10	6/20/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
Chrysene	10 U	10	1.5	1	07/01/19 19:10	6/20/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906142-01

Service Request: R1905556
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	07/01/19 19:10	6/20/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	07/01/19 19:10	6/20/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	07/01/19 19:10	6/20/19	
Dibenzofuran	10 U	10	1.3	1	07/01/19 19:10	6/20/19	
Diethyl Phthalate	10 U	10	1.2	1	07/01/19 19:10	6/20/19	
Dimethyl Phthalate	10 U	10	1.5	1	07/01/19 19:10	6/20/19	
Fluoranthene	10 U	10	1.4	1	07/01/19 19:10	6/20/19	
Fluorene	10 U	10	1.6	1	07/01/19 19:10	6/20/19	
Hexachlorobenzene	10 U	10	1.4	1	07/01/19 19:10	6/20/19	
Hexachlorobutadiene	10 U	10	1.1	1	07/01/19 19:10	6/20/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	07/01/19 19:10	6/20/19	
Hexachloroethane	10 U	10	1.2	1	07/01/19 19:10	6/20/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	07/01/19 19:10	6/20/19	
Isophorone	10 U	10	1.2	1	07/01/19 19:10	6/20/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	07/01/19 19:10	6/20/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	07/01/19 19:10	6/20/19	
Naphthalene	10 U	10	1.1	1	07/01/19 19:10	6/20/19	
Nitrobenzene	10 U	10	1.0	1	07/01/19 19:10	6/20/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	07/01/19 19:10	6/20/19	
Phenanthrene	10 U	10	1.6	1	07/01/19 19:10	6/20/19	
Phenol	7.7 J	10	1.0	1	07/01/19 19:10	6/20/19	
Pyrene	10 U	10	1.8	1	07/01/19 19:10	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	92	35 - 141	07/01/19 19:10	
2-Fluorobiphenyl	69	31 - 118	07/01/19 19:10	
2-Fluorophenol	37	10 - 105	07/01/19 19:10	
Nitrobenzene-d5	71	31 - 110	07/01/19 19:10	
Phenol-d6	24	10 - 107	07/01/19 19:10	
p-Terphenyl-d14	116	10 - 165	07/01/19 19:10	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 06/19/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Analyte Name	Lab Control Sample RQ1905998-02				Duplicate Lab Control Sample RQ1905998-03				RPD	RPD Limit
	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits		
1,2,4-Trichlorobenzene	8270D	25.4	50.0	51	27.2	50.0	54	10-127	6	30
1,2-Dichlorobenzene	8270D	23.0	50.0	46	23.4	50.0	47	23-130	2	30
1,3-Dichlorobenzene	8270D	22.1	50.0	44	22.4	50.0	45	21-90	2	30
1,4-Dichlorobenzene	8270D	22.3	50.0	45	22.4	50.0	45	10-124	<1	30
2,4,5-Trichlorophenol	8270D	38.8	50.0	78	43.2	50.0	86	48-134	10	30
2,4,6-Trichlorophenol	8270D	37.5	50.0	75	42.1	50.0	84	44-135	11	30
2,4-Dichlorophenol	8270D	32.4	50.0	65	37.5	50.0	75	48-127	14	30
2,4-Dimethylphenol	8270D	34.8	50.0	70	39.7	50.0	79	59-113	12	30
2,4-Dinitrophenol	8270D	45.3 J	50.0	91	49.5 J	50.0	99	21-154	8	30
2,4-Dinitrotoluene	8270D	37.7	50.0	75	42.8	50.0	86	54-130	14	30
2,6-Dinitrotoluene	8270D	38.9	50.0	78	43.6	50.0	87	51-127	11	30
2-Chloronaphthalene	8270D	29.1	50.0	58	32.1	50.0	64	40-108	10	30
2-Chlorophenol	8270D	28.5	50.0	57	31.1	50.0	62	42-112	8	30
2-Methylnaphthalene	8270D	27.4	50.0	55	30.0	50.0	60	34-102	9	30
2-Methylphenol	8270D	28.3	50.0	57	30.5	50.0	61	47-100	7	30
2-Nitroaniline	8270D	39.7 J	50.0	79	45.5 J	50.0	91	52-133	14	30
2-Nitrophenol	8270D	31.0	50.0	62	36.0	50.0	72	43-131	15	30
3,3'-Dichlorobenzidine	8270D	35.3	50.0	71	40.5	50.0	81	43-126	13	30
3- and 4-Methylphenol Coelution	8270D	24.5	50.0	49	27.2	50.0	54	40-92	10	30
3-Nitroaniline	8270D	33.3 J	50.0	67	38.7 J	50.0	77	42-111	14	30
4,6-Dinitro-2-methylphenol	8270D	35.2 J	50.0	70	41.5 J	50.0	83	36-152	17	30
4-Bromophenyl Phenyl Ether	8270D	42.0	50.0	84	47.5	50.0	95	48-114	12	30
4-Chloro-3-methylphenol	8270D	37.5	50.0	75	41.5	50.0	83	52-113	10	30
4-Chloroaniline	8270D	32.3	50.0	65	36.7	50.0	73	44-109	12	30
4-Chlorophenyl Phenyl Ether	8270D	37.1	50.0	74	42.7	50.0	85	51-107	14	30
4-Nitroaniline	8270D	38.5 J	50.0	77	44.2 J	50.0	88	54-133	13	30
4-Nitrophenol	8270D	15.2 J	50.0	30	20.1 J	50.0	40	10-126	29	30
Acenaphthene	8270D	31.1	50.0	62	34.7	50.0	69	52-107	11	30
Acenaphthylene	8270D	32.7	50.0	65	36.2	50.0	72	55-109	10	30
Anthracene	8270D	38.7	50.0	77	45.5	50.0	91	55-116	17	30
Benz(a)anthracene	8270D	38.3	50.0	77	43.8	50.0	88	61-121	13	30
Benzo(a)pyrene	8270D	40.4	50.0	81	47.2	50.0	94	44-114	15	30
Benzo(b)fluoranthene	8270D	38.4	50.0	77	43.3	50.0	87	62-115	12	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 06/19/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample RQ1905998-02					Duplicate Lab Control Sample RQ1905998-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(g,h,i)perylene	8270D	45.8	50.0	92	52.7	50.0	105	63-136	13	30
Benzo(k)fluoranthene	8270D	39.7	50.0	79	45.7	50.0	91	49-133	14	30
Benzoic Acid	8270D	70.3	150	47	79.7	150	53	10-94	12	30
Benzyl Alcohol	8270D	34.9	50.0	70	39.2	50.0	78	31-109	11	30
2,2'-Oxybis(1-chloropropane)	8270D	39.1	50.0	78	44.5	50.0	89	32-122	13	30
Bis(2-chloroethoxy)methane	8270D	38.8	50.0	78	44.1	50.0	88	55-110	12	30
Bis(2-chloroethyl) Ether	8270D	32.1	50.0	64	36.0	50.0	72	46-102	12	30
Bis(2-ethylhexyl) Phthalate	8270D	35.3	50.0	71	40.6	50.0	81	51-132	13	30
Butyl Benzyl Phthalate	8270D	34.6	50.0	69	39.8	50.0	80	41-148	15	30
Chrysene	8270D	39.8	50.0	80	46.9	50.0	94	57-118	16	30
Di-n-butyl Phthalate	8270D	40.1	50.0	80	45.9	50.0	92	57-128	14	30
Di-n-octyl Phthalate	8270D	35.1	50.0	70	40.2	50.0	80	62-124	13	30
Dibenz(a,h)anthracene	8270D	37.4	50.0	75	43.5	50.0	87	54-135	15	30
Dibenzofuran	8270D	33.3	50.0	67	36.8	50.0	74	55-110	10	30
Diethyl Phthalate	8270D	34.7	50.0	69	39.1	50.0	78	53-113	12	30
Dimethyl Phthalate	8270D	35.0	50.0	70	39.6	50.0	79	51-112	12	30
Fluoranthene	8270D	42.5	50.0	85	48.7	50.0	97	66-127	13	30
Fluorene	8270D	34.4	50.0	69	39.2	50.0	78	54-106	12	30
Hexachlorobenzene	8270D	43.7	50.0	87	49.8	50.0	100	53-123	14	30
Hexachlorobutadiene	8270D	28.1	50.0	56	29.7	50.0	59	16-95	5	30
Hexachlorocyclopentadiene	8270D	13.0	50.0	26	13.5	50.0	27	10-99	4	30
Hexachloroethane	8270D	21.9	50.0	44	22.5	50.0	45	15-92	2	30
Indeno(1,2,3-cd)pyrene	8270D	39.2	50.0	78	43.9	50.0	88	62-137	12	30
Isophorone	8270D	36.2	50.0	72	40.8	50.0	82	50-116	13	30
N-Nitrosodi-n-propylamine	8270D	33.4	50.0	67	39.0	50.0	78	49-115	15	30
N-Nitrosodiphenylamine	8270D	39.3	50.0	79	44.9	50.0	90	45-123	13	30
Naphthalene	8270D	26.5	50.0	53	29.0	50.0	58	38-99	9	30
Nitrobenzene	8270D	30.1	50.0	60	34.2	50.0	68	46-108	13	30
Pentachlorophenol (PCP)	8270D	53.7	50.0	107	66.4	50.0	133	29-164	22	30
Phenanthrene	8270D	37.1	50.0	74	42.9	50.0	86	58-118	15	30
Phenol	8270D	14.8	50.0	30	16.5	50.0	33	10-113	10	30
Pyrene	8270D	37.5	50.0	75	42.9	50.0	86	61-122	14	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 07/01/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Analyte Name	Lab Control Sample				Duplicate Lab Control Sample					
	RQ1906142-02				RQ1906142-03					
	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	8270D	27.3	50.0	55	29.9	50.0	60	10-127	9	30
1,2-Dichlorobenzene	8270D	23.7	50.0	47	28.0	50.0	56	23-130	17	30
1,3-Dichlorobenzene	8270D	22.6	50.0	45	26.9	50.0	54	21-90	18	30
1,4-Dichlorobenzene	8270D	22.9	50.0	46	26.7	50.0	53	10-124	14	30
2,4,5-Trichlorophenol	8270D	50.9	50.0	102	52.8	50.0	106	48-134	4	30
2,4,6-Trichlorophenol	8270D	49.9	50.0	100	51.8	50.0	104	44-135	4	30
2,4-Dichlorophenol	8270D	42.3	50.0	85	45.2	50.0	90	48-127	6	30
2,4-Dimethylphenol	8270D	42.0	50.0	84	44.9	50.0	90	59-113	7	30
2,4-Dinitrophenol	8270D	57.5	50.0	115	60.8	50.0	122	21-154	6	30
2,4-Dinitrotoluene	8270D	55.8	50.0	112	57.3	50.0	115	54-130	3	30
2,6-Dinitrotoluene	8270D	52.0	50.0	104	52.8	50.0	106	51-127	2	30
2-Chloronaphthalene	8270D	32.0	50.0	64	32.8	50.0	66	40-108	3	30
2-Chlorophenol	8270D	34.6	50.0	69	39.1	50.0	78	42-112	12	30
2-Methylnaphthalene	8270D	32.3	50.0	65	32.9	50.0	66	34-102	2	30
2-Methylphenol	8270D	34.0	50.0	68	37.5	50.0	75	47-100	10	30
2-Nitroaniline	8270D	42.5 J	50.0	85	43.9 J	50.0	88	52-133	3	30
2-Nitrophenol	8270D	47.7	50.0	95	48.7	50.0	97	43-131	2	30
3,3'-Dichlorobenzidine	8270D	57.8	50.0	116	58.4	50.0	117	43-126	<1	30
3- and 4-Methylphenol Coelution	8270D	34.5	50.0	69	37.5	50.0	75	40-92	8	30
3-Nitroaniline	8270D	50.4	50.0	101	52.1	50.0	104	42-111	3	30
4,6-Dinitro-2-methylphenol	8270D	58.1	50.0	116	59.9	50.0	120	36-152	3	30
4-Bromophenyl Phenyl Ether	8270D	46.8	50.0	94	45.7	50.0	91	48-114	3	30
4-Chloro-3-methylphenol	8270D	50.3	50.0	101	50.9	50.0	102	52-113	<1	30
4-Chloroaniline	8270D	41.1	50.0	82	41.3	50.0	83	44-109	1	30
4-Chlorophenyl Phenyl Ether	8270D	44.0	50.0	88	44.6	50.0	89	51-107	1	30
4-Nitroaniline	8270D	46.7 J	50.0	93	49.7 J	50.0	99	54-133	6	30
4-Nitrophenol	8270D	22.1 J	50.0	44	23.4 J	50.0	47	10-126	7	30
Acenaphthene	8270D	42.7	50.0	85	42.0	50.0	84	52-107	1	30
Acenaphthylene	8270D	43.0	50.0	86	42.4	50.0	85	55-109	1	30
Anthracene	8270D	51.3	50.0	103	51.4	50.0	103	55-116	<1	30
Benz(a)anthracene	8270D	54.8	50.0	110	54.3	50.0	109	61-121	<1	30
Benzo(a)pyrene	8270D	55.3	50.0	111	55.3	50.0	111	44-114	<1	30
Benzo(b)fluoranthene	8270D	53.4	50.0	107	53.6	50.0	107	62-115	<1	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 07/01/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Analyte Name	Lab Control Sample				Duplicate Lab Control Sample					
	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(g,h,i)perylene	8270D	63.1	50.0	126	62.7	50.0	125	63-136	<1	30
Benzo(k)fluoranthene	8270D	55.2	50.0	110	54.9	50.0	110	49-133	<1	30
Benzoic Acid	8270D	53.6	150	36	60.1	150	40	10-94	11	30
Benzyl Alcohol	8270D	39.5	50.0	79	42.6	50.0	85	31-109	7	30
2,2'-Oxybis(1-chloropropane)	8270D	34.1	50.0	68	36.3	50.0	73	32-122	7	30
Bis(2-chloroethoxy)methane	8270D	43.9	50.0	88	44.8	50.0	90	55-110	2	30
Bis(2-chloroethyl) Ether	8270D	36.8	50.0	74	40.1	50.0	80	46-102	8	30
Bis(2-ethylhexyl) Phthalate	8270D	58.2	50.0	116	56.9	50.0	114	51-132	2	30
Butyl Benzyl Phthalate	8270D	56.9	50.0	114	56.1	50.0	112	41-148	2	30
Chrysene	8270D	56.4	50.0	113	57.0	50.0	114	57-118	<1	30
Di-n-butyl Phthalate	8270D	58.4	50.0	117	59.6	50.0	119	57-128	2	30
Di-n-octyl Phthalate	8270D	57.1	50.0	114	57.5	50.0	115	62-124	<1	30
Dibenz(a,h)anthracene	8270D	59.3	50.0	119	59.2	50.0	118	54-135	<1	30
Dibenzofuran	8270D	43.0	50.0	86	42.8	50.0	86	55-110	<1	30
Diethyl Phthalate	8270D	53.3	50.0	107	56.0	50.0	112	53-113	5	30
Dimethyl Phthalate	8270D	48.8	50.0	98	50.7	50.0	101	51-112	3	30
Fluoranthene	8270D	53.8	50.0	108	52.9	50.0	106	66-127	2	30
Fluorene	8270D	45.5	50.0	91	45.4	50.0	91	54-106	<1	30
Hexachlorobenzene	8270D	49.3	50.0	99	48.0	50.0	96	53-123	3	30
Hexachlorobutadiene	8270D	29.0	50.0	58	32.3	50.0	65	16-95	11	30
Hexachlorocyclopentadiene	8270D	15.7	50.0	31	17.2	50.0	34	10-99	9	30
Hexachloroethane	8270D	21.6	50.0	43	26.3	50.0	53	15-92	21	30
Indeno(1,2,3-cd)pyrene	8270D	59.7	50.0	119	59.1	50.0	118	62-137	<1	30
Isophorone	8270D	43.6	50.0	87	45.1	50.0	90	50-116	3	30
N-Nitrosodi-n-propylamine	8270D	39.6	50.0	79	41.3	50.0	83	49-115	5	30
N-Nitrosodiphenylamine	8270D	48.1	50.0	96	48.6	50.0	97	45-123	1	30
Naphthalene	8270D	31.5	50.0	63	33.1	50.0	66	38-99	5	30
Nitrobenzene	8270D	40.2	50.0	80	42.1	50.0	84	46-108	5	30
Pentachlorophenol (PCP)	8270D	57.9	50.0	116	59.1	50.0	118	29-164	2	30
Phenanthrene	8270D	50.5	50.0	101	49.7	50.0	99	58-118	2	30
Phenol	8270D	19.0	50.0	38	20.1	50.0	40	10-113	5	30
Pyrene	8270D	53.3	50.0	107	54.4	50.0	109	61-122	2	30



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905556

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10-164	10-147
WG-9954-061119-SG-001	R1905556-002	28	79
WG-9954-061219-SG-002	R1905556-003	60	93
WG-9954-061219-SG-003	R1905556-004	65	76
WG-9954-061219-SG-004	R1905556-005	84	87
WG-9954-061219-SG-005	R1905556-006	70	84
WG-9954-061319-SG-006	R1905556-007	35	78
WG-9954-061319-SG-007	R1905556-008	31	91
WG-9954-061319-SG-008	R1905556-009	36	94
WG-9954-061319-SG-009	R1905556-010	69	88
Method Blank	RQ1905996-01	68	74
Method Blank	RQ1906075-01	57	72
Method Blank	RQ1906141-01	61	73
Lab Control Sample	RQ1905996-02	70	77
Duplicate Lab Control Sample	RQ1905996-03	79	85
Lab Control Sample	RQ1906075-02	74	78
Duplicate Lab Control Sample	RQ1906075-03	58	72
Lab Control Sample	RQ1906141-02	42	64
Duplicate Lab Control Sample	RQ1906141-03	44	69

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1905996-01

Service Request: R1905556
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
4,4'-DDE	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
4,4'-DDT	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Aldrin	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Dieldrin	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Endosulfan I	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Endosulfan II	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Endosulfan Sulfate	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Endrin	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Endrin Ketone	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Heptachlor	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Heptachlor Epoxide	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Methoxychlor	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
Toxaphene	0.50 U	0.50	0.50	1	06/19/19 15:31	6/18/19	
alpha-BHC	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
alpha-Chlordane	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
beta-BHC	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
delta-BHC	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
gamma-BHC (Lindane)	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	
gamma-Chlordane	0.050 U	0.050	0.020	1	06/19/19 15:31	6/18/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	68	10 - 164	06/19/19 15:31	
Tetrachloro-m-xylene	74	10 - 147	06/19/19 15:31	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906075-01

Service Request: R1905556
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
4,4'-DDE	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
4,4'-DDT	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Aldrin	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Dieldrin	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Endosulfan I	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Endosulfan II	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Endosulfan Sulfate	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Endrin	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Endrin Ketone	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Heptachlor	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Heptachlor Epoxide	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Methoxychlor	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
Toxaphene	0.50 U	0.50	0.50	1	06/20/19 23:59	6/19/19	
alpha-BHC	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
alpha-Chlordane	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
beta-BHC	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
delta-BHC	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
gamma-BHC (Lindane)	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	
gamma-Chlordane	0.050 U	0.050	0.020	1	06/20/19 23:59	6/19/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	57	10 - 164	06/20/19 23:59	
Tetrachloro-m-xylene	72	10 - 147	06/20/19 23:59	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906141-01

Service Request: R1905556
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
4,4'-DDE	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
4,4'-DDT	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Aldrin	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Dieldrin	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Endosulfan I	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Endosulfan II	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Endosulfan Sulfate	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Endrin	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Endrin Ketone	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Heptachlor	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Heptachlor Epoxide	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Methoxychlor	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
Toxaphene	0.50 U	0.50	0.50	1	07/01/19 14:12	6/20/19	
alpha-BHC	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
alpha-Chlordane	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
beta-BHC	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
delta-BHC	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
gamma-BHC (Lindane)	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	
gamma-Chlordane	0.050 U	0.050	0.020	1	07/01/19 14:12	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	61	10 - 164	07/01/19 14:12	
Tetrachloro-m-xylene	73	10 - 147	07/01/19 14:12	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 06/19/19

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

Lab Control Sample RQ1905996-02					Duplicate Lab Control Sample RQ1905996-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	8081B	0.208	0.200	104	0.235	0.200	117	42-159	12	30
4,4'-DDE	8081B	0.209	0.200	105	0.238	0.200	119	47-147	13	30
4,4'-DDT	8081B	0.203	0.200	102	0.233	0.200	116	41-149	14	30
Aldrin	8081B	0.181	0.200	91	0.193	0.200	96	22-137	6	30
Dieldrin	8081B	0.194	0.200	97	0.219	0.200	110	52-144	12	30
Endosulfan I	8081B	0.193	0.200	96	0.218	0.200	109	52-136	13	30
Endosulfan II	8081B	0.189	0.200	95	0.218	0.200	109	57-138	14	30
Endosulfan Sulfate	8081B	0.183	0.200	92	0.210	0.200	105	34-156	14	30
Endrin	8081B	0.204	0.200	102	0.230	0.200	115	56-143	12	30
Endrin Ketone	8081B	0.188	0.200	94	0.214	0.200	107	59-143	13	30
Heptachlor	8081B	0.196	0.200	98	0.208	0.200	104	32-141	6	30
Heptachlor Epoxide	8081B	0.200	0.200	100	0.220	0.200	110	51-143	10	30
Methoxychlor	8081B	0.203	0.200	102	0.236	0.200	118	56-149	15	30
alpha-BHC	8081B	0.199	0.200	99	0.208	0.200	104	36-151	4	30
alpha-Chlordane	8081B	0.198	0.200	99	0.225	0.200	113	50-139	13	30
beta-BHC	8081B	0.204	0.200	102	0.214	0.200	107	55-149	5	30
delta-BHC	8081B	0.206	0.200	103	0.222	0.200	111	29-159	8	30
gamma-BHC (Lindane)	8081B	0.201	0.200	100	0.210	0.200	105	41-149	4	30
gamma-Chlordane	8081B	0.196	0.200	98	0.220	0.200	110	50-140	11	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 06/21/19

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

Lab Control Sample RQ1906075-02					Duplicate Lab Control Sample RQ1906075-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	8081B	0.242	0.200	121	0.192	0.200	96	42-159	23	30
4,4'-DDE	8081B	0.206	0.200	103	0.166	0.200	83	47-147	21	30
4,4'-DDT	8081B	0.138	0.200	69	0.145	0.200	73	41-149	5	30
Aldrin	8081B	0.120	0.200	60	0.110	0.200	55	22-137	9	30
Dieldrin	8081B	0.194	0.200	97	0.167	0.200	83	52-144	15	30
Endosulfan I	8081B	0.192	0.200	96	0.164	0.200	82	52-136	16	30
Endosulfan II	8081B	0.199	0.200	100	0.177	0.200	89	57-138	12	30
Endosulfan Sulfate	8081B	0.195	0.200	97	0.169	0.200	84	34-156	14	30
Endrin	8081B	0.205	0.200	103	0.188	0.200	94	56-143	9	30
Endrin Ketone	8081B	0.190	0.200	95	0.177	0.200	88	59-143	7	30
Heptachlor	8081B	0.166	0.200	83	0.148	0.200	74	32-141	11	30
Heptachlor Epoxide	8081B	0.200	0.200	100	0.171	0.200	86	51-143	16	30
Methoxychlor	8081B	0.168	0.200	84	0.168	0.200	84	56-149	<1	30
alpha-BHC	8081B	0.197	0.200	98	0.184	0.200	92	36-151	7	30
alpha-Chlordane	8081B	0.194	0.200	97	0.164	0.200	82	50-139	17	30
beta-BHC	8081B	0.226	0.200	113	0.204	0.200	102	55-149	10	30
delta-BHC	8081B	0.222	0.200	111	0.204	0.200	102	29-159	8	30
gamma-BHC (Lindane)	8081B	0.199	0.200	99	0.189	0.200	95	41-149	5	30
gamma-Chlordane	8081B	0.193	0.200	97	0.163	0.200	82	50-140	17	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 07/01/19

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

Lab Control Sample RQ1906141-02					Duplicate Lab Control Sample RQ1906141-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	8081B	0.131	0.200	65	0.140	0.200	70	42-159	7	30
4,4'-DDE	8081B	0.133	0.200	67	0.151	0.200	76	47-147	13	30
4,4'-DDT	8081B	0.134	0.200	67	0.154	0.200	77	41-149	14	30
Aldrin	8081B	0.123	0.200	61	0.139	0.200	69	22-137	12	30
Dieldrin	8081B	0.132	0.200	66	0.150	0.200	75	52-144	13	30
Endosulfan I	8081B	0.129	0.200	65	0.148	0.200	74	52-136	14	30
Endosulfan II	8081B	0.149	0.200	74	0.166	0.200	83	57-138	11	30
Endosulfan Sulfate	8081B	0.127	0.200	63	0.144	0.200	72	34-156	13	30
Endrin	8081B	0.141	0.200	70	0.159	0.200	80	56-143	13	30
Endrin Ketone	8081B	0.132	0.200	66	0.146	0.200	73	59-143	10	30
Heptachlor	8081B	0.131	0.200	66	0.153	0.200	76	32-141	15	30
Heptachlor Epoxide	8081B	0.136	0.200	68	0.156	0.200	78	51-143	14	30
Methoxychlor	8081B	0.132	0.200	66	0.134	0.200	67	56-149	1	30
alpha-BHC	8081B	0.140	0.200	70	0.164	0.200	82	36-151	16	30
alpha-Chlordane	8081B	0.132	0.200	66	0.150	0.200	75	50-139	13	30
beta-BHC	8081B	0.154	0.200	77	0.176	0.200	88	55-149	14	30
delta-BHC	8081B	0.146	0.200	73	0.170	0.200	85	29-159	15	30
gamma-BHC (Lindane)	8081B	0.143	0.200	72	0.167	0.200	84	41-149	16	30
gamma-Chlordane	8081B	0.131	0.200	66	0.150	0.200	75	50-140	13	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905556

SURROGATE RECOVERY SUMMARY
Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10-152	14-129
WG-9954-061119-SG-001	R1905556-002	31	69
WG-9954-061219-SG-002	R1905556-003	60	66
WG-9954-061219-SG-003	R1905556-004	55	44
WG-9954-061219-SG-004	R1905556-005	86	61
WG-9954-061219-SG-005	R1905556-006	69	55
WG-9954-061319-SG-006	R1905556-007	45	67
WG-9954-061319-SG-007	R1905556-008	34	69
WG-9954-061319-SG-008	R1905556-009	45	72
WG-9954-061319-SG-009	R1905556-010	79	65
Method Blank	RQ1905996-01	76	73
Method Blank	RQ1906075-01	62	53
Method Blank	RQ1906141-01	67	70
Lab Control Sample	RQ1905996-02	82	75
Duplicate Lab Control Sample	RQ1905996-03	83	70
Lab Control Sample	RQ1906075-02	68	56
Duplicate Lab Control Sample	RQ1906075-03	53	50
Lab Control Sample	RQ1906141-02	63	60
Duplicate Lab Control Sample	RQ1906141-03	75	69

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1905996-01

Service Request: R1905556
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.0 U	1.0	0.50	1	06/19/19 14:07	6/18/19	
Aroclor 1221	2.0 U	2.0	1.0	1	06/19/19 14:07	6/18/19	
Aroclor 1232	1.0 U	1.0	0.50	1	06/19/19 14:07	6/18/19	
Aroclor 1242	1.0 U	1.0	0.50	1	06/19/19 14:07	6/18/19	
Aroclor 1248	1.0 U	1.0	0.50	1	06/19/19 14:07	6/18/19	
Aroclor 1254	1.0 U	1.0	0.50	1	06/19/19 14:07	6/18/19	
Aroclor 1260	1.0 U	1.0	0.50	1	06/19/19 14:07	6/18/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	76	10 - 152	06/19/19 14:07	
Tetrachloro-m-xylene	73	14 - 129	06/19/19 14:07	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906075-01

Service Request: R1905556
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.0 U	1.0	0.50	1	06/21/19 17:23	6/19/19	
Aroclor 1221	2.0 U	2.0	1.0	1	06/21/19 17:23	6/19/19	
Aroclor 1232	1.0 U	1.0	0.50	1	06/21/19 17:23	6/19/19	
Aroclor 1242	1.0 U	1.0	0.50	1	06/21/19 17:23	6/19/19	
Aroclor 1248	1.0 U	1.0	0.50	1	06/21/19 17:23	6/19/19	
Aroclor 1254	1.0 U	1.0	0.50	1	06/21/19 17:23	6/19/19	
Aroclor 1260	1.0 U	1.0	0.50	1	06/21/19 17:23	6/19/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	62	10 - 152	06/21/19 17:23	
Tetrachloro-m-xylene	53	14 - 129	06/21/19 17:23	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906141-01

Service Request: R1905556
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.0 U	1.0	0.50	1	06/26/19 14:21	6/20/19	
Aroclor 1221	2.0 U	2.0	1.0	1	06/26/19 14:21	6/20/19	
Aroclor 1232	1.0 U	1.0	0.50	1	06/26/19 14:21	6/20/19	
Aroclor 1242	1.0 U	1.0	0.50	1	06/26/19 14:21	6/20/19	
Aroclor 1248	1.0 U	1.0	0.50	1	06/26/19 14:21	6/20/19	
Aroclor 1254	1.0 U	1.0	0.50	1	06/26/19 14:21	6/20/19	
Aroclor 1260	1.0 U	1.0	0.50	1	06/26/19 14:21	6/20/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	67	10 - 152	06/26/19 14:21	
Tetrachloro-m-xylene	70	14 - 129	06/26/19 14:21	

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 06/19/19

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Units:ug/L
Basis:NA

Lab Control Sample RQ1905996-02					Duplicate Lab Control Sample RQ1905996-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	4.40	5.00	88	4.39	5.00	88	49-123	<1	30
Aroclor 1260	8082A	4.86	5.00	97	5.05	5.00	101	57-135	4	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 06/21/19

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Units:ug/L
Basis:NA

Lab Control Sample RQ1906075-02					Duplicate Lab Control Sample RQ1906075-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	3.32	5.00	66	2.94	5.00	59	49-123	12	30
Aroclor 1260	8082A	4.13	5.00	83	3.44	5.00	69	57-135	18	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905556
Date Analyzed: 06/26/19

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Units:ug/L
Basis:NA

Lab Control Sample RQ1906141-02					Duplicate Lab Control Sample RQ1906141-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	3.81	5.00	76	4.31	5.00	86	49-123	12	30
Aroclor 1260	8082A	4.15	5.00	83	4.76	5.00	95	57-135	14	30



July 12, 2019

Service Request No:R1905579

Ms. Kathy Willy
GHD Services Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, NY 14304

Laboratory Results for: Love Canal:292-402-D02-3100

Dear Ms.Willy,

Enclosed are the results of the sample(s) submitted to our laboratory June 17, 2019
For your reference, these analyses have been assigned our service request number **R1905579**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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www.alsglobal.com



Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100
Sample Matrix: Water

Service Request: R1905579

Date Received: 06/17/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Ten water samples were received for analysis at ALS Environmental on 06/17/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

Method 8270D, 06/29/2019: The Method Blank contained a low level of one or more analytes at concentrations above the Method Reporting Limit (MRL). Since there were no detections of the analyte(s) in the associated field samples, the data quality was not significantly affected and no further corrective action was taken.

Method 8270D, 06/29/2019: The upper control criterion was exceeded for one or more analytes in the Matrix Spike Duplicate Sample (MSD). There were no detections of the analyte(s) in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Semivolatile GC:

Method 8081B, 07/01/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 06/28/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV) on the confirmation column. Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 07/03/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Volatiles by GC/MS:

Method 8260C, 06/22/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Approved by 

Date 07/12/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: WG-9954-061419-DJT-014	Lab ID: R1905579-002

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	5.5	J	2.1	10	ug/L	8260C

CLIENT ID: WG-9954-061419-DJT-010	Lab ID: R1905579-003

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	5.8	J	2.1	10	ug/L	8260C
Carbon Disulfide	51		0.25	10	ug/L	8260C
Xylenes, Total	0.29	J	0.23	5.0	ug/L	8260C
alpha-BHC	0.10		0.020	0.047	ug/L	8081B
delta-BHC	0.045	J	0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.080		0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-061419-DJT-011	Lab ID: R1905579-004

Analyte	Results	Flag	MDL	MRL	Units	Method
2-Butanone (MEK)	1.0	J	0.78	10	ug/L	8260C
Acetone	8.7	J	2.1	10	ug/L	8260C
Carbon Disulfide	84		0.25	10	ug/L	8260C
Ethylbenzene	0.35	J	0.20	5.0	ug/L	8260C
Toluene	0.27	J	0.20	5.0	ug/L	8260C
Xylenes, Total	0.45	J	0.23	5.0	ug/L	8260C
alpha-BHC	0.024	J	0.020	0.047	ug/L	8081B
delta-BHC	0.10		0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.045	J	0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-061419-DJT-012	Lab ID: R1905579-005

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	3.3	J	2.1	10	ug/L	8260C
Carbon Disulfide	4.8	J	0.25	10	ug/L	8260C
Toluene	0.23	J	0.20	5.0	ug/L	8260C
delta-BHC	0.023	J	0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-061419-DJT-015	Lab ID: R1905579-006

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	4.7	J	2.1	10	ug/L	8260C
Carbon Disulfide	5.2	J	0.25	10	ug/L	8260C

CLIENT ID: WG-9954-061419-DJT-016	Lab ID: R1905579-007

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	5.1	J	2.1	10	ug/L	8260C
Carbon Disulfide	0.54	J	0.25	10	ug/L	8260C

CLIENT ID: WG-9954-061419-DJT-017	Lab ID: R1905579-008

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	6.5	J	2.1	10	ug/L	8260C
Carbon Disulfide	0.44	J	0.25	10	ug/L	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: WG-9954-061419-DJT-017				Lab ID: R1905579-008		

Analyte	Results	Flag	MDL	MRL	Units	Method
Chloromethane	0.34	J	0.28	5.0	ug/L	8260C

CLIENT ID: RB-9954-061419-DJT-001				Lab ID: R1905579-009		

Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	0.27	J	0.25	10	ug/L	8260C
Chloromethane	0.46	J	0.28	5.0	ug/L	8260C
3- and 4-Methylphenol Coelution	2.4	J	1.0	9.4	ug/L	8270D

CLIENT ID: TB-9954-061419-DJT-002				Lab ID: R1905579-010		

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	11		2.1	10	ug/L	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Service Request:R1905579

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1905579-001	WG-9954-061419-DJT-013	6/14/2019	1030
R1905579-002	WG-9954-061419-DJT-014	6/14/2019	1040
R1905579-003	WG-9954-061419-DJT-010	6/14/2019	0840
R1905579-004	WG-9954-061419-DJT-011	6/14/2019	0920
R1905579-005	WG-9954-061419-DJT-012	6/14/2019	0935
R1905579-006	WG-9954-061419-DJT-015	6/14/2019	1150
R1905579-007	WG-9954-061419-DJT-016	6/14/2019	1300
R1905579-008	WG-9954-061419-DJT-017	6/14/2019	1400
R1905579-009	RB-9954-061419-DJT-001	6/14/2019	1430
R1905579-010	TB-9954-061419-DJT-002	6/14/2019	0000

CHAIN-OF-CUSTODY/Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Client Information	
GLEN SPRINGS HOLDINGS INC	Report To: Kathy Willy
805 97TH STREET	Copy To:
LOVE CANAL	
NIAGARA FALLS, NEW YORK 14304	Invoice To:
Phone: 716-283-0111	PO:
Fax: 716-283-2856	Project Name: LOVE CANAL ANNUAL GW
Email: kathy.willy@ghd.com	Project Number: 9954

Lab Information	
Laboratory: ALS	
Laboratory Location: 1565 JEFFERSON RD. BUILDING 300, SUITE 360 ROCHESTER, NY 14623	
Laboratory Contact: BRADY KALKMAN	
Requested Due Date:	TAT: 10
QA/QC Requirements:	

Event Information	
ID#: LC ANNUAL GW SAMPLING 2019-02-1	
SSOW Ref#:	
Sampler Name: DTYRAN, J ADAMS	

Sample Identification	Valid Matrix Code WG Groundwater WB Borehole Water WS Surface Water SO Soil SE Sediment	Matrix Code	Date Collected	Time Collected	PostPCBs(None)	SVOC(none)	VOA(HCI)	Sample Condition		Remarks
								Temp in C		
								Received on ice	Y/N	
								Sealed Cooler	Y/N	
								Samples Intact	Y/N	
WG-9954-061419-DJT-013		WG	06/14/2019	10:30	2	2	3			
WG-9954-061419-DJT-014		WG	06/14/2019	10:40	2	2	3			
WG-9954-061419-DJT-010		WG	06/14/2019	08:40	2	2	3			
WG-9954-061419-DJT-011		WG	06/14/2019	09:20	2	2	3			
WG-9954-061419-DJT-012		WG	06/14/2019	09:35	2	2	3			
WG-9954-061419-DJT-015		WG	06/14/2019	11:50	6	6	9			MS/MSD
WG-9954-061419-DJT-016		WG	06/14/2019	13:00	2	2	3			
WG-9954-061419-DJT-017		WG	06/14/2019	14:00	2	2	3			
RB-9954-061419-DJT-001		WG Q	06/14/2019	14:30	2	2	3			
TB-9954-061419-DJT-002		WG Q	06/14/2019	00:00	-	-	3			
Total Bottles					22	22	36	Grand Total:80		

SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY:	DATE	TIME	RECIEVED BY:	DATE	TIME
Lab Courier	4	Shawn Waldner	6/14/19	1600	Sary Bohan	6/17/19	1000
AIRBILL#:		Sary Bohan	6/17/19	1200	Sary Bohan	6/17/19	1200

R1905579

GHD Services Inc.
Love Canal:292-402-002-3100





CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

SR#

1565 Jefferson Road, Bldg 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 / FAX (585) 288-8475

www.alsglobal.com

004, 005, 006, 007, 008, 009, 010,
011, 012, 013

T030477

Project Name: Love Canal 292-402-D02-3100				NUMBER OF CONTAINERS	7D	14D	1	2	3	4	5	Remarks	
Project Number: 9954 Annual Long Term Monitoring		Report To: Kathy Willy											
Company / Address: GHD Services Inc. 2055 Niagara Falls Blvd., Suite 3 Niagara Falls NY, 14304													
Phone #: 716-297-2160		FAX #: 716-297-2265											
Sampler Signature		Sampler Printed Name											
CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix		3081B / Pest OC	3082A / PCB	3270D / SVO	3260C / VOC FP					
1.			Liquid										
2.			Liquid										
3.			Liquid										
4.			Liquid										
5.			Liquid										
6.			Liquid										
7.			Liquid										
8.			Liquid										
9.			Liquid										
10.			Liquid										

Special Instructions/Comments:

Turnaround Requirements

___ RUSH (SURCHARGES APPLY)

___ Standard (3 weeks)

REQUESTED FAX DATE

Requested Report Date

Report Requirements

___ I. Results Only

___ II. Results + QC Summaries (LCS,
DUP, MS/MSD as required)___ III. Results + QC and Calibration
Summaries☒ IV. Data Validation Report
with Raw Data

EData ___ Yes ___ No

Invoice Information

P.O.#

Bill To:

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time



Cooler Receipt and Preservation Check Form

R1905579

5

GHD Services Inc.
Love Canal 292-402-002-3100



Project/Client GHS Folder Number _____

Cooler received on 6/17/19 by: AO

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	☒ Y ☐ N
2	Custody papers properly completed (ink, signed)?	☒ Y ☐ N
3	Did all bottles arrive in good condition (unbroken)?	☒ Y ☐ N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	☒ Y ☐ N

5a	Perchlorate samples have required headspace?	Y N ☒ NA
5b	Did <u>VOA</u> vials, Alk, or Sulfide have sig* bubbles?	☒ Y ☐ N ☐ NA
6	Where did the bottles originate?	<u>ALS/ROO</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	☒ NA

8. Temperature Readings Date: 6/17/19 Time: 1215 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>2.3</u>	<u>3.3</u>	<u>1.4</u>	<u>1.7</u>	<u>0.8</u>		
Correction Factor (°C)	<u>+0.3</u>	<u>-</u>	<u>-</u>	<u>+0.3</u>	<u>+0.3</u>		
Corrected Temp (°C)	<u>2.6</u>	<u>3.6</u>	<u>1.4</u>	<u>2.0</u>	<u>1.1</u>		
Temp from: Type of bottle	<u>1/4 amber</u>	<u>-</u>	<u>-</u>	<u>cont. tube</u>	<u>cont. tube</u>		
Within 0-6°C?	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N
If <0°C, were samples frozen?	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N	☐ Y ☐ N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Room by E on 6/17/19 at 1223
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 6/17/19 Time: 1627 by: Shw

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? ☒ YES ☐ NO
- Did all bottle labels and tags agree with custody papers? ☒ YES ☐ NO
- Were correct containers used for the tests indicated? ☒ YES ☐ NO
- Were 5035 vials acceptable (no extra labels, not leaking)? ☒ YES ☐ NO
- Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated ☒ NA

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	Client label					

**VOAs and 1664 Not to be tested before analysis.
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: Client label
Explain all Discrepancies/ Other Comments:

- 015 (2 vials)
- 017 (1 vial) headspace

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: sh
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905579

Sample Name: WG-9954-061419-DJT-013
Lab Code: R1905579-001
Sample Matrix: Water

Date Collected: 06/14/19
Date Received: 06/17/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

BALLGEIER

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061419-DJT-014
Lab Code: R1905579-002
Sample Matrix: Water

Date Collected: 06/14/19
Date Received: 06/17/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

BALLGEIER

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061419-DJT-010
Lab Code: R1905579-003
Sample Matrix: Water

Date Collected: 06/14/19
Date Received: 06/17/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

BALLGEIER

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061419-DJT-011
Lab Code: R1905579-004
Sample Matrix: Water

Date Collected: 06/14/19
Date Received: 06/17/19

Analysis Method

8081B

Extracted/Digested By

KSERCU

Analyzed By

AMOSSES

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905579

Sample Name: WG-9954-061419-DJT-011
Lab Code: R1905579-004
Sample Matrix: Water

Date Collected: 06/14/19

Date Received: 06/17/19

Analysis Method

8082A

8260C

8270D

Extracted/Digested By

KSERCU

BALLGEIER

Analyzed By

AMOSSES

DLIPANI

JMISIUREWICZ

Sample Name: WG-9954-061419-DJT-012
Lab Code: R1905579-005
Sample Matrix: Water

Date Collected: 06/14/19

Date Received: 06/17/19

Analysis Method

8081B

8082A

8260C

8270D

Extracted/Digested By

KSERCU

KSERCU

BALLGEIER

Analyzed By

AMOSSES

AMOSSES

DLIPANI

JMISIUREWICZ

Sample Name: WG-9954-061419-DJT-015
Lab Code: R1905579-006
Sample Matrix: Water

Date Collected: 06/14/19

Date Received: 06/17/19

Analysis Method

8081B

8082A

8260C

8270D

Extracted/Digested By

KSERCU

KSERCU

BALLGEIER

Analyzed By

AMOSSES

AMOSSES

DLIPANI

JMISIUREWICZ

Sample Name: WG-9954-061419-DJT-016
Lab Code: R1905579-007
Sample Matrix: Water

Date Collected: 06/14/19

Date Received: 06/17/19

Analysis Method

8081B

8082A

Extracted/Digested By

KSERCU

KSERCU

Analyzed By

AMOSSES

AMOSSES

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905579

Sample Name: WG-9954-061419-DJT-016
Lab Code: R1905579-007
Sample Matrix: Water

Date Collected: 06/14/19
Date Received: 06/17/19

Analysis Method

8260C
8270D

Extracted/Digested By

BALLGEIER

Analyzed By

DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061419-DJT-017
Lab Code: R1905579-008
Sample Matrix: Water

Date Collected: 06/14/19
Date Received: 06/17/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

BALLGEIER

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: RB-9954-061419-DJT-001
Lab Code: R1905579-009
Sample Matrix: Water

Date Collected: 06/14/19
Date Received: 06/17/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

BALLGEIER

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: TB-9954-061419-DJT-002
Lab Code: R1905579-010
Sample Matrix: Water

Date Collected: 06/14/19
Date Received: 06/17/19

Analysis Method

8260C

Extracted/Digested By

Analyzed By

DLIPANI



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-013
Lab Code: R1905579-001

Service Request: R1905579
Date Collected: 06/14/19 10:30

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 15:29	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 15:29	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 15:29	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 15:29	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 15:29	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 15:29	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 15:29	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 15:29	
2-Hexanone	10 U	10	0.20	1	06/22/19 15:29	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 15:29	
Acetone	10 U	10	2.1	1	06/22/19 15:29	
Benzene	5.0 U	5.0	0.20	1	06/22/19 15:29	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 15:29	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 15:29	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 15:29	
Carbon Disulfide	10 U	10	0.25	1	06/22/19 15:29	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 15:29	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 15:29	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 15:29	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 15:29	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 15:29	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 15:29	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 15:29	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 15:29	
Styrene	5.0 U	5.0	0.20	1	06/22/19 15:29	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 15:29	
Toluene	5.0 U	5.0	0.20	1	06/22/19 15:29	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 15:29	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 15:29	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 15:29	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 15:29	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 15:29	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 15:29	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 15:29	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 15:29	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-013
Lab Code: R1905579-001

Service Request: R1905579
Date Collected: 06/14/19 10:30
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	06/22/19 15:29	
Dibromofluoromethane	101	89 - 119	06/22/19 15:29	
Toluene-d8	104	87 - 121	06/22/19 15:29	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-013
Lab Code: R1905579-001

Service Request: R1905579
Date Collected: 06/14/19 10:30
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	6.2	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-014
Lab Code: R1905579-002

Service Request: R1905579
Date Collected: 06/14/19 10:40

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 15:51	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 15:51	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 15:51	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 15:51	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 15:51	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 15:51	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 15:51	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 15:51	
2-Hexanone	10 U	10	0.20	1	06/22/19 15:51	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 15:51	
Acetone	5.5 J	10	2.1	1	06/22/19 15:51	
Benzene	5.0 U	5.0	0.20	1	06/22/19 15:51	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 15:51	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 15:51	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 15:51	
Carbon Disulfide	10 U	10	0.25	1	06/22/19 15:51	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 15:51	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 15:51	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 15:51	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 15:51	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 15:51	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 15:51	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 15:51	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 15:51	
Styrene	5.0 U	5.0	0.20	1	06/22/19 15:51	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 15:51	
Toluene	5.0 U	5.0	0.20	1	06/22/19 15:51	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 15:51	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 15:51	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 15:51	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 15:51	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 15:51	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 15:51	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 15:51	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 15:51	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-014
Lab Code: R1905579-002

Service Request: R1905579
Date Collected: 06/14/19 10:40
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	06/22/19 15:51	
Dibromofluoromethane	98	89 - 119	06/22/19 15:51	
Toluene-d8	103	87 - 121	06/22/19 15:51	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-014
Lab Code: R1905579-002

Service Request: R1905579
Date Collected: 06/14/19 10:40
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-010
Lab Code: R1905579-003

Service Request: R1905579
Date Collected: 06/14/19 08:40

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 16:13	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 16:13	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 16:13	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 16:13	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 16:13	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 16:13	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 16:13	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 16:13	
2-Hexanone	10 U	10	0.20	1	06/22/19 16:13	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 16:13	
Acetone	5.8 J	10	2.1	1	06/22/19 16:13	
Benzene	5.0 U	5.0	0.20	1	06/22/19 16:13	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 16:13	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 16:13	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 16:13	
Carbon Disulfide	51	10	0.25	1	06/22/19 16:13	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 16:13	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 16:13	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 16:13	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 16:13	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 16:13	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 16:13	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 16:13	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 16:13	
Styrene	5.0 U	5.0	0.20	1	06/22/19 16:13	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 16:13	
Toluene	5.0 U	5.0	0.20	1	06/22/19 16:13	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 16:13	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 16:13	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 16:13	
Xylenes, Total	0.29 J	5.0	0.23	1	06/22/19 16:13	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 16:13	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 16:13	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 16:13	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 16:13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	06/22/19 16:13	
Dibromofluoromethane	100	89 - 119	06/22/19 16:13	
Toluene-d8	100	87 - 121	06/22/19 16:13	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-010
Lab Code: R1905579-003

