Illinois Environmental Protection Agency

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RCRA FACILITY GROUNDWATER, LEACHATE AND GAS REPORTING FORM

This form must be used as a cover sheet for the notices and reports, identified below as required by: (1) a facility's RCRA interim status closure plan; (2) the RCRA interim status regulations; or (3) a facility's RCRA permit. All reports must be submitted to the Illinois EPA's Bureau of Land Permit Section. This form is for use by Hazardous Waste facilities only. Reporting for Solid Waste facilities should be submitted on a separate form. All reports submitted to the Illinois EPA's Bureau of Land Permit Section must contain an original, plus a minimum of two copies.

Note: This form is not to be used with permit or closure plan modification requests. The facility's approved permit or closure plan will state whether the document you are submitting is required as a report or a modification request.

Facility Name: Equilon Enterprises LLC dba Shell Oil Products US

Facility Address: 900 South Central Ave., Roxana, IL 62048

Site ID #: 1191150002 Fed ID #: ILD 080 012 305

Check the appropriate heading. Only one heading may be checked for each corresponding submittal. Check the appropriate sub-heading, where applicable. Attach the original and all copies behind this form.

☐ LPC-160 Forms

Groundwater	Leachate
____ Quarterly - Enter: 1, 2, 3, or 4	____ Quarterly - Enter: 1, 2, 3, or 4
☐ Semi-Annual	☐ Semi-Annual
☐ Annual	☐ Annual
☐ Biennial	☐ Biennial

☑ Groundwater Data (without LPC-160 Forms)

2 Quarterly - Enter: 1, 2, 3, or 4 ☐ Annual ☐ Semi-Annual ☐ Biennial

☐ Well Construction Information

- ☐ Well Construction Forms, Boring Logs and/or Abandonment Forms
- ☐ Well Survey Data (e.g., Stick-up Elevation Data)

☐ Notice of Statistically Significant Evidence of Groundwater Contamination (35 Ill. Adm. Code 724.198)

☐ Notice of Exceedence of Groundwater Concentration Limit (35 Ill. Adm. Code 724.199(h))

☐ Notice of Alternate Source or Error in Sampling Analysis or Evaluation of Groundwater (35 Ill. Adm. Code 724.199(i))

☐ Gas Monitoring Reports

☑ Other (identify)

Original copy submitted to Springfield. Full hard copy submitted directly to Collinsville FOS.

Electronic copy submitted separately directly to Amy Butler.

AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
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July 12, 2022

Mr. Kenneth E Smith, PE
Manager, Permit Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62702

Groundwater Monitoring Report – 2nd Quarter 2022

Roxana, Illinois

1191150002 – Madison County

Equilon Enterprises LLC d/b/a Shell Oil Products US

Log No. B-43R-CA-21

Dear Mr. Smith:

On behalf of Shell Oil Products US (Shell), AECOM Technical Services, Inc. (AECOM) is submitting the enclosed referenced report and RCRA Facility Groundwater, Leachate and Gas Reporting Form for your review. This sampling was required by Condition 7 of the Agency's letter dated August 5, 2010.

Copies of the referenced report are being submitted separately directly to Ms. Amy Butler (electronic copy) and IEPA Collinsville FOS (hard copy) with Illinois Environmental Protection Agency (IEPA).

If you have any questions during your review, please contact Leroy (Buddy) Bealer, SOPUS Principal Program Manager, at leroy.bealer@shell.com (484/632-7955), or Wendy Pennington at wendy.pennington@aecom.com (314/452-8929).

Yours sincerely,

AECOM, on behalf of Shell Oil Products US

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enclosures: 2nd Quarter 2022 Report, Roxana Interim Groundwater Monitoring Program
RCRA Facility Groundwater, Leachate and Gas Reporting Form

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Thomas Morgan, Phillips 66
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IEPA Collinsville FOS, IEPA, Collinsville
Michelle Knapp, Atlantic Richfield Company
Greg Mollett, Greensfelder
Repositories - Roxana Public Library, website

AECOM

2nd Quarter 2022 Report

Roxana Interim Groundwater Monitoring Program

Prepared for:
Equilon Enterprises LLC dba Shell Oil Products US
Roxana, Illinois

Project number: 60674381

July 2022

Delivering a better world

Quality information

Prepared by	Checked by	Verified by	Approved by
			
Melissa Remiger Environmental Scientist	Brett Howell, PG Geologist	Rudy Torrini, Jr., Ph.D. Senior Project Manager	Wendy Pennington, PE Project Manager