Service Request: R1905579
Date Collected: 06/14/19 08:40
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	unknown	1.13	15.6	J
	Sulfur dioxide	1.23	27.2	JN
	unknown	1.25	12.1	J
	unknown	1.36	9.8	J
000074-93-1	Methanethiol	1.53	17.7	JN
003658-80-8	Trisulfide, dimethyl	11.48	6.4	JN
	unknown	2.87	5.2	J
000624-89-5	Ethane, (methylthio)-	4.24	34.4	JN
000624-92-0	Disulfide, dimethyl	8.07	28.4	JN

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-011
Lab Code: R1905579-004

Service Request: R1905579
Date Collected: 06/14/19 09:20

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 16:35	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 16:35	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 16:35	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 16:35	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 16:35	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 16:35	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 16:35	
2-Butanone (MEK)	1.0 J	10	0.78	1	06/22/19 16:35	
2-Hexanone	10 U	10	0.20	1	06/22/19 16:35	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 16:35	
Acetone	8.7 J	10	2.1	1	06/22/19 16:35	
Benzene	5.0 U	5.0	0.20	1	06/22/19 16:35	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 16:35	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 16:35	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 16:35	
Carbon Disulfide	84	10	0.25	1	06/22/19 16:35	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 16:35	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 16:35	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 16:35	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 16:35	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 16:35	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 16:35	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 16:35	
Ethylbenzene	0.35 J	5.0	0.20	1	06/22/19 16:35	
Styrene	5.0 U	5.0	0.20	1	06/22/19 16:35	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 16:35	
Toluene	0.27 J	5.0	0.20	1	06/22/19 16:35	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 16:35	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 16:35	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 16:35	
Xylenes, Total	0.45 J	5.0	0.23	1	06/22/19 16:35	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 16:35	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 16:35	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 16:35	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 16:35	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/22/19 16:35	
Dibromofluoromethane	98	89 - 119	06/22/19 16:35	
Toluene-d8	102	87 - 121	06/22/19 16:35	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-011
Lab Code: R1905579-004

Service Request: R1905579
Date Collected: 06/14/19 09:20
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	unknown	1.13	10.6	J
	Sulfur dioxide	1.22	58.4	JN
	unknown	1.25	13.6	J
	unknown	1.36	8.7	J
000074-93-1	Methanethiol	1.52	27.6	JN
000078-78-4	Butane, 2-methyl-	1.72	6.2	JN
003658-80-8	Trisulfide, dimethyl	11.48	5.9	JN
000624-89-5	Ethane, (methylthio)-	4.24	51.8	JN
001551-21-9	Propane, 2-(methylthio)-	6.12	5.1	JN
000624-92-0	Disulfide, dimethyl	8.07	23.8	JN

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-012
Lab Code: R1905579-005

Service Request: R1905579
Date Collected: 06/14/19 09:35

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/24/19 18:16	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/24/19 18:16	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/24/19 18:16	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/24/19 18:16	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/24/19 18:16	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/24/19 18:16	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/24/19 18:16	
2-Butanone (MEK)	10 U	10	0.78	1	06/24/19 18:16	
2-Hexanone	10 U	10	0.20	1	06/24/19 18:16	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/24/19 18:16	
Acetone	3.3 J	10	2.1	1	06/24/19 18:16	
Benzene	5.0 U	5.0	0.20	1	06/24/19 18:16	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/24/19 18:16	
Bromoform	5.0 U	5.0	0.25	1	06/24/19 18:16	
Bromomethane	5.0 U	5.0	0.70	1	06/24/19 18:16	
Carbon Disulfide	4.8 J	10	0.25	1	06/24/19 18:16	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/24/19 18:16	
Chlorobenzene	5.0 U	5.0	0.20	1	06/24/19 18:16	
Chloroethane	5.0 U	5.0	0.23	1	06/24/19 18:16	
Chloroform	5.0 U	5.0	0.24	1	06/24/19 18:16	
Chloromethane	5.0 U	5.0	0.28	1	06/24/19 18:16	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/24/19 18:16	
Dichloromethane	5.0 U	5.0	0.36	1	06/24/19 18:16	
Ethylbenzene	5.0 U	5.0	0.20	1	06/24/19 18:16	
Styrene	5.0 U	5.0	0.20	1	06/24/19 18:16	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/24/19 18:16	
Toluene	0.23 J	5.0	0.20	1	06/24/19 18:16	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/24/19 18:16	
Vinyl Acetate	10 U	10	1.1	1	06/24/19 18:16	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/24/19 18:16	
Xylenes, Total	5.0 U	5.0	0.23	1	06/24/19 18:16	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/24/19 18:16	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/24/19 18:16	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/24/19 18:16	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/24/19 18:16	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-012
Lab Code: R1905579-005

Service Request: R1905579
Date Collected: 06/14/19 09:35
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/24/19 18:16	
Dibromofluoromethane	99	89 - 119	06/24/19 18:16	
Toluene-d8	104	87 - 121	06/24/19 18:16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-012
Lab Code: R1905579-005

Service Request: R1905579
Date Collected: 06/14/19 09:35
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	42.0	JN

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-015
Lab Code: R1905579-006

Service Request: R1905579
Date Collected: 06/14/19 11:50

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 16:57	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 16:57	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 16:57	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 16:57	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 16:57	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 16:57	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 16:57	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 16:57	
2-Hexanone	10 U	10	0.20	1	06/22/19 16:57	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 16:57	
Acetone	4.7 J	10	2.1	1	06/22/19 16:57	
Benzene	5.0 U	5.0	0.20	1	06/22/19 16:57	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 16:57	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 16:57	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 16:57	
Carbon Disulfide	5.2 J	10	0.25	1	06/22/19 16:57	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 16:57	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 16:57	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 16:57	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 16:57	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 16:57	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 16:57	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 16:57	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 16:57	
Styrene	5.0 U	5.0	0.20	1	06/22/19 16:57	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 16:57	
Toluene	5.0 U	5.0	0.20	1	06/22/19 16:57	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 16:57	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 16:57	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 16:57	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 16:57	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 16:57	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 16:57	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 16:57	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 16:57	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-015
Lab Code: R1905579-006

Service Request: R1905579
Date Collected: 06/14/19 11:50
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/22/19 16:57	
Dibromofluoromethane	97	89 - 119	06/22/19 16:57	
Toluene-d8	100	87 - 121	06/22/19 16:57	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: WG-9954-061419-DJT-015
Lab Code: R1905579-006

Service Request: R1905579
Date Collected: 06/14/19 11:50
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	70.3	JN

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-016
Lab Code: R1905579-007

Service Request: R1905579
Date Collected: 06/14/19 13:00

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 17:19	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 17:19	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 17:19	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 17:19	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 17:19	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 17:19	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 17:19	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 17:19	
2-Hexanone	10 U	10	0.20	1	06/22/19 17:19	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 17:19	
Acetone	5.1 J	10	2.1	1	06/22/19 17:19	
Benzene	5.0 U	5.0	0.20	1	06/22/19 17:19	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 17:19	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 17:19	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 17:19	
Carbon Disulfide	0.54 J	10	0.25	1	06/22/19 17:19	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 17:19	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 17:19	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 17:19	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 17:19	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 17:19	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 17:19	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 17:19	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 17:19	
Styrene	5.0 U	5.0	0.20	1	06/22/19 17:19	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 17:19	
Toluene	5.0 U	5.0	0.20	1	06/22/19 17:19	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 17:19	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 17:19	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 17:19	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 17:19	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 17:19	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 17:19	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 17:19	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 17:19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-016
Lab Code: R1905579-007

Service Request: R1905579
Date Collected: 06/14/19 13:00
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/22/19 17:19	
Dibromofluoromethane	101	89 - 119	06/22/19 17:19	
Toluene-d8	102	87 - 121	06/22/19 17:19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-016
Lab Code: R1905579-007

Service Request: R1905579
Date Collected: 06/14/19 13:00
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-017
Lab Code: R1905579-008

Service Request: R1905579
Date Collected: 06/14/19 14:00

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 17:40	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 17:40	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 17:40	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 17:40	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 17:40	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 17:40	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 17:40	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 17:40	
2-Hexanone	10 U	10	0.20	1	06/22/19 17:40	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 17:40	
Acetone	6.5 J	10	2.1	1	06/22/19 17:40	
Benzene	5.0 U	5.0	0.20	1	06/22/19 17:40	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 17:40	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 17:40	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 17:40	
Carbon Disulfide	0.44 J	10	0.25	1	06/22/19 17:40	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 17:40	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 17:40	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 17:40	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 17:40	
Chloromethane	0.34 J	5.0	0.28	1	06/22/19 17:40	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 17:40	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 17:40	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 17:40	
Styrene	5.0 U	5.0	0.20	1	06/22/19 17:40	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 17:40	
Toluene	5.0 U	5.0	0.20	1	06/22/19 17:40	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 17:40	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 17:40	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 17:40	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 17:40	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 17:40	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 17:40	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 17:40	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 17:40	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-017
Lab Code: R1905579-008

Service Request: R1905579
Date Collected: 06/14/19 14:00
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/22/19 17:40	
Dibromofluoromethane	101	89 - 119	06/22/19 17:40	
Toluene-d8	102	87 - 121	06/22/19 17:40	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-017
Lab Code: R1905579-008

Service Request: R1905579
Date Collected: 06/14/19 14:00
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: RB-9954-061419-DJT-001
Lab Code: R1905579-009

Service Request: R1905579
Date Collected: 06/14/19 14:30

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/24/19 14:54	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/24/19 14:54	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/24/19 14:54	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/24/19 14:54	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/24/19 14:54	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/24/19 14:54	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/24/19 14:54	
2-Butanone (MEK)	10 U	10	0.78	1	06/24/19 14:54	
2-Hexanone	10 U	10	0.20	1	06/24/19 14:54	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/24/19 14:54	
Acetone	10 U	10	2.1	1	06/24/19 14:54	
Benzene	5.0 U	5.0	0.20	1	06/24/19 14:54	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/24/19 14:54	
Bromoform	5.0 U	5.0	0.25	1	06/24/19 14:54	
Bromomethane	5.0 U	5.0	0.70	1	06/24/19 14:54	
Carbon Disulfide	0.27 J	10	0.25	1	06/24/19 14:54	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/24/19 14:54	
Chlorobenzene	5.0 U	5.0	0.20	1	06/24/19 14:54	
Chloroethane	5.0 U	5.0	0.23	1	06/24/19 14:54	
Chloroform	5.0 U	5.0	0.24	1	06/24/19 14:54	
Chloromethane	0.46 J	5.0	0.28	1	06/24/19 14:54	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/24/19 14:54	
Dichloromethane	5.0 U	5.0	0.36	1	06/24/19 14:54	
Ethylbenzene	5.0 U	5.0	0.20	1	06/24/19 14:54	
Styrene	5.0 U	5.0	0.20	1	06/24/19 14:54	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/24/19 14:54	
Toluene	5.0 U	5.0	0.20	1	06/24/19 14:54	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/24/19 14:54	
Vinyl Acetate	10 U	10	1.1	1	06/24/19 14:54	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/24/19 14:54	
Xylenes, Total	5.0 U	5.0	0.23	1	06/24/19 14:54	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/24/19 14:54	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/24/19 14:54	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/24/19 14:54	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/24/19 14:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: RB-9954-061419-DJT-001
Lab Code: R1905579-009

Service Request: R1905579
Date Collected: 06/14/19 14:30
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	06/24/19 14:54	
Dibromofluoromethane	97	89 - 119	06/24/19 14:54	
Toluene-d8	100	87 - 121	06/24/19 14:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: RB-9954-061419-DJT-001
Lab Code: R1905579-009

Service Request: R1905579
Date Collected: 06/14/19 14:30
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	17.4	JN

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: TB-9954-061419-DJT-002
Lab Code: R1905579-010

Service Request: R1905579
Date Collected: 06/14/19 00:00

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 13:37	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 13:37	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 13:37	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 13:37	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 13:37	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 13:37	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 13:37	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 13:37	
2-Hexanone	10 U	10	0.20	1	06/22/19 13:37	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 13:37	
Acetone	11	10	2.1	1	06/22/19 13:37	
Benzene	5.0 U	5.0	0.20	1	06/22/19 13:37	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 13:37	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 13:37	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 13:37	
Carbon Disulfide	10 U	10	0.25	1	06/22/19 13:37	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 13:37	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 13:37	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 13:37	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 13:37	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 13:37	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 13:37	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 13:37	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 13:37	
Styrene	5.0 U	5.0	0.20	1	06/22/19 13:37	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 13:37	
Toluene	5.0 U	5.0	0.20	1	06/22/19 13:37	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 13:37	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 13:37	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 13:37	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 13:37	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 13:37	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 13:37	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 13:37	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 13:37	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: TB-9954-061419-DJT-002
Lab Code: R1905579-010

Service Request: R1905579
Date Collected: 06/14/19 00:00
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/22/19 13:37	
Dibromofluoromethane	97	89 - 119	06/22/19 13:37	
Toluene-d8	101	87 - 121	06/22/19 13:37	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: TB-9954-061419-DJT-002
Lab Code: R1905579-010

Service Request: R1905579
Date Collected: 06/14/19 00:00
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.22	18.9	JN



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-013
Lab Code: R1905579-001

Service Request: R1905579
Date Collected: 06/14/19 10:30

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 02:59	6/21/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 02:59	6/21/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 02:59	6/21/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 02:59	6/21/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 02:59	6/21/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 02:59	6/21/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 02:59	6/21/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 02:59	6/21/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 02:59	6/21/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 02:59	6/21/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 02:59	6/21/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 02:59	6/21/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 02:59	6/21/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 02:59	6/21/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 02:59	6/21/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 02:59	6/21/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 02:59	6/21/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 02:59	6/21/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 02:59	6/21/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 02:59	6/21/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 02:59	6/21/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 02:59	6/21/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 02:59	6/21/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 02:59	6/21/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 02:59	6/21/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-013
Lab Code: R1905579-001

Service Request: R1905579
Date Collected: 06/14/19 10:30

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 02:59	6/21/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 02:59	6/21/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 02:59	6/21/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 02:59	6/21/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 02:59	6/21/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 02:59	6/21/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 02:59	6/21/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 02:59	6/21/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 02:59	6/21/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 02:59	6/21/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 02:59	6/21/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 02:59	6/21/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 02:59	6/21/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 02:59	6/21/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 02:59	6/21/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 02:59	6/21/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 02:59	6/21/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 02:59	6/21/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 02:59	6/21/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 02:59	6/21/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 02:59	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	95	35 - 141	06/29/19 02:59	
2-Fluorobiphenyl	87	31 - 118	06/29/19 02:59	
2-Fluorophenol	47	10 - 105	06/29/19 02:59	
Nitrobenzene-d5	92	31 - 110	06/29/19 02:59	
Phenol-d6	30	10 - 107	06/29/19 02:59	
p-Terphenyl-d14	106	10 - 165	06/29/19 02:59	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-014
Lab Code: R1905579-002

Service Request: R1905579
Date Collected: 06/14/19 10:40

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 03:29	6/21/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 03:29	6/21/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 03:29	6/21/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 03:29	6/21/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 03:29	6/21/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 03:29	6/21/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 03:29	6/21/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 03:29	6/21/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 03:29	6/21/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 03:29	6/21/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 03:29	6/21/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 03:29	6/21/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 03:29	6/21/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 03:29	6/21/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 03:29	6/21/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 03:29	6/21/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 03:29	6/21/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 03:29	6/21/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 03:29	6/21/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 03:29	6/21/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 03:29	6/21/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 03:29	6/21/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 03:29	6/21/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 03:29	6/21/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 03:29	6/21/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-014
Lab Code: R1905579-002

Service Request: R1905579
Date Collected: 06/14/19 10:40

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 03:29	6/21/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 03:29	6/21/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 03:29	6/21/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 03:29	6/21/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 03:29	6/21/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 03:29	6/21/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 03:29	6/21/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 03:29	6/21/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 03:29	6/21/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 03:29	6/21/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 03:29	6/21/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 03:29	6/21/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 03:29	6/21/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 03:29	6/21/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 03:29	6/21/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 03:29	6/21/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 03:29	6/21/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 03:29	6/21/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 03:29	6/21/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 03:29	6/21/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 03:29	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	92	35 - 141	06/29/19 03:29	
2-Fluorobiphenyl	85	31 - 118	06/29/19 03:29	
2-Fluorophenol	49	10 - 105	06/29/19 03:29	
Nitrobenzene-d5	93	31 - 110	06/29/19 03:29	
Phenol-d6	30	10 - 107	06/29/19 03:29	
p-Terphenyl-d14	101	10 - 165	06/29/19 03:29	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	13.72	4.7	J

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-010
Lab Code: R1905579-003

Service Request: R1905579
Date Collected: 06/14/19 08:40

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 03:59	6/21/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 03:59	6/21/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 03:59	6/21/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 03:59	6/21/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 03:59	6/21/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 03:59	6/21/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 03:59	6/21/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 03:59	6/21/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 03:59	6/21/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 03:59	6/21/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 03:59	6/21/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 03:59	6/21/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 03:59	6/21/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 03:59	6/21/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 03:59	6/21/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 03:59	6/21/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 03:59	6/21/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 03:59	6/21/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 03:59	6/21/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 03:59	6/21/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 03:59	6/21/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 03:59	6/21/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 03:59	6/21/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 03:59	6/21/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 03:59	6/21/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-010
Lab Code: R1905579-003

Service Request: R1905579
Date Collected: 06/14/19 08:40

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 03:59	6/21/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 03:59	6/21/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 03:59	6/21/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 03:59	6/21/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 03:59	6/21/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 03:59	6/21/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 03:59	6/21/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 03:59	6/21/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 03:59	6/21/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 03:59	6/21/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 03:59	6/21/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 03:59	6/21/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 03:59	6/21/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 03:59	6/21/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 03:59	6/21/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 03:59	6/21/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 03:59	6/21/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 03:59	6/21/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 03:59	6/21/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 03:59	6/21/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 03:59	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	83	35 - 141	06/29/19 03:59	
2-Fluorobiphenyl	62	31 - 118	06/29/19 03:59	
2-Fluorophenol	37	10 - 105	06/29/19 03:59	
Nitrobenzene-d5	62	31 - 110	06/29/19 03:59	
Phenol-d6	28	10 - 107	06/29/19 03:59	
p-Terphenyl-d14	79	10 - 165	06/29/19 03:59	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	13.72	4.6	J
000624-92-0	Disulfide, dimethyl	2.71	15	JN
	unknown	3.96	5.9	J
	unknown	6.08	34	J
000057-10-3	n-Hexadecanoic acid	9.58	17	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-011
Lab Code: R1905579-004

Service Request: R1905579
Date Collected: 06/14/19 09:20

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 04:29	6/21/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 04:29	6/21/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 04:29	6/21/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 04:29	6/21/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 04:29	6/21/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 04:29	6/21/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 04:29	6/21/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 04:29	6/21/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 04:29	6/21/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 04:29	6/21/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 04:29	6/21/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 04:29	6/21/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 04:29	6/21/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 04:29	6/21/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 04:29	6/21/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 04:29	6/21/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 04:29	6/21/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 04:29	6/21/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 04:29	6/21/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 04:29	6/21/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 04:29	6/21/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 04:29	6/21/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 04:29	6/21/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 04:29	6/21/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 04:29	6/21/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-011
Lab Code: R1905579-004

Service Request: R1905579
Date Collected: 06/14/19 09:20

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 04:29	6/21/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 04:29	6/21/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 04:29	6/21/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 04:29	6/21/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 04:29	6/21/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 04:29	6/21/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 04:29	6/21/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 04:29	6/21/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 04:29	6/21/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 04:29	6/21/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 04:29	6/21/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 04:29	6/21/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 04:29	6/21/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 04:29	6/21/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 04:29	6/21/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 04:29	6/21/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 04:29	6/21/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 04:29	6/21/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 04:29	6/21/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 04:29	6/21/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 04:29	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	86	35 - 141	06/29/19 04:29	
2-Fluorobiphenyl	71	31 - 118	06/29/19 04:29	
2-Fluorophenol	55	10 - 105	06/29/19 04:29	
Nitrobenzene-d5	74	31 - 110	06/29/19 04:29	
Phenol-d6	52	10 - 107	06/29/19 04:29	
p-Terphenyl-d14	96	10 - 165	06/29/19 04:29	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
000624-92-0	Disulfide, dimethyl	2.71	16	JN
	unknown	3.96	14	J
	unknown	6.08	71	J
000057-10-3	n-Hexadecanoic acid	9.58	4.2	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-012
Lab Code: R1905579-005

Service Request: R1905579
Date Collected: 06/14/19 09:35

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 04:59	6/21/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 04:59	6/21/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 04:59	6/21/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 04:59	6/21/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 04:59	6/21/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 04:59	6/21/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 04:59	6/21/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 04:59	6/21/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 04:59	6/21/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 04:59	6/21/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 04:59	6/21/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 04:59	6/21/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 04:59	6/21/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 04:59	6/21/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 04:59	6/21/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 04:59	6/21/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 04:59	6/21/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 04:59	6/21/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 04:59	6/21/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 04:59	6/21/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 04:59	6/21/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 04:59	6/21/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 04:59	6/21/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 04:59	6/21/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 04:59	6/21/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-012
Lab Code: R1905579-005

Service Request: R1905579
Date Collected: 06/14/19 09:35

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 04:59	6/21/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 04:59	6/21/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 04:59	6/21/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 04:59	6/21/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 04:59	6/21/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 04:59	6/21/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 04:59	6/21/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 04:59	6/21/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 04:59	6/21/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 04:59	6/21/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 04:59	6/21/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 04:59	6/21/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 04:59	6/21/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 04:59	6/21/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 04:59	6/21/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 04:59	6/21/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 04:59	6/21/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 04:59	6/21/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 04:59	6/21/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 04:59	6/21/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 04:59	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	82	35 - 141	06/29/19 04:59	
2-Fluorobiphenyl	75	31 - 118	06/29/19 04:59	
2-Fluorophenol	38	10 - 105	06/29/19 04:59	
Nitrobenzene-d5	78	31 - 110	06/29/19 04:59	
Phenol-d6	24	10 - 107	06/29/19 04:59	
p-Terphenyl-d14	87	10 - 165	06/29/19 04:59	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
No Tentatively Identified Compounds Detected				

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-015
Lab Code: R1905579-006

Service Request: R1905579
Date Collected: 06/14/19 11:50

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 05:29	6/21/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 05:29	6/21/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 05:29	6/21/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 05:29	6/21/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 05:29	6/21/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 05:29	6/21/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 05:29	6/21/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 05:29	6/21/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 05:29	6/21/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 05:29	6/21/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 05:29	6/21/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 05:29	6/21/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 05:29	6/21/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 05:29	6/21/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 05:29	6/21/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 05:29	6/21/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 05:29	6/21/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 05:29	6/21/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 05:29	6/21/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 05:29	6/21/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 05:29	6/21/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 05:29	6/21/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 05:29	6/21/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 05:29	6/21/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 05:29	6/21/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-015
Lab Code: R1905579-006

Service Request: R1905579
Date Collected: 06/14/19 11:50

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 05:29	6/21/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 05:29	6/21/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 05:29	6/21/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 05:29	6/21/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 05:29	6/21/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 05:29	6/21/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 05:29	6/21/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 05:29	6/21/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 05:29	6/21/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 05:29	6/21/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 05:29	6/21/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 05:29	6/21/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 05:29	6/21/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 05:29	6/21/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 05:29	6/21/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 05:29	6/21/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 05:29	6/21/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 05:29	6/21/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 05:29	6/21/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 05:29	6/21/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 05:29	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	88	35 - 141	06/29/19 05:29	
2-Fluorobiphenyl	93	31 - 118	06/29/19 05:29	
2-Fluorophenol	55	10 - 105	06/29/19 05:29	
Nitrobenzene-d5	103	31 - 110	06/29/19 05:29	
Phenol-d6	35	10 - 107	06/29/19 05:29	
p-Terphenyl-d14	71	10 - 165	06/29/19 05:29	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-016
Lab Code: R1905579-007

Service Request: R1905579
Date Collected: 06/14/19 13:00

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 05:58	6/21/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 05:58	6/21/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 05:58	6/21/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 05:58	6/21/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 05:58	6/21/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 05:58	6/21/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 05:58	6/21/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 05:58	6/21/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 05:58	6/21/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 05:58	6/21/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 05:58	6/21/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 05:58	6/21/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 05:58	6/21/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 05:58	6/21/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 05:58	6/21/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 05:58	6/21/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 05:58	6/21/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 05:58	6/21/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 05:58	6/21/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 05:58	6/21/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 05:58	6/21/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 05:58	6/21/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 05:58	6/21/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 05:58	6/21/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 05:58	6/21/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-016
Lab Code: R1905579-007

Service Request: R1905579
Date Collected: 06/14/19 13:00

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 05:58	6/21/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 05:58	6/21/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 05:58	6/21/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 05:58	6/21/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 05:58	6/21/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 05:58	6/21/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 05:58	6/21/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 05:58	6/21/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 05:58	6/21/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 05:58	6/21/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 05:58	6/21/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 05:58	6/21/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 05:58	6/21/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 05:58	6/21/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 05:58	6/21/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 05:58	6/21/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 05:58	6/21/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 05:58	6/21/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 05:58	6/21/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 05:58	6/21/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 05:58	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	81	35 - 141	06/29/19 05:58	
2-Fluorobiphenyl	79	31 - 118	06/29/19 05:58	
2-Fluorophenol	46	10 - 105	06/29/19 05:58	
Nitrobenzene-d5	87	31 - 110	06/29/19 05:58	
Phenol-d6	29	10 - 107	06/29/19 05:58	
p-Terphenyl-d14	91	10 - 165	06/29/19 05:58	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	13.73	20	J

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-017
Lab Code: R1905579-008

Service Request: R1905579
Date Collected: 06/14/19 14:00

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 06:28	6/21/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 06:28	6/21/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 06:28	6/21/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 06:28	6/21/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 06:28	6/21/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 06:28	6/21/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 06:28	6/21/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 06:28	6/21/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 06:28	6/21/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 06:28	6/21/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 06:28	6/21/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 06:28	6/21/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 06:28	6/21/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 06:28	6/21/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 06:28	6/21/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 06:28	6/21/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 06:28	6/21/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 06:28	6/21/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 06:28	6/21/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 06:28	6/21/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 06:28	6/21/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 06:28	6/21/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 06:28	6/21/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 06:28	6/21/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 06:28	6/21/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-017
Lab Code: R1905579-008

Service Request: R1905579
Date Collected: 06/14/19 14:00

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 06:28	6/21/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 06:28	6/21/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 06:28	6/21/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 06:28	6/21/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 06:28	6/21/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 06:28	6/21/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 06:28	6/21/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 06:28	6/21/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 06:28	6/21/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 06:28	6/21/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 06:28	6/21/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 06:28	6/21/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 06:28	6/21/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 06:28	6/21/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 06:28	6/21/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 06:28	6/21/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 06:28	6/21/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 06:28	6/21/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 06:28	6/21/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 06:28	6/21/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 06:28	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	92	35 - 141	06/29/19 06:28	
2-Fluorobiphenyl	79	31 - 118	06/29/19 06:28	
2-Fluorophenol	44	10 - 105	06/29/19 06:28	
Nitrobenzene-d5	91	31 - 110	06/29/19 06:28	
Phenol-d6	28	10 - 107	06/29/19 06:28	
p-Terphenyl-d14	72	10 - 165	06/29/19 06:28	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	13.73	70	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: RB-9954-061419-DJT-001
Lab Code: R1905579-009

Service Request: R1905579
Date Collected: 06/14/19 14:30

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	06/29/19 06:58	6/21/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
2,4-Dinitrophenol	47 U	47	7.0	1	06/29/19 06:58	6/21/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	06/29/19 06:58	6/21/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	06/29/19 06:58	6/21/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	06/29/19 06:58	6/21/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
2-Methylphenol	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
2-Nitroaniline	47 U	47	2.4	1	06/29/19 06:58	6/21/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	06/29/19 06:58	6/21/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
3- and 4-Methylphenol Coelution	2.4 J	9.4	1.0	1	06/29/19 06:58	6/21/19	
3-Nitroaniline	47 U	47	1.8	1	06/29/19 06:58	6/21/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	06/29/19 06:58	6/21/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	06/29/19 06:58	6/21/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	06/29/19 06:58	6/21/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	06/29/19 06:58	6/21/19	
4-Nitroaniline	47 U	47	1.9	1	06/29/19 06:58	6/21/19	
4-Nitrophenol	47 U	47	3.0	1	06/29/19 06:58	6/21/19	
Acenaphthene	9.4 U	9.4	1.6	1	06/29/19 06:58	6/21/19	
Acenaphthylene	9.4 U	9.4	1.3	1	06/29/19 06:58	6/21/19	
Anthracene	9.4 U	9.4	1.4	1	06/29/19 06:58	6/21/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	06/29/19 06:58	6/21/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	06/29/19 06:58	6/21/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	06/29/19 06:58	6/21/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	06/29/19 06:58	6/21/19	
Benzoic Acid	47 U	47	6.0	1	06/29/19 06:58	6/21/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	06/29/19 06:58	6/21/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	06/29/19 06:58	6/21/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
Chrysene	9.4 U	9.4	1.5	1	06/29/19 06:58	6/21/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: RB-9954-061419-DJT-001
Lab Code: R1905579-009

Service Request: R1905579
Date Collected: 06/14/19 14:30

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	06/29/19 06:58	6/21/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	06/29/19 06:58	6/21/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	06/29/19 06:58	6/21/19	
Dibenzofuran	9.4 U	9.4	1.3	1	06/29/19 06:58	6/21/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	06/29/19 06:58	6/21/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	06/29/19 06:58	6/21/19	
Fluoranthene	9.4 U	9.4	1.4	1	06/29/19 06:58	6/21/19	
Fluorene	9.4 U	9.4	1.6	1	06/29/19 06:58	6/21/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	06/29/19 06:58	6/21/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	06/29/19 06:58	6/21/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	06/29/19 06:58	6/21/19	
Hexachloroethane	9.4 U	9.4	1.2	1	06/29/19 06:58	6/21/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	06/29/19 06:58	6/21/19	
Isophorone	9.4 U	9.4	1.2	1	06/29/19 06:58	6/21/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	06/29/19 06:58	6/21/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	06/29/19 06:58	6/21/19	
Naphthalene	9.4 U	9.4	1.1	1	06/29/19 06:58	6/21/19	
Nitrobenzene	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	06/29/19 06:58	6/21/19	
Phenanthrene	9.4 U	9.4	1.6	1	06/29/19 06:58	6/21/19	
Phenol	9.4 U	9.4	1.0	1	06/29/19 06:58	6/21/19	
Pyrene	9.4 U	9.4	1.8	1	06/29/19 06:58	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	90	35 - 141	06/29/19 06:58	
2-Fluorobiphenyl	83	31 - 118	06/29/19 06:58	
2-Fluorophenol	49	10 - 105	06/29/19 06:58	
Nitrobenzene-d5	91	31 - 110	06/29/19 06:58	
Phenol-d6	31	10 - 107	06/29/19 06:58	
p-Terphenyl-d14	118	10 - 165	06/29/19 06:58	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	unknown	13.73	4.8	J
000541-02-6	Cyclopentasiloxane, decamethyl-	5.35	4.8	JN



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-013
Lab Code: R1905579-001

Service Request: R1905579
Date Collected: 06/14/19 10:30

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Aldrin	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Dieldrin	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Endrin	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Heptachlor	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
Toxaphene	0.50 U	0.50	0.50	1	07/01/19 22:07	6/21/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
beta-BHC	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
delta-BHC	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/01/19 22:07	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	51	10 - 164	07/01/19 22:07	
Tetrachloro-m-xylene	80	10 - 147	07/01/19 22:07	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-014
Lab Code: R1905579-002

Service Request: R1905579
Date Collected: 06/14/19 10:40
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Aldrin	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Dieldrin	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Endrin	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Heptachlor	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
Toxaphene	0.50 U	0.50	0.50	1	07/01/19 22:25	6/21/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
beta-BHC	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
delta-BHC	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/01/19 22:25	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	43	10 - 164	07/01/19 22:25	
Tetrachloro-m-xylene	77	10 - 147	07/01/19 22:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-010
Lab Code: R1905579-003

Service Request: R1905579
Date Collected: 06/14/19 08:40

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Aldrin	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Dieldrin	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Endrin	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Heptachlor	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
Toxaphene	0.50 U	0.50	0.50	1	07/02/19 16:56	6/21/19	
alpha-BHC	0.10	0.047	0.020	1	07/02/19 16:56	6/21/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
beta-BHC	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	
delta-BHC	0.045 J	0.047	0.020	1	07/02/19 16:56	6/21/19	
gamma-BHC (Lindane)	0.080	0.047	0.020	1	07/02/19 16:56	6/21/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/02/19 16:56	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	52	10 - 164	07/02/19 16:56	
Tetrachloro-m-xylene	75	10 - 147	07/02/19 16:56	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-011
Lab Code: R1905579-004

Service Request: R1905579
Date Collected: 06/14/19 09:20

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Aldrin	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Dieldrin	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Endrin	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Heptachlor	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
Toxaphene	0.50 U	0.50	0.50	1	07/02/19 17:14	6/21/19	
alpha-BHC	0.024 J	0.047	0.020	1	07/02/19 17:14	6/21/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
beta-BHC	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	
delta-BHC	0.10	0.047	0.020	1	07/02/19 17:14	6/21/19	
gamma-BHC (Lindane)	0.045 J	0.047	0.020	1	07/02/19 17:14	6/21/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/02/19 17:14	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	43	10 - 164	07/02/19 17:14	
Tetrachloro-m-xylene	78	10 - 147	07/02/19 17:14	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-012
Lab Code: R1905579-005

Service Request: R1905579
Date Collected: 06/14/19 09:35

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Aldrin	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Dieldrin	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Endrin	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Heptachlor	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
Toxaphene	0.50 U	0.50	0.50	1	07/02/19 17:32	6/21/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
beta-BHC	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
delta-BHC	0.023 J	0.047	0.020	1	07/02/19 17:32	6/21/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/02/19 17:32	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	55	10 - 164	07/02/19 17:32	
Tetrachloro-m-xylene	81	10 - 147	07/02/19 17:32	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-015
Lab Code: R1905579-006

Service Request: R1905579
Date Collected: 06/14/19 11:50

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Aldrin	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Dieldrin	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Endrin	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Heptachlor	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
Toxaphene	0.50 U	0.50	0.50	1	07/01/19 23:52	6/21/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
beta-BHC	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
delta-BHC	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/01/19 23:52	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	14	10 - 164	07/01/19 23:52	
Tetrachloro-m-xylene	80	10 - 147	07/01/19 23:52	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-016
Lab Code: R1905579-007

Service Request: R1905579
Date Collected: 06/14/19 13:00
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Aldrin	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Dieldrin	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Endrin	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Heptachlor	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
Toxaphene	0.50 U	0.50	0.50	1	07/02/19 00:45	6/21/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
beta-BHC	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
delta-BHC	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/02/19 00:45	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	44	10 - 164	07/02/19 00:45	
Tetrachloro-m-xylene	64	10 - 147	07/02/19 00:45	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061419-DJT-017
Lab Code: R1905579-008

Service Request: R1905579
Date Collected: 06/14/19 14:00

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Aldrin	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Dieldrin	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Endrin	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Heptachlor	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
Toxaphene	0.50 U	0.50	0.50	1	07/02/19 16:21	6/21/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
beta-BHC	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
delta-BHC	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/02/19 16:21	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	16	10 - 164	07/02/19 16:21	
Tetrachloro-m-xylene	76	10 - 147	07/02/19 16:21	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: RB-9954-061419-DJT-001
Lab Code: R1905579-009

Service Request: R1905579
Date Collected: 06/14/19 14:30

Date Received: 06/17/19 12:00

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Aldrin	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Dieldrin	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Endrin	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Heptachlor	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
Toxaphene	0.50 U	0.50	0.50	1	07/02/19 16:39	6/21/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
beta-BHC	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
delta-BHC	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/02/19 16:39	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	11	10 - 164	07/02/19 16:39	
Tetrachloro-m-xylene	76	10 - 147	07/02/19 16:39	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-013
Lab Code: R1905579-001

Service Request: R1905579
Date Collected: 06/14/19 10:30
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/28/19 19:29	6/21/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/28/19 19:29	6/21/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/28/19 19:29	6/21/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/28/19 19:29	6/21/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/28/19 19:29	6/21/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/28/19 19:29	6/21/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/28/19 19:29	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	52	10 - 152	06/28/19 19:29	
Tetrachloro-m-xylene	53	14 - 129	06/28/19 19:29	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-014
Lab Code: R1905579-002

Service Request: R1905579
Date Collected: 06/14/19 10:40
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/28/19 19:48	6/21/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/28/19 19:48	6/21/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/28/19 19:48	6/21/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/28/19 19:48	6/21/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/28/19 19:48	6/21/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/28/19 19:48	6/21/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/28/19 19:48	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	43	10 - 152	06/28/19 19:48	
Tetrachloro-m-xylene	51	14 - 129	06/28/19 19:48	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-010
Lab Code: R1905579-003

Service Request: R1905579
Date Collected: 06/14/19 08:40
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 18:11	6/21/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 18:11	6/21/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 18:11	6/21/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 18:11	6/21/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 18:11	6/21/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 18:11	6/21/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 18:11	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	71	10 - 152	07/02/19 18:11	
Tetrachloro-m-xylene	68	14 - 129	07/02/19 18:11	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-011
Lab Code: R1905579-004

Service Request: R1905579
Date Collected: 06/14/19 09:20
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 18:32	6/21/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 18:32	6/21/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 18:32	6/21/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 18:32	6/21/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 18:32	6/21/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 18:32	6/21/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 18:32	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	57	10 - 152	07/02/19 18:32	
Tetrachloro-m-xylene	66	14 - 129	07/02/19 18:32	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-012
Lab Code: R1905579-005

Service Request: R1905579
Date Collected: 06/14/19 09:35
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 18:52	6/21/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 18:52	6/21/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 18:52	6/21/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 18:52	6/21/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 18:52	6/21/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 18:52	6/21/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 18:52	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	75	10 - 152	07/02/19 18:52	
Tetrachloro-m-xylene	79	14 - 129	07/02/19 18:52	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-015
Lab Code: R1905579-006

Service Request: R1905579
Date Collected: 06/14/19 11:50
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/03/19 10:25	6/21/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/03/19 10:25	6/21/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/03/19 10:25	6/21/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/03/19 10:25	6/21/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/03/19 10:25	6/21/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/03/19 10:25	6/21/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/03/19 10:25	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	20	10 - 152	07/03/19 10:25	
Tetrachloro-m-xylene	89	14 - 129	07/03/19 10:25	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-016
Lab Code: R1905579-007

Service Request: R1905579
Date Collected: 06/14/19 13:00
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/28/19 22:26	6/21/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/28/19 22:26	6/21/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/28/19 22:26	6/21/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/28/19 22:26	6/21/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/28/19 22:26	6/21/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/28/19 22:26	6/21/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/28/19 22:26	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	44	10 - 152	06/28/19 22:26	
Tetrachloro-m-xylene	45	14 - 129	06/28/19 22:26	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061419-DJT-017
Lab Code: R1905579-008

Service Request: R1905579
Date Collected: 06/14/19 14:00
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/28/19 22:45	6/21/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/28/19 22:45	6/21/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/28/19 22:45	6/21/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/28/19 22:45	6/21/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/28/19 22:45	6/21/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/28/19 22:45	6/21/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/28/19 22:45	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	16	10 - 152	06/28/19 22:45	
Tetrachloro-m-xylene	57	14 - 129	06/28/19 22:45	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: RB-9954-061419-DJT-001
Lab Code: R1905579-009

Service Request: R1905579
Date Collected: 06/14/19 14:30
Date Received: 06/17/19 12:00
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/28/19 23:06	6/21/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/28/19 23:06	6/21/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/28/19 23:06	6/21/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/28/19 23:06	6/21/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/28/19 23:06	6/21/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/28/19 23:06	6/21/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/28/19 23:06	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	11	10 - 152	06/28/19 23:06	
Tetrachloro-m-xylene	61	14 - 129	06/28/19 23:06	



QC Summary Forms

ALS Environmental—Rochester Laboratory

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905579

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
WG-9954-061419-DJT-013	R1905579-001	99	101	104
WG-9954-061419-DJT-014	R1905579-002	97	98	103
WG-9954-061419-DJT-010	R1905579-003	97	100	100
WG-9954-061419-DJT-011	R1905579-004	95	98	102
WG-9954-061419-DJT-012	R1905579-005	98	99	104
WG-9954-061419-DJT-015	R1905579-006	94	97	100
WG-9954-061419-DJT-016	R1905579-007	98	101	102
WG-9954-061419-DJT-017	R1905579-008	98	101	102
RB-9954-061419-DJT-001	R1905579-009	96	97	100
TB-9954-061419-DJT-002	R1905579-010	95	97	101
Method Blank	RQ1906319-04	98	104	106
Method Blank	RQ1906614-04	101	98	102
Lab Control Sample	RQ1906319-03	97	98	99
Lab Control Sample	RQ1906614-03	101	102	103
WG-9954-061419-DJT-015 MS	RQ1906614-05	96	96	100
WG-9954-061419-DJT-015 DMS	RQ1906614-06	101	102	102

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dba ALS Environmental

QA/QC Report

Client:	GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)	Service Request:	R1905579
Project:	Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring	Date Collected:	06/14/19
Sample Matrix:	Water	Date Received:	06/17/19
		Date Analyzed:	06/22/19

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name:	WG-9954-061419-DJT-015	Units:	ug/L
Lab Code:	R1905579-006	Basis:	NA
Analysis Method:	8260C		

Analyte Name	Sample Result	Matrix Spike RQ1906614-05			Duplicate Matrix Spike RQ1906614-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	5.0 U	46.7	50.0	93	49.6	50.0	99	74-127	6	30
1,1,2,2-Tetrachloroethane	5.0 U	48.4	50.0	97	48.9	50.0	98	72-122	1	30
1,1,2-Trichloroethane	5.0 U	44.7	50.0	89	44.5	50.0	89	82-121	<1	30
1,1-Dichloroethane (1,1-DCA)	5.0 U	51.7	50.0	103	51.6	50.0	103	74-132	<1	30
1,1-Dichloroethene (1,1-DCE)	5.0 U	52.1	50.0	104	52.9	50.0	106	71-118	2	30
1,2-Dichloroethane	5.0 U	46.9	50.0	94	48.9	50.0	98	68-130	4	30
1,2-Dichloropropane	5.0 U	46.7	50.0	93	49.6	50.0	99	79-124	6	30
2-Butanone (MEK)	10 U	52.9	50.0	106	50.4	50.0	101	61-137	5	30
2-Hexanone	10 U	49.6	50.0	99	48.7	50.0	97	56-132	2	30
4-Methyl-2-pentanone	10 U	49.8	50.0	100	50.1	50.0	100	60-141	<1	30
Acetone	4.7 J	61.5	50.0	114	59.5	50.0	110	35-183	3	30
Benzene	5.0 U	46.7	50.0	93	48.1	50.0	96	76-129	3	30
Bromodichloromethane	5.0 U	45.5	50.0	91	46.0	50.0	92	78-133	1	30
Bromoform	5.0 U	47.5	50.0	95	48.6	50.0	97	58-133	2	30
Bromomethane	5.0 U	20.4	50.0	41	18.5	50.0	37	10-184	9	30
Carbon Disulfide	5.2 J	49.1	50.0	88	49.4	50.0	88	59-140	<1	30
Carbon Tetrachloride	5.0 U	45.6	50.0	91	51.4	50.0	103	65-135	12	30
Chlorobenzene	5.0 U	45.3	50.0	91	46.9	50.0	94	76-125	4	30
Chloroethane	5.0 U	40.6	50.0	81	38.4	50.0	77	48-146	6	30
Chloroform	5.0 U	47.2	50.0	94	46.9	50.0	94	75-130	<1	30
Chloromethane	5.0 U	38.0	50.0	76	38.5	50.0	77	55-160	1	30
Dibromochloromethane	5.0 U	46.0	50.0	92	47.3	50.0	95	72-128	3	30
Dichloromethane	5.0 U	47.2	50.0	94	48.7	50.0	97	73-122	3	30
Ethylbenzene	5.0 U	44.9	50.0	90	49.1	50.0	98	72-134	9	30
Styrene	5.0 U	44.4	50.0	89	46.3	50.0	93	74-136	4	30
Tetrachloroethene (PCE)	5.0 U	42.3	50.0	85	44.8	50.0	90	72-125	6	30
Toluene	5.0 U	44.8	50.0	90	46.8	50.0	94	79-119	4	30
Trichloroethene (TCE)	5.0 U	43.5	50.0	87	45.0	50.0	90	74-122	3	30
Vinyl Acetate	10 U	51.4	50.0	103	51.2	50.0	102	48-172	<1	30
Vinyl Chloride	5.0 U	42.9	50.0	86	43.5	50.0	87	74-159	1	30
cis-1,2-Dichloroethene	5.0 U	49.3	50.0	99	47.1	50.0	94	77-127	4	30
cis-1,3-Dichloropropene	5.0 U	48.5	50.0	97	50.4	50.0	101	52-134	4	30
trans-1,2-Dichloroethene	5.0 U	50.3	50.0	101	50.4	50.0	101	73-118	<1	30
trans-1,3-Dichloropropene	5.0 U	52.3	50.0	105	55.5	50.0	111	71-133	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906319-04

Service Request: R1905579
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/24/19 11:59	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/24/19 11:59	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/24/19 11:59	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/24/19 11:59	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/24/19 11:59	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/24/19 11:59	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/24/19 11:59	
2-Butanone (MEK)	10 U	10	0.78	1	06/24/19 11:59	
2-Hexanone	10 U	10	0.20	1	06/24/19 11:59	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/24/19 11:59	
Acetone	10 U	10	2.1	1	06/24/19 11:59	
Benzene	5.0 U	5.0	0.20	1	06/24/19 11:59	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/24/19 11:59	
Bromoform	5.0 U	5.0	0.25	1	06/24/19 11:59	
Bromomethane	5.0 U	5.0	0.70	1	06/24/19 11:59	
Carbon Disulfide	10 U	10	0.25	1	06/24/19 11:59	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/24/19 11:59	
Chlorobenzene	5.0 U	5.0	0.20	1	06/24/19 11:59	
Chloroethane	5.0 U	5.0	0.23	1	06/24/19 11:59	
Chloroform	5.0 U	5.0	0.24	1	06/24/19 11:59	
Chloromethane	5.0 U	5.0	0.28	1	06/24/19 11:59	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/24/19 11:59	
Dichloromethane	5.0 U	5.0	0.36	1	06/24/19 11:59	
Ethylbenzene	5.0 U	5.0	0.20	1	06/24/19 11:59	
Styrene	5.0 U	5.0	0.20	1	06/24/19 11:59	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/24/19 11:59	
Toluene	5.0 U	5.0	0.20	1	06/24/19 11:59	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/24/19 11:59	
Vinyl Acetate	10 U	10	1.1	1	06/24/19 11:59	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/24/19 11:59	
Xylenes, Total	5.0 U	5.0	0.23	1	06/24/19 11:59	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/24/19 11:59	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/24/19 11:59	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/24/19 11:59	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/24/19 11:59	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906319-04

Service Request: R1905579
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/24/19 11:59	
Dibromofluoromethane	104	89 - 119	06/24/19 11:59	
Toluene-d8	106	87 - 121	06/24/19 11:59	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906319-04

Service Request: R1905579
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906614-04

Service Request: R1905579
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 13:15	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 13:15	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 13:15	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 13:15	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 13:15	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 13:15	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 13:15	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 13:15	
2-Hexanone	10 U	10	0.20	1	06/22/19 13:15	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 13:15	
Acetone	10 U	10	2.1	1	06/22/19 13:15	
Benzene	5.0 U	5.0	0.20	1	06/22/19 13:15	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 13:15	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 13:15	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 13:15	
Carbon Disulfide	10 U	10	0.25	1	06/22/19 13:15	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 13:15	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 13:15	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 13:15	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 13:15	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 13:15	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 13:15	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 13:15	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 13:15	
Styrene	5.0 U	5.0	0.20	1	06/22/19 13:15	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 13:15	
Toluene	5.0 U	5.0	0.20	1	06/22/19 13:15	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 13:15	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 13:15	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 13:15	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 13:15	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 13:15	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 13:15	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 13:15	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 13:15	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906614-04

Service Request: R1905579
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85 - 122	06/22/19 13:15	
Dibromofluoromethane	98	89 - 119	06/22/19 13:15	
Toluene-d8	102	87 - 121	06/22/19 13:15	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906614-04

Service Request: R1905579
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	6.3	JN

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905579
Date Analyzed: 06/24/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906319-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	20.5	20.0	103	75-125
1,1,2,2-Tetrachloroethane	8260C	18.1	20.0	91	78-126
1,1,2-Trichloroethane	8260C	18.1	20.0	90	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	21.1	20.0	106	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	22.9	20.0	114	71-118
1,2-Dichloroethane	8260C	19.2	20.0	96	71-127
1,2-Dichloropropane	8260C	19.9	20.0	99	80-119
2-Butanone (MEK)	8260C	18.5	20.0	92	61-137
2-Hexanone	8260C	15.7	20.0	78	63-124
4-Methyl-2-pentanone	8260C	17.6	20.0	88	66-124
Acetone	8260C	23.9	20.0	119	40-161
Benzene	8260C	19.6	20.0	98	79-119
Bromodichloromethane	8260C	18.9	20.0	95	81-123
Bromoform	8260C	18.4	20.0	92	65-146
Bromomethane	8260C	17.0	20.0	85	42-166
Carbon Disulfide	8260C	21.3	20.0	107	66-128
Carbon Tetrachloride	8260C	20.8	20.0	104	70-127
Chlorobenzene	8260C	19.2	20.0	96	80-121
Chloroethane	8260C	18.3	20.0	91	62-131
Chloroform	8260C	19.6	20.0	98	79-120
Chloromethane	8260C	15.0	20.0	75	65-135
Dibromochloromethane	8260C	17.7	20.0	89	72-128
Dichloromethane	8260C	20.7	20.0	104	73-122
Ethylbenzene	8260C	19.4	20.0	97	76-120
Styrene	8260C	18.8	20.0	94	80-124
Tetrachloroethene (PCE)	8260C	19.8	20.0	99	72-125
Toluene	8260C	18.9	20.0	95	79-119
Trichloroethene (TCE)	8260C	18.4	20.0	92	74-122
Vinyl Acetate	8260C	19.7	20.0	99	52-174
Vinyl Chloride	8260C	19.1	20.0	95	74-159
cis-1,2-Dichloroethene	8260C	19.7	20.0	98	80-121
cis-1,3-Dichloropropene	8260C	19.4	20.0	97	77-122
trans-1,2-Dichloroethene	8260C	21.9	20.0	109	73-118

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905579**Date Analyzed:** 06/24/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1906319-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
trans-1,3-Dichloropropene	8260C	23.5	20.0	118	71-133

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905579
Date Analyzed: 06/22/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906614-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	22.2	20.0	111	75-125
1,1,2,2-Tetrachloroethane	8260C	19.7	20.0	99	78-126
1,1,2-Trichloroethane	8260C	18.5	20.0	93	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	21.5	20.0	108	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	22.3	20.0	111	71-118
1,2-Dichloroethane	8260C	20.1	20.0	100	71-127
1,2-Dichloropropane	8260C	20.9	20.0	104	80-119
2-Butanone (MEK)	8260C	17.9	20.0	90	61-137
2-Hexanone	8260C	18.3	20.0	91	63-124
4-Methyl-2-pentanone	8260C	19.5	20.0	98	66-124
Acetone	8260C	30.6	20.0	153	40-161
Benzene	8260C	20.8	20.0	104	79-119
Bromodichloromethane	8260C	20.2	20.0	101	81-123
Bromoform	8260C	21.1	20.0	106	65-146
Bromomethane	8260C	17.2	20.0	86	42-166
Carbon Disulfide	8260C	20.1	20.0	101	66-128
Carbon Tetrachloride	8260C	22.6	20.0	113	70-127
Chlorobenzene	8260C	20.2	20.0	101	80-121
Chloroethane	8260C	18.6	20.0	93	62-131
Chloroform	8260C	19.7	20.0	98	79-120
Chloromethane	8260C	15.1	20.0	76	65-135
Dibromochloromethane	8260C	20.2	20.0	101	72-128
Dichloromethane	8260C	20.2	20.0	101	73-122
Ethylbenzene	8260C	20.6	20.0	103	76-120
Styrene	8260C	20.4	20.0	102	80-124
Tetrachloroethene (PCE)	8260C	19.4	20.0	97	72-125
Toluene	8260C	20.3	20.0	102	79-119
Trichloroethene (TCE)	8260C	18.9	20.0	95	74-122
Vinyl Acetate	8260C	20.9	20.0	105	52-174
Vinyl Chloride	8260C	18.7	20.0	93	74-159
cis-1,2-Dichloroethene	8260C	19.3	20.0	96	80-121
cis-1,3-Dichloropropene	8260C	21.9	20.0	110	77-122
trans-1,2-Dichloroethene	8260C	21.9	20.0	109	73-118

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905579
Date Analyzed: 06/22/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906614-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
trans-1,3-Dichloropropene	8260C	26.3	20.0	132	71-133



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905579

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	2,4,6-Tribromophenol	2-Fluorobiphenyl	2-Fluorophenol
		35-141	31-118	10-105
WG-9954-061419-DJT-013	R1905579-001	95	87	47
WG-9954-061419-DJT-014	R1905579-002	92	85	49
WG-9954-061419-DJT-010	R1905579-003	83	62	37
WG-9954-061419-DJT-011	R1905579-004	86	71	55
WG-9954-061419-DJT-012	R1905579-005	82	75	38
WG-9954-061419-DJT-015	R1905579-006	88	93	55
WG-9954-061419-DJT-016	R1905579-007	81	79	46
WG-9954-061419-DJT-017	R1905579-008	92	79	44
RB-9954-061419-DJT-001	R1905579-009	90	83	49
Method Blank	RQ1906197-01	94	60	36
Method Blank	RQ1906197-01	72	66	44
Lab Control Sample	RQ1906197-02	112	82	41
Lab Control Sample	RQ1906197-02	109	89	50
Duplicate Lab Control Sample	RQ1906197-03	105	75	39
Duplicate Lab Control Sample	RQ1906197-03	107	85	48
WG-9954-061419-DJT-015 MS	RQ1906197-04	103	89	50
WG-9954-061419-DJT-015 DMS	RQ1906197-05	115	96	56

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905579

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	Nitrobenzene-d5	Phenol-d6	p-Terphenyl-d14
		31-110	10-107	10-165
WG-9954-061419-DJT-013	R1905579-001	92	30	106
WG-9954-061419-DJT-014	R1905579-002	93	30	101
WG-9954-061419-DJT-010	R1905579-003	62	28	79
WG-9954-061419-DJT-011	R1905579-004	74	52	96
WG-9954-061419-DJT-012	R1905579-005	78	24	87
WG-9954-061419-DJT-015	R1905579-006	103	35	71
WG-9954-061419-DJT-016	R1905579-007	87	29	91
WG-9954-061419-DJT-017	R1905579-008	91	28	72
RB-9954-061419-DJT-001	R1905579-009	91	31	118
Method Blank	RQ1906197-01	64	24	76
Method Blank	RQ1906197-01	77	28	104
Lab Control Sample	RQ1906197-02	80	28	91
Lab Control Sample	RQ1906197-02	92	32	108
Duplicate Lab Control Sample	RQ1906197-03	75	27	92
Duplicate Lab Control Sample	RQ1906197-03	90	31	111
WG-9954-061419-DJT-015 MS	RQ1906197-04	93	33	75
WG-9954-061419-DJT-015 DMS	RQ1906197-05	101	36	88

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QA/QC Report

Client:	GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)	Service Request:	R1905579
Project:	Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring	Date Collected:	06/14/19
Sample Matrix:	Water	Date Received:	06/17/19
		Date Analyzed:	06/29/19
		Date Extracted:	06/21/19

Duplicate Matrix Spike Summary
Semivolatile Organic Compounds by GC/MS

Sample Name:	WG-9954-061419-DJT-015	Units:	ug/L
Lab Code:	R1905579-006	Basis:	NA
Analysis Method:	8270D		
Prep Method:	EPA 3510C		

Analyte Name	Matrix Spike RQ1906197-04				Duplicate Matrix Spike RQ1906197-05				RPD	RPD Limit
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits		
1,2,4-Trichlorobenzene	9.4 U	36.0	47.2	76	40.3	47.2	85	10-127	11	30
1,2-Dichlorobenzene	9.4 U	32.7	47.2	69	35.5	47.2	75	17-105	8	30
1,3-Dichlorobenzene	9.4 U	31.4	47.2	67	33.4	47.2	71	21-99	6	30
1,4-Dichlorobenzene	9.4 U	31.5	47.2	67	33.8	47.2	72	10-124	7	30
2,4,5-Trichlorophenol	9.4 U	49.7	47.2	105	57.0	47.2	121	48-134	14	30
2,4,6-Trichlorophenol	9.4 U	49.0	47.2	104	56.4	47.2	119	44-135	13	30
2,4-Dichlorophenol	9.4 U	45.9	47.2	97	52.4	47.2	111	40-130	13	30
2,4-Dimethylphenol	9.4 U	43.8	47.2	93	52.4	47.2	111	42-121	18	30
2,4-Dinitrophenol	47 U	40.2 J	47.2	85	49.5	47.2	105	21-168	21	30
2,4-Dinitrotoluene	9.4 U	53.3	47.2	113	61.5	47.2	130	37-143	14	30
2,6-Dinitrotoluene	9.4 U	50.0	47.2	106	58.0	47.2	123	39-136	15	30
2-Chloronaphthalene	9.4 U	37.6	47.2	80	42.0	47.2	89	40-108	11	30
2-Chlorophenol	9.4 U	40.8	47.2	86	45.0	47.2	95	37-112	10	30
2-Methylnaphthalene	9.4 U	39.2	47.2	83	43.2	47.2	92	34-102	10	30
2-Methylphenol	9.4 U	38.0	47.2	81	42.4	47.2	90	37-102	11	30
2-Nitroaniline	47 U	42.0 J	47.2	89	48.4	47.2	103	40-136	15	30
2-Nitrophenol	9.4 U	48.8	47.2	103	54.7	47.2	116	27-143	12	30
3,3'-Dichlorobenzidine	9.4 U	49.2	47.2	104	57.1	47.2	121	11-131	15	30
3- and 4-Methylphenol Coelution	9.4 U	37.1	47.2	79	41.3	47.2	87	30-95	10	30
3-Nitroaniline	47 U	42.2 J	47.2	90	49.0	47.2	104	19-117	14	30
4,6-Dinitro-2-methylphenol	47 U	53.3	47.2	113	62.3	47.2	132	25-154	16	30
4-Bromophenyl Phenyl Ether	9.4 U	45.6	47.2	97	52.3	47.2	111	39-115	13	30
4-Chloro-3-methylphenol	9.4 U	49.7	47.2	105	56.1	47.2	119	41-126	13	30
4-Chloroaniline	9.4 U	38.0	47.2	81	44.4	47.2	94	19-111	15	30
4-Chlorophenyl Phenyl Ether	9.4 U	46.0	47.2	97	52.5	47.2	111	41-111	13	30
4-Nitroaniline	47 U	43.8 J	47.2	93	50.8	47.2	108	18-143	15	30
4-Nitrophenol	47 U	22.3 J	47.2	47	25.9 J	47.2	55	10-126	16	30
Acenaphthene	9.4 U	45.1	47.2	96	51.4	47.2	109	43-117	13	30
Acenaphthylene	9.4 U	45.2	47.2	96	50.9	47.2	108	45-119	12	30
Anthracene	9.4 U	48.7	47.2	103	55.7	47.2	118	45-127	14	30
Benz(a)anthracene	9.4 U	50.1	47.2	106	59.1	47.2	125	46-126	16	30
Benzo(a)pyrene	9.4 U	51.3	47.2	109	60.8	47.2	129 *	44-114	17	30
Benzo(b)fluoranthene	9.4 U	49.1	47.2	104	58.3	47.2	124	41-127	18	30
Benzo(g,h,i)perylene	9.4 U	58.2	47.2	123	68.6	47.2	146 *	50-143	17	30
Benzo(k)fluoranthene	9.4 U	51.5	47.2	109	60.9	47.2	129	46-139	17	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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QA/QC Report

Client:	GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)	Service Request:	R1905579
Project:	Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring	Date Collected:	06/14/19
Sample Matrix:	Water	Date Received:	06/17/19
		Date Analyzed:	06/29/19
		Date Extracted:	06/21/19

Duplicate Matrix Spike Summary
Semivolatile Organic Compounds by GC/MS

Sample Name:	WG-9954-061419-DJT-015	Units:	ug/L
Lab Code:	R1905579-006	Basis:	NA
Analysis Method:	8270D		
Prep Method:	EPA 3510C		

Analyte Name	Matrix Spike RQ1906197-04				Duplicate Matrix Spike RQ1906197-05				RPD	RPD Limit
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits		
Benzoic Acid	47 U	43.8 J	142	31	54.6	142	39	10-94	23	30
Benzyl Alcohol	9.4 U	41.9	47.2	89	44.8	47.2	95	31-109	7	30
2,2'-Oxybis(1-chloropropane)	9.4 U	40.9	47.2	87	43.4	47.2	92	21-126	6	30
Bis(2-chloroethoxy)methane	9.4 U	45.8	47.2	97	51.0	47.2	108	41-118	11	30
Bis(2-chloroethyl) Ether	9.4 U	42.7	47.2	90	46.0	47.2	98	33-108	9	30
Bis(2-ethylhexyl) Phthalate	9.7 U	55.0	47.2	117	64.7	47.2	137 *	41-132	16	30
Butyl Benzyl Phthalate	9.4 U	58.3	47.2	124	66.7	47.2	141	41-148	13	30
Chrysene	9.4 U	50.4	47.2	107	59.5	47.2	126	47-126	16	30
Di-n-butyl Phthalate	9.4 U	54.6	47.2	116	62.7	47.2	133 *	43-130	14	30
Di-n-octyl Phthalate	9.4 U	53.3	47.2	113	64.1	47.2	136	40-139	18	30
Dibenz(a,h)anthracene	9.4 U	42.5	47.2	90	49.6	47.2	105	43-136	15	30
Dibenzofuran	9.4 U	45.1	47.2	96	51.8	47.2	110	46-119	14	30
Diethyl Phthalate	9.4 U	51.5	47.2	109	59.7	47.2	127 *	36-122	15	30
Dimethyl Phthalate	9.4 U	46.9	47.2	99	54.4	47.2	115	33-123	15	30
Fluoranthene	9.4 U	49.3	47.2	104	55.6	47.2	118	43-135	13	30
Fluorene	9.4 U	46.2	47.2	98	52.5	47.2	111	43-113	12	30
Hexachlorobenzene	9.4 U	47.8	47.2	101	53.6	47.2	114	42-125	12	30
Hexachlorobutadiene	9.4 U	36.6	47.2	78	40.9	47.2	87	10-111	11	30
Hexachlorocyclopentadiene	9.4 U	20.4	47.2	43	24.9	47.2	53	10-103	21	30
Hexachloroethane	9.4 U	29.2	47.2	62	32.0	47.2	68	12-101	9	30
Indeno(1,2,3-cd)pyrene	9.4 U	55.1	47.2	117	65.0	47.2	138	49-140	16	30
Isophorone	9.4 U	45.2	47.2	96	49.9	47.2	106	40-111	10	30
N-Nitrosodi-n-propylamine	9.4 U	43.1	47.2	91	46.1	47.2	98	35-108	7	30
N-Nitrosodiphenylamine	9.4 U	46.5	47.2	99	54.2	47.2	115	43-127	15	30
Naphthalene	9.4 U	38.1	47.2	81	43.1	47.2	91	37-108	12	30
Nitrobenzene	9.4 U	45.0	47.2	95	51.1	47.2	108	35-112	13	30
Pentachlorophenol (PCP)	47 U	43.6 J	47.2	92	50.1	47.2	106	29-164	14	30
Phenanthrene	9.4 U	47.8	47.2	101	54.2	47.2	115	46-123	13	30
Phenol	9.4 U	18.0	47.2	38	21.1	47.2	45	10-113	17	30
Pyrene	9.4 U	53.1	47.2	113	61.4	47.2	130 *	44-129	14	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906197-01

Service Request: R1905579
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	06/24/19 18:29	6/21/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
2,4-Dichlorophenol	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
2,4-Dimethylphenol	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
2,4-Dinitrophenol	50 U	50	7.0	1	06/24/19 18:29	6/21/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	06/24/19 18:29	6/21/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	06/24/19 18:29	6/21/19	
2-Chloronaphthalene	10 U	10	1.1	1	06/24/19 18:29	6/21/19	
2-Chlorophenol	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
2-Methylnaphthalene	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
2-Methylphenol	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
2-Nitroaniline	50 U	50	2.4	1	06/24/19 18:29	6/21/19	
2-Nitrophenol	10 U	10	1.5	1	06/24/19 18:29	6/21/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
3-Nitroaniline	50 U	50	1.8	1	06/24/19 18:29	6/21/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	06/24/19 18:29	6/21/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	06/24/19 18:29	6/21/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	06/24/19 18:29	6/21/19	
4-Chloroaniline	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	06/24/19 18:29	6/21/19	
4-Nitroaniline	50 U	50	1.9	1	06/24/19 18:29	6/21/19	
4-Nitrophenol	50 U	50	3.0	1	06/24/19 18:29	6/21/19	
Acenaphthene	10 U	10	1.6	1	06/24/19 18:29	6/21/19	
Acenaphthylene	10 U	10	1.3	1	06/24/19 18:29	6/21/19	
Anthracene	10 U	10	1.4	1	06/24/19 18:29	6/21/19	
Benz(a)anthracene	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
Benzo(a)pyrene	10 U	10	1.3	1	06/24/19 18:29	6/21/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	06/24/19 18:29	6/21/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	06/24/19 18:29	6/21/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	06/24/19 18:29	6/21/19	
Benzoic Acid	50 U	50	6.0	1	06/24/19 18:29	6/21/19	
Benzyl Alcohol	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	06/24/19 18:29	6/21/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	06/24/19 18:29	6/21/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
Chrysene	10 U	10	1.5	1	06/24/19 18:29	6/21/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906197-01

Service Request: R1905579
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	06/24/19 18:29	6/21/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	06/24/19 18:29	6/21/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	06/24/19 18:29	6/21/19	
Dibenzofuran	10 U	10	1.3	1	06/24/19 18:29	6/21/19	
Diethyl Phthalate	10 U	10	1.2	1	06/24/19 18:29	6/21/19	
Dimethyl Phthalate	10 U	10	1.5	1	06/24/19 18:29	6/21/19	
Fluoranthene	10 U	10	1.4	1	06/24/19 18:29	6/21/19	
Fluorene	10 U	10	1.6	1	06/24/19 18:29	6/21/19	
Hexachlorobenzene	10 U	10	1.4	1	06/24/19 18:29	6/21/19	
Hexachlorobutadiene	10 U	10	1.1	1	06/24/19 18:29	6/21/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	06/24/19 18:29	6/21/19	
Hexachloroethane	10 U	10	1.2	1	06/24/19 18:29	6/21/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	06/24/19 18:29	6/21/19	
Isophorone	10 U	10	1.2	1	06/24/19 18:29	6/21/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	06/24/19 18:29	6/21/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	06/24/19 18:29	6/21/19	
Naphthalene	10 U	10	1.1	1	06/24/19 18:29	6/21/19	
Nitrobenzene	10 U	10	1.0	1	06/24/19 18:29	6/21/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	06/24/19 18:29	6/21/19	
Phenanthrene	10 U	10	1.6	1	06/24/19 18:29	6/21/19	
Phenol	1.1 J	10	1.0	1	06/24/19 18:29	6/21/19	
Pyrene	10 U	10	1.8	1	06/24/19 18:29	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	94	35 - 141	06/24/19 18:29	
2-Fluorobiphenyl	60	31 - 118	06/24/19 18:29	
2-Fluorophenol	36	10 - 105	06/24/19 18:29	
Nitrobenzene-d5	64	31 - 110	06/24/19 18:29	
Phenol-d6	24	10 - 107	06/24/19 18:29	
p-Terphenyl-d14	76	10 - 165	06/24/19 18:29	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906197-01

Service Request: R1905579
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	06/29/19 01:29	6/21/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
2,4-Dichlorophenol	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
2,4-Dimethylphenol	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
2,4-Dinitrophenol	50 U	50	7.0	1	06/29/19 01:29	6/21/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	06/29/19 01:29	6/21/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	06/29/19 01:29	6/21/19	
2-Chloronaphthalene	10 U	10	1.1	1	06/29/19 01:29	6/21/19	
2-Chlorophenol	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
2-Methylnaphthalene	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
2-Methylphenol	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
2-Nitroaniline	50 U	50	2.4	1	06/29/19 01:29	6/21/19	
2-Nitrophenol	10 U	10	1.5	1	06/29/19 01:29	6/21/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
3-Nitroaniline	50 U	50	1.8	1	06/29/19 01:29	6/21/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	06/29/19 01:29	6/21/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	06/29/19 01:29	6/21/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	06/29/19 01:29	6/21/19	
4-Chloroaniline	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	06/29/19 01:29	6/21/19	
4-Nitroaniline	50 U	50	1.9	1	06/29/19 01:29	6/21/19	
4-Nitrophenol	50 U	50	3.0	1	06/29/19 01:29	6/21/19	
Acenaphthene	10 U	10	1.6	1	06/29/19 01:29	6/21/19	
Acenaphthylene	10 U	10	1.3	1	06/29/19 01:29	6/21/19	
Anthracene	10 U	10	1.4	1	06/29/19 01:29	6/21/19	
Benz(a)anthracene	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
Benzo(a)pyrene	10 U	10	1.3	1	06/29/19 01:29	6/21/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	06/29/19 01:29	6/21/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	06/29/19 01:29	6/21/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	06/29/19 01:29	6/21/19	
Benzoic Acid	50 U	50	6.0	1	06/29/19 01:29	6/21/19	
Benzyl Alcohol	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	06/29/19 01:29	6/21/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	06/29/19 01:29	6/21/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
Chrysene	10 U	10	1.5	1	06/29/19 01:29	6/21/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906197-01

Service Request: R1905579
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	06/29/19 01:29	6/21/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	06/29/19 01:29	6/21/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	06/29/19 01:29	6/21/19	
Dibenzofuran	10 U	10	1.3	1	06/29/19 01:29	6/21/19	
Diethyl Phthalate	10 U	10	1.2	1	06/29/19 01:29	6/21/19	
Dimethyl Phthalate	10 U	10	1.5	1	06/29/19 01:29	6/21/19	
Fluoranthene	10 U	10	1.4	1	06/29/19 01:29	6/21/19	
Fluorene	10 U	10	1.6	1	06/29/19 01:29	6/21/19	
Hexachlorobenzene	10 U	10	1.4	1	06/29/19 01:29	6/21/19	
Hexachlorobutadiene	10 U	10	1.1	1	06/29/19 01:29	6/21/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	06/29/19 01:29	6/21/19	
Hexachloroethane	10 U	10	1.2	1	06/29/19 01:29	6/21/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	06/29/19 01:29	6/21/19	
Isophorone	10 U	10	1.2	1	06/29/19 01:29	6/21/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	06/29/19 01:29	6/21/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	06/29/19 01:29	6/21/19	
Naphthalene	10 U	10	1.1	1	06/29/19 01:29	6/21/19	
Nitrobenzene	10 U	10	1.0	1	06/29/19 01:29	6/21/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	06/29/19 01:29	6/21/19	
Phenanthrene	10 U	10	1.6	1	06/29/19 01:29	6/21/19	
Phenol	1.4 J	10	1.0	1	06/29/19 01:29	6/21/19	
Pyrene	10 U	10	1.8	1	06/29/19 01:29	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	72	35 - 141	06/29/19 01:29	
2-Fluorobiphenyl	66	31 - 118	06/29/19 01:29	
2-Fluorophenol	44	10 - 105	06/29/19 01:29	
Nitrobenzene-d5	77	31 - 110	06/29/19 01:29	
Phenol-d6	28	10 - 107	06/29/19 01:29	
p-Terphenyl-d14	104	10 - 165	06/29/19 01:29	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905579
Date Analyzed: 06/29/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample RQ1906197-02					Duplicate Lab Control Sample RQ1906197-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	8270D	32.7	50.0	65	33.0	50.0	66	10-127	2	30
1,2-Dichlorobenzene	8270D	29.4	50.0	59	30.7	50.0	61	23-130	3	30
1,3-Dichlorobenzene	8270D	28.7	50.0	57	28.5	50.0	57	21-90	<1	30
1,4-Dichlorobenzene	8270D	28.6	50.0	57	29.2	50.0	58	10-124	2	30
2,4,5-Trichlorophenol	8270D	53.9	50.0	108	54.7	50.0	109	48-134	<1	30
2,4,6-Trichlorophenol	8270D	53.6	50.0	107	54.9	50.0	110	44-135	3	30
2,4-Dichlorophenol	8270D	47.7	50.0	95	48.6	50.0	97	48-127	2	30
2,4-Dimethylphenol	8270D	48.0	50.0	96	48.7	50.0	97	59-113	1	30
2,4-Dinitrophenol	8270D	45.3 J	50.0	91	51.8	50.0	104	21-154	13	30
2,4-Dinitrotoluene	8270D	58.5	50.0	117	59.2	50.0	118	54-130	<1	30
2,6-Dinitrotoluene	8270D	55.1	50.0	110	55.8	50.0	112	51-127	2	30
2-Chloronaphthalene	8270D	34.8	50.0	70	35.4	50.0	71	40-108	1	30
2-Chlorophenol	8270D	40.8	50.0	82	40.4	50.0	81	42-112	1	30
2-Methylnaphthalene	8270D	35.8	50.0	72	36.4	50.0	73	34-102	1	30
2-Methylphenol	8270D	39.0	50.0	78	38.9	50.0	78	47-100	<1	30
2-Nitroaniline	8270D	45.4 J	50.0	91	45.1 J	50.0	90	52-133	1	30
2-Nitrophenol	8270D	54.6	50.0	109	54.9	50.0	110	43-131	<1	30
3,3'-Dichlorobenzidine	8270D	55.3	50.0	111	59.8	50.0	120	43-126	8	30
3- and 4-Methylphenol Coelution	8270D	38.8	50.0	78	39.1	50.0	78	40-92	<1	30
3-Nitroaniline	8270D	48.3 J	50.0	97	50.8	50.0	102	42-111	5	30
4,6-Dinitro-2-methylphenol	8270D	57.6	50.0	115	59.9	50.0	120	36-152	4	30
4-Bromophenyl Phenyl Ether	8270D	48.8	50.0	98	49.1	50.0	98	48-114	<1	30
4-Chloro-3-methylphenol	8270D	53.2	50.0	106	53.8	50.0	108	52-113	2	30
4-Chloroaniline	8270D	43.1	50.0	86	43.1	50.0	86	44-109	<1	30
4-Chlorophenyl Phenyl Ether	8270D	47.2	50.0	94	47.7	50.0	95	51-107	1	30
4-Nitroaniline	8270D	48.5 J	50.0	97	50.2	50.0	100	54-133	3	30
4-Nitrophenol	8270D	22.9 J	50.0	46	23.7 J	50.0	47	10-126	2	30
Acenaphthene	8270D	44.1	50.0	88	45.3	50.0	91	52-107	3	30
Acenaphthylene	8270D	44.6	50.0	89	45.8	50.0	92	55-109	3	30
Anthracene	8270D	53.8	50.0	108	53.9	50.0	108	55-116	<1	30
Benz(a)anthracene	8270D	54.7	50.0	109	57.1	50.0	114	61-121	4	30
Benzo(a)pyrene	8270D	55.3	50.0	111	56.6	50.0	113	44-114	2	30
Benzo(b)fluoranthene	8270D	53.7	50.0	107	54.6	50.0	109	62-115	2	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905579
Date Analyzed: 06/29/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample RQ1906197-02					Duplicate Lab Control Sample RQ1906197-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(g,h,i)perylene	8270D	62.3	50.0	125	63.1	50.0	126	63-136	<1	30
Benzo(k)fluoranthene	8270D	54.8	50.0	110	55.2	50.0	110	49-133	<1	30
Benzoic Acid	8270D	53.5	150	36	60.5	150	40	10-94	11	30
Benzyl Alcohol	8270D	43.4	50.0	87	42.5	50.0	85	31-109	2	30
2,2'-Oxybis(1-chloropropane)	8270D	39.8	50.0	80	40.1	50.0	80	32-122	<1	30
Bis(2-chloroethoxy)methane	8270D	49.1	50.0	98	48.7	50.0	97	55-110	1	30
Bis(2-chloroethyl) Ether	8270D	42.9	50.0	86	42.6	50.0	85	46-102	1	30
Bis(2-ethylhexyl) Phthalate	8270D	57.1	50.0	114	58.7	50.0	117	51-132	3	30
Butyl Benzyl Phthalate	8270D	58.3	50.0	117	58.2	50.0	116	41-148	<1	30
Chrysene	8270D	54.6	50.0	109	55.9	50.0	112	57-118	3	30
Di-n-butyl Phthalate	8270D	60.1	50.0	120	59.7	50.0	119	57-128	<1	30
Di-n-octyl Phthalate	8270D	56.8	50.0	114	58.2	50.0	116	62-124	2	30
Dibenz(a,h)anthracene	8270D	45.8	50.0	92	51.9	50.0	104	54-135	12	30
Dibenzofuran	8270D	45.8	50.0	92	46.7	50.0	93	55-110	1	30
Diethyl Phthalate	8270D	55.5	50.0	111	56.3	50.0	113	53-113	2	30
Dimethyl Phthalate	8270D	50.7	50.0	101	51.6	50.0	103	51-112	2	30
Fluoranthene	8270D	54.2	50.0	108	54.7	50.0	109	66-127	<1	30
Fluorene	8270D	47.8	50.0	96	48.4	50.0	97	54-106	1	30
Hexachlorobenzene	8270D	51.2	50.0	102	51.6	50.0	103	53-123	<1	30
Hexachlorobutadiene	8270D	34.3	50.0	69	35.5	50.0	71	16-95	3	30
Hexachlorocyclopentadiene	8270D	21.0	50.0	42	21.7	50.0	43	10-99	2	30
Hexachloroethane	8270D	26.9	50.0	54	27.6	50.0	55	15-92	2	30
Indeno(1,2,3-cd)pyrene	8270D	58.6	50.0	117	59.5	50.0	119	62-137	2	30
Isophorone	8270D	48.4	50.0	97	48.0	50.0	96	50-116	1	30
N-Nitrosodi-n-propylamine	8270D	44.8	50.0	90	44.9	50.0	90	49-115	<1	30
N-Nitrosodiphenylamine	8270D	50.8	50.0	102	51.6	50.0	103	45-123	<1	30
Naphthalene	8270D	35.9	50.0	72	36.5	50.0	73	38-99	1	30
Nitrobenzene	8270D	46.9	50.0	94	46.2	50.0	92	46-108	2	30
Pentachlorophenol (PCP)	8270D	51.6	50.0	103	57.4	50.0	115	29-164	11	30
Phenanthrene	8270D	52.2	50.0	104	52.4	50.0	105	58-118	<1	30
Phenol	8270D	19.9	50.0	40	22.3	50.0	45	10-113	12	30
Pyrene	8270D	54.5	50.0	109	56.9	50.0	114	61-122	4	30



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, **Service Request:** R1905579
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10-164	10-147
WG-9954-061419-DJT-013	R1905579-001	51	80
WG-9954-061419-DJT-014	R1905579-002	43	77
WG-9954-061419-DJT-010	R1905579-003	52	75
WG-9954-061419-DJT-011	R1905579-004	43	78
WG-9954-061419-DJT-012	R1905579-005	55	81
WG-9954-061419-DJT-015	R1905579-006	14	80
WG-9954-061419-DJT-016	R1905579-007	44	64
WG-9954-061419-DJT-017	R1905579-008	16	76
RB-9954-061419-DJT-001	R1905579-009	11	76
Method Blank	RQ1906196-01	57	65
Lab Control Sample	RQ1906196-02	56	68
Duplicate Lab Control Sample	RQ1906196-03	47	59
WG-9954-061419-DJT-015 MS	RQ1906196-04	11	71
WG-9954-061419-DJT-015 DMS	RQ1906196-05	14	84

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QA/QC Report

Client:	GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)	Service Request:	R1905579
Project:	Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring	Date Collected:	06/14/19
Sample Matrix:	Water	Date Received:	06/17/19
		Date Analyzed:	07/2/19
		Date Extracted:	06/21/19

Duplicate Matrix Spike Summary
Organochlorine Pesticides by Gas Chromatography

Sample Name:	WG-9954-061419-DJT-015	Units:	ug/L
Lab Code:	R1905579-006	Basis:	NA
Analysis Method:	8081B		
Prep Method:	EPA 3510C		

Analyte Name	Matrix Spike					Duplicate Matrix Spike				
	Sample Result	Result	RQ1906196-04		RQ1906196-05		% Rec Limits	RPD	RPD Limit	
			Spike Amount	% Rec	Result	Spike Amount				% Rec
4,4'-DDD	0.047 U	0.0985	0.189	52	0.116	0.189	61	38-157	16	30
4,4'-DDE	0.047 U	0.0598	0.189	32	0.0668	0.189	35	10-200	11	30
4,4'-DDT	0.047 U	0.0664	0.189	35	0.0761	0.189	40	19-154	14	30
Aldrin	0.047 U	0.0825	0.189	44	0.0946	0.189	50	26-149	14	30
Dieldrin	0.047 U	0.146	0.189	78	0.164	0.189	87	41-164	11	30
Endosulfan I	0.047 U	0.150	0.189	80	0.166	0.189	88	47-149	10	30
Endosulfan II	0.047 U	0.173	0.189	92	0.197	0.189	104	51-148	13	30
Endosulfan Sulfate	0.047 U	0.155	0.189	82	0.172	0.189	91	10-170	10	30
Endrin	0.047 U	0.157	0.189	83	0.177	0.189	94	48-165	12	30
Endrin Ketone	0.047 U	0.163	0.189	87	0.181	0.189	96	48-162	10	30
Heptachlor	0.047 U	0.118	0.189	62	0.136	0.189	72	29-168	14	30
Heptachlor Epoxide	0.047 U	0.162	0.189	86	0.178	0.189	94	29-180	9	30
Methoxychlor	0.047 U	0.105	0.189	56	0.122	0.189	65	38-162	15	30
alpha-BHC	0.047 U	0.176	0.189	94	0.199	0.189	105	27-154	12	30
alpha-Chlordane	0.047 U	0.106	0.189	56	0.121	0.189	64	35-160	14	30
beta-BHC	0.047 U	0.179	0.189	95	0.195	0.189	103	32-184	9	30
delta-BHC	0.047 U	0.188	0.189	99	0.214	0.189	113	10-182	13	30
gamma-BHC (Lindane)	0.047 U	0.180	0.189	95	0.200	0.189	106	43-164	10	30
gamma-Chlordane	0.047 U	0.0994	0.189	53	0.112	0.189	60	35-165	12	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906196-01

Service Request: R1905579
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
4,4'-DDE	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
4,4'-DDT	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Aldrin	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Dieldrin	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Endosulfan I	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Endosulfan II	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Endosulfan Sulfate	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Endrin	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Endrin Ketone	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Heptachlor	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Heptachlor Epoxide	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Methoxychlor	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
Toxaphene	0.50 U	0.50	0.50	1	07/01/19 20:04	6/21/19	
alpha-BHC	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
alpha-Chlordane	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
beta-BHC	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
delta-BHC	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
gamma-BHC (Lindane)	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	
gamma-Chlordane	0.050 U	0.050	0.020	1	07/01/19 20:04	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	57	10 - 164	07/01/19 20:04	
Tetrachloro-m-xylene	65	10 - 147	07/01/19 20:04	

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905579
Date Analyzed: 07/01/19

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

Lab Control Sample RQ1906196-02					Duplicate Lab Control Sample RQ1906196-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	8081B	0.199	0.200	99	0.204	0.200	102	42-159	3	30
4,4'-DDE	8081B	0.182	0.200	91	0.190	0.200	95	47-147	5	30
4,4'-DDT	8081B	0.177	0.200	88	0.184	0.200	92	41-149	4	30
Aldrin	8081B	0.142	0.200	71	0.144	0.200	72	22-137	2	30
Dieldrin	8081B	0.184	0.200	92	0.189	0.200	95	52-144	3	30
Endosulfan I	8081B	0.182	0.200	91	0.187	0.200	94	52-136	3	30
Endosulfan II	8081B	0.206	0.200	103	0.212	0.200	106	57-138	3	30
Endosulfan Sulfate	8081B	0.180	0.200	90	0.183	0.200	91	34-156	2	30
Endrin	8081B	0.194	0.200	97	0.199	0.200	99	56-143	3	30
Endrin Ketone	8081B	0.186	0.200	93	0.193	0.200	96	59-143	4	30
Heptachlor	8081B	0.162	0.200	81	0.167	0.200	84	32-141	4	30
Heptachlor Epoxide	8081B	0.189	0.200	94	0.195	0.200	97	51-143	3	30
Methoxychlor	8081B	0.171	0.200	86	0.182	0.200	91	56-149	6	30
alpha-BHC	8081B	0.191	0.200	95	0.196	0.200	98	36-151	3	30
alpha-Chlordane	8081B	0.180	0.200	90	0.186	0.200	93	50-139	3	30
beta-BHC	8081B	0.203	0.200	101	0.209	0.200	105	55-149	3	30
delta-BHC	8081B	0.201	0.200	101	0.211	0.200	106	29-159	5	30
gamma-BHC (Lindane)	8081B	0.193	0.200	97	0.198	0.200	99	41-149	2	30
gamma-Chlordane	8081B	0.176	0.200	88	0.182	0.200	91	50-140	3	30

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905579

SURROGATE RECOVERY SUMMARY
Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10-152	14-129
WG-9954-061419-DJT-013	R1905579-001	52	53
WG-9954-061419-DJT-014	R1905579-002	43	51
WG-9954-061419-DJT-010	R1905579-003	71	68
WG-9954-061419-DJT-011	R1905579-004	57	66
WG-9954-061419-DJT-012	R1905579-005	75	79
WG-9954-061419-DJT-015	R1905579-006	20	89
WG-9954-061419-DJT-016	R1905579-007	44	45
WG-9954-061419-DJT-017	R1905579-008	16	57
RB-9954-061419-DJT-001	R1905579-009	11	61
Method Blank	RQ1906196-01	45	43
Lab Control Sample	RQ1906196-02	41	47
Duplicate Lab Control Sample	RQ1906196-03	35	46
WG-9954-061419-DJT-015 MS	RQ1906196-06	15	74
WG-9954-061419-DJT-015 DMS	RQ1906196-07	20	83

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QA/QC Report

Client:	GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)	Service Request:	R1905579
Project:	Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring	Date Collected:	06/14/19
Sample Matrix:	Water	Date Received:	06/17/19
		Date Analyzed:	07/3/19
		Date Extracted:	06/21/19

Duplicate Matrix Spike Summary
Polychlorinated Biphenyls (PCBs) by GC

Sample Name:	WG-9954-061419-DJT-015	Units:	ug/L
Lab Code:	R1905579-006	Basis:	NA
Analysis Method:	8082A		
Prep Method:	EPA 3510C		

Analyte Name	Matrix Spike RQ1906196-06				Duplicate Matrix Spike RQ1906196-07					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	0.94 U	3.96	4.72	84	4.58	4.72	97	32-142	14	30
Aroclor 1260	0.94 U	1.79	4.72	38	1.84	4.72	39	28-142	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906196-01

Service Request: R1905579
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.0 U	1.0	0.50	1	06/28/19 17:11	6/21/19	
Aroclor 1221	2.0 U	2.0	1.0	1	06/28/19 17:11	6/21/19	
Aroclor 1232	1.0 U	1.0	0.50	1	06/28/19 17:11	6/21/19	
Aroclor 1242	1.0 U	1.0	0.50	1	06/28/19 17:11	6/21/19	
Aroclor 1248	1.0 U	1.0	0.50	1	06/28/19 17:11	6/21/19	
Aroclor 1254	1.0 U	1.0	0.50	1	06/28/19 17:11	6/21/19	
Aroclor 1260	1.0 U	1.0	0.50	1	06/28/19 17:11	6/21/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	45	10 - 152	06/28/19 17:11	
Tetrachloro-m-xylene	43	14 - 129	06/28/19 17:11	

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905579
Date Analyzed: 06/28/19

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Units:ug/L
Basis:NA

Lab Control Sample RQ1906196-02					Duplicate Lab Control Sample RQ1906196-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	3.11	5.00	62	3.22	5.00	64	49-123	3	30
Aroclor 1260	8082A	2.99	5.00	60	3.06	5.00	61	57-135	2	30



July 17, 2019

Service Request No:R1905670

Ms. Kathy Willy
GHD Services Inc.
2055 Niagara Falls Blvd., Suite 3
Niagara Falls, NY 14304

Laboratory Results for: Love Canal:292-402-D02-3100

Dear Ms.Willy,

Enclosed are the results of the sample(s) submitted to our laboratory June 19, 2019
For your reference, these analyses have been assigned our service request number **R1905670**.

All testing was performed according to our laboratory's quality assurance program and met the requirements of the TNI standards except as noted in the case narrative report. Any testing not included in the lab's accreditation is identified on a Non-Certified Analytes report. All results are intended to be considered in their entirety. ALS Environmental is not responsible for use of less than the complete report. Results apply only to the individual samples submitted to the lab for analysis, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s), and represented by Laboratory Control Sample control limits. Any events, such as QC failures or Holding Time exceedances, which may add to the uncertainty are explained in the report narrative or are flagged with qualifiers. The flags are explained in the Report Qualifiers and Definitions page of this report.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

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Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100
Sample Matrix: Water

Service Request: R1905670
Date Received: 06/19/2019

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier level IV requested by the client.

Sample Receipt:

Fourteen water samples were received for analysis at ALS Environmental on 06/19/2019. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Semivolatiles by GC/MS:

No significant anomalies were noted with this analysis.

Semivolatile GC:

Method 8081B, 07/03/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8081B, 642178: The control limits were exceeded for one or more surrogates due to suspected matrix interferences. Sample has had low surrogate in past extractions. No further corrective action was appropriate.

Method 8081B, 642178: The sample was diluted to elevate the reporting limit above the presence sulfur. The matrix interference prevented adequate resolution of one or more target compound(s) at the reporting limit. Several cleanups were performed prior to dilution, but did not adequately remove enough sulfur for accurate analysis.

Method 8081B, 643223: The control limits were exceeded for one or more surrogates in the sample(s). Since the exceedance may indicate a potential bias in the analytical batch, all associated field samples were re-extracted and reanalyzed. The surrogates met control limits for the reanalysis. Since the results for the field samples were comparable for both determinations, the exceedance in the initial analysis was likely restricted to the surrogate recovery. Therefore, the results from the original analysis are reported and flagged.

Method 8081B, 07/15/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 07/02/2019: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8082A, 06/29/2019: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) in the associated field samples. The error associated with elevated recovery

Approved by 

Date 07/17/2019



equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Method 8082A, 06/29/2019: The lower control limit for the spike recovery of the Laboratory Control Sample (LCS) was exceeded for one or more analyte. There were no detections of the analyte(s) in the associated field samples. The discrepancy associated with reduced recovery equates to a potential low bias. Additional analysis of the associated field samples could not be performed because insufficient sample remained for testing. The analytes affected are flagged in the LCS Summary.

Method 8082A, 641732: The control limits were exceeded for one or more surrogates due to suspected matrix interferences. Samples have had low surrogate in past extractions. No further corrective action was appropriate.

Method 8081B, : The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV) on the confirmation column. Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Method 8082A: The extraction of one or more sample(s) was initially performed within holding time, but were re-extracted due to a QC failure. Efforts were made to re-extract the samples as soon as possible. The re-extraction was performed past the recommended holding time. The data are flagged to indicate the holding time exceedance.

Method 8082A, 642761: The control limits were exceeded for one or more surrogates in the sample(s). Since the exceedance may indicate a potential bias in the analytical batch, all associated field samples were re-extracted and reanalyzed. The surrogates met control limits for the reanalysis. Since the results for the field samples were comparable for both determinations, the exceedance in the initial analysis was likely restricted to the surrogate recovery. Therefore, the results from the original analysis are reported and flagged.