Revision History

Revision	Revision date	Details	Authorized	Name	Position

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1 – copy	No	IEPA Collinsville FOS IEPA, Collinsville
None	Yes	Ms. Michelle Knapp Atlantic Richfield Company
None	Yes	Greg Mollett Greensfelder
None	Yes	Roxana Public L brary
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1 Introduction

AECOM Technical Services, Inc. (AECOM) is submitting this report on behalf of Equilon Enterprises LLC d/b/a Shell Oil Products US (Shell) for the 2nd Quarter 2022 (2Q22) groundwater monitoring well gauging and sampling conducted in the Village of Roxana, Illinois (**Figure 1**). The Interim Groundwater Monitoring Program (Program) was established based on direction from Illinois Environmental Protection Agency (IEPA) dated August 5, 2010 (IEPA, 2010a), The study area within the Village of Roxana (Village) is generally bounded by the alley north of First Street, Illinois Route 111, the West Fenceline of the WRB Refining, LP (WRB) Wood River Refinery (WRR), and the Roxana Public Works Yard. Some groundwater monitoring wells within the WRR were also sampled as part of this event; this was conducted in cooperation with WRB/Phillips 66 (P66). For purposes of presentation in this report only, the combined area is collectively referred to as the "Investigation Area."

There was no regulatory-related correspondence between AECOM, on behalf of Shell, and the IEPA during this reporting period (April 2022 through June 2022); prior regulatory-related correspondence which has not yet been addressed by IEPA can be found in **Appendix A**.

Groundwater samples were collected and analyzed during 2Q22 to meet the requirements of the Interim Groundwater Monitoring Program, as specified in the guidance presented in **Appendix A**. **Figure 2** shows the groundwater monitoring wells that are part of the interim monitoring well network.

2 Groundwater Sampling and Analytical Procedures

The groundwater monitoring well gauging, sample collection, and analytical procedures are discussed in this section. Gauging and sampling procedures are based on the Interim Groundwater Monitoring Program, as outlined in the IEPA's letter dated August 5, 2010 (IEPA, 2010a) described in **Section 1**, and as modified based on other correspondence described in **Appendix A**. Groundwater samples and gauging data were collected using the most current AECOM standard operating procedures (SOPs) for the project.

2.1 Health & Safety

The quarterly sampling activities were performed in general accordance with the project-specific Health and Safety Plan (HASP), dated February 2, 2022 (AECOM, 2022c).

In addition to HASP guidance, quarterly activities were performed in accordance with federal, state, AECOM, and site-specific COVID-19 procedures, following safe working precautions and social distancing recommendations.

2.2 Additional Activities or Modifications

The following additional work activities were conducted during 2Q22:

- During the comprehensive 2Q22 quarterly groundwater gauging event, no LNAPL was observed in groundwater monitoring well ROST-4-PZ(E); however, 0.03 feet of LNAPL was detected in ROST-4-PZ(E) on April 18, 2022 during the quarterly groundwater sampling event and therefore, well ROST-4-PZ(E) was not sampled. Fluid level measurements were collected weekly from groundwater monitoring well ROST-4-PZ(E) following the quarterly groundwater sampling event as outlined in the IEPA's letter dated March 14, 2012 (IEPA, 2012a). On June 14, 2022, after two consecutive weeks of no LNAPL observed, the weekly gauging of groundwater monitoring well ROST-4-PZ(E) ceased.

2.3 Groundwater Monitoring Well Gauging and Sampling

Groundwater Monitoring Well Gauging

The comprehensive quarterly groundwater monitoring well gauging event was conducted between April 4 and 6, 2022. Well T-64 was remeasured on April 7, 2022 due to anomalous initial results. The gauging activities were conducted in conjunction with the 2Q22 gauging event for the WRR to evaluate groundwater flow direction and identify possible LNAPL in the Investigation Area. Depth to LNAPL (if present) and depth to water were recorded. Quarterly and weekly groundwater monitoring well gauging results can be found in **Table 1a and 1b**. The groundwater gauging data table also includes well-head PID (photoionization detector) results.

Low-Flow Groundwater Purging and Sampling

Groundwater samples were collected from groundwater monitoring wells between April 7 and 20, 2022. Groundwater samples were collected using the most current low-flow groundwater purging and sampling related SOPs, which have previously been provided to IEPA. Data are included in this report and discussed in **Section 3**.