Volatiles by GC/MS:

Method 8260C, 06/22/2019: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

Approved by 

Date 07/17/2019

SAMPLE DETECTION SUMMARY

CLIENT ID: TB-9954-061719-SG-003			Lab ID: R1905670-001			
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	6.3	J	2.1	10	ug/L	8260C
Bromomethane	0.70	J	0.70	5.0	ug/L	8260C
Chloromethane	0.87	J	0.28	5.0	ug/L	8260C
CLIENT ID: WG-9954-061719-SG-018			Lab ID: R1905670-002			
Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	1.9	J	0.25	10	ug/L	8260C
CLIENT ID: WG-9954-061719-SG-019			Lab ID: R1905670-003			
Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	2.2	J	0.25	10	ug/L	8260C
CLIENT ID: WG-9954-061719-SG-020			Lab ID: R1905670-004			
Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	4.2	J	0.25	10	ug/L	8260C
alpha-BHC	0.054	B	0.020	0.047	ug/L	8081B
delta-BHC	0.041	BJ	0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.055	B	0.020	0.047	ug/L	8081B
CLIENT ID: WG-9954-061719-SG-021			Lab ID: R1905670-005			
Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	2.6	J	0.25	10	ug/L	8260C
Phenol	1.7	J	1.0	9.4	ug/L	8270D
alpha-BHC	0.021	J	0.020	0.047	ug/L	8081B
delta-BHC	0.028	J	0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.026	J	0.020	0.047	ug/L	8081B
CLIENT ID: WG-9954-061719-SG-022			Lab ID: R1905670-006			
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	2.4	J	2.1	10	ug/L	8260C
Carbon Disulfide	2.1	J	0.25	10	ug/L	8260C
alpha-BHC	0.023	J	0.020	0.047	ug/L	8081B
delta-BHC	0.028	J	0.020	0.047	ug/L	8081B
gamma-BHC (Lindane)	0.028	J	0.020	0.047	ug/L	8081B
CLIENT ID: WG-9954-061719-SG-023			Lab ID: R1905670-007			
Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon Disulfide	2.2	J	0.25	10	ug/L	8260C
CLIENT ID: WG-9954-061819-SG-024			Lab ID: R1905670-008			
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	12		2.1	10	ug/L	8260C
Carbon Disulfide	2.1	J	0.25	10	ug/L	8260C
alpha-BHC	0.050	B	0.020	0.047	ug/L	8081B
delta-BHC	0.041	BJ	0.020	0.047	ug/L	8081B



SAMPLE DETECTION SUMMARY

CLIENT ID: WG-9954-061819-SG-024				Lab ID: R1905670-008		
Analyte	Results	Flag	MDL	MRL	Units	Method
gamma-BHC (Lindane)	0.039	BJ	0.020	0.047	ug/L	8081B

CLIENT ID: WG-9954-061819-SG-025				Lab ID: R1905670-009		
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	12		2.1	10	ug/L	8260C
Carbon Disulfide	1.4	J	0.25	10	ug/L	8260C
Toluene	0.20	J	0.20	5.0	ug/L	8260C

CLIENT ID: WG-9954-061819-SG-026				Lab ID: R1905670-010		
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	9.5	J	2.1	10	ug/L	8260C
Carbon Disulfide	0.46	J	0.25	10	ug/L	8260C

CLIENT ID: WG-9954-061819-SG-027				Lab ID: R1905670-011		
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	7.7	J	2.1	10	ug/L	8260C
Carbon Disulfide	0.36	J	0.25	10	ug/L	8260C

CLIENT ID: WG-9954-061819-SG-028				Lab ID: R1905670-012		
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	4.7	J	2.1	10	ug/L	8260C
Bromomethane	0.79	J	0.70	5.0	ug/L	8260C
Carbon Disulfide	0.31	J	0.25	10	ug/L	8260C
Chloromethane	0.36	J	0.28	5.0	ug/L	8260C
Phenol	1.2	J	1.0	9.4	ug/L	8270D

CLIENT ID: WG-9954-061819-SG-030				Lab ID: R1905670-013		
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	4.2	J	2.1	10	ug/L	8260C

CLIENT ID: WG-9954-061819-SG-029				Lab ID: R1905670-014		
Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	4.0	J	2.1	10	ug/L	8260C
Carbon Disulfide	0.30	J	0.25	10	ug/L	8260C
Chloromethane	0.43	J	0.28	5.0	ug/L	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring

Service Request:R1905670

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1905670-001	TB-9954-061719-SG-003	6/17/2019	0000
R1905670-002	WG-9954-061719-SG-018	6/17/2019	0935
R1905670-003	WG-9954-061719-SG-019	6/17/2019	1025
R1905670-004	WG-9954-061719-SG-020	6/17/2019	1155
R1905670-005	WG-9954-061719-SG-021	6/17/2019	1310
R1905670-006	WG-9954-061719-SG-022	6/17/2019	1415
R1905670-007	WG-9954-061719-SG-023	6/17/2019	1415
R1905670-008	WG-9954-061819-SG-024	6/18/2019	0910
R1905670-009	WG-9954-061819-SG-025	6/18/2019	1010
R1905670-010	WG-9954-061819-SG-026	6/18/2019	1145
R1905670-011	WG-9954-061819-SG-027	6/18/2019	1145
R1905670-012	WG-9954-061819-SG-028	6/18/2019	1255
R1905670-013	WG-9954-061819-SG-030	6/18/2019	1420
R1905670-014	WG-9954-061819-SG-029	6/18/2019	1340

CHAIN-OF-CUSTODY/Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Client Information	
GLEN SPRINGS HOLDINGS INC	Report To: Kathy Willy
805 97TH STREET	Copy To:
LOVE CANAL	
NIAGARA FALLS, NEW YORK 14304	Invoice To:
Phone: 716-283-0111	PO:
Fax: 716-283-2856	Project Name: LOVE CANAL ANNUAL GW
Email: kathy.willy@ghd.com	Project Number: 9954

Lab Information	
Laboratory: ALS	
Laboratory Location: 1565 JEFFERSON RD. BUILDING 300, SUITE 360 ROCHESTER, NY 14623	
Laboratory Contact: BRADY KALKMAN	
Requested Due Date:	TAT: 10
QA/QC Requirements:	

Event Information	
ID#: LC ANNUAL GW SAMPLING 2019-03-1	
SSOW Ref#:	
Sampler Name: S GARDNER, A. MARTIN	

Sample Identification	Valid Matrix Code WG Groundwater WB Borehole Water WS Surface Water SO Soil SE Sediment	Matrix Code	Date Collected	Time Collected	PestPCBs(None)	SVOC(none)	VOA(HCI)	Remarks
TB-9954-061719-SG-003		WG	06/17/2019	00:00	0	0	3	
WG-9954-061719-SG-018		WG	06/17/2019	09:35	2	2	3	
WG-9954-061719-SG-019		WG	06/17/2019	10:25	2	2	3	
WG-9954-061719-SG-020		WG	06/17/2019	11:55	2	2	3	
WG-9954-061719-SG-021		WG	06/17/2019	13:10	2	2	3	
WG-9954-061719-SG-022		WG	06/17/2019	14:15	2	2	3	
WG-9954-061719-SG-023		WG	06/17/2019	14:15	2	2	3	
WG-9954-061819-SG-024		WG	06/18/2019	09:10	2	2	3	
WG-9954-061819-SG-025		WG	06/18/2019	10:10	2	2	3	
WG-9954-061819-SG-026		WG	06/18/2019	11:45	2	2	3	
WG-9954-061819-SG-027		WG	06/18/2019	11:45	2	2	3	
WG-9954-061819-SG-028		WG	06/18/2019	12:55	2	2	3	
WG-9954-061819-SG-030		WG	06/18/2019	14:20	2	2	3	
WG-9954-061819-SG-029		WG	06/18/2019	13:40	2	2	3	
Total Bottles					26	26	42	Grand Total:94

Sample Condition

Temp in C	
Received on ice	Y/N
Sealed Cooler	Y/N
Samples Intact	Y/N

R1905670

GHD Services Inc.
Love Canal:292-402-D02-3100

5



SHIPMENT METHOD	NO. OF COOLERS	RELINQUISHED BY:	DATE	TIME	RECIEVED BY:	DATE	TIME
Lab Courier	5	Shawn Gardner	6/18/19	1700	Sony Bohan	6/19/19	1025
AIRBILL#:		Sony Bohan	6/19/19	1230	and mhl	6/19/19	1230



CHAIN OF CUSTODY / LABORATORY ANALYSIS REQUEST FORM

SR# _____

1565 Jefferson Road, Bldg 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 / FAX (585) 288-8475

www.alsglobal.com

004, 005, 006, 007, 008, 009, 010,
011, 012, 013

T030477

Project Name: Love Canal:292-402-D02-3100		NUMBER OF CONTAINERS	7D	14D	1	2	3	4	5	Remarks
Project Number: 9954 Annual Long Term Monitoring										
Report To: Kathy Willy										
Company / Address: GHD Services Inc. 2055 Niagara Falls Blvd., Suite 3 Niagara Falls NY, 14304										
Phone #: 716-297-2160										
FAX #: 716-297-2265		8081B / Pest OC	8082A / PCB	8270D / SVO	8260C / VOC FP					
Sampler Signature		Sampler Printed Name								

CLIENT SAMPLE ID	LABID	SAMPLING Date Time	Matrix															
1.			Liquid															
2.			Liquid															
3.			Liquid															
4.			Liquid															
5.			Liquid															
6.			Liquid															
7.			Liquid															
8.			Liquid															
9.			Liquid															
10.			Liquid															

Special Instructions/Comments:

Turnaround Requirements

___ RUSH (SURCHARGES APPLY)

___ Standard (3 weeks)

REQUESTED FAX DATE _____

Requested Report Date _____

Report Requirements

___ I. Results Only

___ II. Results + QC Summaries (LCS,
DUP, MS/MSD as required)___ III. Results + QC and Calibration
Summaries☒ IV. Data Validation Report
with Raw Data

EData ___ Yes ___ No

Invoice Information

P.O.# _____

Bill To: _____

Relinquished By:	Received By:	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm	Firm	Firm	Firm	Firm
Date/Time	Date/Time	Date/Time	Date/Time	Date/Time	Date/Time



Cooler Receipt and Preservation Check Form

R1905670

5

GHD Services Inc.
Love Canal 292-402-002-3100



Project/Client GHD

Folder Number _____

Cooler received on 6/19/19

by: SW

COURIER: ACS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	☒ Y ☐ N
2	Custody papers properly completed (ink, signed)?	☒ Y ☐ N
3	Did all bottles arrive in good condition (unbroken)?	☒ Y ☐ N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	☒ Y ☐ N

5a	Perchlorate samples have required headspace?	Y ☐ N ☒ NA
5b	Did <u>VOA</u> vials, Alk, or Sulfide have sig* bubbles?	☒ Y ☐ N ☐ NA
6	Where did the bottles originate?	<u>ACS/BOC</u> CLIENT
7	Soil VOA received as:	Bulk Encore 5035set ☒ NA

8. Temperature Readings Date: 6/19/19 Time: 1310 ID: IR#7 R#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	4.1	2.4	2.8	1.3	4.6	2.1	1.6
Correction Factor (°C)	+0.0	+0.3	+0.3	+0.0	+0.3	+0.3	+0.3
Corrected Temp (°C)	4.1	2.7	3.1	1.3	4.9	2.4	1.9
Temp from: Type of bottle		4mL vial	4mL vial		16/4mL 301	16/4mL 301	16/4mL 301
Within 0-6°C?	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N
If <0°C, were samples frozen?	☐ Y ☒ N	☐ Y ☒ N	☐ Y ☒ N	☐ Y ☒ N	☐ Y ☒ N	☐ Y ☒ N	☐ Y ☒ N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by SW on 6/19/19 at 1310
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: _____ Time: _____ by: _____

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
- Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notified for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: _____

Explain all Discrepancies/ Other Comments:

43 vials 100% HP TB
1 vial LC TB
1 vial WG-195A-06 BHA-S6-027

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: _____

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter

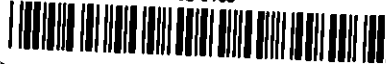


Cooler Receipt and Preservation Check Form

R1905670

5

GHD Services, Inc.
Love Canal 282-402-D02-3100



Project/Client GHD Folder Number _____

Cooler received on 6/19/19 by shw

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	☒ N
2	Custody papers properly completed (ink, signed)?	☒ N
3	Did all bottles arrive in good condition (unbroken)?	☒ N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	☒ N

5a	Perchlorate samples have required headspace?	Y N ☒ NA
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	☒ Y N NA
6	Where did the bottles originate?	ALS <u>ROC</u> CLIENT
7	Soil VOA received as:	Bulk Encore 5035set ☒ NA

8. Temperature Readings Date: 6/19/19 Time: 1310 ID: IR#7 IR#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>21.6</u>	<u>41.6</u>	<u>21.6</u>				
Correction Factor (°C)	<u>+0.3</u>	<u>+0.3</u>	<u>+0.3</u>				
Corrected Temp (°C)	<u>21.9</u>	<u>41.9</u>	<u>21.9</u>				
Temp from: Type of bottle	<u>1L Amber</u>	<u>1L Amber</u>	<u>1L Amber</u>				
Within 0-6°C?	☒ N	☒ N	☒ N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-2 by shw on 6/19/19 at 1310
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 6/19/19 Time: 1827 by: shw

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>4117090</u>					

**VOAs and 1664 Not to be tested before analysis.
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 042219-10x, client covered
Explain all Discrepancies/ Other Comments: _____

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
ALS	REV

Labels secondary reviewed by: shw
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

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Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905670

Sample Name: TB-9954-061719-SG-003
Lab Code: R1905670-001
Sample Matrix: Water

Date Collected: 06/17/19
Date Received: 06/19/19

Analysis Method
8260C

Extracted/Digested By

Analyzed By
DLIPANI

Sample Name: WG-9954-061719-SG-018
Lab Code: R1905670-002
Sample Matrix: Water

Date Collected: 06/17/19
Date Received: 06/19/19

Analysis Method
8081B
8082A
8260C
8270D

Extracted/Digested By
KSERCU
KSERCU

KSERCU

Analyzed By
AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061719-SG-019
Lab Code: R1905670-003
Sample Matrix: Water

Date Collected: 06/17/19
Date Received: 06/19/19

Analysis Method
8081B
8082A
8260C
8270D

Extracted/Digested By
KSERCU
KSERCU

KSERCU

Analyzed By
AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061719-SG-020
Lab Code: R1905670-004
Sample Matrix: Water

Date Collected: 06/17/19
Date Received: 06/19/19

Analysis Method
8081B
8082A
8260C
8270D

Extracted/Digested By
KSERCU
KSERCU

KSERCU

Analyzed By
AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905670

Sample Name: WG-9954-061719-SG-021
Lab Code: R1905670-005
Sample Matrix: Water

Date Collected: 06/17/19

Date Received: 06/19/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061719-SG-022
Lab Code: R1905670-006
Sample Matrix: Water

Date Collected: 06/17/19

Date Received: 06/19/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061719-SG-023
Lab Code: R1905670-007
Sample Matrix: Water

Date Collected: 06/17/19

Date Received: 06/19/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061819-SG-024
Lab Code: R1905670-008
Sample Matrix: Water

Date Collected: 06/18/19

Date Received: 06/19/19

Analysis Method

8081B

Extracted/Digested By

KSERCU

Analyzed By

AMOSSES

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Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905670

Sample Name: WG-9954-061819-SG-024
Lab Code: R1905670-008
Sample Matrix: Water

Date Collected: 06/18/19

Date Received: 06/19/19

Analysis Method

8082A
8260C
8270D

Extracted/Digested By

KSERCU

KSERCU

Analyzed By

AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061819-SG-025
Lab Code: R1905670-009
Sample Matrix: Water

Date Collected: 06/18/19

Date Received: 06/19/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061819-SG-026
Lab Code: R1905670-010
Sample Matrix: Water

Date Collected: 06/18/19

Date Received: 06/19/19

Analysis Method

8081B
8082A
8260C
8270D

Extracted/Digested By

KSERCU
KSERCU

KSERCU

Analyzed By

AMOSSES
AMOSSES
DLIPANI
JMISIUREWICZ

Sample Name: WG-9954-061819-SG-027
Lab Code: R1905670-011
Sample Matrix: Water

Date Collected: 06/18/19

Date Received: 06/19/19

Analysis Method

8081B
8082A

Extracted/Digested By

KSERCU
KSERCU

Analyzed By

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AMOSSES

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905670

Sample Name: WG-9954-061819-SG-027
Lab Code: R1905670-011
Sample Matrix: Water

Date Collected: 06/18/19

Date Received: 06/19/19

Analysis Method

8260C

8270D

Extracted/Digested By

KSERCU

Analyzed By

DLIPANI

JMISIUREWICZ

Sample Name: WG-9954-061819-SG-028
Lab Code: R1905670-012
Sample Matrix: Water

Date Collected: 06/18/19

Date Received: 06/19/19

Analysis Method

8081B

8082A

8260C

8270D

Extracted/Digested By

KSERCU

KSERCU

KSERCU

Analyzed By

AMOSSES

AMOSSES

DLIPANI

JMISIUREWICZ

Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013
Sample Matrix: Water

Date Collected: 06/18/19

Date Received: 06/19/19

Analysis Method

8081B

8082A

8260C

8270D

Extracted/Digested By

KSERCU

KSERCU

KSERCU

Analyzed By

AMOSSES

AMOSSES

DLIPANI

JMISIUREWICZ

Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013.R01
Sample Matrix: Water

Date Collected: 06/18/19

Date Received: 06/19/19

Analysis Method

8081B

8082A

Extracted/Digested By

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Analyzed By

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AMOSSES

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Analyst Summary report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring

Service Request: R1905670

Sample Name: WG-9954-061819-SG-029

Date Collected: 06/18/19

Lab Code: R1905670-014

Date Received: 06/19/19

Sample Matrix: Water

Analysis Method

Extracted/Digested By

Analyzed By

8081B

KSERCU

AMOSSES

8082A

KSERCU

AMOSSES

8260C

DLIPANI

8270D

KSERCU

JMISIUREWICZ



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: TB-9954-061719-SG-003
Lab Code: R1905670-001

Service Request: R1905670
Date Collected: 06/17/19 00:00

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 18:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 18:24	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 18:24	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 18:24	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 18:24	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 18:24	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 18:24	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 18:24	
2-Hexanone	10 U	10	0.20	1	06/22/19 18:24	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 18:24	
Acetone	6.3 J	10	2.1	1	06/22/19 18:24	
Benzene	5.0 U	5.0	0.20	1	06/22/19 18:24	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 18:24	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 18:24	
Bromomethane	0.70 J	5.0	0.70	1	06/22/19 18:24	
Carbon Disulfide	10 U	10	0.25	1	06/22/19 18:24	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 18:24	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 18:24	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 18:24	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 18:24	
Chloromethane	0.87 J	5.0	0.28	1	06/22/19 18:24	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 18:24	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 18:24	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 18:24	
Styrene	5.0 U	5.0	0.20	1	06/22/19 18:24	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 18:24	
Toluene	5.0 U	5.0	0.20	1	06/22/19 18:24	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 18:24	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 18:24	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 18:24	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 18:24	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 18:24	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 18:24	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 18:24	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 18:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: TB-9954-061719-SG-003
Lab Code: R1905670-001

Service Request: R1905670
Date Collected: 06/17/19 00:00
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/22/19 18:24	
Dibromofluoromethane	99	89 - 119	06/22/19 18:24	
Toluene-d8	100	87 - 121	06/22/19 18:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: TB-9954-061719-SG-003
Lab Code: R1905670-001

Service Request: R1905670
Date Collected: 06/17/19 00:00
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	52.3	JN

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-018
Lab Code: R1905670-002

Service Request: R1905670
Date Collected: 06/17/19 09:35

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 18:46	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 18:46	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 18:46	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 18:46	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 18:46	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 18:46	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 18:46	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 18:46	
2-Hexanone	10 U	10	0.20	1	06/22/19 18:46	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 18:46	
Acetone	10 U	10	2.1	1	06/22/19 18:46	
Benzene	5.0 U	5.0	0.20	1	06/22/19 18:46	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 18:46	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 18:46	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 18:46	
Carbon Disulfide	1.9 J	10	0.25	1	06/22/19 18:46	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 18:46	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 18:46	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 18:46	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 18:46	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 18:46	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 18:46	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 18:46	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 18:46	
Styrene	5.0 U	5.0	0.20	1	06/22/19 18:46	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 18:46	
Toluene	5.0 U	5.0	0.20	1	06/22/19 18:46	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 18:46	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 18:46	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 18:46	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 18:46	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 18:46	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 18:46	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 18:46	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 18:46	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-018
Lab Code: R1905670-002

Service Request: R1905670
Date Collected: 06/17/19 09:35
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	06/22/19 18:46	
Dibromofluoromethane	99	89 - 119	06/22/19 18:46	
Toluene-d8	102	87 - 121	06/22/19 18:46	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-018
Lab Code: R1905670-002

Service Request: R1905670
Date Collected: 06/17/19 09:35
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	39.3	JN

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-019
Lab Code: R1905670-003

Service Request: R1905670
Date Collected: 06/17/19 10:25

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 19:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 19:08	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 19:08	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 19:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 19:08	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 19:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 19:08	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 19:08	
2-Hexanone	10 U	10	0.20	1	06/22/19 19:08	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 19:08	
Acetone	10 U	10	2.1	1	06/22/19 19:08	
Benzene	5.0 U	5.0	0.20	1	06/22/19 19:08	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 19:08	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 19:08	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 19:08	
Carbon Disulfide	2.2 J	10	0.25	1	06/22/19 19:08	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 19:08	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 19:08	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 19:08	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 19:08	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 19:08	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 19:08	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 19:08	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 19:08	
Styrene	5.0 U	5.0	0.20	1	06/22/19 19:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 19:08	
Toluene	5.0 U	5.0	0.20	1	06/22/19 19:08	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 19:08	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 19:08	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 19:08	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 19:08	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 19:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 19:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 19:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 19:08	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-019
Lab Code: R1905670-003

Service Request: R1905670
Date Collected: 06/17/19 10:25
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/22/19 19:08	
Dibromofluoromethane	98	89 - 119	06/22/19 19:08	
Toluene-d8	101	87 - 121	06/22/19 19:08	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-019
Lab Code: R1905670-003

Service Request: R1905670
Date Collected: 06/17/19 10:25
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	71.5	JN
	unknown	12.70	5.0	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-020
Lab Code: R1905670-004

Service Request: R1905670
Date Collected: 06/17/19 11:55

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 19:29	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 19:29	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 19:29	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 19:29	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 19:29	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 19:29	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 19:29	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 19:29	
2-Hexanone	10 U	10	0.20	1	06/22/19 19:29	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 19:29	
Acetone	10 U	10	2.1	1	06/22/19 19:29	
Benzene	5.0 U	5.0	0.20	1	06/22/19 19:29	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 19:29	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 19:29	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 19:29	
Carbon Disulfide	4.2 J	10	0.25	1	06/22/19 19:29	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 19:29	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 19:29	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 19:29	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 19:29	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 19:29	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 19:29	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 19:29	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 19:29	
Styrene	5.0 U	5.0	0.20	1	06/22/19 19:29	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 19:29	
Toluene	5.0 U	5.0	0.20	1	06/22/19 19:29	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 19:29	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 19:29	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 19:29	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 19:29	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 19:29	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 19:29	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 19:29	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 19:29	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-020
Lab Code: R1905670-004

Service Request: R1905670
Date Collected: 06/17/19 11:55
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/22/19 19:29	
Dibromofluoromethane	96	89 - 119	06/22/19 19:29	
Toluene-d8	100	87 - 121	06/22/19 19:29	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-020
Lab Code: R1905670-004

Service Request: R1905670
Date Collected: 06/17/19 11:55
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	50.7	JN
000104-76-7	1-Hexanol, 2-ethyl-	12.05	5.1	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-021
Lab Code: R1905670-005

Service Request: R1905670
Date Collected: 06/17/19 13:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 19:51	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 19:51	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 19:51	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 19:51	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 19:51	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 19:51	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 19:51	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 19:51	
2-Hexanone	10 U	10	0.20	1	06/22/19 19:51	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 19:51	
Acetone	10 U	10	2.1	1	06/22/19 19:51	
Benzene	5.0 U	5.0	0.20	1	06/22/19 19:51	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 19:51	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 19:51	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 19:51	
Carbon Disulfide	2.6 J	10	0.25	1	06/22/19 19:51	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 19:51	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 19:51	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 19:51	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 19:51	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 19:51	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 19:51	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 19:51	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 19:51	
Styrene	5.0 U	5.0	0.20	1	06/22/19 19:51	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 19:51	
Toluene	5.0 U	5.0	0.20	1	06/22/19 19:51	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 19:51	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 19:51	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 19:51	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 19:51	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 19:51	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 19:51	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 19:51	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 19:51	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-021
Lab Code: R1905670-005

Service Request: R1905670
Date Collected: 06/17/19 13:10
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	06/22/19 19:51	
Dibromofluoromethane	98	89 - 119	06/22/19 19:51	
Toluene-d8	101	87 - 121	06/22/19 19:51	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-021
Lab Code: R1905670-005

Service Request: R1905670
Date Collected: 06/17/19 13:10
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	64.0	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-022
Lab Code: R1905670-006

Service Request: R1905670
Date Collected: 06/17/19 14:15

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 20:13	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 20:13	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 20:13	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 20:13	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 20:13	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 20:13	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 20:13	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 20:13	
2-Hexanone	10 U	10	0.20	1	06/22/19 20:13	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 20:13	
Acetone	2.4 J	10	2.1	1	06/22/19 20:13	
Benzene	5.0 U	5.0	0.20	1	06/22/19 20:13	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 20:13	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 20:13	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 20:13	
Carbon Disulfide	2.1 J	10	0.25	1	06/22/19 20:13	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 20:13	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 20:13	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 20:13	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 20:13	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 20:13	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 20:13	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 20:13	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 20:13	
Styrene	5.0 U	5.0	0.20	1	06/22/19 20:13	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 20:13	
Toluene	5.0 U	5.0	0.20	1	06/22/19 20:13	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 20:13	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 20:13	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 20:13	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 20:13	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 20:13	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 20:13	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 20:13	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 20:13	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-022
Lab Code: R1905670-006

Service Request: R1905670
Date Collected: 06/17/19 14:15
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	06/22/19 20:13	
Dibromofluoromethane	98	89 - 119	06/22/19 20:13	
Toluene-d8	100	87 - 121	06/22/19 20:13	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-022
Lab Code: R1905670-006

Service Request: R1905670
Date Collected: 06/17/19 14:15
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	76.9	JN
	unknown	12.70	5.3	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-023
Lab Code: R1905670-007

Service Request: R1905670
Date Collected: 06/17/19 14:15

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 20:35	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 20:35	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 20:35	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 20:35	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 20:35	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 20:35	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 20:35	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 20:35	
2-Hexanone	10 U	10	0.20	1	06/22/19 20:35	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 20:35	
Acetone	10 U	10	2.1	1	06/22/19 20:35	
Benzene	5.0 U	5.0	0.20	1	06/22/19 20:35	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 20:35	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 20:35	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 20:35	
Carbon Disulfide	2.2 J	10	0.25	1	06/22/19 20:35	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 20:35	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 20:35	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 20:35	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 20:35	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 20:35	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 20:35	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 20:35	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 20:35	
Styrene	5.0 U	5.0	0.20	1	06/22/19 20:35	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 20:35	
Toluene	5.0 U	5.0	0.20	1	06/22/19 20:35	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 20:35	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 20:35	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 20:35	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 20:35	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 20:35	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 20:35	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 20:35	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 20:35	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-023
Lab Code: R1905670-007

Service Request: R1905670
Date Collected: 06/17/19 14:15
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/22/19 20:35	
Dibromofluoromethane	96	89 - 119	06/22/19 20:35	
Toluene-d8	103	87 - 121	06/22/19 20:35	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-023
Lab Code: R1905670-007

Service Request: R1905670
Date Collected: 06/17/19 14:15
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.22	74.8	JN
000124-19-6	Nonanal	12.70	6.2	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-024
Lab Code: R1905670-008

Service Request: R1905670
Date Collected: 06/18/19 09:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/24/19 15:40	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/24/19 15:40	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/24/19 15:40	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/24/19 15:40	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/24/19 15:40	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/24/19 15:40	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/24/19 15:40	
2-Butanone (MEK)	10 U	10	0.78	1	06/24/19 15:40	
2-Hexanone	10 U	10	0.20	1	06/24/19 15:40	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/24/19 15:40	
Acetone	12	10	2.1	1	06/24/19 15:40	
Benzene	5.0 U	5.0	0.20	1	06/24/19 15:40	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/24/19 15:40	
Bromoform	5.0 U	5.0	0.25	1	06/24/19 15:40	
Bromomethane	5.0 U	5.0	0.70	1	06/24/19 15:40	
Carbon Disulfide	2.1 J	10	0.25	1	06/24/19 15:40	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/24/19 15:40	
Chlorobenzene	5.0 U	5.0	0.20	1	06/24/19 15:40	
Chloroethane	5.0 U	5.0	0.23	1	06/24/19 15:40	
Chloroform	5.0 U	5.0	0.24	1	06/24/19 15:40	
Chloromethane	5.0 U	5.0	0.28	1	06/24/19 15:40	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/24/19 15:40	
Dichloromethane	5.0 U	5.0	0.36	1	06/24/19 15:40	
Ethylbenzene	5.0 U	5.0	0.20	1	06/24/19 15:40	
Styrene	5.0 U	5.0	0.20	1	06/24/19 15:40	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/24/19 15:40	
Toluene	5.0 U	5.0	0.20	1	06/24/19 15:40	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/24/19 15:40	
Vinyl Acetate	10 U	10	1.1	1	06/24/19 15:40	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/24/19 15:40	
Xylenes, Total	5.0 U	5.0	0.23	1	06/24/19 15:40	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/24/19 15:40	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/24/19 15:40	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/24/19 15:40	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/24/19 15:40	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-024
Lab Code: R1905670-008

Service Request: R1905670
Date Collected: 06/18/19 09:10
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	06/24/19 15:40	
Dibromofluoromethane	101	89 - 119	06/24/19 15:40	
Toluene-d8	103	87 - 121	06/24/19 15:40	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-024
Lab Code: R1905670-008

Service Request: R1905670
Date Collected: 06/18/19 09:10
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	32.9	JN
	unknown	1.28	45.9	J

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-025
Lab Code: R1905670-009

Service Request: R1905670
Date Collected: 06/18/19 10:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/24/19 16:02	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/24/19 16:02	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/24/19 16:02	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/24/19 16:02	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/24/19 16:02	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/24/19 16:02	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/24/19 16:02	
2-Butanone (MEK)	10 U	10	0.78	1	06/24/19 16:02	
2-Hexanone	10 U	10	0.20	1	06/24/19 16:02	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/24/19 16:02	
Acetone	12	10	2.1	1	06/24/19 16:02	
Benzene	5.0 U	5.0	0.20	1	06/24/19 16:02	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/24/19 16:02	
Bromoform	5.0 U	5.0	0.25	1	06/24/19 16:02	
Bromomethane	5.0 U	5.0	0.70	1	06/24/19 16:02	
Carbon Disulfide	1.4 J	10	0.25	1	06/24/19 16:02	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/24/19 16:02	
Chlorobenzene	5.0 U	5.0	0.20	1	06/24/19 16:02	
Chloroethane	5.0 U	5.0	0.23	1	06/24/19 16:02	
Chloroform	5.0 U	5.0	0.24	1	06/24/19 16:02	
Chloromethane	5.0 U	5.0	0.28	1	06/24/19 16:02	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/24/19 16:02	
Dichloromethane	5.0 U	5.0	0.36	1	06/24/19 16:02	
Ethylbenzene	5.0 U	5.0	0.20	1	06/24/19 16:02	
Styrene	5.0 U	5.0	0.20	1	06/24/19 16:02	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/24/19 16:02	
Toluene	0.20 J	5.0	0.20	1	06/24/19 16:02	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/24/19 16:02	
Vinyl Acetate	10 U	10	1.1	1	06/24/19 16:02	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/24/19 16:02	
Xylenes, Total	5.0 U	5.0	0.23	1	06/24/19 16:02	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/24/19 16:02	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/24/19 16:02	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/24/19 16:02	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/24/19 16:02	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-025
Lab Code: R1905670-009

Service Request: R1905670
Date Collected: 06/18/19 10:10
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/24/19 16:02	
Dibromofluoromethane	96	89 - 119	06/24/19 16:02	
Toluene-d8	99	87 - 121	06/24/19 16:02	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-025
Lab Code: R1905670-009

Service Request: R1905670
Date Collected: 06/18/19 10:10
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	43.4	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-026
Lab Code: R1905670-010

Service Request: R1905670
Date Collected: 06/18/19 11:45

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/24/19 16:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/24/19 16:24	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/24/19 16:24	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/24/19 16:24	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/24/19 16:24	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/24/19 16:24	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/24/19 16:24	
2-Butanone (MEK)	10 U	10	0.78	1	06/24/19 16:24	
2-Hexanone	10 U	10	0.20	1	06/24/19 16:24	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/24/19 16:24	
Acetone	9.5 J	10	2.1	1	06/24/19 16:24	
Benzene	5.0 U	5.0	0.20	1	06/24/19 16:24	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/24/19 16:24	
Bromoform	5.0 U	5.0	0.25	1	06/24/19 16:24	
Bromomethane	5.0 U	5.0	0.70	1	06/24/19 16:24	
Carbon Disulfide	0.46 J	10	0.25	1	06/24/19 16:24	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/24/19 16:24	
Chlorobenzene	5.0 U	5.0	0.20	1	06/24/19 16:24	
Chloroethane	5.0 U	5.0	0.23	1	06/24/19 16:24	
Chloroform	5.0 U	5.0	0.24	1	06/24/19 16:24	
Chloromethane	5.0 U	5.0	0.28	1	06/24/19 16:24	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/24/19 16:24	
Dichloromethane	5.0 U	5.0	0.36	1	06/24/19 16:24	
Ethylbenzene	5.0 U	5.0	0.20	1	06/24/19 16:24	
Styrene	5.0 U	5.0	0.20	1	06/24/19 16:24	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/24/19 16:24	
Toluene	5.0 U	5.0	0.20	1	06/24/19 16:24	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/24/19 16:24	
Vinyl Acetate	10 U	10	1.1	1	06/24/19 16:24	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/24/19 16:24	
Xylenes, Total	5.0 U	5.0	0.23	1	06/24/19 16:24	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/24/19 16:24	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/24/19 16:24	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/24/19 16:24	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/24/19 16:24	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-026
Lab Code: R1905670-010

Service Request: R1905670
Date Collected: 06/18/19 11:45
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85 - 122	06/24/19 16:24	
Dibromofluoromethane	100	89 - 119	06/24/19 16:24	
Toluene-d8	102	87 - 121	06/24/19 16:24	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-026
Lab Code: R1905670-010

Service Request: R1905670
Date Collected: 06/18/19 11:45
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	46.6	JN

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-027
Lab Code: R1905670-011

Service Request: R1905670
Date Collected: 06/18/19 11:45

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/24/19 16:46	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/24/19 16:46	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/24/19 16:46	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/24/19 16:46	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/24/19 16:46	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/24/19 16:46	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/24/19 16:46	
2-Butanone (MEK)	10 U	10	0.78	1	06/24/19 16:46	
2-Hexanone	10 U	10	0.20	1	06/24/19 16:46	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/24/19 16:46	
Acetone	7.7 J	10	2.1	1	06/24/19 16:46	
Benzene	5.0 U	5.0	0.20	1	06/24/19 16:46	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/24/19 16:46	
Bromoform	5.0 U	5.0	0.25	1	06/24/19 16:46	
Bromomethane	5.0 U	5.0	0.70	1	06/24/19 16:46	
Carbon Disulfide	0.36 J	10	0.25	1	06/24/19 16:46	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/24/19 16:46	
Chlorobenzene	5.0 U	5.0	0.20	1	06/24/19 16:46	
Chloroethane	5.0 U	5.0	0.23	1	06/24/19 16:46	
Chloroform	5.0 U	5.0	0.24	1	06/24/19 16:46	
Chloromethane	5.0 U	5.0	0.28	1	06/24/19 16:46	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/24/19 16:46	
Dichloromethane	5.0 U	5.0	0.36	1	06/24/19 16:46	
Ethylbenzene	5.0 U	5.0	0.20	1	06/24/19 16:46	
Styrene	5.0 U	5.0	0.20	1	06/24/19 16:46	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/24/19 16:46	
Toluene	5.0 U	5.0	0.20	1	06/24/19 16:46	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/24/19 16:46	
Vinyl Acetate	10 U	10	1.1	1	06/24/19 16:46	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/24/19 16:46	
Xylenes, Total	5.0 U	5.0	0.23	1	06/24/19 16:46	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/24/19 16:46	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/24/19 16:46	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/24/19 16:46	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/24/19 16:46	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-027
Lab Code: R1905670-011

Service Request: R1905670
Date Collected: 06/18/19 11:45
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/24/19 16:46	
Dibromofluoromethane	98	89 - 119	06/24/19 16:46	
Toluene-d8	100	87 - 121	06/24/19 16:46	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-027
Lab Code: R1905670-011

Service Request: R1905670
Date Collected: 06/18/19 11:45
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	48.7	JN

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-028
Lab Code: R1905670-012

Service Request: R1905670
Date Collected: 06/18/19 12:55

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/24/19 17:08	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/24/19 17:08	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/24/19 17:08	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/24/19 17:08	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/24/19 17:08	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/24/19 17:08	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/24/19 17:08	
2-Butanone (MEK)	10 U	10	0.78	1	06/24/19 17:08	
2-Hexanone	10 U	10	0.20	1	06/24/19 17:08	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/24/19 17:08	
Acetone	4.7 J	10	2.1	1	06/24/19 17:08	
Benzene	5.0 U	5.0	0.20	1	06/24/19 17:08	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/24/19 17:08	
Bromoform	5.0 U	5.0	0.25	1	06/24/19 17:08	
Bromomethane	0.79 J	5.0	0.70	1	06/24/19 17:08	
Carbon Disulfide	0.31 J	10	0.25	1	06/24/19 17:08	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/24/19 17:08	
Chlorobenzene	5.0 U	5.0	0.20	1	06/24/19 17:08	
Chloroethane	5.0 U	5.0	0.23	1	06/24/19 17:08	
Chloroform	5.0 U	5.0	0.24	1	06/24/19 17:08	
Chloromethane	0.36 J	5.0	0.28	1	06/24/19 17:08	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/24/19 17:08	
Dichloromethane	5.0 U	5.0	0.36	1	06/24/19 17:08	
Ethylbenzene	5.0 U	5.0	0.20	1	06/24/19 17:08	
Styrene	5.0 U	5.0	0.20	1	06/24/19 17:08	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/24/19 17:08	
Toluene	5.0 U	5.0	0.20	1	06/24/19 17:08	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/24/19 17:08	
Vinyl Acetate	10 U	10	1.1	1	06/24/19 17:08	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/24/19 17:08	
Xylenes, Total	5.0 U	5.0	0.23	1	06/24/19 17:08	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/24/19 17:08	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/24/19 17:08	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/24/19 17:08	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/24/19 17:08	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-028
Lab Code: R1905670-012

Service Request: R1905670
Date Collected: 06/18/19 12:55
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	06/24/19 17:08	
Dibromofluoromethane	96	89 - 119	06/24/19 17:08	
Toluene-d8	100	87 - 121	06/24/19 17:08	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-028
Lab Code: R1905670-012

Service Request: R1905670
Date Collected: 06/18/19 12:55
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	64.4	JN

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/25/19 16:13	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/25/19 16:13	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/25/19 16:13	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/25/19 16:13	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/25/19 16:13	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/25/19 16:13	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/25/19 16:13	
2-Butanone (MEK)	10 U	10	0.78	1	06/25/19 16:13	
2-Hexanone	10 U	10	0.20	1	06/25/19 16:13	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/25/19 16:13	
Acetone	4.2 J	10	2.1	1	06/25/19 16:13	
Benzene	5.0 U	5.0	0.20	1	06/25/19 16:13	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/25/19 16:13	
Bromoform	5.0 U	5.0	0.25	1	06/25/19 16:13	
Bromomethane	5.0 U	5.0	0.70	1	06/25/19 16:13	
Carbon Disulfide	10 U	10	0.25	1	06/25/19 16:13	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/25/19 16:13	
Chlorobenzene	5.0 U	5.0	0.20	1	06/25/19 16:13	
Chloroethane	5.0 U	5.0	0.23	1	06/25/19 16:13	
Chloroform	5.0 U	5.0	0.24	1	06/25/19 16:13	
Chloromethane	5.0 U	5.0	0.28	1	06/25/19 16:13	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/25/19 16:13	
Dichloromethane	5.0 U	5.0	0.36	1	06/25/19 16:13	
Ethylbenzene	5.0 U	5.0	0.20	1	06/25/19 16:13	
Styrene	5.0 U	5.0	0.20	1	06/25/19 16:13	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/25/19 16:13	
Toluene	5.0 U	5.0	0.20	1	06/25/19 16:13	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/25/19 16:13	
Vinyl Acetate	10 U	10	1.1	1	06/25/19 16:13	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/25/19 16:13	
Xylenes, Total	5.0 U	5.0	0.23	1	06/25/19 16:13	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/25/19 16:13	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/25/19 16:13	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/25/19 16:13	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/25/19 16:13	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/25/19 16:13	
Dibromofluoromethane	104	89 - 119	06/25/19 16:13	
Toluene-d8	104	87 - 121	06/25/19 16:13	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	5.6	JN

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-029
Lab Code: R1905670-014

Service Request: R1905670
Date Collected: 06/18/19 13:40

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/24/19 17:30	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/24/19 17:30	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/24/19 17:30	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/24/19 17:30	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/24/19 17:30	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/24/19 17:30	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/24/19 17:30	
2-Butanone (MEK)	10 U	10	0.78	1	06/24/19 17:30	
2-Hexanone	10 U	10	0.20	1	06/24/19 17:30	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/24/19 17:30	
Acetone	4.0 J	10	2.1	1	06/24/19 17:30	
Benzene	5.0 U	5.0	0.20	1	06/24/19 17:30	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/24/19 17:30	
Bromoform	5.0 U	5.0	0.25	1	06/24/19 17:30	
Bromomethane	5.0 U	5.0	0.70	1	06/24/19 17:30	
Carbon Disulfide	0.30 J	10	0.25	1	06/24/19 17:30	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/24/19 17:30	
Chlorobenzene	5.0 U	5.0	0.20	1	06/24/19 17:30	
Chloroethane	5.0 U	5.0	0.23	1	06/24/19 17:30	
Chloroform	5.0 U	5.0	0.24	1	06/24/19 17:30	
Chloromethane	0.43 J	5.0	0.28	1	06/24/19 17:30	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/24/19 17:30	
Dichloromethane	5.0 U	5.0	0.36	1	06/24/19 17:30	
Ethylbenzene	5.0 U	5.0	0.20	1	06/24/19 17:30	
Styrene	5.0 U	5.0	0.20	1	06/24/19 17:30	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/24/19 17:30	
Toluene	5.0 U	5.0	0.20	1	06/24/19 17:30	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/24/19 17:30	
Vinyl Acetate	10 U	10	1.1	1	06/24/19 17:30	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/24/19 17:30	
Xylenes, Total	5.0 U	5.0	0.23	1	06/24/19 17:30	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/24/19 17:30	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/24/19 17:30	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/24/19 17:30	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/24/19 17:30	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-029
Lab Code: R1905670-014

Service Request: R1905670
Date Collected: 06/18/19 13:40
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	06/24/19 17:30	
Dibromofluoromethane	100	89 - 119	06/24/19 17:30	
Toluene-d8	101	87 - 121	06/24/19 17:30	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-029
Lab Code: R1905670-014

Service Request: R1905670
Date Collected: 06/18/19 13:40
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	56.6	JN



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-018
Lab Code: R1905670-002

Service Request: R1905670
Date Collected: 06/17/19 09:35

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 16:48	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 16:48	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 16:48	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 16:48	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 16:48	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 16:48	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 16:48	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 16:48	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 16:48	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 16:48	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 16:48	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 16:48	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 16:48	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 16:48	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 16:48	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 16:48	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 16:48	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 16:48	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 16:48	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 16:48	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 16:48	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 16:48	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 16:48	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 16:48	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 16:48	6/24/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-018
Lab Code: R1905670-002

Service Request: R1905670
Date Collected: 06/17/19 09:35

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 16:48	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 16:48	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 16:48	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 16:48	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 16:48	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 16:48	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 16:48	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 16:48	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 16:48	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 16:48	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 16:48	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 16:48	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 16:48	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 16:48	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 16:48	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 16:48	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 16:48	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 16:48	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 16:48	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 16:48	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 16:48	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	84	35 - 141	07/03/19 16:48	
2-Fluorobiphenyl	73	31 - 118	07/03/19 16:48	
2-Fluorophenol	31	10 - 105	07/03/19 16:48	
Nitrobenzene-d5	67	31 - 110	07/03/19 16:48	
Phenol-d6	21	10 - 107	07/03/19 16:48	
p-Terphenyl-d14	88	10 - 165	07/03/19 16:48	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
1000336-66-8	6-Octadecenoic acid	10.30	26	JN
000057-11-4	Octadecanoic acid	10.39	9.6	JN
000057-10-3	n-Hexadecanoic acid	9.56	9.0	JN

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-019
Lab Code: R1905670-003

Service Request: R1905670
Date Collected: 06/17/19 10:25

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 17:16	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 17:16	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 17:16	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 17:16	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 17:16	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 17:16	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 17:16	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 17:16	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 17:16	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 17:16	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 17:16	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 17:16	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 17:16	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 17:16	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 17:16	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 17:16	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 17:16	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 17:16	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 17:16	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 17:16	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 17:16	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 17:16	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 17:16	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 17:16	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 17:16	6/24/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-019
Lab Code: R1905670-003

Service Request: R1905670
Date Collected: 06/17/19 10:25

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 17:16	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 17:16	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 17:16	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 17:16	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 17:16	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 17:16	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 17:16	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 17:16	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 17:16	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 17:16	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 17:16	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 17:16	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 17:16	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 17:16	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 17:16	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 17:16	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 17:16	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 17:16	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 17:16	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 17:16	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 17:16	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	78	35 - 141	07/03/19 17:16	
2-Fluorobiphenyl	70	31 - 118	07/03/19 17:16	
2-Fluorophenol	32	10 - 105	07/03/19 17:16	
Nitrobenzene-d5	64	31 - 110	07/03/19 17:16	
Phenol-d6	21	10 - 107	07/03/19 17:16	
p-Terphenyl-d14	96	10 - 165	07/03/19 17:16	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-020
Lab Code: R1905670-004

Service Request: R1905670
Date Collected: 06/17/19 11:55

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 17:45	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 17:45	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 17:45	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 17:45	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 17:45	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 17:45	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 17:45	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 17:45	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 17:45	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 17:45	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 17:45	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 17:45	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 17:45	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 17:45	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 17:45	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 17:45	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 17:45	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 17:45	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 17:45	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 17:45	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 17:45	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 17:45	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 17:45	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 17:45	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 17:45	6/24/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-020
Lab Code: R1905670-004

Service Request: R1905670
Date Collected: 06/17/19 11:55

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 17:45	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 17:45	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 17:45	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 17:45	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 17:45	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 17:45	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 17:45	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 17:45	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 17:45	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 17:45	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 17:45	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 17:45	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 17:45	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 17:45	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 17:45	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 17:45	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 17:45	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 17:45	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 17:45	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 17:45	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 17:45	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	67	35 - 141	07/03/19 17:45	
2-Fluorobiphenyl	64	31 - 118	07/03/19 17:45	
2-Fluorophenol	31	10 - 105	07/03/19 17:45	
Nitrobenzene-d5	65	31 - 110	07/03/19 17:45	
Phenol-d6	21	10 - 107	07/03/19 17:45	
p-Terphenyl-d14	76	10 - 165	07/03/19 17:45	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
000593-39-5	6-Octadecenoic acid, (Z)-	10.30	15	JN

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-021
Lab Code: R1905670-005

Service Request: R1905670
Date Collected: 06/17/19 13:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 18:13	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 18:13	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 18:13	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 18:13	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 18:13	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 18:13	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 18:13	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 18:13	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 18:13	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 18:13	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 18:13	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 18:13	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 18:13	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 18:13	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 18:13	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 18:13	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 18:13	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 18:13	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 18:13	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 18:13	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 18:13	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 18:13	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 18:13	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 18:13	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 18:13	6/24/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-021
Lab Code: R1905670-005

Service Request: R1905670
Date Collected: 06/17/19 13:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 18:13	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 18:13	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 18:13	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 18:13	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 18:13	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 18:13	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 18:13	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 18:13	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 18:13	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 18:13	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 18:13	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 18:13	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 18:13	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 18:13	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 18:13	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 18:13	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 18:13	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 18:13	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 18:13	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 18:13	6/24/19	
Phenol	1.7 J	9.4	1.0	1	07/03/19 18:13	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 18:13	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	70	35 - 141	07/03/19 18:13	
2-Fluorobiphenyl	65	31 - 118	07/03/19 18:13	
2-Fluorophenol	28	10 - 105	07/03/19 18:13	
Nitrobenzene-d5	62	31 - 110	07/03/19 18:13	
Phenol-d6	19	10 - 107	07/03/19 18:13	
p-Terphenyl-d14	59	10 - 165	07/03/19 18:13	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-022
Lab Code: R1905670-006

Service Request: R1905670
Date Collected: 06/17/19 14:15

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 18:41	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 18:41	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 18:41	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 18:41	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 18:41	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 18:41	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 18:41	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 18:41	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 18:41	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 18:41	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 18:41	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 18:41	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 18:41	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 18:41	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 18:41	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 18:41	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 18:41	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 18:41	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 18:41	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 18:41	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 18:41	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 18:41	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 18:41	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 18:41	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 18:41	6/24/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-022
Lab Code: R1905670-006

Service Request: R1905670
Date Collected: 06/17/19 14:15

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 18:41	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 18:41	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 18:41	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 18:41	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 18:41	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 18:41	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 18:41	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 18:41	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 18:41	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 18:41	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 18:41	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 18:41	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 18:41	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 18:41	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 18:41	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 18:41	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 18:41	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 18:41	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 18:41	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 18:41	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 18:41	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	74	35 - 141	07/03/19 18:41	
2-Fluorobiphenyl	75	31 - 118	07/03/19 18:41	
2-Fluorophenol	33	10 - 105	07/03/19 18:41	
Nitrobenzene-d5	69	31 - 110	07/03/19 18:41	
Phenol-d6	22	10 - 107	07/03/19 18:41	
p-Terphenyl-d14	69	10 - 165	07/03/19 18:41	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-023
Lab Code: R1905670-007

Service Request: R1905670
Date Collected: 06/17/19 14:15

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 19:10	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 19:10	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 19:10	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 19:10	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 19:10	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 19:10	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 19:10	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 19:10	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 19:10	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 19:10	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 19:10	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 19:10	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 19:10	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 19:10	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 19:10	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 19:10	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 19:10	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 19:10	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 19:10	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 19:10	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 19:10	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 19:10	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 19:10	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 19:10	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 19:10	6/24/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-023
Lab Code: R1905670-007

Service Request: R1905670
Date Collected: 06/17/19 14:15

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 19:10	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 19:10	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 19:10	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 19:10	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 19:10	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 19:10	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 19:10	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 19:10	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 19:10	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 19:10	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 19:10	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 19:10	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 19:10	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 19:10	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 19:10	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 19:10	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 19:10	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 19:10	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 19:10	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 19:10	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 19:10	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	88	35 - 141	07/03/19 19:10	
2-Fluorobiphenyl	81	31 - 118	07/03/19 19:10	
2-Fluorophenol	39	10 - 105	07/03/19 19:10	
Nitrobenzene-d5	79	31 - 110	07/03/19 19:10	
Phenol-d6	26	10 - 107	07/03/19 19:10	
p-Terphenyl-d14	65	10 - 165	07/03/19 19:10	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
000057-10-3	n-Hexadecanoic acid	9.57	8.8	JN

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-024
Lab Code: R1905670-008

Service Request: R1905670
Date Collected: 06/18/19 09:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 19:38	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 19:38	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 19:38	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 19:38	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 19:38	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 19:38	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 19:38	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 19:38	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 19:38	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 19:38	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 19:38	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 19:38	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 19:38	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 19:38	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 19:38	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 19:38	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 19:38	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 19:38	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 19:38	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 19:38	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 19:38	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 19:38	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 19:38	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 19:38	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 19:38	6/24/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-024
Lab Code: R1905670-008

Service Request: R1905670
Date Collected: 06/18/19 09:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 19:38	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 19:38	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 19:38	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 19:38	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 19:38	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 19:38	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 19:38	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 19:38	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 19:38	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 19:38	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 19:38	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 19:38	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 19:38	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 19:38	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 19:38	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 19:38	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 19:38	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 19:38	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 19:38	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 19:38	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 19:38	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	63	35 - 141	07/03/19 19:38	
2-Fluorobiphenyl	65	31 - 118	07/03/19 19:38	
2-Fluorophenol	33	10 - 105	07/03/19 19:38	
Nitrobenzene-d5	63	31 - 110	07/03/19 19:38	
Phenol-d6	21	10 - 107	07/03/19 19:38	
p-Terphenyl-d14	50	10 - 165	07/03/19 19:38	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-025
Lab Code: R1905670-009

Service Request: R1905670
Date Collected: 06/18/19 10:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 20:06	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 20:06	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 20:06	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 20:06	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 20:06	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 20:06	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 20:06	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 20:06	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 20:06	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 20:06	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 20:06	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 20:06	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 20:06	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 20:06	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 20:06	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 20:06	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 20:06	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 20:06	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 20:06	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 20:06	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 20:06	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 20:06	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 20:06	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 20:06	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 20:06	6/24/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-025
Lab Code: R1905670-009

Service Request: R1905670
Date Collected: 06/18/19 10:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 20:06	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 20:06	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 20:06	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 20:06	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 20:06	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 20:06	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 20:06	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 20:06	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 20:06	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 20:06	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 20:06	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 20:06	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 20:06	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 20:06	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 20:06	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 20:06	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 20:06	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 20:06	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 20:06	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 20:06	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 20:06	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	71	35 - 141	07/03/19 20:06	
2-Fluorobiphenyl	70	31 - 118	07/03/19 20:06	
2-Fluorophenol	35	10 - 105	07/03/19 20:06	
Nitrobenzene-d5	71	31 - 110	07/03/19 20:06	
Phenol-d6	23	10 - 107	07/03/19 20:06	
p-Terphenyl-d14	56	10 - 165	07/03/19 20:06	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-026
Lab Code: R1905670-010

Service Request: R1905670
Date Collected: 06/18/19 11:45

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 20:34	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 20:34	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 20:34	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 20:34	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 20:34	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 20:34	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 20:34	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 20:34	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 20:34	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 20:34	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 20:34	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 20:34	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 20:34	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 20:34	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 20:34	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 20:34	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 20:34	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 20:34	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 20:34	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 20:34	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 20:34	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 20:34	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 20:34	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 20:34	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 20:34	6/24/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-026
Lab Code: R1905670-010

Service Request: R1905670
Date Collected: 06/18/19 11:45

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 20:34	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 20:34	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 20:34	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 20:34	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 20:34	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 20:34	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 20:34	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 20:34	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 20:34	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 20:34	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 20:34	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 20:34	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 20:34	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 20:34	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 20:34	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 20:34	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 20:34	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 20:34	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 20:34	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 20:34	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 20:34	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	69	35 - 141	07/03/19 20:34	
2-Fluorobiphenyl	69	31 - 118	07/03/19 20:34	
2-Fluorophenol	35	10 - 105	07/03/19 20:34	
Nitrobenzene-d5	72	31 - 110	07/03/19 20:34	
Phenol-d6	23	10 - 107	07/03/19 20:34	
p-Terphenyl-d14	63	10 - 165	07/03/19 20:34	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-027
Lab Code: R1905670-011

Service Request: R1905670
Date Collected: 06/18/19 11:45

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 21:03	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 21:03	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 21:03	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 21:03	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 21:03	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 21:03	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 21:03	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 21:03	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 21:03	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 21:03	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 21:03	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 21:03	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 21:03	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 21:03	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 21:03	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 21:03	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 21:03	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 21:03	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 21:03	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 21:03	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 21:03	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 21:03	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 21:03	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 21:03	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 21:03	6/24/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-027
Lab Code: R1905670-011

Service Request: R1905670
Date Collected: 06/18/19 11:45

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 21:03	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 21:03	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 21:03	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 21:03	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 21:03	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 21:03	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 21:03	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 21:03	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 21:03	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 21:03	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 21:03	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 21:03	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 21:03	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 21:03	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 21:03	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 21:03	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 21:03	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 21:03	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 21:03	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 21:03	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 21:03	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	71	35 - 141	07/03/19 21:03	
2-Fluorobiphenyl	74	31 - 118	07/03/19 21:03	
2-Fluorophenol	37	10 - 105	07/03/19 21:03	
Nitrobenzene-d5	72	31 - 110	07/03/19 21:03	
Phenol-d6	24	10 - 107	07/03/19 21:03	
p-Terphenyl-d14	60	10 - 165	07/03/19 21:03	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-028
Lab Code: R1905670-012

Service Request: R1905670
Date Collected: 06/18/19 12:55

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 21:31	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 21:31	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 21:31	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 21:31	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 21:31	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 21:31	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 21:31	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 21:31	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 21:31	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 21:31	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 21:31	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 21:31	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 21:31	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 21:31	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 21:31	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 21:31	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 21:31	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 21:31	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 21:31	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 21:31	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 21:31	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 21:31	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 21:31	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 21:31	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 21:31	6/24/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-028
Lab Code: R1905670-012

Service Request: R1905670
Date Collected: 06/18/19 12:55

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 21:31	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 21:31	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 21:31	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 21:31	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 21:31	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 21:31	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 21:31	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 21:31	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 21:31	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 21:31	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 21:31	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 21:31	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 21:31	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 21:31	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 21:31	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 21:31	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 21:31	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 21:31	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 21:31	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 21:31	6/24/19	
Phenol	1.2 J	9.4	1.0	1	07/03/19 21:31	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 21:31	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	51	35 - 141	07/03/19 21:31	
2-Fluorobiphenyl	64	31 - 118	07/03/19 21:31	
2-Fluorophenol	35	10 - 105	07/03/19 21:31	
Nitrobenzene-d5	64	31 - 110	07/03/19 21:31	
Phenol-d6	22	10 - 107	07/03/19 21:31	
p-Terphenyl-d14	34	10 - 165	07/03/19 21:31	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 21:59	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 21:59	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 21:59	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 21:59	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 21:59	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 21:59	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 21:59	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 21:59	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 21:59	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 21:59	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 21:59	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 21:59	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 21:59	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 21:59	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 21:59	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 21:59	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 21:59	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 21:59	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 21:59	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 21:59	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 21:59	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 21:59	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 21:59	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 21:59	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 21:59	6/24/19	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 21:59	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 21:59	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 21:59	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 21:59	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 21:59	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 21:59	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 21:59	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 21:59	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 21:59	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 21:59	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 21:59	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 21:59	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 21:59	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 21:59	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 21:59	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 21:59	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 21:59	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 21:59	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 21:59	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 21:59	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 21:59	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	69	35 - 141	07/03/19 21:59	
2-Fluorobiphenyl	74	31 - 118	07/03/19 21:59	
2-Fluorophenol	39	10 - 105	07/03/19 21:59	
Nitrobenzene-d5	78	31 - 110	07/03/19 21:59	
Phenol-d6	26	10 - 107	07/03/19 21:59	
p-Terphenyl-d14	49	10 - 165	07/03/19 21:59	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-029
Lab Code: R1905670-014

Service Request: R1905670
Date Collected: 06/18/19 13:40

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
1,2-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
1,3-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
1,4-Dichlorobenzene	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
2,4,5-Trichlorophenol	9.4 U	9.4	1.1	1	07/03/19 22:29	6/24/19	
2,4,6-Trichlorophenol	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
2,4-Dichlorophenol	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
2,4-Dimethylphenol	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
2,4-Dinitrophenol	47 U	47	7.0	1	07/03/19 22:29	6/24/19	
2,4-Dinitrotoluene	9.4 U	9.4	2.7	1	07/03/19 22:29	6/24/19	
2,6-Dinitrotoluene	9.4 U	9.4	1.5	1	07/03/19 22:29	6/24/19	
2-Chloronaphthalene	9.4 U	9.4	1.1	1	07/03/19 22:29	6/24/19	
2-Chlorophenol	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
2-Methylnaphthalene	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
2-Methylphenol	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
2-Nitroaniline	47 U	47	2.4	1	07/03/19 22:29	6/24/19	
2-Nitrophenol	9.4 U	9.4	1.5	1	07/03/19 22:29	6/24/19	
3,3'-Dichlorobenzidine	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
3- and 4-Methylphenol Coelution	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
3-Nitroaniline	47 U	47	1.8	1	07/03/19 22:29	6/24/19	
4,6-Dinitro-2-methylphenol	47 U	47	3.7	1	07/03/19 22:29	6/24/19	
4-Bromophenyl Phenyl Ether	9.4 U	9.4	1.4	1	07/03/19 22:29	6/24/19	
4-Chloro-3-methylphenol	9.4 U	9.4	1.1	1	07/03/19 22:29	6/24/19	
4-Chloroaniline	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
4-Chlorophenyl Phenyl Ether	9.4 U	9.4	1.2	1	07/03/19 22:29	6/24/19	
4-Nitroaniline	47 U	47	1.9	1	07/03/19 22:29	6/24/19	
4-Nitrophenol	47 U	47	3.0	1	07/03/19 22:29	6/24/19	
Acenaphthene	9.4 U	9.4	1.6	1	07/03/19 22:29	6/24/19	
Acenaphthylene	9.4 U	9.4	1.3	1	07/03/19 22:29	6/24/19	
Anthracene	9.4 U	9.4	1.4	1	07/03/19 22:29	6/24/19	
Benz(a)anthracene	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
Benzo(a)pyrene	9.4 U	9.4	1.3	1	07/03/19 22:29	6/24/19	
Benzo(b)fluoranthene	9.4 U	9.4	1.3	1	07/03/19 22:29	6/24/19	
Benzo(g,h,i)perylene	9.4 U	9.4	1.5	1	07/03/19 22:29	6/24/19	
Benzo(k)fluoranthene	9.4 U	9.4	1.5	1	07/03/19 22:29	6/24/19	
Benzoic Acid	47 U	47	6.0	1	07/03/19 22:29	6/24/19	
Benzyl Alcohol	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
2,2'-Oxybis(1-chloropropane)	9.4 U	9.4	1.4	1	07/03/19 22:29	6/24/19	
Bis(2-chloroethoxy)methane	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
Bis(2-chloroethyl) Ether	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
Bis(2-ethylhexyl) Phthalate	9.7 U	9.7	9.7	1	07/03/19 22:29	6/24/19	
Butyl Benzyl Phthalate	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
Chrysene	9.4 U	9.4	1.5	1	07/03/19 22:29	6/24/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-029
Lab Code: R1905670-014

Service Request: R1905670
Date Collected: 06/18/19 13:40

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	9.4 U	9.4	1.1	1	07/03/19 22:29	6/24/19	
Di-n-octyl Phthalate	9.4 U	9.4	1.8	1	07/03/19 22:29	6/24/19	
Dibenz(a,h)anthracene	9.4 U	9.4	1.4	1	07/03/19 22:29	6/24/19	
Dibenzofuran	9.4 U	9.4	1.3	1	07/03/19 22:29	6/24/19	
Diethyl Phthalate	9.4 U	9.4	1.2	1	07/03/19 22:29	6/24/19	
Dimethyl Phthalate	9.4 U	9.4	1.5	1	07/03/19 22:29	6/24/19	
Fluoranthene	9.4 U	9.4	1.4	1	07/03/19 22:29	6/24/19	
Fluorene	9.4 U	9.4	1.6	1	07/03/19 22:29	6/24/19	
Hexachlorobenzene	9.4 U	9.4	1.4	1	07/03/19 22:29	6/24/19	
Hexachlorobutadiene	9.4 U	9.4	1.1	1	07/03/19 22:29	6/24/19	
Hexachlorocyclopentadiene	9.4 U	9.4	1.5	1	07/03/19 22:29	6/24/19	
Hexachloroethane	9.4 U	9.4	1.2	1	07/03/19 22:29	6/24/19	
Indeno(1,2,3-cd)pyrene	9.4 U	9.4	1.4	1	07/03/19 22:29	6/24/19	
Isophorone	9.4 U	9.4	1.2	1	07/03/19 22:29	6/24/19	
N-Nitrosodi-n-propylamine	9.4 U	9.4	2.0	1	07/03/19 22:29	6/24/19	
N-Nitrosodiphenylamine	9.4 U	9.4	4.7	1	07/03/19 22:29	6/24/19	
Naphthalene	9.4 U	9.4	1.1	1	07/03/19 22:29	6/24/19	
Nitrobenzene	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
Pentachlorophenol (PCP)	47 U	47	6.0	1	07/03/19 22:29	6/24/19	
Phenanthrene	9.4 U	9.4	1.6	1	07/03/19 22:29	6/24/19	
Phenol	9.4 U	9.4	1.0	1	07/03/19 22:29	6/24/19	
Pyrene	9.4 U	9.4	1.8	1	07/03/19 22:29	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	71	35 - 141	07/03/19 22:29	
2-Fluorobiphenyl	73	31 - 118	07/03/19 22:29	
2-Fluorophenol	40	10 - 105	07/03/19 22:29	
Nitrobenzene-d5	74	31 - 110	07/03/19 22:29	
Phenol-d6	27	10 - 107	07/03/19 22:29	
p-Terphenyl-d14	56	10 - 165	07/03/19 22:29	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-018
Lab Code: R1905670-002

Service Request: R1905670
Date Collected: 06/17/19 09:35

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
4,4'-DDE	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
4,4'-DDT	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Aldrin	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Dieldrin	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Endosulfan I	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Endosulfan II	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Endosulfan Sulfate	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Endrin	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Endrin Ketone	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Heptachlor	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Heptachlor Epoxide	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Methoxychlor	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
Toxaphene	2.5 U	2.5	2.5	5	07/03/19 00:01	6/23/19	
alpha-BHC	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
alpha-Chlordane	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
beta-BHC	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
delta-BHC	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
gamma-BHC (Lindane)	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	
gamma-Chlordane	0.24 U	0.24	0.10	5	07/03/19 00:01	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	59	10 - 164	07/03/19 00:01	
Tetrachloro-m-xylene	79	10 - 147	07/03/19 00:01	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-019
Lab Code: R1905670-003

Service Request: R1905670
Date Collected: 06/17/19 10:25
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
4,4'-DDE	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
4,4'-DDT	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Aldrin	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Dieldrin	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Endosulfan I	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Endosulfan II	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Endosulfan Sulfate	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Endrin	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Endrin Ketone	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Heptachlor	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Heptachlor Epoxide	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Methoxychlor	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
Toxaphene	2.5 U	2.5	2.5	5	07/03/19 00:18	6/23/19	
alpha-BHC	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
alpha-Chlordane	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
beta-BHC	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
delta-BHC	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
gamma-BHC (Lindane)	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	
gamma-Chlordane	0.24 U	0.24	0.10	5	07/03/19 00:18	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	57	10 - 164	07/03/19 00:18	
Tetrachloro-m-xylene	81	10 - 147	07/03/19 00:18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-020
Lab Code: R1905670-004

Service Request: R1905670
Date Collected: 06/17/19 11:55
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/11/19 11:32	6/23/19	
alpha-BHC	0.054 B	0.047	0.020	1	07/11/19 11:32	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	
delta-BHC	0.041 BJ	0.047	0.020	1	07/11/19 11:32	6/23/19	
gamma-BHC (Lindane)	0.055 B	0.047	0.020	1	07/11/19 11:32	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/11/19 11:32	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	56	10 - 164	07/11/19 11:32	
Tetrachloro-m-xylene	65	10 - 147	07/11/19 11:32	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-021
Lab Code: R1905670-005

Service Request: R1905670
Date Collected: 06/17/19 13:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 01:11	6/23/19	
alpha-BHC	0.021 J	0.047	0.020	1	07/03/19 01:11	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	
delta-BHC	0.028 J	0.047	0.020	1	07/03/19 01:11	6/23/19	
gamma-BHC (Lindane)	0.026 J	0.047	0.020	1	07/03/19 01:11	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 01:11	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	48	10 - 164	07/03/19 01:11	
Tetrachloro-m-xylene	85	10 - 147	07/03/19 01:11	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-022
Lab Code: R1905670-006

Service Request: R1905670
Date Collected: 06/17/19 14:15

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 01:29	6/23/19	
alpha-BHC	0.023 J	0.047	0.020	1	07/03/19 01:29	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	
delta-BHC	0.028 J	0.047	0.020	1	07/03/19 01:29	6/23/19	
gamma-BHC (Lindane)	0.028 J	0.047	0.020	1	07/03/19 01:29	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 01:29	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	25	10 - 164	07/03/19 01:29	
Tetrachloro-m-xylene	65	10 - 147	07/03/19 01:29	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061719-SG-023
Lab Code: R1905670-007

Service Request: R1905670
Date Collected: 06/17/19 14:15

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 01:46	6/23/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 01:46	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	35	10 - 164	07/03/19 01:46	
Tetrachloro-m-xylene	80	10 - 147	07/03/19 01:46	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-024
Lab Code: R1905670-008

Service Request: R1905670
Date Collected: 06/18/19 09:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/11/19 11:50	6/23/19	
alpha-BHC	0.050 B	0.047	0.020	1	07/11/19 11:50	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	
delta-BHC	0.041 BJ	0.047	0.020	1	07/11/19 11:50	6/23/19	
gamma-BHC (Lindane)	0.039 BJ	0.047	0.020	1	07/11/19 11:50	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/11/19 11:50	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	40	10 - 164	07/11/19 11:50	
Tetrachloro-m-xylene	60	10 - 147	07/11/19 11:50	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-025
Lab Code: R1905670-009

Service Request: R1905670
Date Collected: 06/18/19 10:10

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 02:21	6/23/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 02:21	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	23	10 - 164	07/03/19 02:21	
Tetrachloro-m-xylene	87	10 - 147	07/03/19 02:21	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-026
Lab Code: R1905670-010

Service Request: R1905670
Date Collected: 06/18/19 11:45

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 02:39	6/23/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 02:39	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	15	10 - 164	07/03/19 02:39	
Tetrachloro-m-xylene	83	10 - 147	07/03/19 02:39	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-027
Lab Code: R1905670-011

Service Request: R1905670
Date Collected: 06/18/19 11:45

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 02:56	6/23/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 02:56	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	17	10 - 164	07/03/19 02:56	
Tetrachloro-m-xylene	83	10 - 147	07/03/19 02:56	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-028
Lab Code: R1905670-012

Service Request: R1905670
Date Collected: 06/18/19 12:55

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 03:14	6/23/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 03:14	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	7 *	10 - 164	07/03/19 03:14	*
Tetrachloro-m-xylene	53	10 - 147	07/03/19 03:14	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 03:32	6/23/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 03:32	6/23/19	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	8 *	10 - 164	07/03/19 03:32	*
Tetrachloro-m-xylene	64	10 - 147	07/03/19 03:32	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20

Date Received: 06/19/19 12:30

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
4,4'-DDE	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
4,4'-DDT	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Aldrin	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Dieldrin	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Endosulfan I	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Endosulfan II	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Endrin	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Endrin Ketone	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Heptachlor	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Methoxychlor	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
Toxaphene	0.50 U	0.50	0.50	1	07/15/19 14:54	7/9/19	*
alpha-BHC	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
alpha-Chlordane	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
beta-BHC	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
delta-BHC	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*
gamma-Chlordane	0.047 U	0.047	0.020	1	07/15/19 14:54	7/9/19	*

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	6 *	10 - 164	07/15/19 14:54	*
Tetrachloro-m-xylene	68	10 - 147	07/15/19 14:54	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-029
Lab Code: R1905670-014

Service Request: R1905670
Date Collected: 06/18/19 13:40
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
4,4'-DDE	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
4,4'-DDT	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Aldrin	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Dieldrin	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Endosulfan I	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Endosulfan II	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Endosulfan Sulfate	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Endrin	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Endrin Ketone	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Heptachlor	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Heptachlor Epoxide	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Methoxychlor	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/03/19 03:49	6/23/19	
alpha-BHC	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
alpha-Chlordane	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
beta-BHC	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
delta-BHC	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
gamma-BHC (Lindane)	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	
gamma-Chlordane	0.047 U	0.047	0.020	1	07/03/19 03:49	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	14	10 - 164	07/03/19 03:49	
Tetrachloro-m-xylene	57	10 - 147	07/03/19 03:49	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-018
Lab Code: R1905670-002

Service Request: R1905670
Date Collected: 06/17/19 09:35
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 09:57	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 09:57	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 09:57	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 09:57	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 09:57	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 09:57	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 09:57	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	16	10 - 152	07/02/19 09:57	
Tetrachloro-m-xylene	16	14 - 129	07/02/19 09:57	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-019
Lab Code: R1905670-003

Service Request: R1905670
Date Collected: 06/17/19 10:25
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 10:17	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 10:17	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 10:17	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 10:17	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 10:17	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 10:17	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 10:17	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	15	10 - 152	07/02/19 10:17	
Tetrachloro-m-xylene	16	14 - 129	07/02/19 10:17	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-020
Lab Code: R1905670-004

Service Request: R1905670
Date Collected: 06/17/19 11:55
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 10:37	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 10:37	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 10:37	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 10:37	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 10:37	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 10:37	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 10:37	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	86	10 - 152	07/02/19 10:37	
Tetrachloro-m-xylene	93	14 - 129	07/02/19 10:37	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-021
Lab Code: R1905670-005

Service Request: R1905670
Date Collected: 06/17/19 13:10
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 10:56	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 10:56	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 10:56	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 10:56	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 10:56	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 10:56	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 10:56	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	67	10 - 152	07/02/19 10:56	
Tetrachloro-m-xylene	78	14 - 129	07/02/19 10:56	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-022
Lab Code: R1905670-006

Service Request: R1905670
Date Collected: 06/17/19 14:15
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 11:16	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 11:16	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 11:16	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 11:16	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 11:16	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 11:16	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 11:16	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	36	10 - 152	07/02/19 11:16	
Tetrachloro-m-xylene	62	14 - 129	07/02/19 11:16	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061719-SG-023
Lab Code: R1905670-007

Service Request: R1905670
Date Collected: 06/17/19 14:15
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 11:36	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 11:36	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 11:36	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 11:36	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 11:36	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 11:36	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 11:36	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	61	10 - 152	07/02/19 11:36	
Tetrachloro-m-xylene	87	14 - 129	07/02/19 11:36	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-024
Lab Code: R1905670-008

Service Request: R1905670
Date Collected: 06/18/19 09:10
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 11:56	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 11:56	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 11:56	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 11:56	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 11:56	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 11:56	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 11:56	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	63	10 - 152	07/02/19 11:56	
Tetrachloro-m-xylene	79	14 - 129	07/02/19 11:56	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-025
Lab Code: R1905670-009

Service Request: R1905670
Date Collected: 06/18/19 10:10
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 12:15	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 12:15	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 12:15	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 12:15	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 12:15	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 12:15	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 12:15	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	36	10 - 152	07/02/19 12:15	
Tetrachloro-m-xylene	90	14 - 129	07/02/19 12:15	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-026
Lab Code: R1905670-010

Service Request: R1905670
Date Collected: 06/18/19 11:45
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 12:35	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 12:35	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 12:35	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 12:35	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 12:35	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 12:35	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 12:35	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	22	10 - 152	07/02/19 12:35	
Tetrachloro-m-xylene	82	14 - 129	07/02/19 12:35	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-027
Lab Code: R1905670-011

Service Request: R1905670
Date Collected: 06/18/19 11:45
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/02/19 12:55	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	07/02/19 12:55	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	07/02/19 12:55	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	07/02/19 12:55	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	07/02/19 12:55	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	07/02/19 12:55	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	07/02/19 12:55	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	28	10 - 152	07/02/19 12:55	
Tetrachloro-m-xylene	95	14 - 129	07/02/19 12:55	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-028
Lab Code: R1905670-012

Service Request: R1905670
Date Collected: 06/18/19 12:55
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/29/19 00:35	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/29/19 00:35	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/29/19 00:35	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/29/19 00:35	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/29/19 00:35	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/29/19 00:35	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/29/19 00:35	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	7 *	10 - 152	06/29/19 00:35	*
Tetrachloro-m-xylene	38	14 - 129	06/29/19 00:35	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/29/19 00:54	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/29/19 00:54	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/29/19 00:54	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/29/19 00:54	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/29/19 00:54	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/29/19 00:54	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/29/19 00:54	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	7 *	10 - 152	06/29/19 00:54	*
Tetrachloro-m-xylene	44	14 - 129	06/29/19 00:54	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-030
Lab Code: R1905670-013

Service Request: R1905670
Date Collected: 06/18/19 14:20
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	07/10/19 22:14	7/9/19	*
Aroclor 1221	1.9 U	1.9	1.0	1	07/10/19 22:14	7/9/19	*
Aroclor 1232	0.94 U	0.94	0.50	1	07/10/19 22:14	7/9/19	*
Aroclor 1242	0.94 U	0.94	0.50	1	07/10/19 22:14	7/9/19	*
Aroclor 1248	0.94 U	0.94	0.50	1	07/10/19 22:14	7/9/19	*
Aroclor 1254	0.94 U	0.94	0.50	1	07/10/19 22:14	7/9/19	*
Aroclor 1260	0.94 U	0.94	0.50	1	07/10/19 22:14	7/9/19	*

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	8 *	10 - 152	07/10/19 22:14	*
Tetrachloro-m-xylene	52	14 - 129	07/10/19 22:14	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: WG-9954-061819-SG-029
Lab Code: R1905670-014

Service Request: R1905670
Date Collected: 06/18/19 13:40
Date Received: 06/19/19 12:30
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	0.94 U	0.94	0.50	1	06/29/19 01:14	6/23/19	
Aroclor 1221	1.9 U	1.9	1.0	1	06/29/19 01:14	6/23/19	
Aroclor 1232	0.94 U	0.94	0.50	1	06/29/19 01:14	6/23/19	
Aroclor 1242	0.94 U	0.94	0.50	1	06/29/19 01:14	6/23/19	
Aroclor 1248	0.94 U	0.94	0.50	1	06/29/19 01:14	6/23/19	
Aroclor 1254	0.94 U	0.94	0.50	1	06/29/19 01:14	6/23/19	
Aroclor 1260	0.94 U	0.94	0.50	1	06/29/19 01:14	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	10	10 - 152	06/29/19 01:14	
Tetrachloro-m-xylene	34	14 - 129	06/29/19 01:14	



QC Summary Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905670

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
TB-9954-061719-SG-003	R1905670-001	98	99	100
WG-9954-061719-SG-018	R1905670-002	97	99	102
WG-9954-061719-SG-019	R1905670-003	95	98	101
WG-9954-061719-SG-020	R1905670-004	93	96	100
WG-9954-061719-SG-021	R1905670-005	96	98	101
WG-9954-061719-SG-022	R1905670-006	96	98	100
WG-9954-061719-SG-023	R1905670-007	95	96	103
WG-9954-061819-SG-024	R1905670-008	99	101	103
WG-9954-061819-SG-025	R1905670-009	94	96	99
WG-9954-061819-SG-026	R1905670-010	96	100	102
WG-9954-061819-SG-027	R1905670-011	94	98	100
WG-9954-061819-SG-028	R1905670-012	89	96	100
WG-9954-061819-SG-030	R1905670-013	98	104	104
WG-9954-061819-SG-029	R1905670-014	97	100	101
Method Blank	RQ1906319-04	98	104	106
Method Blank	RQ1906545-06	98	100	101
Method Blank	RQ1906614-04	101	98	102
Lab Control Sample	RQ1906319-03	97	98	99
Lab Control Sample	RQ1906545-03	96	99	102
Lab Control Sample	RQ1906614-03	101	102	103

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906319-04

Service Request: R1905670
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/24/19 11:59	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/24/19 11:59	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/24/19 11:59	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/24/19 11:59	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/24/19 11:59	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/24/19 11:59	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/24/19 11:59	
2-Butanone (MEK)	10 U	10	0.78	1	06/24/19 11:59	
2-Hexanone	10 U	10	0.20	1	06/24/19 11:59	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/24/19 11:59	
Acetone	10 U	10	2.1	1	06/24/19 11:59	
Benzene	5.0 U	5.0	0.20	1	06/24/19 11:59	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/24/19 11:59	
Bromoform	5.0 U	5.0	0.25	1	06/24/19 11:59	
Bromomethane	5.0 U	5.0	0.70	1	06/24/19 11:59	
Carbon Disulfide	10 U	10	0.25	1	06/24/19 11:59	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/24/19 11:59	
Chlorobenzene	5.0 U	5.0	0.20	1	06/24/19 11:59	
Chloroethane	5.0 U	5.0	0.23	1	06/24/19 11:59	
Chloroform	5.0 U	5.0	0.24	1	06/24/19 11:59	
Chloromethane	5.0 U	5.0	0.28	1	06/24/19 11:59	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/24/19 11:59	
Dichloromethane	5.0 U	5.0	0.36	1	06/24/19 11:59	
Ethylbenzene	5.0 U	5.0	0.20	1	06/24/19 11:59	
Styrene	5.0 U	5.0	0.20	1	06/24/19 11:59	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/24/19 11:59	
Toluene	5.0 U	5.0	0.20	1	06/24/19 11:59	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/24/19 11:59	
Vinyl Acetate	10 U	10	1.1	1	06/24/19 11:59	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/24/19 11:59	
Xylenes, Total	5.0 U	5.0	0.23	1	06/24/19 11:59	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/24/19 11:59	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/24/19 11:59	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/24/19 11:59	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/24/19 11:59	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906319-04

Service Request: R1905670
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/24/19 11:59	
Dibromofluoromethane	104	89 - 119	06/24/19 11:59	
Toluene-d8	106	87 - 121	06/24/19 11:59	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906319-04

Service Request: R1905670
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906545-06

Service Request: R1905670
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/25/19 13:54	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/25/19 13:54	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/25/19 13:54	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/25/19 13:54	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/25/19 13:54	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/25/19 13:54	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/25/19 13:54	
2-Butanone (MEK)	10 U	10	0.78	1	06/25/19 13:54	
2-Hexanone	10 U	10	0.20	1	06/25/19 13:54	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/25/19 13:54	
Acetone	10 U	10	2.1	1	06/25/19 13:54	
Benzene	5.0 U	5.0	0.20	1	06/25/19 13:54	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/25/19 13:54	
Bromoform	5.0 U	5.0	0.25	1	06/25/19 13:54	
Bromomethane	5.0 U	5.0	0.70	1	06/25/19 13:54	
Carbon Disulfide	10 U	10	0.25	1	06/25/19 13:54	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/25/19 13:54	
Chlorobenzene	5.0 U	5.0	0.20	1	06/25/19 13:54	
Chloroethane	5.0 U	5.0	0.23	1	06/25/19 13:54	
Chloroform	5.0 U	5.0	0.24	1	06/25/19 13:54	
Chloromethane	5.0 U	5.0	0.28	1	06/25/19 13:54	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/25/19 13:54	
Dichloromethane	5.0 U	5.0	0.36	1	06/25/19 13:54	
Ethylbenzene	5.0 U	5.0	0.20	1	06/25/19 13:54	
Styrene	5.0 U	5.0	0.20	1	06/25/19 13:54	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/25/19 13:54	
Toluene	5.0 U	5.0	0.20	1	06/25/19 13:54	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/25/19 13:54	
Vinyl Acetate	10 U	10	1.1	1	06/25/19 13:54	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/25/19 13:54	
Xylenes, Total	5.0 U	5.0	0.23	1	06/25/19 13:54	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/25/19 13:54	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/25/19 13:54	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/25/19 13:54	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/25/19 13:54	

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dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906545-06

Service Request: R1905670
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	06/25/19 13:54	
Dibromofluoromethane	100	89 - 119	06/25/19 13:54	
Toluene-d8	101	87 - 121	06/25/19 13:54	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Monitoring
Water
Sample Name: Method Blank
Lab Code: RQ1906545-06

Service Request: R1905670
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906614-04

Service Request: R1905670
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.21	1	06/22/19 13:15	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/22/19 13:15	
1,1,2-Trichloroethane	5.0 U	5.0	0.20	1	06/22/19 13:15	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/22/19 13:15	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.25	1	06/22/19 13:15	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/22/19 13:15	
1,2-Dichloropropane	5.0 U	5.0	0.20	1	06/22/19 13:15	
2-Butanone (MEK)	10 U	10	0.78	1	06/22/19 13:15	
2-Hexanone	10 U	10	0.20	1	06/22/19 13:15	
4-Methyl-2-pentanone	10 U	10	0.20	1	06/22/19 13:15	
Acetone	10 U	10	2.1	1	06/22/19 13:15	
Benzene	5.0 U	5.0	0.20	1	06/22/19 13:15	
Bromodichloromethane	5.0 U	5.0	0.22	1	06/22/19 13:15	
Bromoform	5.0 U	5.0	0.25	1	06/22/19 13:15	
Bromomethane	5.0 U	5.0	0.70	1	06/22/19 13:15	
Carbon Disulfide	10 U	10	0.25	1	06/22/19 13:15	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/22/19 13:15	
Chlorobenzene	5.0 U	5.0	0.20	1	06/22/19 13:15	
Chloroethane	5.0 U	5.0	0.23	1	06/22/19 13:15	
Chloroform	5.0 U	5.0	0.24	1	06/22/19 13:15	
Chloromethane	5.0 U	5.0	0.28	1	06/22/19 13:15	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/22/19 13:15	
Dichloromethane	5.0 U	5.0	0.36	1	06/22/19 13:15	
Ethylbenzene	5.0 U	5.0	0.20	1	06/22/19 13:15	
Styrene	5.0 U	5.0	0.20	1	06/22/19 13:15	
Tetrachloroethene (PCE)	5.0 U	5.0	0.21	1	06/22/19 13:15	
Toluene	5.0 U	5.0	0.20	1	06/22/19 13:15	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/22/19 13:15	
Vinyl Acetate	10 U	10	1.1	1	06/22/19 13:15	
Vinyl Chloride	5.0 U	5.0	0.20	1	06/22/19 13:15	
Xylenes, Total	5.0 U	5.0	0.23	1	06/22/19 13:15	
cis-1,2-Dichloroethene	5.0 U	5.0	0.23	1	06/22/19 13:15	
cis-1,3-Dichloropropene	5.0 U	5.0	0.20	1	06/22/19 13:15	
trans-1,2-Dichloroethene	5.0 U	5.0	0.20	1	06/22/19 13:15	
trans-1,3-Dichloropropene	5.0 U	5.0	0.23	1	06/22/19 13:15	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906614-04

Service Request: R1905670
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	85 - 122	06/22/19 13:15	
Dibromofluoromethane	98	89 - 119	06/22/19 13:15	
Toluene-d8	102	87 - 121	06/22/19 13:15	

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906614-04

Service Request: R1905670
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
007446-09-5	Sulfur dioxide	1.23	6.3	JN

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670
Date Analyzed: 06/24/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906319-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	20.5	20.0	103	75-125
1,1,2,2-Tetrachloroethane	8260C	18.1	20.0	91	78-126
1,1,2-Trichloroethane	8260C	18.1	20.0	90	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	21.1	20.0	106	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	22.9	20.0	114	71-118
1,2-Dichloroethane	8260C	19.2	20.0	96	71-127
1,2-Dichloropropane	8260C	19.9	20.0	99	80-119
2-Butanone (MEK)	8260C	18.5	20.0	92	61-137
2-Hexanone	8260C	15.7	20.0	78	63-124
4-Methyl-2-pentanone	8260C	17.6	20.0	88	66-124
Acetone	8260C	23.9	20.0	119	40-161
Benzene	8260C	19.6	20.0	98	79-119
Bromodichloromethane	8260C	18.9	20.0	95	81-123
Bromoform	8260C	18.4	20.0	92	65-146
Bromomethane	8260C	17.0	20.0	85	42-166
Carbon Disulfide	8260C	21.3	20.0	107	66-128
Carbon Tetrachloride	8260C	20.8	20.0	104	70-127
Chlorobenzene	8260C	19.2	20.0	96	80-121
Chloroethane	8260C	18.3	20.0	91	62-131
Chloroform	8260C	19.6	20.0	98	79-120
Chloromethane	8260C	15.0	20.0	75	65-135
Dibromochloromethane	8260C	17.7	20.0	89	72-128
Dichloromethane	8260C	20.7	20.0	104	73-122
Ethylbenzene	8260C	19.4	20.0	97	76-120
Styrene	8260C	18.8	20.0	94	80-124
Tetrachloroethene (PCE)	8260C	19.8	20.0	99	72-125
Toluene	8260C	18.9	20.0	95	79-119
Trichloroethene (TCE)	8260C	18.4	20.0	92	74-122
Vinyl Acetate	8260C	19.7	20.0	99	52-174
Vinyl Chloride	8260C	19.1	20.0	95	74-159
cis-1,2-Dichloroethene	8260C	19.7	20.0	98	80-121
cis-1,3-Dichloropropene	8260C	19.4	20.0	97	77-122
trans-1,2-Dichloroethene	8260C	21.9	20.0	109	73-118

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670**Date Analyzed:** 06/24/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1906319-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
trans-1,3-Dichloropropene	8260C	23.5	20.0	118	71-133

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670
Date Analyzed: 06/25/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906545-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	18.5	20.0	93	75-125
1,1,2,2-Tetrachloroethane	8260C	18.7	20.0	93	78-126
1,1,2-Trichloroethane	8260C	17.0	20.0	85	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	19.0	20.0	95	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.7	20.0	98	71-118
1,2-Dichloroethane	8260C	19.2	20.0	96	71-127
1,2-Dichloropropane	8260C	19.5	20.0	98	80-119
2-Butanone (MEK)	8260C	18.4	20.0	92	61-137
2-Hexanone	8260C	15.8	20.0	79	63-124
4-Methyl-2-pentanone	8260C	17.4	20.0	87	66-124
Acetone	8260C	25.7	20.0	129	40-161
Benzene	8260C	18.3	20.0	91	79-119
Bromodichloromethane	8260C	18.5	20.0	92	81-123
Bromoform	8260C	17.4	20.0	87	65-146
Bromomethane	8260C	12.2	20.0	61	42-166
Carbon Disulfide	8260C	18.9	20.0	94	66-128
Carbon Tetrachloride	8260C	18.7	20.0	93	70-127
Chlorobenzene	8260C	18.0	20.0	90	80-121
Chloroethane	8260C	16.9	20.0	84	62-131
Chloroform	8260C	18.2	20.0	91	79-120
Chloromethane	8260C	15.1	20.0	75	65-135
Dibromochloromethane	8260C	17.1	20.0	86	72-128
Dichloromethane	8260C	19.3	20.0	96	73-122
Ethylbenzene	8260C	18.3	20.0	91	76-120
Styrene	8260C	18.4	20.0	92	80-124
Tetrachloroethene (PCE)	8260C	17.3	20.0	87	72-125
Toluene	8260C	18.0	20.0	90	79-119
Trichloroethene (TCE)	8260C	17.3	20.0	86	74-122
Vinyl Acetate	8260C	21.3	20.0	107	52-174
Vinyl Chloride	8260C	18.1	20.0	90	74-159
cis-1,2-Dichloroethene	8260C	18.6	20.0	93	80-121
cis-1,3-Dichloropropene	8260C	19.7	20.0	98	77-122
trans-1,2-Dichloroethene	8260C	20.1	20.0	100	73-118

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670**Date Analyzed:** 06/25/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1906545-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
trans-1,3-Dichloropropene	8260C	22.7	20.0	114	71-133

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670
Date Analyzed: 06/22/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1906614-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	22.2	20.0	111	75-125
1,1,2,2-Tetrachloroethane	8260C	19.7	20.0	99	78-126
1,1,2-Trichloroethane	8260C	18.5	20.0	93	82-121
1,1-Dichloroethane (1,1-DCA)	8260C	21.5	20.0	108	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	22.3	20.0	111	71-118
1,2-Dichloroethane	8260C	20.1	20.0	100	71-127
1,2-Dichloropropane	8260C	20.9	20.0	104	80-119
2-Butanone (MEK)	8260C	17.9	20.0	90	61-137
2-Hexanone	8260C	18.3	20.0	91	63-124
4-Methyl-2-pentanone	8260C	19.5	20.0	98	66-124
Acetone	8260C	30.6	20.0	153	40-161
Benzene	8260C	20.8	20.0	104	79-119
Bromodichloromethane	8260C	20.2	20.0	101	81-123
Bromoform	8260C	21.1	20.0	106	65-146
Bromomethane	8260C	17.2	20.0	86	42-166
Carbon Disulfide	8260C	20.1	20.0	101	66-128
Carbon Tetrachloride	8260C	22.6	20.0	113	70-127
Chlorobenzene	8260C	20.2	20.0	101	80-121
Chloroethane	8260C	18.6	20.0	93	62-131
Chloroform	8260C	19.7	20.0	98	79-120
Chloromethane	8260C	15.1	20.0	76	65-135
Dibromochloromethane	8260C	20.2	20.0	101	72-128
Dichloromethane	8260C	20.2	20.0	101	73-122
Ethylbenzene	8260C	20.6	20.0	103	76-120
Styrene	8260C	20.4	20.0	102	80-124
Tetrachloroethene (PCE)	8260C	19.4	20.0	97	72-125
Toluene	8260C	20.3	20.0	102	79-119
Trichloroethene (TCE)	8260C	18.9	20.0	95	74-122
Vinyl Acetate	8260C	20.9	20.0	105	52-174
Vinyl Chloride	8260C	18.7	20.0	93	74-159
cis-1,2-Dichloroethene	8260C	19.3	20.0	96	80-121
cis-1,3-Dichloropropene	8260C	21.9	20.0	110	77-122
trans-1,2-Dichloroethene	8260C	21.9	20.0	109	73-118

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670**Date Analyzed:** 06/22/19

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1906614-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
trans-1,3-Dichloropropene	8260C	26.3	20.0	132	71-133



Semivolatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905670

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	2,4,6-Tribromophenol	2-Fluorobiphenyl	2-Fluorophenol
		35-141	31-118	10-105
WG-9954-061719-SG-018	R1905670-002	84	73	31
WG-9954-061719-SG-019	R1905670-003	78	70	32
WG-9954-061719-SG-020	R1905670-004	67	64	31
WG-9954-061719-SG-021	R1905670-005	70	65	28
WG-9954-061719-SG-022	R1905670-006	74	75	33
WG-9954-061719-SG-023	R1905670-007	88	81	39
WG-9954-061819-SG-024	R1905670-008	63	65	33
WG-9954-061819-SG-025	R1905670-009	71	70	35
WG-9954-061819-SG-026	R1905670-010	69	69	35
WG-9954-061819-SG-027	R1905670-011	71	74	37
WG-9954-061819-SG-028	R1905670-012	51	64	35
WG-9954-061819-SG-030	R1905670-013	69	74	39
WG-9954-061819-SG-029	R1905670-014	71	73	40
Method Blank	RQ1906264-01	88	76	38
Lab Control Sample	RQ1906264-02	88	81	43
Duplicate Lab Control Sample	RQ1906264-03	91	83	42

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905670

SURROGATE RECOVERY SUMMARY
Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Extraction Method: EPA 3510C

Sample Name	Lab Code	Nitrobenzene-d5	Phenol-d6	p-Terphenyl-d14
		31-110	10-107	10-165
WG-9954-061719-SG-018	R1905670-002	67	21	88
WG-9954-061719-SG-019	R1905670-003	64	21	96
WG-9954-061719-SG-020	R1905670-004	65	21	76
WG-9954-061719-SG-021	R1905670-005	62	19	59
WG-9954-061719-SG-022	R1905670-006	69	22	69
WG-9954-061719-SG-023	R1905670-007	79	26	65
WG-9954-061819-SG-024	R1905670-008	63	21	50
WG-9954-061819-SG-025	R1905670-009	71	23	56
WG-9954-061819-SG-026	R1905670-010	72	23	63
WG-9954-061819-SG-027	R1905670-011	72	24	60
WG-9954-061819-SG-028	R1905670-012	64	22	34
WG-9954-061819-SG-030	R1905670-013	78	26	49
WG-9954-061819-SG-029	R1905670-014	74	27	56
Method Blank	RQ1906264-01	77	26	75
Lab Control Sample	RQ1906264-02	79	28	75
Duplicate Lab Control Sample	RQ1906264-03	79	29	80

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906264-01

Service Request: R1905670
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
1,2,4-Trichlorobenzene	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
1,2-Dichlorobenzene	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
1,3-Dichlorobenzene	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
1,4-Dichlorobenzene	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
2,4,5-Trichlorophenol	10 U	10	1.1	1	07/03/19 14:57	6/24/19	
2,4,6-Trichlorophenol	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
2,4-Dichlorophenol	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
2,4-Dimethylphenol	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
2,4-Dinitrophenol	50 U	50	7.0	1	07/03/19 14:57	6/24/19	
2,4-Dinitrotoluene	10 U	10	2.7	1	07/03/19 14:57	6/24/19	
2,6-Dinitrotoluene	10 U	10	1.5	1	07/03/19 14:57	6/24/19	
2-Chloronaphthalene	10 U	10	1.1	1	07/03/19 14:57	6/24/19	
2-Chlorophenol	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
2-Methylnaphthalene	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
2-Methylphenol	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
2-Nitroaniline	50 U	50	2.4	1	07/03/19 14:57	6/24/19	
2-Nitrophenol	10 U	10	1.5	1	07/03/19 14:57	6/24/19	
3,3'-Dichlorobenzidine	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
3- and 4-Methylphenol Coelution	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
3-Nitroaniline	50 U	50	1.8	1	07/03/19 14:57	6/24/19	
4,6-Dinitro-2-methylphenol	50 U	50	3.7	1	07/03/19 14:57	6/24/19	
4-Bromophenyl Phenyl Ether	10 U	10	1.4	1	07/03/19 14:57	6/24/19	
4-Chloro-3-methylphenol	10 U	10	1.1	1	07/03/19 14:57	6/24/19	
4-Chloroaniline	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
4-Chlorophenyl Phenyl Ether	10 U	10	1.2	1	07/03/19 14:57	6/24/19	
4-Nitroaniline	50 U	50	1.9	1	07/03/19 14:57	6/24/19	
4-Nitrophenol	50 U	50	3.0	1	07/03/19 14:57	6/24/19	
Acenaphthene	10 U	10	1.6	1	07/03/19 14:57	6/24/19	
Acenaphthylene	10 U	10	1.3	1	07/03/19 14:57	6/24/19	
Anthracene	10 U	10	1.4	1	07/03/19 14:57	6/24/19	
Benz(a)anthracene	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
Benzo(a)pyrene	10 U	10	1.3	1	07/03/19 14:57	6/24/19	
Benzo(b)fluoranthene	10 U	10	1.3	1	07/03/19 14:57	6/24/19	
Benzo(g,h,i)perylene	10 U	10	1.5	1	07/03/19 14:57	6/24/19	
Benzo(k)fluoranthene	10 U	10	1.5	1	07/03/19 14:57	6/24/19	
Benzoic Acid	50 U	50	6.0	1	07/03/19 14:57	6/24/19	
Benzyl Alcohol	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
2,2'-Oxybis(1-chloropropane)	10 U	10	1.4	1	07/03/19 14:57	6/24/19	
Bis(2-chloroethoxy)methane	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
Bis(2-chloroethyl) Ether	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
Bis(2-ethylhexyl) Phthalate	10 U	10	9.7	1	07/03/19 14:57	6/24/19	
Butyl Benzyl Phthalate	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
Chrysene	10 U	10	1.5	1	07/03/19 14:57	6/24/19	

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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906264-01

Service Request: R1905670
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Semivolatile Organic Compounds by GC/MS

Analysis Method: 8270D
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Di-n-butyl Phthalate	10 U	10	1.1	1	07/03/19 14:57	6/24/19	
Di-n-octyl Phthalate	10 U	10	1.8	1	07/03/19 14:57	6/24/19	
Dibenz(a,h)anthracene	10 U	10	1.4	1	07/03/19 14:57	6/24/19	
Dibenzofuran	10 U	10	1.3	1	07/03/19 14:57	6/24/19	
Diethyl Phthalate	10 U	10	1.2	1	07/03/19 14:57	6/24/19	
Dimethyl Phthalate	10 U	10	1.5	1	07/03/19 14:57	6/24/19	
Fluoranthene	10 U	10	1.4	1	07/03/19 14:57	6/24/19	
Fluorene	10 U	10	1.6	1	07/03/19 14:57	6/24/19	
Hexachlorobenzene	10 U	10	1.4	1	07/03/19 14:57	6/24/19	
Hexachlorobutadiene	10 U	10	1.1	1	07/03/19 14:57	6/24/19	
Hexachlorocyclopentadiene	10 U	10	1.5	1	07/03/19 14:57	6/24/19	
Hexachloroethane	10 U	10	1.2	1	07/03/19 14:57	6/24/19	
Indeno(1,2,3-cd)pyrene	10 U	10	1.4	1	07/03/19 14:57	6/24/19	
Isophorone	10 U	10	1.2	1	07/03/19 14:57	6/24/19	
N-Nitrosodi-n-propylamine	10 U	10	2.0	1	07/03/19 14:57	6/24/19	
N-Nitrosodiphenylamine	10 U	10	4.7	1	07/03/19 14:57	6/24/19	
Naphthalene	10 U	10	1.1	1	07/03/19 14:57	6/24/19	
Nitrobenzene	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
Pentachlorophenol (PCP)	50 U	50	6.0	1	07/03/19 14:57	6/24/19	
Phenanthrene	10 U	10	1.6	1	07/03/19 14:57	6/24/19	
Phenol	10 U	10	1.0	1	07/03/19 14:57	6/24/19	
Pyrene	10 U	10	1.8	1	07/03/19 14:57	6/24/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
2,4,6-Tribromophenol	88	35 - 141	07/03/19 14:57	
2-Fluorobiphenyl	76	31 - 118	07/03/19 14:57	
2-Fluorophenol	38	10 - 105	07/03/19 14:57	
Nitrobenzene-d5	77	31 - 110	07/03/19 14:57	
Phenol-d6	26	10 - 107	07/03/19 14:57	
p-Terphenyl-d14	75	10 - 165	07/03/19 14:57	

Tentatively Identified Compounds

CAS#	Compound Identification	RT	Result ug/L	Q
	No Tentatively Identified Compounds Detected			

ALS Group USA, Corp.
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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670
Date Analyzed: 07/03/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample RQ1906264-02					Duplicate Lab Control Sample RQ1906264-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	8270D	29.0	50.0	58	28.0	50.0	56	10-127	4	30
1,2-Dichlorobenzene	8270D	27.8	50.0	56	26.5	50.0	53	23-130	6	30
1,3-Dichlorobenzene	8270D	27.6	50.0	55	26.2	50.0	52	21-90	6	30
1,4-Dichlorobenzene	8270D	27.4	50.0	55	25.5	50.0	51	10-124	8	30
2,4,5-Trichlorophenol	8270D	46.9	50.0	94	46.9	50.0	94	48-134	<1	30
2,4,6-Trichlorophenol	8270D	45.9	50.0	92	48.2	50.0	96	44-135	4	30
2,4-Dichlorophenol	8270D	41.1	50.0	82	42.7	50.0	85	48-127	4	30
2,4-Dimethylphenol	8270D	42.5	50.0	85	45.7	50.0	91	59-113	7	30
2,4-Dinitrophenol	8270D	49.0 J	50.0	98	52.5	50.0	105	21-154	7	30
2,4-Dinitrotoluene	8270D	49.6	50.0	99	51.0	50.0	102	54-130	3	30
2,6-Dinitrotoluene	8270D	46.3	50.0	93	50.3	50.0	101	51-127	8	30
2-Chloronaphthalene	8270D	35.3	50.0	71	35.4	50.0	71	40-108	<1	30
2-Chlorophenol	8270D	34.9	50.0	70	35.3	50.0	71	42-112	1	30
2-Methylnaphthalene	8270D	31.9	50.0	64	32.6	50.0	65	34-102	2	30
2-Methylphenol	8270D	32.1	50.0	64	34.8	50.0	70	47-100	9	30
2-Nitroaniline	8270D	46.9 J	50.0	94	47.9 J	50.0	96	52-133	2	30
2-Nitrophenol	8270D	41.0	50.0	82	42.5	50.0	85	43-131	4	30
3,3'-Dichlorobenzidine	8270D	45.9	50.0	92	49.9	50.0	100	43-126	8	30
3- and 4-Methylphenol Coelution	8270D	28.8	50.0	58	31.8	50.0	64	40-92	10	30
3-Nitroaniline	8270D	43.1 J	50.0	86	45.6 J	50.0	91	42-111	6	30
4,6-Dinitro-2-methylphenol	8270D	44.5 J	50.0	89	48.2 J	50.0	96	36-152	8	30
4-Bromophenyl Phenyl Ether	8270D	38.8	50.0	78	39.9	50.0	80	48-114	3	30
4-Chloro-3-methylphenol	8270D	44.1	50.0	88	46.5	50.0	93	52-113	6	30
4-Chloroaniline	8270D	40.4	50.0	81	41.1	50.0	82	44-109	1	30
4-Chlorophenyl Phenyl Ether	8270D	39.7	50.0	79	40.3	50.0	81	51-107	3	30
4-Nitroaniline	8270D	46.4 J	50.0	93	48.9 J	50.0	98	54-133	5	30
4-Nitrophenol	8270D	19.7 J	50.0	39	21.8 J	50.0	44	10-126	12	30
Acenaphthene	8270D	38.2	50.0	76	38.2	50.0	76	52-107	<1	30
Acenaphthylene	8270D	38.5	50.0	77	38.5	50.0	77	55-109	<1	30
Anthracene	8270D	46.3	50.0	93	47.9	50.0	96	55-116	3	30
Benz(a)anthracene	8270D	44.1	50.0	88	46.9	50.0	94	61-121	7	30
Benzo(a)pyrene	8270D	45.7	50.0	91	48.8	50.0	98	44-114	7	30
Benzo(b)fluoranthene	8270D	43.9	50.0	88	46.0	50.0	92	62-115	4	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670
Date Analyzed: 07/03/19

Duplicate Lab Control Sample Summary
Semivolatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1906264-02					RQ1906264-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Benzo(g,h,i)perylene	8270D	49.9	50.0	100	51.3	50.0	103	63-136	3	30
Benzo(k)fluoranthene	8270D	49.1	50.0	98	50.5	50.0	101	49-133	3	30
Benzoic Acid	8270D	64.0	150	43	66.1	150	44	10-94	2	30
Benzyl Alcohol	8270D	37.8	50.0	76	40.2	50.0	80	31-109	5	30
2,2'-Oxybis(1-chloropropane)	8270D	35.1	50.0	70	36.2	50.0	72	32-122	3	30
Bis(2-chloroethoxy)methane	8270D	42.9	50.0	86	44.2	50.0	88	55-110	2	30
Bis(2-chloroethyl) Ether	8270D	37.9	50.0	76	37.7	50.0	75	46-102	1	30
Bis(2-ethylhexyl) Phthalate	8270D	49.0	50.0	98	52.8	50.0	106	51-132	8	30
Butyl Benzyl Phthalate	8270D	47.4	50.0	95	50.6	50.0	101	41-148	6	30
Chrysene	8270D	44.8	50.0	90	46.9	50.0	94	57-118	4	30
Di-n-butyl Phthalate	8270D	49.7	50.0	99	50.8	50.0	102	57-128	3	30
Di-n-octyl Phthalate	8270D	48.9	50.0	98	51.7	50.0	103	62-124	5	30
Dibenz(a,h)anthracene	8270D	38.2	50.0	76	38.6	50.0	77	54-135	1	30
Dibenzofuran	8270D	41.6	50.0	83	41.5	50.0	83	55-110	<1	30
Diethyl Phthalate	8270D	46.4	50.0	93	48.5	50.0	97	53-113	4	30
Dimethyl Phthalate	8270D	42.6	50.0	85	44.5	50.0	89	51-112	5	30
Fluoranthene	8270D	44.7	50.0	89	47.1	50.0	94	66-127	5	30
Fluorene	8270D	39.7	50.0	79	40.9	50.0	82	54-106	4	30
Hexachlorobenzene	8270D	42.8	50.0	86	43.7	50.0	87	53-123	1	30
Hexachlorobutadiene	8270D	29.3	50.0	59	29.4	50.0	59	16-95	<1	30
Hexachlorocyclopentadiene	8270D	15.9	50.0	32	17.8	50.0	36	10-99	12	30
Hexachloroethane	8270D	25.4	50.0	51	24.6	50.0	49	15-92	4	30
Indeno(1,2,3-cd)pyrene	8270D	48.2	50.0	96	50.3	50.0	101	62-137	5	30
Isophorone	8270D	45.3	50.0	91	46.6	50.0	93	50-116	2	30
N-Nitrosodi-n-propylamine	8270D	41.2	50.0	82	42.7	50.0	85	49-115	4	30
N-Nitrosodiphenylamine	8270D	49.5	50.0	99	51.7	50.0	103	45-123	4	30
Naphthalene	8270D	31.8	50.0	64	31.6	50.0	63	38-99	2	30
Nitrobenzene	8270D	39.5	50.0	79	40.1	50.0	80	46-108	1	30
Pentachlorophenol (PCP)	8270D	59.4	50.0	119	62.4	50.0	125	29-164	5	30
Phenanthrene	8270D	42.3	50.0	85	44.0	50.0	88	58-118	3	30
Phenol	8270D	17.1	50.0	34	17.8	50.0	36	10-113	6	30
Pyrene	8270D	44.7	50.0	89	47.9	50.0	96	61-122	8	30



Semivolatile Organic Compounds by GC

ALS Environmental—Rochester Laboratory

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QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905670

SURROGATE RECOVERY SUMMARY
Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10-164	10-147
WG-9954-061719-SG-018	R1905670-002	59	79
WG-9954-061719-SG-019	R1905670-003	57	81
WG-9954-061719-SG-020	R1905670-004	56	65
WG-9954-061719-SG-021	R1905670-005	48	85
WG-9954-061719-SG-022	R1905670-006	25	65
WG-9954-061719-SG-023	R1905670-007	35	80
WG-9954-061819-SG-024	R1905670-008	40	60
WG-9954-061819-SG-025	R1905670-009	23	87
WG-9954-061819-SG-026	R1905670-010	15	83
WG-9954-061819-SG-027	R1905670-011	17	83
WG-9954-061819-SG-028	R1905670-012	7*	53
WG-9954-061819-SG-030	R1905670-013	8*	64
WG-9954-061819-SG-030 RE	R1905670-013	6*	68
WG-9954-061819-SG-029	R1905670-014	14	57
Method Blank	RQ1906258-01	43	54
Method Blank	RQ1906949-01	32	60
Lab Control Sample	RQ1906258-02	50	68
Duplicate Lab Control Sample	RQ1906258-03	40	56
Lab Control Sample	RQ1906949-02	36	66
Duplicate Lab Control Sample	RQ1906949-03	35	72

ALS Group USA, Corp.
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Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1906258-01

Service Request: R1905670
Date Collected: NA

Date Received: NA

Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
4,4'-DDE	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
4,4'-DDT	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Aldrin	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Dieldrin	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Endosulfan I	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Endosulfan II	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Endosulfan Sulfate	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Endrin	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Endrin Ketone	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Heptachlor	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Heptachlor Epoxide	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Methoxychlor	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
Toxaphene	0.50 U	0.50	0.50	1	07/02/19 21:58	6/23/19	
alpha-BHC	0.045 J	0.050	0.020	1	07/02/19 21:58	6/23/19	
alpha-Chlordane	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
beta-BHC	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	
delta-BHC	0.023 J	0.050	0.020	1	07/02/19 21:58	6/23/19	
gamma-BHC (Lindane)	0.032 J	0.050	0.020	1	07/02/19 21:58	6/23/19	
gamma-Chlordane	0.050 U	0.050	0.020	1	07/02/19 21:58	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	43	10 - 164	07/02/19 21:58	
Tetrachloro-m-xylene	54	10 - 147	07/02/19 21:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906949-01

Service Request: R1905670
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Organochlorine Pesticides by Gas Chromatography

Analysis Method: 8081B
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
4,4'-DDD	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
4,4'-DDE	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
4,4'-DDT	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Aldrin	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Dieldrin	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Endosulfan I	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Endosulfan II	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Endosulfan Sulfate	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Endrin	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Endrin Ketone	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Heptachlor	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Heptachlor Epoxide	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Methoxychlor	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
Toxaphene	0.50 U	0.50	0.50	1	07/15/19 15:47	7/9/19	
alpha-BHC	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
alpha-Chlordane	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
beta-BHC	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
delta-BHC	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
gamma-BHC (Lindane)	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	
gamma-Chlordane	0.050 U	0.050	0.020	1	07/15/19 15:47	7/9/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	32	10 - 164	07/15/19 15:47	
Tetrachloro-m-xylene	60	10 - 147	07/15/19 15:47	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670
Date Analyzed: 07/02/19

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

Lab Control Sample RQ1906258-02					Duplicate Lab Control Sample RQ1906258-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	8081B	0.169	0.200	85	0.140	0.200	70	42-159	19	30
4,4'-DDE	8081B	0.153	0.200	76	0.127	0.200	63	47-147	19	30
4,4'-DDT	8081B	0.136	0.200	68	0.119	0.200	59	41-149	13	30
Aldrin	8081B	0.134	0.200	67	0.109	0.200	55	22-137	20	30
Dieldrin	8081B	0.162	0.200	81	0.135	0.200	68	52-144	18	30
Endosulfan I	8081B	0.161	0.200	80	0.134	0.200	67	52-136	18	30
Endosulfan II	8081B	0.186	0.200	93	0.160	0.200	80	57-138	15	30
Endosulfan Sulfate	8081B	0.154	0.200	77	0.130	0.200	65	34-156	17	30
Endrin	8081B	0.168	0.200	84	0.141	0.200	70	56-143	18	30
Endrin Ketone	8081B	0.162	0.200	81	0.139	0.200	69	59-143	16	30
Heptachlor	8081B	0.148	0.200	74	0.125	0.200	62	32-141	17	30
Heptachlor Epoxide	8081B	0.168	0.200	84	0.142	0.200	71	51-143	17	30
Methoxychlor	8081B	0.132	0.200	66	0.112	0.200	56	56-149	16	30
alpha-BHC	8081B	0.191	0.200	96	0.154	0.200	77	36-151	22	30
alpha-Chlordane	8081B	0.157	0.200	79	0.132	0.200	66	50-139	17	30
beta-BHC	8081B	0.191	0.200	95	0.163	0.200	81	55-149	16	30
delta-BHC	8081B	0.192	0.200	96	0.159	0.200	79	29-159	19	30
gamma-BHC (Lindane)	8081B	0.191	0.200	96	0.155	0.200	78	41-149	21	30
gamma-Chlordane	8081B	0.152	0.200	76	0.129	0.200	65	50-140	16	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670
Date Analyzed: 07/15/19

Duplicate Lab Control Sample Summary
Organochlorine Pesticides by Gas Chromatography

Units:ug/L
Basis:NA

Lab Control Sample RQ1906949-02					Duplicate Lab Control Sample RQ1906949-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
4,4'-DDD	8081B	0.132	0.200	66	0.139	0.200	69	42-159	5	30
4,4'-DDE	8081B	0.145	0.200	72	0.147	0.200	74	47-147	2	30
4,4'-DDT	8081B	0.137	0.200	69	0.146	0.200	73	41-149	6	30
Aldrin	8081B	0.126	0.200	63	0.137	0.200	69	22-137	8	30
Dieldrin	8081B	0.156	0.200	78	0.167	0.200	84	52-144	7	30
Endosulfan I	8081B	0.153	0.200	76	0.163	0.200	82	52-136	7	30
Endosulfan II	8081B	0.145	0.200	72	0.155	0.200	78	57-138	7	30
Endosulfan Sulfate	8081B	0.127	0.200	63	0.146	0.200	73	34-156	14	30
Endrin	8081B	0.138	0.200	69	0.146	0.200	73	56-143	6	30
Endrin Ketone	8081B	0.152	0.200	76	0.163	0.200	82	59-143	7	30
Heptachlor	8081B	0.138	0.200	69	0.151	0.200	76	32-141	9	30
Heptachlor Epoxide	8081B	0.160	0.200	80	0.173	0.200	86	51-143	8	30
Methoxychlor	8081B	0.149	0.200	74	0.155	0.200	78	56-149	4	30
alpha-BHC	8081B	0.156	0.200	78	0.175	0.200	88	36-151	12	30
alpha-Chlordane	8081B	0.152	0.200	76	0.162	0.200	81	50-139	6	30
beta-BHC	8081B	0.171	0.200	86	0.192	0.200	96	55-149	11	30
delta-BHC	8081B	0.143	0.200	72	0.182	0.200	91	29-159	24	30
gamma-BHC (Lindane)	8081B	0.158	0.200	79	0.176	0.200	88	41-149	11	30
gamma-Chlordane	8081B	0.149	0.200	75	0.159	0.200	80	50-140	6	30

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dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Sample Matrix: Water

Service Request: R1905670

SURROGATE RECOVERY SUMMARY
Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Extraction Method: EPA 3510C

Sample Name	Lab Code	Decachlorobiphenyl	Tetrachloro-m-xylene
		10-152	14-129
WG-9954-061719-SG-018	R1905670-002	16	16
WG-9954-061719-SG-019	R1905670-003	15	16
WG-9954-061719-SG-020	R1905670-004	86	93
WG-9954-061719-SG-021	R1905670-005	67	78
WG-9954-061719-SG-022	R1905670-006	36	62
WG-9954-061719-SG-023	R1905670-007	61	87
WG-9954-061819-SG-024	R1905670-008	63	79
WG-9954-061819-SG-025	R1905670-009	36	90
WG-9954-061819-SG-026	R1905670-010	22	82
WG-9954-061819-SG-027	R1905670-011	28	95
WG-9954-061819-SG-028	R1905670-012	7*	38
WG-9954-061819-SG-030	R1905670-013	7*	44
WG-9954-061819-SG-030 RE	R1905670-013	8*	52
WG-9954-061819-SG-029	R1905670-014	10	34
Method Blank	RQ1906258-01	47	44
Method Blank	RQ1906949-01	37	51
Lab Control Sample	RQ1906258-02	66	64
Duplicate Lab Control Sample	RQ1906258-03	68	52
Lab Control Sample	RQ1906949-02	53	69
Duplicate Lab Control Sample	RQ1906949-03	42	59

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906258-01

Service Request: R1905670
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.0 U	1.0	0.50	1	06/28/19 19:58	6/23/19	
Aroclor 1221	2.0 U	2.0	1.0	1	06/28/19 19:58	6/23/19	
Aroclor 1232	1.0 U	1.0	0.50	1	06/28/19 19:58	6/23/19	
Aroclor 1242	1.0 U	1.0	0.50	1	06/28/19 19:58	6/23/19	
Aroclor 1248	1.0 U	1.0	0.50	1	06/28/19 19:58	6/23/19	
Aroclor 1254	1.0 U	1.0	0.50	1	06/28/19 19:58	6/23/19	
Aroclor 1260	1.0 U	1.0	0.50	1	06/28/19 19:58	6/23/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	47	10 - 152	06/28/19 19:58	
Tetrachloro-m-xylene	44	14 - 129	06/28/19 19:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates,
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term
Monitoring
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: RQ1906949-01

Service Request: R1905670
Date Collected: NA
Date Received: NA
Units: ug/L
Basis: NA

Polychlorinated Biphenyls (PCBs) by GC

Analysis Method: 8082A
Prep Method: EPA 3510C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aroclor 1016	1.0 U	1.0	0.50	1	07/11/19 00:12	7/9/19	
Aroclor 1221	2.0 U	2.0	1.0	1	07/11/19 00:12	7/9/19	
Aroclor 1232	1.0 U	1.0	0.50	1	07/11/19 00:12	7/9/19	
Aroclor 1242	1.0 U	1.0	0.50	1	07/11/19 00:12	7/9/19	
Aroclor 1248	1.0 U	1.0	0.50	1	07/11/19 00:12	7/9/19	
Aroclor 1254	1.0 U	1.0	0.50	1	07/11/19 00:12	7/9/19	
Aroclor 1260	1.0 U	1.0	0.50	1	07/11/19 00:12	7/9/19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Decachlorobiphenyl	37	10 - 152	07/11/19 00:12	
Tetrachloro-m-xylene	51	14 - 129	07/11/19 00:12	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670
Date Analyzed: 06/28/19

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1906258-02					RQ1906258-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	3.98	5.00	80	3.81	5.00	76	49-123	5	30
Aroclor 1260	8082A	4.48	5.00	90	4.52	5.00	90	57-135	<1	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: GHD Services Inc. (Formerly Conestoga-Rovers & Associates, Inc.)
Project: Love Canal:292-402-D02-3100/9954 Annual Long Term Monitoring
Sample Matrix: Water

Service Request: R1905670
Date Analyzed: 07/11/19

Duplicate Lab Control Sample Summary
Polychlorinated Biphenyls (PCBs) by GC

Units:ug/L
Basis:NA

Lab Control Sample RQ1906949-02					Duplicate Lab Control Sample RQ1906949-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aroclor 1016	8082A	3.71	5.00	74	3.20	5.00	64	49-123	15	30
Aroclor 1260	8082A	3.44	5.00	69	2.98	5.00	60	57-135	14	30

Appendix F

Data Validation Memorandum



Memorandum

September 16, 2019

To: Joe Branch [joseph_branch@oxy.com]

Ref. No.: 009954

From: Kathy Willy/adh/60

Tel: 716-205-1942

CC: John Pentilchuk, Dennis Hoyt, Maggie Popek

**Subject: Analytical Results and Full Validation
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

1. Introduction

This document details a validation of analytical results for water samples collected in support of the Annual Long-Term Monitoring Program at the Love Canal Site during June 2019. Samples were submitted to ALS Laboratories located in Rochester, New York. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Full Contract Laboratory Program (CLP) equivalent raw data deliverables were provided by the laboratory. Evaluation of the data was based on information obtained from the finished data sheets, raw data, chain of custody forms, calibration data, blank data, recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spike (MS) samples, and field quality assurance/quality control (QA/QC) samples. The assessment of analytical and in-house data included checks for: data consistency (by observing comparability of duplicate analyses), adherence to accuracy and precision criteria, and transmittal errors.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

- i) "Quality Assurance Project Plan", Appendix B of "Sampling Manual Long-Term Groundwater Monitoring Program", June 2013
- ii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", United States Environmental Protection Agency (USEPA) 540-R-08-01, June 2008

Item ii) will subsequently be referred to as the "Guidelines" in this Memorandum.



2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Gas Chromatography/Mass Spectrometer (GC/MS) – Tuning and Mass Calibration (Instrument Performance Check)

3.1 Organic Analyses

Prior to volatile organic compound (VOC) and semi-volatile organic compound (SVOC) analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, methods require the analysis of specific tuning compounds bromofluorobenzene (BFB) and decafluorotriphenylphosphine (DFTPP), respectively. The resulting spectra must meet the criteria cited in the methods before analysis is initiated. Analysis of the tuning compound must then be repeated every 12 hours throughout sample analysis to ensure the continued optimization of the instrument.

Tuning compounds were analyzed at the required frequency throughout VOC and SVOC analysis periods. All tuning criteria were met, indicating that proper optimization of the instrumentation was achieved.

4. Initial Calibration - Organic Analyses

4.1 GC/MS

To quantify VOCs and SVOCs of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration range. Linearity of the calibration curve and instrument sensitivity are evaluated against the following criteria:

- i) All relative response factors (RRFs) must be greater than or equal to 0.05 (0.01 for poor responders).
- ii) The percent relative standard deviation (RSD) values must not exceed 20.0 percent (40 percent for poor responders) or a minimum correlation coefficient (R) of 0.995 and minimum coefficient of determination (R^2) of 0.99 if linear and quadratic equation calibration curves, respectively, are used.

The initial calibration data for VOCs and SVOCs were reviewed. All compounds met the above criteria for sensitivity and linearity.

4.2 GC

To quantify pesticides, the performance evaluation mixture (PEM) is analyzed at the beginning and end of the initial calibration sequence and throughout the analytical sequence. The results of these analyses are



used to evaluate dichlorodiphenyltrichloroethane (DDT)/endrin breakdown, using the method degradation criteria of <15 percent. PEM standards were analyzed at the required frequency throughout sample analysis and all method performance criteria were met.

In order to quantify organic compounds of interest by GC, calibration of the gas chromatograph over a specific concentration range must be performed. Initially, a calibration curve consisting of a minimum of five concentration levels is analyzed for all single component compounds of interest and for polychlorinated biphenyls (PCBs) (Aroclors 1016 and 1260). A single calibration standard is analyzed for all other multi-response compounds. Linearity of the calibration curve is acceptable if all RSD values are less than or equal to 20.0 percent or if the correlation coefficient (R) is 0.995 or greater for linear regression curves.

Retention time windows are also calculated from the initial calibration analyses. These windows are then used to identify all compounds of interest in subsequent analyses.

All initial calibration standards were analyzed at the required frequencies. All retention time, peak resolution, and linearity criteria were satisfied as specified in the methods.

5. Continuing Calibration - Organic Analyses

5.1 GC/MS

To ensure that instrument calibration for VOC and SVOC analyses is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

- i) All RRF values must be greater than or equal to 0.05 (0.01 for poor responders).
- ii) Percent difference (%D) values must not exceed 25 percent (40 percent for poor responders).

Calibration standards were analyzed at the required frequency, and the results met the above criteria for instrument sensitivity and stability with the exception of carbon disulfide in one calibration standard. A summary of the qualified result is presented in Table 4.

5.2 GC

To ensure that the calibration of the instrument for organic analyses by GC is valid throughout the sample analysis period, continuing calibration standards are analyzed and evaluated on a regular basis. To evaluate the continued linearity of the calibration, %D values are calculated for each compound. As specified in the methods, all %D values should not exceed 15 percent. To ensure that compound retention times do not vary over the analysis period, all retention times for continuing calibration compounds must fall within the established retention time windows.

All continuing calibration standards were analyzed at the required frequency. Most %D values and compound retention times met the above criteria, indicating acceptable instrument calibration throughout the



analysis period. Several pesticide and PCB compounds exceeded the continuing calibration criteria. A summary of qualified results is presented in Table 4.

6. Laboratory Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Most method blank results were non-detect. Various VOCs and pesticides were detected in some of the blanks, indicating a potential for laboratory contamination. All associated sample results with concentrations similar to that found in the blanks were considered to be a reflection of laboratory contamination and were qualified as non-detect. A summary of qualified results is presented in Table 5.

7. Surrogate Spike Recoveries

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample extraction and/or analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for VOC, SVOC, pesticides, and PCB determinations were spiked with the appropriate number of surrogate compounds prior to sample extraction and/or analysis.

Each individual surrogate compound is expected to meet the laboratory control limits with the exception of SVOC analyses. According to the "Guidelines" for SVOC analyses, up to one outlying surrogate in the base/neutral or acid fractions is acceptable as long as the recovery is at least 10 percent.

Surrogate recoveries were assessed against laboratory control limits. Some surrogate recoveries could not be assessed due to necessary secondary dilutions performed on the samples. All other surrogate recoveries were within acceptable limits, with the exception of some severely low (<10 percent) pesticide and PCB surrogate recoveries. The associated non-detect results were rejected due to the demonstrated poor analytical efficiency. A summary of the qualified results are presented in Table 6.

8. Internal Standards (IS) Analyses

IS data were evaluated for all VOC and SVOC sample analyses.

To ensure that changes in the GC/MS sensitivity and response do not affect sample analysis results, IS compounds are added to each sample prior to analysis. All results are then calculated as a ratio of the IS responses.



The sample IS results were evaluated against the following criteria:

- i) The retention time of the IS must not vary more than ± 30 seconds from the associated calibration standard.
- ii) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard.

All organic IS recoveries and retention times met the above criteria.

9. Laboratory Control Sample Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS/LCSD contained all compounds of interest. All LCS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

10. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the distillation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were performed as specified in Table 1.

The MS/MSD samples were spiked with all compounds of interest. Most percent recoveries and RPD values were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision. Sample results associated with MS/MSD outliers were qualified as follows:

- i) Positive sample results associated with high RPD values were qualified as estimated to reflect the indicated variability.
- ii) Sample results associated with low MS/MSD recoveries were qualified as estimated to reflect the implied low bias.

A summary of qualified results is presented in Table 7.



11. Field QA/QC Samples

The field QA/QC consisted of five trip blank samples, two rinse blank samples, and four field duplicate sample sets.

11.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, five trip blanks were submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest with the exception of some low concentrations of several VOCs. All associated sample results with concentrations similar to that found in the trip blanks were qualified as non-detect. A summary of qualified results is presented in Table 8.

11.2 Rinse Blank Sample Analysis

To assess field decontamination procedures, ambient conditions at the site, and cleanliness of sample containers, two rinse blanks were submitted for analysis, as identified in Table 1. All results were non-detect for the analytes of interest with the exception of low concentrations of carbon disulfide and chloromethane. Associated sample results with concentrations similar to that found in the blanks were qualified as non-detect. A summary of qualified results is presented in Table 9.

11.3 Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, four field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the reporting limit (RL), the evaluation criterion is one times the RL value for water samples.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision with the exception of 1,2,4-trichlorobenzene and 1,4-dichlorobenzene, which showed some variability in results between one sample and its duplicate. A summary of qualified results is presented in Table 10.

12. Tentatively Identified Compounds (TICS)

Chromatographic peaks recorded during VOC and SVOC sample GC/MS analyses that are not target compounds, surrogates, or IS, are potential TICS.

A summary of the TICS reported by the laboratory is presented in Table 11. Per the "Guidelines", TICS that were present in the method blanks or identified as solvent preservatives/aldol reaction products were rejected and are not included in the table.



13. Dual Column Analysis

Pesticide analyses were performed using dual column analysis. All pesticide results showed good correlation between the two columns (<40 percent).

14. Analyte Reporting

The laboratory reported detected results down to the laboratory's Method Detection Limit (MDL) for each analyte. Positive analyte detections less than the Practical Quantitation Limit (PQL) but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the RL in Table 2.

15. Target Compound Identification

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and mass spectra (if applicable) were evaluated according to the identification criteria established by the methods. The samples identified in Table 1 were reviewed. The organic compounds reported adhered to the specified identification criteria.

16. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific exceptions and qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters				Comments
					VOCs	SVOCs	Pesticides	PCBs	
RB-9954-061419-DJT-001	-	Water	06/14/2019	14:30	x	x	x	x	Rinse Blank
RB-9954-062019-SG-002	-	Water	06/20/2019	13:00	x	x	x	x	Rinse Blank
TB-9954-061119-SG-001	-	Water	06/11/2019	-	x				Trip Blank
TB-9954-061419-DJT-002	-	Water	06/14/2019	-	x				Trip Blank
TB-9954-061719-SG-003	-	Water	06/17/2019	-	x				Trip Blank
TB-9954-061919-SG-004	-	Water	06/19/2019	-	x				Trip Blank
TB-9954-062119-SG-005	-	Water	06/21/2019	-	x				Trip Blank
WG-9954-061119-SG-001	7120	Groundwater	06/11/2019	13:35	x	x	x	x	
WG-9954-061219-SG-002	7130	Groundwater	06/12/2019	10:40	x	x	x	x	
WG-9954-061219-SG-003	7132	Groundwater	06/12/2019	11:15	x	x	x	x	
WG-9954-061219-SG-004	10278	Groundwater	06/12/2019	13:30	x	x	x	x	
WG-9954-061219-SG-005	10272	Groundwater	06/12/2019	14:25	x	x	x	x	
WG-9954-061319-SG-006	10270	Groundwater	06/13/2019	12:00	x	x	x	x	
WG-9954-061319-SG-007	6209	Groundwater	06/13/2019	13:15	x	x	x	x	
WG-9954-061319-SG-008	6209	Groundwater	06/13/2019	13:15	x	x	x	x	Field duplicate of sample WG-9954-061319-SG-007
WG-9954-061319-SG-009	3257	Groundwater	06/13/2019	14:40	x	x	x	x	
WG-9954-061419-DJT-010	10210A	Groundwater	06/14/2019	08:40	x	x	x	x	
WG-9954-061419-DJT-011	10225A	Groundwater	06/14/2019	09:20	x	x	x	x	
WG-9954-061419-DJT-012	10225B	Groundwater	06/14/2019	09:35	x	x	x	x	
WG-9954-061419-DJT-013	10147	Groundwater	06/14/2019	10:30	x	x	x	x	
WG-9954-061419-DJT-014	10174A	Groundwater	06/14/2019	10:40	x	x	x	x	
WG-9954-061419-DJT-015	7155	Groundwater	06/14/2019	11:50	x	x	x	x	Matrix Spike/Matrix Spike Duplicate
WG-9954-061419-DJT-016	7161	Groundwater	06/14/2019	13:00	x	x	x	x	
WG-9954-061419-DJT-017	9130	Groundwater	06/14/2019	14:00	x	x	x	x	
WG-9954-061719-SG-018	9210	Groundwater	06/17/2019	09:35	x	x	x	x	
WG-9954-061719-SG-019	10205	Groundwater	06/17/2019	10:25	x	x	x	x	
WG-9954-061719-SG-020	10210B	Groundwater	06/17/2019	11:55	x	x	x	x	
WG-9954-061719-SG-021	10210C	Groundwater	06/17/2019	13:10	x	x	x	x	
WG-9954-061719-SG-022	10215	Groundwater	06/17/2019	14:15	x	x	x	x	
WG-9954-061719-SG-023	10215	Groundwater	06/17/2019	14:15	x	x	x	x	Field duplicate of sample WG-9954-061719-SG-022
WG-9954-061819-SG-024	8210	Groundwater	06/18/2019	09:10	x	x	x	x	
WG-9954-061819-SG-025	MW-02	Groundwater	06/18/2019	10:10	x	x	x	x	
WG-9954-061819-SG-026	MW-01	Groundwater	06/18/2019	11:45	x	x	x	x	
WG-9954-061819-SG-027	MW-01	Groundwater	06/18/2019	11:45	x	x	x	x	Field duplicate of sample WG-9954-061819-SG-026
WG-9954-061819-SG-028	9125	Groundwater	06/18/2019	12:55	x	x	x	x	

Table 1

Sample Collection and Analysis Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters				Comments
					VOCs	SVOCs	Pesticides	PCBs	
WG-9954-061819-SG-029	9120	Groundwater	06/18/2019	13:40	x	x	x	x	
WG-9954-061819-SG-030	9115	Groundwater	06/18/2019	14:20	x	x	x	x	
WG-9954-061919-SG-031	10178A	Groundwater	06/19/2019	12:15	x	x	x	x	
WG-9954-061919-SG-032	8110	Groundwater	06/19/2019	09:35	x	x	x	x	
WG-9954-061919-SG-033	5221	Groundwater	06/19/2019	10:50	x	x	x	x	
WG-9954-061919-SG-034	10225C	Groundwater	06/19/2019	11:55	x	x	x	x	
WG-9954-061919-SG-035	10105	Groundwater	06/19/2019	13:35	x	x	x	x	
WG-9954-061919-SG-036	10135	Groundwater	06/19/2019	14:50	x	x	x	x	
WG-9954-061919-SG-037	10135	Groundwater	06/19/2019	14:50	x	x	x	x	Field duplicate of sample WG-9954-061919-SG-036 Matrix Spike/Matrix Spike Duplicate
WG-9954-062119-SG-038	7205	Groundwater	06/21/2019	09:25	x	x	x	x	
WG-9954-062119-SG-039	8120	Groundwater	06/21/2019	10:40	x	x	x	x	
WG-9954-062119-SG-040	8130	Groundwater	06/21/2019	11:20	x	x	x	x	
WG-9954-062119-SG-041	8140	Groundwater	06/21/2019	12:25	x	x	x	x	
WG-9954-062119-SG-042	9110	Groundwater	06/21/2019	13:10	x	x	x	x	
WG-9954-062119-SG-043	9140	Groundwater	06/21/2019	14:30	x	x	x	x	
WG-9954-062119-SG-044	8106	Groundwater	06/21/2019	15:10	x	x	x	x	
WG-9954-062419-SG-045	9205	Groundwater	06/24/2019	10:55	x	x	x	x	

Notes:

VOCs - Volatile Organic Compounds
SVOCs - Semi-volatile Organic Compounds
PCBs - Polychlorinated Biphenyls
- - Not applicable

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		3257	5221	6209	6209
Sample Name:		WG-9954-061319-SG-009	WG-9954-061919-SG-033	WG-9954-061319-SG-007	WG-9954-061319-SG-008
Sample Date:		06/13/2019	06/19/2019	06/13/2019	06/13/2019 Duplicate
Parameters	Unit				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	4.9 J	10 U	10 U
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	2.6 J	4.5 J	0.87 J	2.7 J
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		3257	5221	6209	6209
Sample Name:		WG-9954-061319-SG-009	WG-9954-061919-SG-033	WG-9954-061319-SG-007	WG-9954-061319-SG-008
Sample Date:		06/13/2019	06/19/2019	06/13/2019	06/13/2019 Duplicate
Parameters	Unit				
Semi-volatile Organic Compounds (SVOCs)					
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		3257	5221	6209	6209
Sample Name:		WG-9954-061319-SG-009	WG-9954-061919-SG-033	WG-9954-061319-SG-007	WG-9954-061319-SG-008
Sample Date:		06/13/2019	06/19/2019	06/13/2019	06/13/2019 Duplicate
Parameters	Unit				
SVOCs-Continued					
Benzoic acid	µg/L	47 U	47 U	47 U	47 U
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	47 U	47 U	47 U	47 U
Phenanthrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Polychlorinated Biphenyls (PCBs)					
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		3257	5221	6209	6209
Sample Name:		WG-9954-061319-SG-009	WG-9954-061919-SG-033	WG-9954-061319-SG-007	WG-9954-061319-SG-008
Sample Date:		06/13/2019	06/19/2019	06/13/2019	06/13/2019 Duplicate
Parameters	Unit				
PCBs-Continued					
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 UJ	0.94 U	0.94 U
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 UJ	0.94 U	0.94 U
Pesticides					
4,4'-DDD	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U
4,4'-DDE	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
4,4'-DDT	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Aldrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
alpha-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
alpha-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
beta-BHC	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
delta-BHC	µg/L	0.047 U	0.047 UJ	0.026 J	0.046 J
Dieldrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan I	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan II	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan sulfate	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endrin ketone	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
gamma-BHC (lindane)	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Heptachlor	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U
Heptachlor epoxide	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Methoxychlor	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		7120	7130	7132	7155
Sample Name:		WG-9954-061119-SG-001	WG-9954-061219-SG-002	WG-9954-061219-SG-003	WG-9954-061419-DJT-015
Sample Date:		06/11/2019	06/12/2019	06/12/2019	06/14/2019
Parameters	Unit				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	10 U	4.7 J
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	10 U	10 U	10 U	5.2 J
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		7120	7130	7132	7155
Sample Name:		WG-9954-061119-SG-001	WG-9954-061219-SG-002	WG-9954-061219-SG-003	WG-9954-061419-DJT-015
Sample Date:		06/11/2019	06/12/2019	06/12/2019	06/14/2019
Parameters	Unit				
Semi-volatile Organic Compounds (SVOCs)					
1,2,4-Trichlorobenzene	µg/L	9.4 U	10 U	10 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	10 U	10 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	10 U	10 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	10 U	10 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	10 U	10 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	10 U	10 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	10 U	10 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	10 U	10 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	10 U	10 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	50 U	50 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	10 U	10 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	10 U	10 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	10 U	10 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	10 U	10 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	10 U	10 U	9.4 U
2-Methylphenol	µg/L	9.4 U	10 U	10 U	9.4 U
2-Nitroaniline	µg/L	47 U	50 U	50 U	47 U
2-Nitrophenol	µg/L	9.4 U	10 U	10 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	10 U	10 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	10 U	10 U	9.4 U
3-Nitroaniline	µg/L	47 U	50 U	50 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	50 U	50 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	10 U	10 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	10 U	10 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	10 U	10 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	10 U	10 U	9.4 U
4-Nitroaniline	µg/L	47 U	50 U	50 U	47 U
4-Nitrophenol	µg/L	47 U	50 U	50 U	47 U
Acenaphthene	µg/L	9.4 U	10 U	10 U	9.4 U
Acenaphthylene	µg/L	9.4 U	10 U	10 U	9.4 U
Anthracene	µg/L	9.4 U	10 U	10 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	10 U	10 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	10 U	10 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	10 U	10 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	10 U	10 U	9.4 U
Benzo(k)fluoranthene	µg/L	9.4 U	10 U	10 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:	7120	7130	7132	7155
Sample Name:	WG-9954-061119-SG-001	WG-9954-061219-SG-002	WG-9954-061219-SG-003	WG-9954-061419-DJT-015
Sample Date:	06/11/2019	06/12/2019	06/12/2019	06/14/2019
Parameters	Unit			
SVOCs-Continued				
Benzoic acid	µg/L	47 U	50 U	47 U
Benzyl alcohol	µg/L	9.4 U	10 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	10 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	10 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	10 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	10 U	9.4 U
Chrysene	µg/L	9.4 U	10 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	10 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	10 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	10 U	9.4 U
Dibenzofuran	µg/L	9.4 U	10 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	10 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	10 U	9.4 U
Fluoranthene	µg/L	9.4 U	10 U	9.4 U
Fluorene	µg/L	9.4 U	10 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	10 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	10 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	10 U	9.4 U
Hexachloroethane	µg/L	9.4 U	10 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	10 U	9.4 U
Isophorone	µg/L	9.4 U	10 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	10 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	10 U	9.4 U
Naphthalene	µg/L	9.4 U	10 U	9.4 U
Nitrobenzene	µg/L	9.4 U	10 U	9.4 U
Pentachlorophenol	µg/L	47 U	50 U	47 U
Phenanthrene	µg/L	9.4 U	10 U	9.4 U
Phenol	µg/L	9.4 U	1.8 J	9.4 U
Pyrene	µg/L	9.4 U	10 U	9.4 U
Polychlorinated Biphenyls (PCBs)				
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		7120	7130	7132	7155
Sample Name:		WG-9954-061119-SG-001	WG-9954-061219-SG-002	WG-9954-061219-SG-003	WG-9954-061419-DJT-015
Sample Date:		06/11/2019	06/12/2019	06/12/2019	06/14/2019
Parameters	Unit				
PCBs-Continued					
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 U	0.94 U	0.94 UJ
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 U	0.94 U	0.94 UJ
Pesticides					
4,4'-DDD	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
4,4'-DDE	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
4,4'-DDT	µg/L	0.047 UJ	0.047 U	0.047 U	0.047 U
Aldrin	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
alpha-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
alpha-Chlordane	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
beta-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
delta-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
Dieldrin	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
Endosulfan I	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
Endosulfan II	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan sulfate	µg/L	0.047 UJ	0.047 U	0.047 U	0.047 U
Endrin	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
Endrin ketone	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
gamma-BHC (lindane)	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Heptachlor	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
Heptachlor epoxide	µg/L	0.047 UJ	0.047 UJ	0.047 UJ	0.047 U
Methoxychlor	µg/L	0.047 UJ	0.047 U	0.047 U	0.047 U
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		7161	7205	8106	8110
Sample Name:		WG-9954-061419-DJT-016	WG-9954-062119-SG-038	WG-9954-062119-SG-044	WG-9954-061919-SG-032
Sample Date:		06/14/2019	06/21/2019	06/21/2019	06/19/2019
Parameters	Unit				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	0.32 J	10 U	10 U
Acetone	µg/L	5.1 J	10 U	10 U	5.3 J
Benzene	µg/L	5.0 U	5.0 U	5.0 U	0.33 J
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	0.54 J	1.6 J	10 U	10 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	0.86 J
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	1.1 J

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		7161	7205	8106	8110
Sample Name:		WG-9954-061419-DJT-016	WG-9954-062119-SG-038	WG-9954-062119-SG-044	WG-9954-061919-SG-032
Sample Date:		06/14/2019	06/21/2019	06/21/2019	06/19/2019
Parameters	Unit				
Semi-volatile Organic Compounds (SVOCs)					
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:	7161	7205	8106	8110
Sample Name:	WG-9954-061419-DJT-016	WG-9954-062119-SG-038	WG-9954-062119-SG-044	WG-9954-061919-SG-032
Sample Date:	06/14/2019	06/21/2019	06/21/2019	06/19/2019
Parameters	Unit			
SVOCs-Continued				
Benzoic acid	µg/L	47 U	47 U	47 U
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	47 U	47 U	47 U
Phenanthrene	µg/L	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	9.4 U	9.4 U	9.4 U
Polychlorinated Biphenyls (PCBs)				
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	1.1 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	2.1 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	1.1 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	1.1 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		7161	7205	8106	8110
Sample Name:		WG-9954-061419-DJT-016	WG-9954-062119-SG-038	WG-9954-062119-SG-044	WG-9954-061919-SG-032
Sample Date:		06/14/2019	06/21/2019	06/21/2019	06/19/2019
Parameters	Unit				
PCBs-Continued					
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	1.1 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 U	0.94 U	1.1 U
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 U	0.94 U	1.1 U
Pesticides					
4,4'-DDD	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 UJ
4,4'-DDE	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
4,4'-DDT	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
Aldrin	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
alpha-BHC	µg/L	0.047 U	0.028 J	0.047 UJ	0.053 UJ
alpha-Chlordane	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
beta-BHC	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
delta-BHC	µg/L	0.047 U	0.035 J	0.047 UJ	0.053 UJ
Dieldrin	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
Endosulfan I	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
Endosulfan II	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
Endosulfan sulfate	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
Endrin	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
Endrin ketone	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
gamma-BHC (lindane)	µg/L	0.047 U	0.026 J	0.047 UJ	0.053 UJ
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.053 U
Heptachlor	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 UJ
Heptachlor epoxide	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
Methoxychlor	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.053 U
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	0.53 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		8120	8130	8140	8210
Sample Name:		WG-9954-062119-SG-039	WG-9954-062119-SG-040	WG-9954-062119-SG-041	WG-9954-061819-SG-024
Sample Date:		06/21/2019	06/21/2019	06/21/2019	06/18/2019
Parameters	Unit				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	10 U	12
Benzene	µg/L	5.0 U	5.0 U	0.24 J	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	10 U	10 U	0.25 J	2.1 J
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	0.60 J	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	0.86 J	5.0 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		8120	8130	8140	8210
Sample Name:		WG-9954-062119-SG-039	WG-9954-062119-SG-040	WG-9954-062119-SG-041	WG-9954-061819-SG-024
Sample Date:		06/21/2019	06/21/2019	06/21/2019	06/18/2019
Parameters	Unit				
Semi-volatile Organic Compounds (SVOCs)					
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:	8120	8130	8140	8210
Sample Name:	WG-9954-062119-SG-039	WG-9954-062119-SG-040	WG-9954-062119-SG-041	WG-9954-061819-SG-024
Sample Date:	06/21/2019	06/21/2019	06/21/2019	06/18/2019
Parameters	Unit			
SVOCs-Continued				
Benzoic acid	µg/L	47 U	47 U	47 U
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	47 U	47 U	47 U
Phenanthrene	µg/L	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	9.4 U	9.4 U	9.4 U
Polychlorinated Biphenyls (PCBs)				
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		8120	8130	8140	8210
Sample Name:		WG-9954-062119-SG-039	WG-9954-062119-SG-040	WG-9954-062119-SG-041	WG-9954-061819-SG-024
Sample Date:		06/21/2019	06/21/2019	06/21/2019	06/18/2019
Parameters	Unit				
PCBs-Continued					
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 U	0.94 U	0.94 UJ
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 U	0.94 U	0.94 UJ
Pesticides					
4,4'-DDD	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
4,4'-DDE	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
4,4'-DDT	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
Aldrin	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
alpha-BHC	µg/L	0.047 UJ	0.047 UJ	0.041 J	0.050
alpha-Chlordane	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
beta-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
delta-BHC	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
Dieldrin	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
Endosulfan I	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
Endosulfan II	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
Endosulfan sulfate	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
Endrin	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
Endrin ketone	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
gamma-BHC (lindane)	µg/L	0.047 UJ	0.047 UJ	0.023 J	0.047 U
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Heptachlor	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
Heptachlor epoxide	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
Methoxychlor	µg/L	0.047 UJ	0.047 UJ	0.047 U	0.047 U
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

	Location ID:	9110	9115	9120	9125
	Sample Name:	WG-9954-062119-SG-042	WG-9954-061819-SG-030	WG-9954-061819-SG-029	WG-9954-061819-SG-028
	Sample Date:	06/21/2019	06/18/2019	06/18/2019	06/18/2019
Parameters	Unit				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	4.2 J	4.0 J	4.7 J
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	0.79 J
Carbon disulfide	µg/L	10 U	10 UJ	0.30 J	0.31 J
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	0.43 J	0.36 J
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		9110	9115	9120	9125
Sample Name:		WG-9954-062119-SG-042	WG-9954-061819-SG-030	WG-9954-061819-SG-029	WG-9954-061819-SG-028
Sample Date:		06/21/2019	06/18/2019	06/18/2019	06/18/2019
Parameters	Unit				
Semi-volatile Organic Compounds (SVOCs)					
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:	9110	9115	9120	9125
Sample Name:	WG-9954-062119-SG-042	WG-9954-061819-SG-030	WG-9954-061819-SG-029	WG-9954-061819-SG-028
Sample Date:	06/21/2019	06/18/2019	06/18/2019	06/18/2019
Parameters	Unit			
SVOCs-Continued				
Benzoic acid	µg/L	47 U	47 U	47 U
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	47 U	47 U	47 U
Phenanthrene	µg/L	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.4 U	9.4 U	1.2 J
Pyrene	µg/L	9.4 U	9.4 U	9.4 U
Polychlorinated Biphenyls (PCBs)				
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		9110	9115	9120	9125
Sample Name:		WG-9954-062119-SG-042	WG-9954-061819-SG-030	WG-9954-061819-SG-029	WG-9954-061819-SG-028
Sample Date:		06/21/2019	06/18/2019	06/18/2019	06/18/2019
Parameters	Unit				
PCBs-Continued					
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	R	0.94 U	R
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	R	0.94 U	R
Pesticides					
4,4'-DDD	µg/L	0.047 UJ	R	0.047 U	R
4,4'-DDE	µg/L	0.047 UJ	R	0.047 UJ	R
4,4'-DDT	µg/L	0.047 UJ	R	0.047 U	R
Aldrin	µg/L	0.047 UJ	R	0.047 UJ	R
alpha-BHC	µg/L	0.047 UJ	R	0.047 UJ	R
alpha-Chlordane	µg/L	0.047 UJ	R	0.047 U	R
beta-BHC	µg/L	0.047 UJ	R	0.047 UJ	R
delta-BHC	µg/L	0.047 UJ	R	0.047 UJ	R
Dieldrin	µg/L	0.047 UJ	R	0.047 U	R
Endosulfan I	µg/L	0.047 UJ	R	0.047 U	R
Endosulfan II	µg/L	0.047 UJ	R	0.047 U	R
Endosulfan sulfate	µg/L	0.047 UJ	R	0.047 U	R
Endrin	µg/L	0.047 UJ	R	0.047 U	R
Endrin ketone	µg/L	0.047 UJ	R	0.047 U	R
gamma-BHC (lindane)	µg/L	0.047 UJ	R	0.047 UJ	R
gamma-Chlordane	µg/L	0.047 U	R	0.047 U	R
Heptachlor	µg/L	0.047 UJ	R	0.047 UJ	R
Heptachlor epoxide	µg/L	0.047 UJ	R	0.047 U	R
Methoxychlor	µg/L	0.047 UJ	R	0.047 U	R
Toxaphene	µg/L	0.50 U	R	0.50 U	R

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

	Location ID:	9130	9140	9205	9210
	Sample Name:	WG-9954-061419-DJT-017	WG-9954-062119-SG-043	WG-9954-062419-SG-045	WG-9954-061719-SG-018
	Sample Date:	06/14/2019	06/21/2019	06/24/2019	06/17/2019
Parameters	Unit				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	6.5 J	10 U	10 U	10 U
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	0.44 J	0.31 J	1.5 J	1.9 J
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	0.34 J	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		9130	9140	9205	9210
Sample Name:		WG-9954-061419-DJT-017	WG-9954-062119-SG-043	WG-9954-062419-SG-045	WG-9954-061719-SG-018
Sample Date:		06/14/2019	06/21/2019	06/24/2019	06/17/2019
Parameters	Unit				
Semi-volatile Organic Compounds (SVOCs)					
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:	9130	9140	9205	9210
Sample Name:	WG-9954-061419-DJT-017	WG-9954-062119-SG-043	WG-9954-062419-SG-045	WG-9954-061719-SG-018
Sample Date:	06/14/2019	06/21/2019	06/24/2019	06/17/2019
Parameters	Unit			
SVOCs-Continued				
Benzoic acid	µg/L	47 U	47 U	47 U
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	47 U	47 U	47 U
Phenanthrene	µg/L	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	9.4 U	9.4 U	9.4 U
Polychlorinated Biphenyls (PCBs)				
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		9130	9140	9205	9210
Sample Name:		WG-9954-061419-DJT-017	WG-9954-062119-SG-043	WG-9954-062419-SG-045	WG-9954-061719-SG-018
Sample Date:		06/14/2019	06/21/2019	06/24/2019	06/17/2019
Parameters	Unit				
PCBs-Continued					
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 U	0.94 U	0.94 UJ
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 U	0.94 U	0.94 UJ
Pesticides					
4,4'-DDD	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
4,4'-DDE	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
4,4'-DDT	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
Aldrin	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
alpha-BHC	µg/L	0.047 U	0.047 UJ	0.027 J	0.24 U
alpha-Chlordane	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
beta-BHC	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
delta-BHC	µg/L	0.047 U	0.047 UJ	0.037 J	0.24 U
Dieldrin	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
Endosulfan I	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
Endosulfan II	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
Endosulfan sulfate	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
Endrin	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
Endrin ketone	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
gamma-BHC (lindane)	µg/L	0.047 U	0.047 UJ	0.026 J	0.24 U
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.24 U
Heptachlor	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
Heptachlor epoxide	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
Methoxychlor	µg/L	0.047 U	0.047 UJ	0.047 U	0.24 U
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	2.5 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10105	10135	10135	10147
Sample Name:		WG-9954-061919-SG-035	WG-9954-061919-SG-036	WG-9954-061919-SG-037	WG-9954-061419-DJT-013
Sample Date:		06/19/2019	06/19/2019	06/19/2019 Duplicate	06/14/2019
Parameters	Unit				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	1.8 J	1.8 J	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	3.4 J	3.8 J	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	0.22 J	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	5.7 J	4.4 J	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	8.7 J	50	35	10 U
Benzene	µg/L	5.0 U	4900	5700	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	0.56 J	0.31 J	0.33 J	10 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	2200	2400	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	59	60	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	8.1	8.4	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	10	11	5.0 U
Methylene chloride	µg/L	5.0 U	3.5 J	3.8 J	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 J	5.3	5.0 U
Toluene	µg/L	5.0 U	17000	19000	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	27	27	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	26	28	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	3.9 J	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	47	48	5.0 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10105	10135	10135	10147
Sample Name:		WG-9954-061919-SG-035	WG-9954-061919-SG-036	WG-9954-061919-SG-037	WG-9954-061419-DJT-013
Sample Date:		06/19/2019	06/19/2019	06/19/2019 Duplicate	06/14/2019
Parameters	Unit				
Semi-volatile Organic Compounds (SVOCs)					
1,2,4-Trichlorobenzene	µg/L	9.4 U	28 J	14 J	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	190 U	94 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	190 U	94 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	45 J	21 J	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	190 U	94 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	190 U	94 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	190 U	94 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	35 J	94 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	190 U	94 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	940 U	470 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	190 U	94 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	190 U	94 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	190 U	94 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	190 U	94 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	190 U	94 U	9.4 U
2-Methylphenol	µg/L	9.4 U	190 U	94 U	9.4 U
2-Nitroaniline	µg/L	47 U	940 U	470 U	47 U
2-Nitrophenol	µg/L	9.4 U	190 U	94 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	31 J	94 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	190 U	94 U	9.4 U
3-Nitroaniline	µg/L	47 U	940 U	470 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	940 U	470 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	190 U	94 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	190 U	94 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	190 U	94 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	190 U	94 U	9.4 U
4-Nitroaniline	µg/L	47 U	940 U	470 U	47 U
4-Nitrophenol	µg/L	47 U	940 U	470 U	47 U
Acenaphthene	µg/L	9.4 U	190 U	94 U	9.4 U
Acenaphthylene	µg/L	9.4 U	190 U	94 U	9.4 U
Anthracene	µg/L	9.4 U	190 U	94 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	190 U	94 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	190 U	94 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	190 U	94 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	190 U	94 U	9.4 U
Benzo(k)fluoranthene	µg/L	9.4 U	190 U	94 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10105	10135	10135	10147
Sample Name:		WG-9954-061919-SG-035	WG-9954-061919-SG-036	WG-9954-061919-SG-037	WG-9954-061419-DJT-013
Sample Date:		06/19/2019	06/19/2019	06/19/2019 Duplicate	06/14/2019
Parameters	Unit				
SVOCs-Continued					
Benzoic acid	µg/L	47 U	1300	1100	47 U
Benzyl alcohol	µg/L	9.4 U	61 J	43 J	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	190 U	94 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	190 U	94 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	200 U	97 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	190 U	94 U	9.4 U
Chrysene	µg/L	9.4 U	190 U	94 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	190 U	94 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	190 U	94 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	190 U	94 U	9.4 U
Dibenzofuran	µg/L	9.4 U	190 U	94 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	190 U	94 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	190 U	94 U	9.4 U
Fluoranthene	µg/L	9.4 U	190 U	94 U	9.4 U
Fluorene	µg/L	9.4 U	190 U	94 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	190 U	94 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	190 U	94 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	190 U	94 U	9.4 U
Hexachloroethane	µg/L	9.4 U	190 U	94 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	190 U	94 U	9.4 U
Isophorone	µg/L	9.4 U	190 U	94 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	190 U	94 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	190 U	94 U	9.4 U
Naphthalene	µg/L	9.4 U	190 U	94 U	9.4 U
Nitrobenzene	µg/L	9.4 U	190 U	94 U	9.4 U
Pentachlorophenol	µg/L	47 U	940 U	470 U	47 U
Phenanthrene	µg/L	9.4 U	190 U	94 U	9.4 U
Phenol	µg/L	9.4 U	190 U	94 U	9.4 U
Pyrene	µg/L	9.4 U	190 U	94 U	9.4 U
Polychlorinated Biphenyls (PCBs)					
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10105	10135	10135	10147
Sample Name:		WG-9954-061919-SG-035	WG-9954-061919-SG-036	WG-9954-061919-SG-037	WG-9954-061419-DJT-013
Sample Date:		06/19/2019	06/19/2019	06/19/2019 Duplicate	06/14/2019
Parameters	Unit				
PCBs-Continued					
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Pesticides					
4,4'-DDD	µg/L	0.047 UJ	0.94 U	0.94 U	0.047 U
4,4'-DDE	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
4,4'-DDT	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
Aldrin	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
alpha-BHC	µg/L	0.047 UJ	25	26	0.047 U
alpha-Chlordane	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
beta-BHC	µg/L	0.047 U	6.7	7.5	0.047 U
delta-BHC	µg/L	0.047 UJ	7.6	6.3	0.047 U
Dieldrin	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
Endosulfan I	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
Endosulfan II	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
Endosulfan sulfate	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
Endrin	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
Endrin ketone	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
gamma-BHC (lindane)	µg/L	0.047 UJ	4.7	4.4	0.047 U
gamma-Chlordane	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
Heptachlor	µg/L	0.047 UJ	0.94 U	0.94 U	0.047 U
Heptachlor epoxide	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
Methoxychlor	µg/L	0.047 U	0.94 U	0.94 U	0.047 U
Toxaphene	µg/L	0.50 U	10 U	10 U	0.50 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10174A	10178A	10205	10210A
Sample Name:		WG-9954-061419-DJT-014	WG-9954-061919-SG-031	WG-9954-061719-SG-019	WG-9954-061419-DJT-010
Sample Date:		06/14/2019	06/19/2019	06/17/2019	06/14/2019
Parameters	Unit				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	5.5 J	5.1 J	10 U	5.8 J
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	10 U	10 U	2.2 J	51
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	0.29 J

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:	10174A	10178A	10205	10210A
Sample Name:	WG-9954-061419-DJT-014	WG-9954-061919-SG-031	WG-9954-061719-SG-019	WG-9954-061419-DJT-010
Sample Date:	06/14/2019	06/19/2019	06/17/2019	06/14/2019
Parameters	Unit			
Semi-volatile Organic Compounds (SVOCs)				
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	9.4 U	9.4 U
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:	10174A	10178A	10205	10210A
Sample Name:	WG-9954-061419-DJT-014	WG-9954-061919-SG-031	WG-9954-061719-SG-019	WG-9954-061419-DJT-010
Sample Date:	06/14/2019	06/19/2019	06/17/2019	06/14/2019
Parameters	Unit			
SVOCs-Continued				
Benzoic acid	µg/L	47 U	47 U	47 U
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	47 U	47 U	47 U
Phenanthrene	µg/L	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	9.4 U	9.4 U	9.4 U
Polychlorinated Biphenyls (PCBs)				
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10174A	10178A	10205	10210A
Sample Name:		WG-9954-061419-DJT-014	WG-9954-061919-SG-031	WG-9954-061719-SG-019	WG-9954-061419-DJT-010
Sample Date:		06/14/2019	06/19/2019	06/17/2019	06/14/2019
Parameters	Unit				
PCBs-Continued					
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 U	0.94 UJ	0.94 U
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 U	0.94 UJ	0.94 U
Pesticides					
4,4'-DDD	µg/L	0.047 U	0.047 UJ	0.24 U	0.047 U
4,4'-DDE	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
4,4'-DDT	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
Aldrin	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
alpha-BHC	µg/L	0.047 U	0.047 UJ	0.24 U	0.10
alpha-Chlordane	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
beta-BHC	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
delta-BHC	µg/L	0.047 U	0.047 UJ	0.24 U	0.045 J
Dieldrin	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
Endosulfan I	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
Endosulfan II	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
Endosulfan sulfate	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
Endrin	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
Endrin ketone	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
gamma-BHC (lindane)	µg/L	0.047 U	0.047 UJ	0.24 U	0.080
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
Heptachlor	µg/L	0.047 U	0.047 UJ	0.24 U	0.047 U
Heptachlor epoxide	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
Methoxychlor	µg/L	0.047 U	0.047 U	0.24 U	0.047 U
Toxaphene	µg/L	0.50 U	0.50 U	2.5 U	0.50 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10210B	10210C	10215	10215
Sample Name:		WG-9954-061719-SG-020	WG-9954-061719-SG-021	WG-9954-061719-SG-022	WG-9954-061719-SG-023
Sample Date:		06/17/2019	06/17/2019	06/17/2019	06/17/2019 Duplicate
Parameters	Unit				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	10 U	10 U	2.4 J	10 U
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	4.2 J	2.6 J	2.1 J	2.2 J
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10210B	10210C	10215	10215
Sample Name:		WG-9954-061719-SG-020	WG-9954-061719-SG-021	WG-9954-061719-SG-022	WG-9954-061719-SG-023
Sample Date:		06/17/2019	06/17/2019	06/17/2019	06/17/2019
		Duplicate			
Parameters	Unit				
Semi-volatile Organic Compounds (SVOCs)					
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	47 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	47 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.4 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:	10210B	10210C	10215	10215
Sample Name:	WG-9954-061719-SG-020	WG-9954-061719-SG-021	WG-9954-061719-SG-022	WG-9954-061719-SG-023
Sample Date:	06/17/2019	06/17/2019	06/17/2019	06/17/2019 Duplicate
Parameters	Unit			
SVOCs-Continued				
Benzoic acid	µg/L	47 U	47 U	47 U
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	47 U	47 U	47 U
Phenanthrene	µg/L	9.4 U	9.4 U	9.4 U
Phenol	µg/L	9.4 U	1.7 J	9.4 U
Pyrene	µg/L	9.4 U	9.4 U	9.4 U
Polychlorinated Biphenyls (PCBs)				
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10210B	10210C	10215	10215
Sample Name:		WG-9954-061719-SG-020	WG-9954-061719-SG-021	WG-9954-061719-SG-022	WG-9954-061719-SG-023
Sample Date:		06/17/2019	06/17/2019	06/17/2019	06/17/2019 Duplicate
Parameters	Unit				
PCBs-Continued					
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ
Aroclor-1260 (PCB-1260)	µg/L	0.94 UJ	0.94 UJ	0.94 UJ	0.94 UJ
Pesticides					
4,4'-DDD	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
4,4'-DDE	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.047 UJ
4,4'-DDT	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Aldrin	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.047 UJ
alpha-BHC	µg/L	0.054	0.021 J	0.023 J	0.047 UJ
alpha-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
beta-BHC	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.047 UJ
delta-BHC	µg/L	0.047 U	0.028 J	0.028 J	0.047 UJ
Dieldrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan I	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan II	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan sulfate	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endrin ketone	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
gamma-BHC (lindane)	µg/L	0.055	0.026 J	0.028 J	0.047 UJ
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Heptachlor	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.047 UJ
Heptachlor epoxide	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Methoxychlor	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10225A	10225B	10225C	10270
Sample Name:		WG-9954-061419-DJT-011	WG-9954-061419-DJT-012	WG-9954-061919-SG-034	WG-9954-061319-SG-006
Sample Date:		06/14/2019	06/14/2019	06/19/2019	06/13/2019
Parameters	Unit				
Volatile Organic Compounds (VOCs)					
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	1.0 J	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U
Acetone	µg/L	8.7 J	3.3 J	3.4 J	10 U
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	84	4.8 J	2.6 J	0.46 J
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	1.0 J	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	3.1 J	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	0.35 J	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	0.27 J	0.23 J	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	6.5	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	0.45 J	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10225A	10225B	10225C	10270
Sample Name:		WG-9954-061419-DJT-011	WG-9954-061419-DJT-012	WG-9954-061919-SG-034	WG-9954-061319-SG-006
Sample Date:		06/14/2019	06/14/2019	06/19/2019	06/13/2019
Parameters	Unit				
Semi-volatile Organic Compounds (SVOCs)					
1,2,4-Trichlorobenzene	µg/L	9.4 U	9.4 U	10	9.4 U
1,2-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
1,3-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
1,4-Dichlorobenzene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2,4,5-Trichlorophenol	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2,4,6-Trichlorophenol	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2,4-Dichlorophenol	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2,4-Dimethylphenol	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2,4-Dinitrophenol	µg/L	47 U	47 U	49 U	47 U
2,4-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2,6-Dinitrotoluene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2-Chloronaphthalene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2-Chlorophenol	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2-Methylnaphthalene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2-Methylphenol	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
2-Nitroaniline	µg/L	47 U	47 U	49 U	47 U
2-Nitrophenol	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
3&4-Methylphenol	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
3-Nitroaniline	µg/L	47 U	47 U	49 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	47 U	47 U	49 U	47 U
4-Bromophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
4-Chloro-3-methylphenol	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
4-Chloroaniline	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
4-Nitroaniline	µg/L	47 U	47 U	49 U	47 U
4-Nitrophenol	µg/L	47 U	47 U	49 U	47 U
Acenaphthene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
Acenaphthylene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
Anthracene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
Benzo(a)anthracene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
Benzo(a)pyrene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
Benzo(b)fluoranthene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
Benzo(g,h,i)perylene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U
Benzo(k)fluoranthene	µg/L	9.4 U	9.4 U	9.8 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:	10225A	10225B	10225C	10270
Sample Name:	WG-9954-061419-DJT-011	WG-9954-061419-DJT-012	WG-9954-061919-SG-034	WG-9954-061319-SG-006
Sample Date:	06/14/2019	06/14/2019	06/19/2019	06/13/2019
Parameters	Unit			
SVOCs-Continued				
Benzoic acid	µg/L	47 U	47 U	49 U
Benzyl alcohol	µg/L	9.4 U	9.4 U	9.8 U
bis(2-Chloroethoxy)methane	µg/L	9.4 U	9.4 U	9.8 U
bis(2-Chloroethyl)ether	µg/L	9.4 U	9.4 U	9.8 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	9.7 U	9.7 U	9.8 U
Butyl benzylphthalate (BBP)	µg/L	9.4 U	9.4 U	9.8 U
Chrysene	µg/L	9.4 U	9.4 U	9.8 U
Di-n-butylphthalate (DBP)	µg/L	9.4 U	9.4 U	9.8 U
Di-n-octyl phthalate (DnOP)	µg/L	9.4 U	9.4 U	9.8 U
Dibenz(a,h)anthracene	µg/L	9.4 U	9.4 U	9.8 U
Dibenzofuran	µg/L	9.4 U	9.4 U	9.8 U
Diethyl phthalate	µg/L	9.4 U	9.4 U	9.8 U
Dimethyl phthalate	µg/L	9.4 U	9.4 U	9.8 U
Fluoranthene	µg/L	9.4 U	9.4 U	9.8 U
Fluorene	µg/L	9.4 U	9.4 U	9.8 U
Hexachlorobenzene	µg/L	9.4 U	9.4 U	9.8 U
Hexachlorobutadiene	µg/L	9.4 U	9.4 U	9.8 U
Hexachlorocyclopentadiene	µg/L	9.4 U	9.4 U	9.8 U
Hexachloroethane	µg/L	9.4 U	9.4 U	9.8 U
Indeno(1,2,3-cd)pyrene	µg/L	9.4 U	9.4 U	9.8 U
Isophorone	µg/L	9.4 U	9.4 U	9.8 U
N-Nitrosodi-n-propylamine	µg/L	9.4 U	9.4 U	9.8 U
N-Nitrosodiphenylamine	µg/L	9.4 U	9.4 U	9.8 U
Naphthalene	µg/L	9.4 U	9.4 U	9.8 U
Nitrobenzene	µg/L	9.4 U	9.4 U	9.8 U
Pentachlorophenol	µg/L	47 U	47 U	49 U
Phenanthrene	µg/L	9.4 U	9.4 U	9.8 U
Phenol	µg/L	9.4 U	9.4 U	9.8 U
Pyrene	µg/L	9.4 U	9.4 U	9.8 U
Polychlorinated Biphenyls (PCBs)				
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10225A	10225B	10225C	10270
Sample Name:		WG-9954-061419-DJT-011	WG-9954-061419-DJT-012	WG-9954-061919-SG-034	WG-9954-061319-SG-006
Sample Date:		06/14/2019	06/14/2019	06/19/2019	06/13/2019
Parameters	Unit				
PCBs-Continued					
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U
Pesticides					
4,4'-DDD	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
4,4'-DDE	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
4,4'-DDT	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Aldrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
alpha-BHC	µg/L	0.024 J	0.047 U	0.12	0.10
alpha-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
beta-BHC	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
delta-BHC	µg/L	0.10	0.023 J	0.046 J	0.074
Dieldrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan I	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan II	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan sulfate	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endrin	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Endrin ketone	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
gamma-BHC (lindane)	µg/L	0.045 J	0.047 U	0.060	0.093
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Heptachlor	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Heptachlor epoxide	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Methoxychlor	µg/L	0.047 U	0.047 U	0.047 U	0.047 U
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10272	10278	MW-01	MW-01	MW-02
Sample Name:		WG-9954-061219-SG-005	WG-9954-061219-SG-004	WG-9954-061819-SG-026	WG-9954-061819-SG-027	WG-9954-061819-SG-025
Sample Date:		06/12/2019	06/12/2019	06/18/2019	06/18/2019 Duplicate	06/18/2019
Parameters	Unit					
Volatile Organic Compounds (VOCs)						
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	10 U	1.9 J	10 U	10 U	10 U
2-Hexanone	µg/L	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	10 U	10 U	10 U	10 U	10 U
Acetone	µg/L	2.7 J	15	9.5 J	7.7 J	12
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	2.5 J	0.66 J	0.46 J	0.36 J	1.4 J
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	0.20 J
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Vinyl acetate	µg/L	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Xylenes (total)	µg/L	5.0 U	0.32 J	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10272	10278	MW-01	MW-01	MW-02
Sample Name:		WG-9954-061219-SG-005	WG-9954-061219-SG-004	WG-9954-061819-SG-026	WG-9954-061819-SG-027	WG-9954-061819-SG-025
Sample Date:		06/12/2019	06/12/2019	06/18/2019	06/18/2019 Duplicate	06/18/2019
Parameters	Unit					
Semi-volatile Organic Compounds (SVOCs)						
1,2,4-Trichlorobenzene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
1,2-Dichlorobenzene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
1,3-Dichlorobenzene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
1,4-Dichlorobenzene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2,2'-Oxybis(1-chloropropane) (bis(2-Chloroisopropyl) ether)	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2,4,5-Trichlorophenol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2,4,6-Trichlorophenol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2,4-Dichlorophenol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2,4-Dimethylphenol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2,4-Dinitrophenol	µg/L	50 U	50 U	47 U	47 U	47 U
2,4-Dinitrotoluene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2,6-Dinitrotoluene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2-Chloronaphthalene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2-Chlorophenol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2-Methylnaphthalene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2-Methylphenol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
2-Nitroaniline	µg/L	50 U	50 U	47 U	47 U	47 U
2-Nitrophenol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
3&4-Methylphenol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
3,3'-Dichlorobenzidine	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
3-Nitroaniline	µg/L	50 U	50 U	47 U	47 U	47 U
4,6-Dinitro-2-methylphenol	µg/L	50 U	50 U	47 U	47 U	47 U
4-Bromophenyl phenyl ether	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
4-Chloro-3-methylphenol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
4-Chloroaniline	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
4-Chlorophenyl phenyl ether	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
4-Nitroaniline	µg/L	50 U	50 U	47 U	47 U	47 U
4-Nitrophenol	µg/L	50 U	50 U	47 U	47 U	47 U
Acenaphthene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Acenaphthylene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Anthracene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Benzo(a)anthracene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Benzo(a)pyrene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Benzo(b)fluoranthene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Benzo(g,h,i)perylene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Benzo(k)fluoranthene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:	10272	10278	MW-01	MW-01	MW-02
Sample Name:	WG-9954-061219-SG-005	WG-9954-061219-SG-004	WG-9954-061819-SG-026	WG-9954-061819-SG-027	WG-9954-061819-SG-025
Sample Date:	06/12/2019	06/12/2019	06/18/2019	06/18/2019 Duplicate	06/18/2019

Parameters	Unit					
SVOCs-Continued						
Benzoic acid	µg/L	50 U	50 U	47 U	47 U	47 U
Benzyl alcohol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethoxy)methane	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
bis(2-Chloroethyl)ether	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
bis(2-Ethylhexyl)phthalate (DEHP)	µg/L	10 U	10 U	9.7 U	9.7 U	9.7 U
Butyl benzylphthalate (BBP)	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Chrysene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Di-n-butylphthalate (DBP)	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Di-n-octyl phthalate (DnOP)	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Dibenz(a,h)anthracene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Dibenzofuran	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Diethyl phthalate	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Dimethyl phthalate	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Fluoranthene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Fluorene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Hexachlorobenzene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Hexachlorobutadiene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Hexachlorocyclopentadiene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Hexachloroethane	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Indeno(1,2,3-cd)pyrene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Isophorone	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
N-Nitrosodi-n-propylamine	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
N-Nitrosodiphenylamine	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Naphthalene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Nitrobenzene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Pentachlorophenol	µg/L	50 U	50 U	47 U	47 U	47 U
Phenanthrene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Phenol	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Pyrene	µg/L	10 U	10 U	9.4 U	9.4 U	9.4 U
Polychlorinated Biphenyls (PCBs)						
Aroclor-1016 (PCB-1016)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1221 (PCB-1221)	µg/L	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Aroclor-1232 (PCB-1232)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1242 (PCB-1242)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U

Table 2

Analytical Results Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Location ID:		10272	10278	MW-01	MW-01	MW-02
Sample Name:		WG-9954-061219-SG-005	WG-9954-061219-SG-004	WG-9954-061819-SG-026	WG-9954-061819-SG-027	WG-9954-061819-SG-025
Sample Date:		06/12/2019	06/12/2019	06/18/2019	06/18/2019 Duplicate	06/18/2019
Parameters	Unit					
PCBs-Continued						
Aroclor-1248 (PCB-1248)	µg/L	0.94 U	0.94 U	0.94 U	0.94 U	0.94 U
Aroclor-1254 (PCB-1254)	µg/L	0.94 U	0.94 U	0.94 UJ	0.94 UJ	0.94 UJ
Aroclor-1260 (PCB-1260)	µg/L	0.94 U	0.94 U	0.94 UJ	0.94 UJ	0.94 UJ
Pesticides						
4,4'-DDD	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
4,4'-DDE	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
4,4'-DDT	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
Aldrin	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
alpha-BHC	µg/L	0.39	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
alpha-Chlordane	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
beta-BHC	µg/L	0.024 J	0.026 J	0.047 UJ	0.047 UJ	0.047 UJ
delta-BHC	µg/L	0.26	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
Dieldrin	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
Endosulfan I	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
Endosulfan II	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
Endosulfan sulfate	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
Endrin	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
Endrin ketone	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
gamma-BHC (lindane)	µg/L	0.38	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
gamma-Chlordane	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
Heptachlor	µg/L	0.047 U	0.047 UJ	0.047 UJ	0.047 UJ	0.047 UJ
Heptachlor epoxide	µg/L	0.047 U	0.047 UJ	0.047 U	0.047 U	0.047 U
Methoxychlor	µg/L	0.047 U	0.047 U	0.047 U	0.047 U	0.047 U
Toxaphene	µg/L	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U

Notes:

- J - Estimated concentration
- U - Not detected at the associated reporting limit
- UJ - Not detected; associated reporting limit is estimated
- R - Rejected

Table 3

**Analytical Methods
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

Parameter	Method	Matrix	Holding Time	
			Collection to Extraction (Days)	Collection or Extraction to Analysis (Days)
Volatile Organic Compounds (VOCs)	SW-846 8260B	Water	-	14
Semi-volatile Organic Compounds (SVOCs)	SW-846 8270C	Water	7	40
Polychlorinated Biphenyls (PCBs)	SW-846 8082	Water	7	40
Organochlorine Pesticides	SW-846 8081A	Water	7	40

Notes:

- - Not applicable

Method References:

SW-846 - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions

Table 4

**Qualified Sample Results Due to Outlying Continuing Calibration Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
PCBs	Aroclor-1254 (PCB-1254)	07/02/2019	25.7	WG-9954-061719-SG-018	0.94 UJ	µg/L
				WG-9954-061719-SG-019	0.94 UJ	µg/L
				WG-9954-061719-SG-020	0.94 UJ	µg/L
				WG-9954-061719-SG-021	0.94 UJ	µg/L
				WG-9954-061719-SG-022	0.94 UJ	µg/L
				WG-9954-061719-SG-023	0.94 UJ	µg/L
				WG-9954-061819-SG-024	0.94 UJ	µg/L
				WG-9954-061819-SG-025	0.94 UJ	µg/L
				WG-9954-061819-SG-026	0.94 UJ	µg/L
PCBs	Aroclor-1260 (PCB-1260)	07/02/2019	25.7	WG-9954-061719-SG-018	0.94 UJ	µg/L
				WG-9954-061719-SG-019	0.94 UJ	µg/L
				WG-9954-061719-SG-020	0.94 UJ	µg/L
				WG-9954-061719-SG-021	0.94 UJ	µg/L
				WG-9954-061719-SG-022	0.94 UJ	µg/L
				WG-9954-061719-SG-023	0.94 UJ	µg/L
				WG-9954-061819-SG-024	0.94 UJ	µg/L
				WG-9954-061819-SG-025	0.94 UJ	µg/L
				WG-9954-061819-SG-026	0.94 UJ	µg/L
PCBs	Aroclor-1254 (PCB-1254)	07/03/2019	29.4	WG-9954-061419-DJT-015	0.94 UJ	µg/L
				WG-9954-061919-SG-033	0.94 UJ	µg/L
PCBs	Aroclor-1260 (PCB-1260)	07/03/2019	29.4	WG-9954-061419-DJT-015	0.94 UJ	µg/L
				WG-9954-061919-SG-033	0.94 UJ	µg/L
VOCs	Carbon disulfide	06/25/2019	27.6	WG-9954-061819-SG-030	10 UJ	µg/L

Table 4

Qualified Sample Results Due to Outlying Continuing Calibration Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
Pesticides	4,4'-DDD	06/19/2019	34.1	WG-9954-061119-SG-001	0.047 UJ	µg/L
	4,4'-DDE		42.8	WG-9954-061119-SG-001	0.047 UJ	µg/L
	4,4'-DDT		33.7	WG-9954-061119-SG-001	0.047 UJ	µg/L
	Aldrin		37.9	WG-9954-061119-SG-001	0.047 UJ	µg/L
	alpha-BHC		41.2	WG-9954-061119-SG-001	0.047 UJ	µg/L
	alpha-Chlordane		31.1	WG-9954-061119-SG-001	0.047 UJ	µg/L
	beta-BHC		29.1	WG-9954-061119-SG-001	0.047 UJ	µg/L
	delta-BHC		38.7	WG-9954-061119-SG-001	0.047 UJ	µg/L
	Dieldrin		30.5	WG-9954-061119-SG-001	0.047 UJ	µg/L
	Endosulfan I		29.9	WG-9954-061119-SG-001	0.047 UJ	µg/L
	Endosulfan sulfate		25.8	WG-9954-061119-SG-001	0.047 UJ	µg/L
	Endrin		33.9	WG-9954-061119-SG-001	0.047 UJ	µg/L
	gamma-BHC (lindane)		38.3	WG-9954-061119-SG-001	0.047 UJ	µg/L
	Heptachlor		39.4	WG-9954-061119-SG-001	0.047 UJ	µg/L
	Heptachlor epoxide		33.1	WG-9954-061119-SG-001	0.047 UJ	µg/L
	Methoxychlor		36.1	WG-9954-061119-SG-001	0.047 UJ	µg/L
Pesticides	4,4'-DDD	06/21/2019	50.2	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L
Pesticides	4,4'-DDE	06/21/2019	42.5	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L
Pesticides	Aldrin	06/21/2019	38.1	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L
Pesticides	alpha-BHC	06/21/2019	38.9	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L

Table 4

**Qualified Sample Results Due to Outlying Continuing Calibration Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
Pesticides	alpha-Chlordane	06/21/2019	31.2	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L
Pesticides	beta-BHC	06/21/2019	33	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.026 J	µg/L
Pesticides	delta-BHC	06/21/2019	43.8	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L
Pesticides	Dieldrin	06/21/2019	29.3	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L
Pesticides	Endosulfan I	06/21/2019	28.8	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L
Pesticides	Endrin	06/21/2019	32.8	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L
Pesticides	gamma-BHC (lindane)	06/21/2019	37.9	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L
Pesticides	Heptachlor	06/21/2019	36.1	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L

Table 4

**Qualified Sample Results Due to Outlying Continuing Calibration Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
Pesticides	Heptachlor epoxide	06/21/2019	32.8	WG-9954-061219-SG-002	0.047 UJ	µg/L
				WG-9954-061219-SG-003	0.047 UJ	µg/L
				WG-9954-061219-SG-004	0.047 UJ	µg/L
Pesticides	alpha-BHC	06/28/2019	22.7	WG-9954-061319-SG-007	0.047 UJ	µg/L
				WG-9954-061319-SG-009	0.047 UJ	µg/L
Pesticides	4,4'-DDE	07/03/2019	26.3	WG-9954-061719-SG-021	0.047 UJ	µg/L
				WG-9954-061719-SG-022	0.047 UJ	µg/L
				WG-9954-061719-SG-023	0.047 UJ	µg/L
Pesticides	Aldrin	07/03/2019	28.7	WG-9954-061719-SG-021	0.047 UJ	µg/L
				WG-9954-061719-SG-022	0.047 UJ	µg/L
				WG-9954-061719-SG-023	0.047 UJ	µg/L
				WG-9954-061819-SG-025	0.047 UJ	µg/L
				WG-9954-061819-SG-026	0.047 UJ	µg/L
				WG-9954-061819-SG-027	0.047 UJ	µg/L
				WG-9954-061819-SG-028	0.047 UJ	µg/L
				WG-9954-061819-SG-030	0.047 UJ	µg/L
				WG-9954-061819-SG-029	0.047 UJ	µg/L
Pesticides	alpha-BHC	07/03/2019	33.1	WG-9954-061719-SG-021	0.021 J	µg/L
				WG-9954-061719-SG-022	0.023 J	µg/L
				WG-9954-061719-SG-023	0.047 UJ	µg/L
				WG-9954-061819-SG-025	0.047 UJ	µg/L
				WG-9954-061819-SG-026	0.047 UJ	µg/L
				WG-9954-061819-SG-027	0.047 UJ	µg/L
				WG-9954-061819-SG-028	0.047 UJ	µg/L
				WG-9954-061819-SG-030	0.047 UJ	µg/L
				WG-9954-061819-SG-029	0.047 UJ	µg/L
Pesticides	beta-BHC	07/03/2019	26.3	WG-9954-061719-SG-021	0.047 UJ	µg/L
				WG-9954-061719-SG-022	0.047 UJ	µg/L
				WG-9954-061719-SG-023	0.047 UJ	µg/L

Table 4

**Qualified Sample Results Due to Outlying Continuing Calibration Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
Pesticides	beta-BHC	07/03/2019	26.3	WG-9954-061819-SG-025	0.047 UJ	µg/L
				WG-9954-061819-SG-026	0.047 UJ	µg/L
				WG-9954-061819-SG-027	0.047 UJ	µg/L
				WG-9954-061819-SG-028	0.047 UJ	µg/L
				WG-9954-061819-SG-030	0.047 UJ	µg/L
				WG-9954-061819-SG-029	0.047 UJ	µg/L
Pesticides	delta-BHC	07/03/2019	35	WG-9954-061719-SG-021	0.028 J	µg/L
				WG-9954-061719-SG-022	0.028 J	µg/L
				WG-9954-061719-SG-023	0.047 UJ	µg/L
				WG-9954-061819-SG-025	0.047 UJ	µg/L
				WG-9954-061819-SG-026	0.047 UJ	µg/L
				WG-9954-061819-SG-027	0.047 UJ	µg/L
				WG-9954-061819-SG-028	0.047 UJ	µg/L
				WG-9954-061819-SG-030	0.047 UJ	µg/L
				WG-9954-061819-SG-029	0.047 UJ	µg/L
Pesticides	gamma-BHC (lindane)	07/03/2019	33.1	WG-9954-061719-SG-021	0.026 J	µg/L
				WG-9954-061719-SG-022	0.028 J	µg/L
				WG-9954-061719-SG-023	0.047 UJ	µg/L
				WG-9954-061819-SG-025	0.047 UJ	µg/L
				WG-9954-061819-SG-026	0.047 UJ	µg/L
				WG-9954-061819-SG-027	0.047 UJ	µg/L
				WG-9954-061819-SG-028	0.047 UJ	µg/L
				WG-9954-061819-SG-030	0.047 UJ	µg/L
				WG-9954-061819-SG-029	0.047 UJ	µg/L
Pesticides	Heptachlor	07/03/2019	28.3	WG-9954-061719-SG-021	0.047 UJ	µg/L
				WG-9954-061719-SG-022	0.047 UJ	µg/L
				WG-9954-061719-SG-023	0.047 UJ	µg/L
				WG-9954-061819-SG-025	0.047 UJ	µg/L
				WG-9954-061819-SG-026	0.047 UJ	µg/L
				WG-9954-061819-SG-027	0.047 UJ	µg/L

Table 4

Qualified Sample Results Due to Outlying Continuing Calibration Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
Pesticides	Heptachlor	07/03/2019	28.3	WG-9954-061819-SG-028	0.047 UJ	µg/L
				WG-9954-061819-SG-030	0.047 UJ	µg/L
				WG-9954-061819-SG-029	0.047 UJ	µg/L
Pesticides	4,4'-DDD	07/03/2019	31.2	WG-9954-061919-SG-031	0.047 UJ	µg/L
				WG-9954-061919-SG-032	0.053 UJ	µg/L
				WG-9954-061919-SG-033	0.047 UJ	µg/L
				WG-9954-061919-SG-035	0.047 UJ	µg/L
Pesticides	alpha-BHC	07/03/2019	28.3	WG-9954-061919-SG-031	0.047 UJ	µg/L
				WG-9954-061919-SG-032	0.053 UJ	µg/L
				WG-9954-061919-SG-033	0.047 UJ	µg/L
				WG-9954-061919-SG-035	0.047 UJ	µg/L
Pesticides	delta-BHC	07/03/2019	27.5	WG-9954-061919-SG-031	0.047 UJ	µg/L
				WG-9954-061919-SG-032	0.053 UJ	µg/L
				WG-9954-061919-SG-033	0.047 UJ	µg/L
				WG-9954-061919-SG-035	0.047 UJ	µg/L
Pesticides	gamma-BHC (lindane)	07/03/2019	26.4	WG-9954-061919-SG-031	0.047 UJ	µg/L
				WG-9954-061919-SG-032	0.053 UJ	µg/L
				WG-9954-061919-SG-033	0.047 UJ	µg/L
				WG-9954-061919-SG-035	0.047 UJ	µg/L
Pesticides	Heptachlor	07/03/2019	25.8	WG-9954-061919-SG-031	0.047 UJ	µg/L
				WG-9954-061919-SG-032	0.053 UJ	µg/L
				WG-9954-061919-SG-033	0.047 UJ	µg/L
				WG-9954-061919-SG-035	0.047 UJ	µg/L
Pesticides	4,4'-DDD	07/03/2019	37.7	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L

Table 4

**Qualified Sample Results Due to Outlying Continuing Calibration Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
Pesticides	4,4'-DDD	07/03/2019	37.7	WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	4,4'-DDE	07/03/2019	50	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	4,4'-DDT	07/03/2019	47.3	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	Aldrin	07/03/2019	44.2	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	alpha-BHC	07/03/2019	45.8	WG-9954-062119-SG-038	0.028 J	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L

Table 4

**Qualified Sample Results Due to Outlying Continuing Calibration Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
Pesticides	alpha-Chlordane	07/03/2019	38.4	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	beta-BHC	07/03/2019	35.2	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	delta-BHC	07/03/2019	45.2	WG-9954-062119-SG-038	0.035 J	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	Dieldrin	07/03/2019	39.8	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	Endosulfan I	07/03/2019	36.9	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L

Table 4

**Qualified Sample Results Due to Outlying Continuing Calibration Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
Pesticides	Endosulfan II	07/03/2019	31.2	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	Endosulfan sulfate	07/03/2019	37.4	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	Endrin	07/03/2019	43.4	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	Endrin ketone	07/03/2019	31.5	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	gamma-BHC (lindane)	07/03/2019	44.1	WG-9954-062119-SG-038	0.026 J	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L

Table 4

**Qualified Sample Results Due to Outlying Continuing Calibration Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

Parameter	Analyte	Calibration Date (mm/dd/yyyy)	%D	Associated Sample ID	Qualified Result	Units
Pesticides	Heptachlor	07/03/2019	47	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	Heptachlor epoxide	07/03/2019	39.6	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
Pesticides	Heptachlor epoxide	07/03/2019	39.6	WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L
Pesticides	Methoxychlor	07/03/2019	54.3	WG-9954-062119-SG-038	0.047 UJ	µg/L
				WG-9954-062119-SG-039	0.047 UJ	µg/L
				WG-9954-062119-SG-040	0.047 UJ	µg/L
				WG-9954-062119-SG-042	0.047 UJ	µg/L
				WG-9954-062119-SG-043	0.047 UJ	µg/L
				WG-9954-062119-SG-044	0.047 UJ	µg/L

Notes:

- %D - Percent difference
- UJ - Not detected; associated reporting limit is estimated
- J - Estimated concentration
- PCBs - Polychlorinated Biphenyls
- VOCs - Volatile Organic Compounds

Table 5

Qualified Sample Results Due to Analyte Concentrations in the Method Blanks
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Parameter	Analyte	Analysis Date (mm/dd/yyyy)	Blank Result *	Sample ID	Original Result	Qualified Result	Units
VOCs	Acetone	07/02/2019	7.1 J	WG-9954-062119-SG-038	2.1 J	10 U	µg/L
				WG-9954-062119-SG-039	9.3 J	10 U	µg/L
				WG-9954-062119-SG-040	8.7 J	10 U	µg/L
				WG-9954-062119-SG-041	11 J	11 U	µg/L
				WG-9954-062119-SG-042	4.8 J	10 U	µg/L
				WG-9954-062119-SG-043	8.6 J	10 U	µg/L
				WG-9954-062119-SG-044	7.4 J	10 U	µg/L
				WG-9954-062419-SG-045	7.0 J	10 U	µg/L
VOCs	Chloromethane	07/02/2019	0.28 J	WG-9954-062119-SG-039	0.30 J	5.0 U	µg/L
				WG-9954-062119-SG-040	0.32 J	5.0 U	µg/L
Pesticides	delta-BHC	07/11/2019	0.023 J	WG-9954-061719-SG-020	0.041 J	0.047 U	µg/L
				WG-9954-061819-SG-024	0.041 J	0.047 U	µg/L
Pesticides	gamma-BHC (lindane)	07/11/2019	0.032 J	WG-9954-061819-SG-024	0.039 J	0.047 U	µg/L

Notes:

- * - Blank result adjusted for sample factors where applicable
- U - Not detected at the associated reporting limit
- J - Estimated concentration
- VOCs - Volatile Organic Compounds

Table 6

Qualified Sample Data Due to Outlying of Surrogate Recoveries
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Parameter	Sample ID	Surrogate	Surrogate % Recovery	Control Limits % Recovery	Analyte	Qualified Result	Units
PCBs	WG-9954-061819-SG-028	(PCB 209) Decachlorobiphenyl	7	10 - 152	Aroclor-1254 (PCB-1254)	R	µg/L
					Aroclor-1260 (PCB-1260)	R	µg/L
PCBs	WG-9954-061819-SG-028	(PCB 209) Decachlorobiphenyl	7	10 - 152	Aroclor-1254 (PCB-1254)	R	µg/L
					Aroclor-1260 (PCB-1260)	R	µg/L
Pesticides	WG-9954-061819-SG-028	Decachlorobiphenyl	7	10 - 164	4,4'-DDD	R	µg/L
					4,4'-DDE	R	µg/L
					4,4'-DDT	R	µg/L
					Aldrin	R	µg/L
					alpha-BHC	R	µg/L
					alpha-Chlordane	R	µg/L
					beta-BHC	R	µg/L
					delta-BHC	R	µg/L
					Dieldrin	R	µg/L
					Endosulfan I	R	µg/L
					Endosulfan II	R	µg/L
					Endosulfan sulfate	R	µg/L
					Endrin	R	µg/L
					Endrin ketone	R	µg/L
					gamma-BHC (lindane)	R	µg/L
					gamma-Chlordane	R	µg/L
					Heptachlor	R	µg/L
					Heptachlor epoxide	R	µg/L
Pesticides	WG-9954-061819-SG-030	Decachlorobiphenyl	8	10 - 164	Methoxychlor	R	µg/L
					Toxaphene	R	µg/L
					4,4'-DDD	R	µg/L
					4,4'-DDE	R	µg/L
					4,4'-DDT	R	µg/L
					Aldrin	R	µg/L
					alpha-BHC	R	µg/L
					alpha-Chlordane	R	µg/L
					beta-BHC	R	µg/L
					delta-BHC	R	µg/L
					Dieldrin	R	µg/L
					Endosulfan I	R	µg/L

Table 6

Qualified Sample Data Due to Outlying of Surrogate Recoveries
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Parameter	Sample ID	Surrogate	Surrogate % Recovery	Control Limits % Recovery	Analyte	Qualified Result	Units
Pesticides	WG-9954-061819-SG-030	Decachlorobiphenyl	8	10 - 164	Endosulfan II	R	µg/L
					Endosulfan sulfate	R	µg/L
					Endrin	R	µg/L
					Endrin ketone	R	µg/L
					gamma-BHC (lindane)	R	µg/L
					gamma-Chlordane	R	µg/L
					Heptachlor	R	µg/L
					Heptachlor epoxide	R	µg/L
					Methoxychlor	R	µg/L
					Toxaphene	R	µg/L

Notes:

R - Rejected

PCBs - Polychlorinated Biphenyls

Table 7

**Qualified Sample Results Due to Outlying MS/MSD Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019**

Parameter	Sample ID	Analyte	MS % Recovery	MSD % Recovery	RPD (percent)	Control Limits		Qualified Result	Units
						% Recovery	RPD		
Pesticides	WG-9954-062119-SG-038	gamma-BHC (lindane)	81	119	33	43-164	30	0.026 J	µg/L
VOCs	WG-9954-062119-SG-038	1,1,2-Trichloroethane	81	78	4	82 - 121	30	5.0 UJ	µg/L

Notes:

MS - Matrix Spike
 MSD - Matrix Spike Duplicate
 RPD - Relative Percent Difference
 J - Estimated concentration
 UJ - Not detected; associated reporting limit is estimated
 VOCs - Volatile Organic Compounds

Table 8

Qualified Sample Data Due to Analyte Concentrations in the Trip Blanks
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Parameter	Blank Date (mm/dd/yyyy)	Analyte	Blank Result	Associated Sample ID	Original Result	Qualified Result	Units
VOCs	06/11/2019	Acetone	3.1 J	WG-9954-061219-SG-004	15	15 U	µg/L
				WG-9954-061219-SG-005	2.7 J	10 U	µg/L
VOCs	06/14/2019	Acetone	11	WG-9954-061419-DJT-014	5.5 J	10 U	µg/L
				WG-9954-061419-DJT-010	5.8 J	10 U	µg/L
				WG-9954-061419-DJT-011	8.7 J	10 U	µg/L
				WG-9954-061419-DJT-012	3.3 J	10 U	µg/L
				WG-9954-061419-DJT-015	4.7 J	10 U	µg/L
				WG-9954-061419-DJT-016	5.1 J	10 U	µg/L
				WG-9954-061419-DJT-017	6.5 J	10 U	µg/L
VOCs	06/17/2019	Acetone	6.3 J	WG-9954-061719-SG-022	2.4 J	10 U	µg/L
				WG-9954-061819-SG-024	12	12 U	µg/L
				WG-9954-061819-SG-025	12	12 U	µg/L
				WG-9954-061819-SG-026	9.5 J	10 U	µg/L
				WG-9954-061819-SG-028	4.7 J	10 U	µg/L
				WG-9954-061819-SG-030	4.2 J	10 U	µg/L
				WG-9954-061819-SG-029	4.0 J	10 U	µg/L
VOCs	06/17/2019	Bromomethane (Methyl bromide)	0.70 J	WG-9954-061819-SG-028	0.79 J	5.0 U	µg/L
VOCs	06/17/2019	Chloromethane (Methyl chloride)	0.87 J	WG-9954-061819-SG-028	0.36 J	5.0 U	µg/L
				WG-9954-061819-SG-029	0.43 J	5.0 U	µg/L
VOCs	06/19/2019	Acetone	17	WG-9954-061919-SG-031	5.1 J	10 U	µg/L
				WG-9954-061919-SG-032	5.3 J	10 U	µg/L
				WG-9954-061919-SG-033	4.9 J	10 U	µg/L
				WG-9954-061919-SG-034	3.4 J	10 U	µg/L
				WG-9954-061919-SG-035	8.7 J	10 U	µg/L
VOCs	06/19/2019	Toluene	0.30 J	WG-9954-061919-SG-032	0.86 J	5.0 U	µg/L

Notes:

- U - Not detected at the associated reporting limit
- J - Estimated concentration
- VOCs - Volatile Organic Compounds

Table 9

Qualified Sample Data Due to Analyte Concentrations in the Rinse Blanks
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Parameter	Rinse Blank ID	Blank Date (dd/mm/yyyy)	Analyte	Blank Result	Associated Sample ID	Original Result	Qualified Result	Units
VOCs	RB-9954-061419-DJT-001	06/14/2019	Carbon disulfide	0.27 J	WG-9954-061419-DJT-012	4.8 J	10 U	µg/L
					WG-9954-061419-DJT-015	5.2 J	10 U	µg/L
					WG-9954-061419-DJT-016	0.54 J	10 U	µg/L
					WG-9954-061419-DJT-017	0.44 J	10 U	µg/L
VOCs	RB-9954-061419-DJT-001	06/14/2019	Chloromethane	0.46 J	WG-9954-061419-DJT-017	0.34 J	5.0 U	µg/L

Notes:

- U - Not detected at the associated reporting limit
- J - Estimated concentration
- VOCs - Volatile Organic Compounds

Table 10

Qualified Sample Data Due to Variability in Field Duplicate Results
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Parameter	Analyte	RPD	Sample ID	Qualified Result	Field Duplicate Sample ID	Qualified Result	Units
VOCs	1,2,4-Trichlorobenzene	66.7	WG-9954-061919-SG-036	28 J	WG-9954-061919-SG-037	14 J	µg/L
VOCs	1,4-Dichlorobenzene	72.7	WG-9954-061919-SG-036	45 J	WG-9954-061919-SG-037	21 J	µg/L

Notes:

RPD - Relative Percent Difference
J - Estimated concentration
VOCs - Volatile Organic Compounds

Table 11

Tentatively Identified Compounds Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Sample ID	Volatiles		Semi-volatiles	
	Compound	Estimated Concentration (µg/L)	Compound	Estimated Concentration (µg/L)
WG-9954-061219-SG-004	Sulfur dioxide (SO ₂)	5.8 J	-	-
WG-9954-061219-SG-005	Sulfur dioxide (SO ₂)	14.4 J	-	-
WG-9954-061319-SG-006	7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione	4.3 J	7,9-Di-tert-butyl-1-oxaspiro(4,5)deca-6,9-diene-2,8-dione	4.3 J
	Sulfur dioxide (SO ₂)	38.8 J	-	-
	Unknown	27.3 J	-	-
WG-9954-061319-SG-007	Hexadecanoic acid	7.8 J	Hexadecanoic acid	7.8 J
	Sulfur dioxide (SO ₂)	39.1 J	-	-
	Unknown	43.4 J	Unknown	8.5 J
WG-9954-061319-SG-008	Hexadecanoic acid	13 J	Hexadecanoic acid	13 J
	Sulfur dioxide (SO ₂)	42.3 J	-	-
	Unknown	19.7 J	Unknown	13 J
WG-9954-061319-SG-009	Sulfur dioxide (SO ₂)	39.5 J	-	-
	Unknown	4.1 J	Unknown	4.1 J
WG-9954-061419-DJT-013	Sulfur dioxide (SO ₂)	6.2 J	-	-
WG-9954-061419-DJT-014	Unknown	4.7 J	Unknown	4.7 J
WG-9954-061419-DJT-010	Dimethyl disulfide	28.4 J	Dimethyl disulfide	15 J
	Dimethyl trisulfide	6.4 J	-	-
	Hexadecanoic acid	17 J	Hexadecanoic acid	17 J
	Methanethiol	17.7 J	-	-
	Methylthioethane	34.4 J	-	-
	Sulfur dioxide (SO ₂)	27.2 J	-	-
	Unknown	87.2 J	Unknown	44.5 J
WG-9954-061419-DJT-011	2-(Methylthio)-propane	5.1 J	-	-
	2-Methylbutane	6.2 J	-	-
	Dimethyl disulfide	23.8 J	-	-
	Dimethyl trisulfide	5.9 J	-	-
	Hexadecanoic acid	4.2 J	Hexadecanoic acid	4.2 J
	Methanethiol	27.6 J	-	-

Table 11

Tentatively Identified Compounds Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Sample ID	Volatiles		Semi-volatiles	
	Compound	Estimated Concentration (µg/L)	Compound	Estimated Concentration (µg/L)
WG-9954-061419-DJT-011	Methyl disulfide	16 J	Methyl disulfide	16 J
	Methylthioethane	51.8 J	-	-
	Sulfur dioxide (SO ₂)	58.4 J	-	-
	Unknown	117.9 J	Unknown	85 J
WG-9954-061419-DJT-012	Sulfur dioxide (SO ₂)	42.0 J	-	-
WG-9954-061419-DJT-015	Sulfur dioxide (SO ₂)	70.3 J	-	-
WG-9954-061419-DJT-016	Unknown	20 J	Unknown	20 J
WG-9954-061419-DJT-017	Unknown	70 J	Unknown	70 J
WG-9954-061719-SG-018	6-Octadecenoic acid	26 J	6-Octadecenoic acid	26 J
	Hexadecanoic acid A	9.0 J	Hexadecanoic acid	9.0 J
	Octadecanoic acid	9.6 J	Octadecanoic acid	9.6 J
	Sulfur dioxide (SO ₂)	39.3 J	-	-
WG-9954-061719-SG-019	Sulfur dioxide (SO ₂)	71.5 J	-	-
	Unknown	5.0 J	-	-
WG-9954-061719-SG-020	2-Ethyl-1-hexanol	5.1 J	-	-
	6-Octadecenoic acid, (Z)	15 J	6-Octadecenoic acid, (Z)	15 J
	Sulfur dioxide (SO ₂)	50.7 J	-	-
WG-9954-061719-SG-021	Sulfur dioxide (SO ₂)	64.0 J	-	-
WG-9954-061719-SG-022	Sulfur dioxide (SO ₂)	76.9 J	-	-
	Unknown	5.3 J	-	-
WG-9954-061719-SG-023	Hexadecanoic acid	8.8 J	Hexadecanoic acid	8.8 J
	Nonanal	6.2 J	-	-
	Sulfur dioxide (SO ₂)	74.8 J	-	-
WG-9954-061819-SG-024	Sulfur dioxide (SO ₂)	32.9 J	-	-
	Unknown	45.9 J	-	-

Table 11

Tentatively Identified Compounds Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Sample ID	Volatiles		Semi-volatiles	
	Compound	Estimated Concentration (µg/L)	Compound	Estimated Concentration (µg/L)
WG-9954-061819-SG-025	Sulfur dioxide (SO ₂)	43.4 J	-	-
WG-9954-061819-SG-026	Sulfur dioxide (SO ₂)	46.6 J	-	-
WG-9954-061819-SG-027	Sulfur dioxide (SO ₂)	48.7 J	-	-
WG-9954-061819-SG-028	Sulfur dioxide (SO ₂)	64.4 J	-	-
WG-9954-061819-SG-030	Sulfur dioxide (SO ₂)	5.6 J	-	-
WG-9954-061819-SG-029	Sulfur dioxide (SO ₂)	56.6 J	-	-
WG-9954-061919-SG-031	Diethyltoluamide	6.2 J	Diethyltoluamide	6.2 J
	Hexadecanoic acid	4.2 J	Hexadecanoic acid	4.2 J
WG-9954-061919-SG-033	Sulfur dioxide (SO ₂)	138.7 J	-	-
WG-9954-061919-SG-034	1,3,5-Trichlorobenzene	13.6 J	-	-
	1-Chloro-2-methyl-benzene	7.3 J	1-Chloro-2-methyl-benzene	4.3 J
	Chlorotrifluoromethylbenzene isomer	7.1 J	Chlorotrifluoromethylbenzene isomer	3.9 J
	Diethyltoluamide	4.9 J	Diethyltoluamide	4.9 J
	Sulfur dioxide (SO ₂)	151.4 J	-	-
WG-9954-061919-SG-035	Sulfur dioxide (SO ₂)	70.8 J	-	-
WG-9954-061919-SG-036	(+)-2-Bornanone	16.4 J	-	-
	1,2,4-Trichlorobenzene	24.0 J	-	-
	1,4-Dioxane	100 J	1,4-Dioxane	100 J
	1-Chloro-2-methyl-benzene	2100 J	1-Chloro-2-methyl-benzene	2100 J
	1-Chloro-3-methylbenzene	16.9 J	-	-
	1-Chloro-4-(chloromethyl)-benzene	110 J	1-Chloro-4-(chloromethyl)-benzene	110 J
	2,4-Dichlorotoluene	218.6 J	-	-
	2,6-Dichlorotoluene	57.8 J	2,6-Dichlorotoluene	120 J
	2-Chlorobenzenemethanol	220 J	2-Chlorobenzenemethanol	220 J
	2-Chlorobenzoic acid	380 J	2-Chlorobenzoic acid	380 J
	3,5-Dichlorotoluene	120 J	3,5-Dichlorotoluene	120 J
	4-Chlorobenzoic acid	3500 J	4-Chlorobenzoic acid	3500 J
	4-Chlorotoluene	6052.0 J	4-Chlorotoluene	1100 J

Table 11

Tentatively Identified Compounds Summary
Love Canal Annual Long-Term Monitoring Program
Glenn Springs Holdings, Inc.
Niagara Falls, New York
June 2019

Sample ID	Volatiles		Semi-volatiles	
	Compound	Estimated Concentration (µg/L)	Compound	Estimated Concentration (µg/L)
WG-9954-061919-SG-036	Cyclohexanol	91 J	Cyclohexanol	91 J
	Tetrahydro-2-methyl-furan	50.0 J	-	-
	Unknown	1484.5 J	-	-
WG-9954-061919-SG-037	(+)-2-Bornanone	51.8 J	-	-
	1,2,4-Trichlorobenzene	81.4 J	-	-
	1,4-Dichlorobenzene	51.3 J	-	-
	1,4-Dioxane	0.042 J	1,4-Dioxane	0.042 J
	1-Chloro-2-methyl-benzene	0.95 J	1-Chloro-2-methyl-benzene	0.95 J
	1-Chloro-3-methylbenzene	0.51 J	1-Chloro-3-methylbenzene	0.51 J
	2,4-Dichlorotoluene	0.051 J	2,4-Dichlorotoluene	0.051 J
	2,6-Dichlorotoluene	0.056 J	2,6-Dichlorotoluene	0.056 J
	2-Chlorobenzenemethanol	0.16 J	2-Chlorobenzenemethanol	0.16 J
	2-Chlorobenzoic acid	0.34 J	2-Chlorobenzoic acid	0.34 J
	3,4-Dichlorotoluene	1176.0 J	-	-
	3,5-Dichlorotoluene	766.3 J	-	-
	4-Chlorobenzoic acid	3.8 J	4-Chlorobenzoic acid	3.8 J
	Cyclohexanol	0.045 J	Cyclohexanol	0.045 J
	Tetrahydro-2-methyl-furan	50.0 J	-	-
	Unknown	51.8 J	Unknown	0.112 J
WG-9954-062119-SG-038	Hexadecanoic acid	8.9 J	Hexadecanoic acid	8.9 J
	Octadecanoic acid A	9.9 J	Octadecanoic acid	9.9 J
	Sulfur dioxide (SO2)	9.8 J	-	-
	Unknown	45.3 J	-	-
	Unknown hydrocarbon	4.7 J	Unknown hydrocarbon	4.7 J
WG-9954-062119-SG-039	Sulfur dioxide (SO2)	7.2 J	-	-
	Unknown	3.9 J	Unknown	3.9 J
WG-9954-062119-SG-040	Sulfur dioxide (SO2)	9.3 J	-	-
WG-9954-062119-SG-042	Sulfur dioxide (SO2)	39.4 J	-	-
WG-9954-062119-SG-043	Sulfur dioxide (SO2)	34.1 J	-	-
	Tetrahydro-2-methyl-furan	26.0 J	-	-
	Unknown	29 J	Unknown	29 J

Table 11

Tentatively Identified Compounds Summary
 Love Canal Annual Long-Term Monitoring Program
 Glenn Springs Holdings, Inc.
 Niagara Falls, New York
 June 2019

Sample ID	Volatiles		Semi-volatiles	
	Compound	Estimated Concentration (µg/L)	Compound	Estimated Concentration (µg/L)
WG-9954-062119-SG-044	Sulfur dioxide (SO ₂)	15.9 J	-	-
WG-9954-062419-SG-045	Cholest-5-en-3-ol	9.5 J	Cholest-5-en-3-ol	9.5 J
	Cyclopentasiloxane, decamethyl-	5.5 J	Cyclopentasiloxane, decamethyl-	5.5 J
	Hexadecanoic acid	4.6 J	Hexadecanoic acid	4.6 J
	Sulfur dioxide (SO ₂)	62.3 J	-	-
	Unknown	44.7 J	Unknown	40.9 J
	Unknown hydrocarbon	12 J	-	-

Notes:

J - Estimated concentration
 - - Not applicable

Appendix G

Niagara Falls Water Board

Annual Inspection Letter



NIAGARA FALLS WATER BOARD

ANNUAL PLANT INSPECTION

INDUSTRIAL PRETREATMENT PROGRAM

PAGE 1 OF 6

Name and Address of SIU

Occidental Chemical Corporation
Love Canal Treatment Facility
805 – 97th Street
Niagara Falls, NY 14304

Permit Number: 44

SIC Codes: 4951

Date of Last Inspection: 1/17/2018

CATEGORICAL IU? NO

Day/Date and Time of Inspection:
Thur. April 11th , 2019 @ 9:00AM

SIU Representative:

Darrell Crockett

Inspectors Name:

Stephen Stewart

Contact Phone No.: 998-5804

PART I FLOW RECORDING AND SAMPLING INSTRUMENTATION

a) Flow measurement instrument meets permit requirements? **YES**

b) Primary flow measurement device properly installed? **YES**

c) Type of flow measurement device -

Weir []	Flume(s) []	Water meter []	Mag meter [X]

d) Does device measure flow adequately? **YES**

e) Is primary measuring device properly operated and maintained? [1960.6] **YES**

f) Are secondary instruments (recorders, integrators) properly operated and maintained? [1960.6] **YES**

g) Calibration frequency adequate? (date of last calibration): **Quarterly – March 28th , 2019** **YES**

PART II SAMPLE COLLECTION

a)	Does permit require SIU to submit Periodic Self Monitoring Reports? [40 CFR403.12h]	YES
b)	If "yes", does the sample collection frequency and pollutant type conform with permit requirements?	YES
c)	Are the sample collection locations as described in the permit adequate for representative sample collection? [1960.6 (a)]	YES
d)	Does the method of sample collection conform with permit requirements, Sewer Use Ordinance and Federal Standards ?	YES
i)	Sample refrigerated throughout collection and storage ?	YES
ii)	Are samples properly preserved?	YES
iii)	Are samples collected using flow proportion composite or grab sampling where appropriate ? [40 CFR12(b)(5)(iii)].	YES
iv)	Sample holding times appropriate? [40 CFR136.3]	YES

PART III LABORATORY FACILITIES

a)	Is a commercial laboratory used?	YES
i)	Name of laboratory: ALS Environmental	
ii)	Address: 1565 Jefferson Rd. Rochester, NY 14623	
iii)	Is laboratory State certified?	YES
b)	Does SIU perform its own analysis?	NO
i)	Is the SIU's laboratory State certified?	N/A
ii)	Are your laboratory wastes properly disposed of?	N/A
c)	Are EPA approved testing methods used?	YES

PART IV RECORDS AND REPORTS

a)	Are monitoring records and reports retained in SIU files for at least three years ? [1960.5 (d)(3)]	YES
b)	Are all records of sludge volume and disposal practices maintained in files? [1960.5 (d)(2)]	YES
c)	Have all hazardous waste discharges been reported to POTW? [40 CFR403.12(p)].	N/A
d)	If hazardous waste is discharged, is a waste minimization plan developed and implemented?	N/A
e)	Does the SIU have a valid wastewater discharge permit retained on file? [40 CFR403.8(f)(I)(iii)(A)-(E)]	YES
f)	Have all required reports been submitted on time?	YES
g)	Do Self Monitoring reports contain necessary information (samplers name, date & time, sample type, flow, preservation, chain of custody, results) ? [40 CFR403.8(f)(3)(vi)].	YES

PART V PLANT OPERATION AND MAINTENANCE

a)	Have there been any accidental discharge(s) that entered the sewer system?	NO
	Have they been reported to the POTW as well as other appropriate agencies? [1960.6 (d)]	N/A
b)	Is a spill notification procedure conspicuously posted in process areas of the plant? Issued updated contact list	YES
c)	Is there any evidence of spills?	NO
d)	Are all hazardous sludges and solids properly disposed of?	YES

- e) Has this facility been evaluated **OR** re-evaluated for its' potential to experience a slug discharge? 1/20/2018 **YES**
- 1) Is a **Slug Control Plan** required for this facility [40 CFR403.8(f)(2)(vi)] ? **NO**
- A. Has the facility **Developed** and **Implemented** a **Slug Control Plan**? **N/A**
- a. The date of the plan's last update: **N/A**
- b. Is the latest update on file at the NFWB? **N/A**
- c. Does it contain the correct Water Board phone numbers and extensions. **N/A**
- 2) Has the facility experienced a slug discharge since The last inspection? **NO**
- f) Have there been any significant **manufacturing** or **process** changes? [1960.5 (c)] **NO**
List: **None**
- Who was contacted **prior** to implementation of these changes?
N/A Date: **N/A**
- g) Describe your hazardous waste storage area(s).
Double contained in the decontamination/storage facility.
- Do they meet DEC & EPA containment requirements? **YES**
- Are all containers correctly labeled and time limits adhered to? **YES**
- Describe your method of disposal:
Incineration as needed through Clean Harbors Inc. at their Deer Park Texas, Utah, or Arizona Facility, approximately once per quarter.
- h) Regarding the blueprints that you submitted with your last permit application, **have there been any significant changes made to your process or sewer lines?** **NO**
- Have revised blueprints been sent to the WWTP? **N/A**

PART VI PRETREATMENT

- a) Briefly describe all required pretreatment.
Clarifier → Bag filter → Carbon treatment → WWTP

- b) Are all pretreatment facilities properly maintained? **YES**
- c) How many pH probes does your pH monitoring system contain? **0**

List the frequency for calibration.
N/A

- d) To your knowledge, has **anyone** discharged any un-permitted waste or waste not properly pretreated into the sewer system? [40 CFR 403.179] **NO**
- e) Were WWTP personal notified? **N/A**
- Prior to discharge to sewer? **N/A**
- During or after discharge? **N/A**

Who? **N/A** Date: **N/A** Time: **N/A**

SIU personal who contacted WWTP: **N/A**

Was written notification given to the WWTP **within five (5) working days** of the start of the event?
 [40 CFR 403.17a] **N/A**

Sent to: **N/A** From: **N/A** Date: **N/A**

- f) List any pretreatment changes that were made in the past 12 months.
None

Who was contacted **prior** to implementation of these pretreatment changes?
N/A

PART VII COMPLIANCE AND ENFORCEMENT

a)	Has the SIU had any violations since the last inspection? List: None	NO
b)	If numeric violations were noted by SIU, was a repeat sample collection and analysis performed within 30 days and the results submitted to the POTW [40 CFR403.12(g)] ?	N/A
c)	Is SIU currently on an administrative order and/or compliance schedule?	NO
d)	If yes, have milestone dates on schedule been met?	N/A
e)	Was escalating enforcement action required to achieve compliance? Describe: None Required	NO

PART VIII RECOMMENDATIONS, REQUIREMENTS AND COMMENTS:

Hazardous waste from Love Canal consists of Debris from wells, Clarifier solids, Filters, and PPE.



January 16, 2020

Mr. Darrell Crockett – Facility Manager
Occidental Chemical Corporation
Love Canal
805 – 97th Street
Niagara Falls, New York 14304

Dear Mr. Crockett:

Enclosed please find the results of the Plant Inspection that was conducted at your facility on Thursday, April 11th , 2019 @ 9:00AM

If you have any questions, I can be reached at 283-9770 ext 262.

Sincerely,

NIAGARA FALLS WATER BOARD
WASTEWATER FACILITIES

Stephen C. Stewart

Stephen C. Stewart
Senior Industrial Waste Inspector

Cc: J. Paradise → S. Stewart → File: - I-44
Emailed to SIU

Appendix H

Test and Backflow Prevention Device Reports

Report on Test and Maintenance of Backflow Prevention Device

PART A

Please use a separate form for each device.

For the year 2019
☐ Initial test - Complete entire form
☒ Annual test - Complete Part A only

Public Water Supply <u>CITY OF NIAGARA FALLS</u>		Account No.	County <u>NIAGARA</u>	Block	Lot
Facility Name <u>Glenn Springs Remediation</u>			Location of Device <u>Treatment BOD (Aeds)</u>		
Address <u>805-95th St. NIAGARA FALLS</u>					
Device Information	Manufacturer <u>Watts</u>	Type ☒ RPZ ☐ DCV	Model <u>009M2QT</u>	Size (in inches) <u>2"</u>	Serial Number <u>179645</u>
Check Valve No. 1		Check Valve No. 2		Differential Pressure Relief Valve	Line Pressure <u>73</u> psi
Test before repair	Leaked ☐ Closed tight ☒	Leaked ☐ Closed tight ☒	Opened at <u>2.1</u> psid		Date <u>02</u> <u>14</u> <u>19</u> M D Y
	Pressure drop across first check valve <u>2.1</u> psid				
Describe repairs and materials used					Repaired by Name _____ Lic # _____ Date repaired: _____ M D Y
Final test	Closed tight ☐	Closed tight ☐	Opened at _____ psid		Date _____ M D Y
	Pressure drop across first check valve _____ psid				
Water Meter Number <u>N/A</u>		Meter Reading <u>N/A</u>	Type of Service: (check one) • Domestic • Fire • <u>Other Process</u>		
Remarks (Describe deficiencies, bypasses, outlets before the device, connections between the device and point of entry, missing or inadequate airgaps, etc.)					
Certification: This device ☒ meets ☐ does NOT meet the requirements of an acceptable containment device at the time of testing. I hereby certify the foregoing data to be correct. <u>5808</u> Print Name <u>JOHN A. GOLDA</u> Certified Tester No. <u>5808</u> Signature <u>John Golda</u> Expiration Date <u>04.03.2020</u>					
Property owner (or owner's agent) certification test was performed <u>Dan-ll Clo-ll</u>		Title <u>John</u>	Signature <u>John</u>	Telephone <u>716.998.5804</u>	

PART B

Certification that installation is in accordance with the approved plans.

(To be completed by the design engineer or architect or water supplier.)

I hereby certify that this installation is in accordance with the approved plans.

Name	Title	Date	NYS DOH Log #
License Number	Phone ()	m d y	
Representing		Describe minor installation changes	
Address			
City	State	Zip	
Signature			

NOTE: Send one completed copy to the designated health department representative and one copy to the water supplier within 30 days of the testing device.
Notify owner and water supplier immediately if device fails test and repairs cannot immediately be made.

DOH- 1013(9/91)

Report on Test and Maintenance of Backflow Prevention Device

PART A

Please use a separate form for each device.

For the year 2019

- ☐ Initial test - Complete entire form
☒ Annual test - Complete Part A only

Public Water Supply <u>City of NIAGARA FALLS</u>		Account No.		County <u>NIAGARA</u>	Block	Lot
Facility Name <u>Glenn Springs Remediation</u>				Location of Device		
Address <u>805-95th St. Niagara Falls</u>				<u>Treatment BOD (WASH DOWN)</u>		
Device Information	Manufacturer <u>WATTS</u>	Type ☒ RPZ ☐ DCV	Model <u>009M3QT</u>	Size (inches) <u>3/4"</u>	Serial Number <u>61322</u>	
Check Valve No. 1		Check Valve No. 2		Differential Pressure Relief Valve	Line Pressure <u>73</u> psi	
Test before repair	Leaked ☐ Closed tight ☒	Leaked ☐ Closed tight ☒	Opened at <u>20</u> psi		Date <u>02</u> <u>14</u> <u>19</u> M D Y	
	Pressure drop across first check valve <u>8.2</u> psi					
Describe repairs and materials used					Repaired by Name _____ Lic # _____ Date repaired: _____ M D Y	
Final test	Closed tight ☐	Closed tight ☐	Opened at _____ psi		Date _____ M D Y	
	Pressure drop across first check valve _____ psi					
Water Meter Number <u>N/A</u>		Meter Reading <u>N/A</u>		Type of Service: (check one) • Domestic • Fire • <u>Process</u>		
Remarks (Describe deficiencies, bypasses, valves before the device, connections between the device and point of entry, missing or inadequate airgaps, etc.)						
Certification: This device ☒ meets ☐ does NOT meet the requirements of an acceptable containment device at the time of testing. I hereby certify the foregoing data to be correct. <u>JOHN A. COOLBA</u> <u>5808</u> <u>JOHN A. COOLBA</u> <u>09.03.2020</u> Print Name Certified Tester No. Signature Expiration Date						
Property owner (provide agency certification that test was performed) <u>Daniel Coolba</u>		Title <u>Tech</u>		Signature <u>[Signature]</u>		Telephone <u>716 998 5804</u>

PART B

Certification that installation is in accordance with the approved plans.

(To be completed by the design engineer or architect or water supplier.)

I hereby certify that this installation is in accordance with the approved plans.

Name	Title	Date	NYS DOH Log #
License Number	Phone ()	m d y	
Representing		Describe minor installation changes	
Address			
City	State	Zip	
Signature			

Note: Send one completed copy to the designated health department representative and one copy to the water supplier within 30 days of the testing device.
Notify owner and water supplier immediately if device fails test and repairs cannot immediately be made.

Report on Test and Maintenance of Backflow Prevention Device

PART A

Please use a separate form for each device.

For the year 2019

- ☐ Initial test - Complete entire form
☒ Annual test - Complete Part A only

Public Water Supply <u>CITY OF NIAGARA FALLS</u>		Account No.	County <u>NIAGARA</u>	Block	Lot
Facility Name <u>GLENN SPRINGS Remediation</u>		Location of Device <u>Treatment Bldg. (Mech Room)</u>			
Address <u>505-95th St. NIAGARA FALLS</u>					
Device Information	Manufacturer <u>WATTS</u>	Type ☒ RPZ ☐ DCV	Model <u>909</u>	Size (in inches) <u>3"</u>	Serial Number <u>192775</u>
Check Valve No. 1		Check Valve No. 2		Differential Pressure Relief Valve	
Test before repair	Leaked ☐ Closed tight ☒	Leaked ☐ Closed tight ☒		Opened at <u>2.0</u> psid	
	Pressure drop across first check valve <u>2.7</u> psid		Date <u>02</u> <u>14</u> <u>19</u> M D Y		
Describe repairs and materials used					Repaired by Name _____ Lic # _____ Date repaired: _____ M D Y
					Date _____ M D Y
Final test	Closed tight ☐ Pressure drop across first check valve _____ psid	Closed tight ☐		Opened at _____ psid	
Water Meter Number <u>31923329</u>	Water Reading <u>527169</u>		Type of Service (check one) ☒ Domestic ☐ Fire ☐ Other _____		
Remarks (Describe deficiencies, bypasses, outlets before the device, connections between the device and point of entry, missing or inadequate airgaps, etc.)					
Certification: This device ☒ meets ☐ does NOT meet the requirements of any acceptable containment device at the time of testing I hereby certify the foregoing data to be correct.					
Print Name <u>DON A GOULKA</u>		Certified Tester No. <u>5808</u>		Signature <u>[Signature]</u> Expiration Date <u>04.30.2020</u>	
Property owners (or owners agent) certification that test was performed: <u>[Signature]</u>		Title <u>Tech</u>		Signature <u>[Signature]</u> Telephone <u>749985804</u>	

PART B

Certification that installation is in accordance with the approved plans.

(To be completed by the design engineer or architect or water supplier.)

I hereby certify that this installation is in accordance with the approved plans.

Name	Title	Date	NYS DOH Log #
License Number	Phone ()	m d y	
Representing	Describe minor installation changes		
Address			
City	State	Zip	
Signature			

NOTE: Send one completed copy to the designated health department representative and one copy to the water supplier within 30 days of the testing device.
Notify owner and water supplier immediately if device fails test and repairs cannot immediately be made.

Report on Test and Maintenance of Backflow Prevention Device

PART A

Please use a separate form for each device.

For the year 2019
☐ Initial test - Complete entire form
☒ Annual test - Complete Part A only

Public Water Supply <u>CITY OF NIAGARA FALLS</u>		Account No.	County <u>NIAGARA</u>	Block	Lot
Facility Name <u>Glenn Springs Remediations</u>			Location of Device <u>MAINTENANCE BDOG.</u>		
Address <u>805-95th ST. NIAGARA FALLS</u>					
Device Information	Manufacturer <u>WATTS</u>	Type ☒ RPZ ☐ DCV	Model <u>LF009M2QT</u>	Size (in inches) <u>1"</u>	Serial Number <u>029613</u>
Check Valve No. 1		Check Valve No. 2		Differential Pressure Relief Valve	Line Pressure <u>80</u> psi
Test before repair	Leaked ☐ Closed tight ☒ Pressure drop across first check valve <u>74</u> psi	Leaked ☐ Closed tight ☒	Opened at <u>2.2</u> psi		Date <u>02</u> <u>14</u> <u>19</u> M D Y
Describe repairs and materials used					Repaired by Name _____ Lic # _____ Date repaired: _____ M D Y
Final test	Closed tight ☐ Pressure drop across first check valve _____ psi	Closed tight ☐	Opened at _____ psi		Date _____ M D Y
Water Meter Number <u>34592315</u>		Meter Reading <u>080423</u>		Type of Service: (check one) ☒ Domestic ☐ Fire ☐ Other _____	
Remarks (Describe deficiencies: bypassed, outlets before the device, connections between the device and point of entry, missing or inadequate airgaps, etc.)					
Certification: This device ☒ meets ☐ does NOT meet the requirements of an acceptable containment device at the time of testing (I hereby certify the foregoing data to be correct.) <u>JOHN A. GOLDBA</u> <u>5808</u> <u>John A. Goldba</u> <u>04.30.2020</u> Print Name Certified Tester No. Signature Expiration Date					
Agency owner (or authorized agent) certification that test was performed <u>Danell G. Smith</u> <u>Tech</u> <u>Danell G. Smith</u> <u>716.998.5804</u> Print Name Title Signature Telephone					

PART B

Certification that installation is in accordance with the approved plans.

(To be completed by the design engineer or architect or water supplier.)

I hereby certify that this installation is in accordance with the approved plans.

Name	Title	Date	NYS DOH Log #
License Number	Phone ()	m d y	
Representing	Describe minor installation changes		
Address			
City	State	Zip	
Signature			

NOTE: Send one completed copy to the designated health department representative and one copy to the water supplier within 30 days of the testing device.
Utility owner and water supplier immediately if device fails test and repairs cannot immediately be made.

Report on Test and Maintenance of Backflow Prevention Device

Part A Please use a separate form for each device. For the year 2019
☐ Initial test - Complete entire form
☒ Annual test - Complete Part A only

Public Water Supply <u>CITY OF NIAGARA FALLS</u>	Account No.	County <u>NIAGARA</u>	Block	Lot
Facility Name <u>GLENN SANINGS Remediation</u>		Location of Device <u>Locker Room</u>		
Address <u>805-95th St. NIAGARA FALLS</u>				
Street	City	Zip		

Device Information	Manufacturer <u>WATTS</u>	Type ☒ RPZ ☐ DCV	Model <u>909</u>	Size (in inches) <u>1 1/2</u>	Serial Number <u>364807</u>
	Check Valve No. 1	Check Valve No. 2	Differential Pressure Relief Valve	Line Pressure <u>80</u> psi	
Test before repair	Leaked ☐ Closed tight ☒ Pressure drop across first check valve <u>20</u> psi	Leaked ☐ Closed tight ☒	Opened at <u>21</u> psi	Date M D Y	

Describe repairs and materials used	Repaired by Name _____ Lic # _____ Date repaired: M D Y		
	Final test Closed tight ☐ Pressure drop across first check valve _____ psi		
Opened at _____ psi			Date M D Y

Water Meter Number <u>31671117</u>	Meter Reading <u>01140</u>	Type of Service (check one) ☒ Domestic ☐ Fire ☐ Other _____

Remarks (Describe deficiencies, bypasses, failures before the device, connections between the device and point of entry, missing or inadequate airgaps, etc.)

Certification: This device ☒ meets ☐ does NOT meet the requirements of an acceptable containment device at the time of testing. I hereby certify the following data to be correct.	
Print Name <u>JOHN H GORTSA</u>	Certified Tester No. <u>5808</u>
Signature <u>[Signature]</u>	Expiration Date <u>04/30/2020</u>

Property owner (or owner's agent) certification that test was performed <u>[Signature]</u>	Title <u>Tech</u>	Signature <u>[Signature]</u>	Telephone <u>716 998 5804</u>

Part B Certification that installation is in accordance with the approved plans. (To be completed by the design engineer or architect or water supplier.)

I hereby certify that this installation is in accordance with the approved plans.			
Name	Title	Date	NYS DOH Log #
License Number	Phone ()	m d y	
Representing	Describe minor installation changes		
Address			
City	State	Zip	
Signature			

NOTE: Send the completed copy to the designated health department representative and one copy to the water supplier within 30 days of the testing device. Notify owner and water supplier immediately if device fails test and repairs cannot immediately be made. DOH- 1013(S/91)

Appendix I

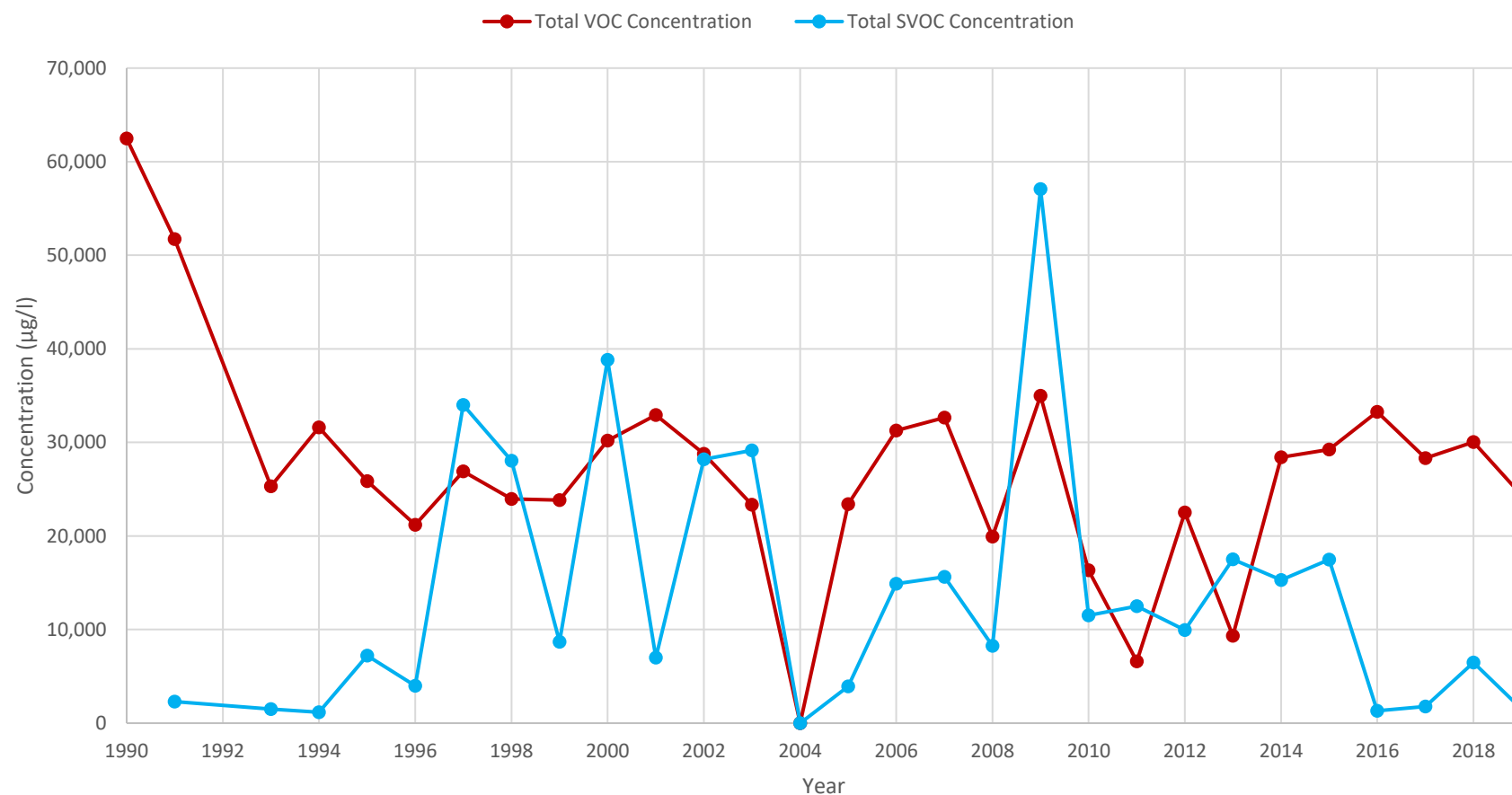
Well 10135 Trend Analysis

Table I.1

**Well 10135 Detection Summary
1990 - 2019
Love Canal Long-Term Monitoring Program
Niagara Falls, New York**

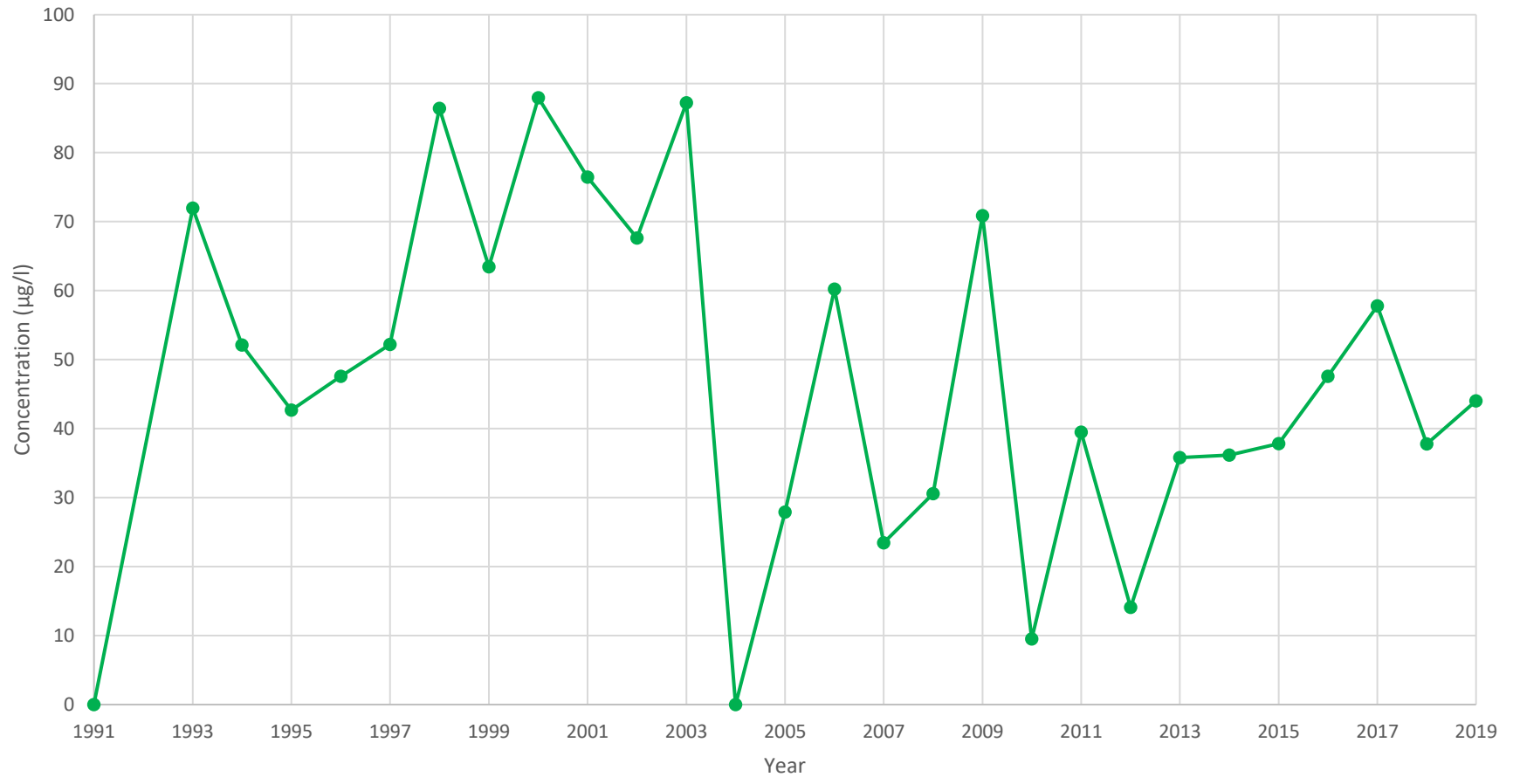
Well 10135	Sum of Contaminants Detected		
	Total VOCs (µg/l)	Total SVOCs (µg/l)	Total Pesticides (µg/l)
1990	62473	150140	0
1991	51730	2316	0
1993	25318	1507	72
1994	31601	1164	52
1995	25855	7220	43
1996	21195	4000	48
1997	26900	34000	52
1998	23966	28053	86
1999	23836	8678	63
2000	30204	38828	88
2001	32942	7017	76
2002	28790	28200	68
2003	23349	29137	87
2004	0	0	0
2005	23400	3944	28
2006	31282	14902	60
2007	32659	15633	23
2008	19937	8261	31
2009	34992	57075	71
2010	16349	11512	10
2011	6600	12514	40
2012	22530	9963	14
2013	9330	17508	36
2014	28400	15299	36
2015	29240	17478	38
2016	33278	1316	48
2017	28324	1776	58
2018	30047	6480	38
2019	24351	1500	44
Notes:			
Results for duplicate samples are not included in totals			
Data for 1992 was not available			
VOCs - Volatile Organic Compounds			
SVOCs - Semi-volatile Organic Compounds			
µg/l - Micrograms per liter			

Figure I.1 - Total VOCs and Total SVOCs Detected in Well 10135
1990 - 2019



Total SVOC concentration detected in 1990 not shown on graph.

Figure I.2 - Total Pesticide Concentration Detected in Well 10135
1990 - 2019





about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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