Groundwater monitoring wells MW-1 through MW-14; MW-16; MW-22 through MW-28; P-54; P-56 through P-59; P-74; P-93A, B, and C; P-114R; ROST-3-MW; ROST-4-PZ(C); ROST-4-PZ(G); and T-12 were purged and sampled using a stainless-steel submersible pump (pump), low-flow controller, and designated[1] polyethylene tubing.

[1] All designated tubing is stored in a sealed bag designated for a particular groundwater monitoring well between sampling events; designated tubing used with stainless steel submersible pumps is replaced annually prior to the first quarter sampling event.

Groundwater monitoring well P-93D was purged and sampled using a dedicated stainless-steel QED Environmental Systems (QED) Well Wizard® groundwater sampling pump (Well Wizard®) and dedicated bonded polyethylene tubing.

For both sampling methods pumping was performed at a low flow rate (≤ 300 mL/minute) to minimize drawdown of the water level within the groundwater monitoring well. During groundwater purging, water quality parameters (pH, temperature, specific conductivity, turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP)) were measured and recorded after every flow-through cell volume. Once stabilization was achieved or a maximum purge time of two hours was reached, groundwater samples were collected for VOCs and semi-volatile organic compound (SVOC) analysis.

Groundwater monitoring wells located inside the WRR and designated for sampling in the Interim Groundwater Monitoring Program, P-55R, P-66, P-68, contained LNAPL when gauged and, therefore, were not sampled. Groundwater monitoring well ROST-4-PZ(E), located in the Village and designated for sampling in the Interim Groundwater Monitoring Program, did not contain LNAPL on April 4, 2022 when gauged during the groundwater gauging event. ROST-4-PZ(E) was gauged on April 18, 2022, during the quarterly groundwater sampling event; 0.03 feet of LNAPL was detected and therefore, well ROST-4-PZ(E) was not sampled.

Groundwater sampling field parameters can be found in **Table 2**, and low flow groundwater sampling data sheets are included in **Appendix B**.

2.4 Decontamination and Investigation-Derived Waste

Decontamination

Field personnel and equipment underwent decontamination procedures in accordance with project SOPs previously provided to IEPA to ensure the health and safety of those present, to maintain sample integrity, and to minimize cross contamination. Reusable sampling equipment (e.g., groundwater pump) was decontaminated after each sample location using the most current decontamination SOPs.

Investigation-Derived Waste

Investigation-derived waste (IDW), such as purge water and decontamination fluid generated during groundwater sampling activities, was collected, staged, and disposed in accordance with RCRA, Illinois and United States Department of Transportation (DOT) regulations. Expendable materials (e.g., disposable sampling equipment such as gloves and tubing) were decontaminated, if necessary, collected in trash bags, and disposed as municipal waste.

Decontamination fluid and purge water from groundwater monitoring wells MW-4, MW-7, MW-8, and MW-25 are managed as hazardous waste based on prior characterization in conjunction with generator knowledge, and decontamination fluid and purge water from other groundwater monitoring wells in the Village are managed as non-hazardous waste based on prior characterization in conjunction with generator knowledge; both hazardous and non-hazardous waste were disposed at the Heritage facility in Indianapolis, Indiana.

Decontamination fluid and purge water related to, or generated from, work within the WRR was collected and discharged through the WRR's National Pollutant Discharge Elimination System (NPDES)-permitted Wastewater Treatment Plant (WWTP).

2.5 Groundwater Sample Handling and Laboratory Testing

Samples were collected in pre-preserved laboratory-supplied containers and labeled in the field. Sample information was recorded on a chain of custody (COC) form at the time of collection. The sample ID format is "well ID-ROX-date". COCs are included with laboratory analytical reports in **Appendix C**.

Upon collection and labeling, sample containers were immediately placed inside an iced cooler and packed in such a way as to help prevent breakage and maintain sample temperature within 0-6°C without freezing. The samples were then delivered via overnight courier, under the proper COC documentation, to TestAmerica Laboratories, Inc. (TestAmerica) in Pensacola, Florida for analysis.

Samples were analyzed by TestAmerica for VOCs via USEPA Methods 8260B and 8011, for SVOCs via USEPA Method 8270D, and for Polycyclic Aromatic Hydrocarbons (PAHs) via USEPA Method 8270D Low Level (LL). USEPA Method 8011 was used for select VOCs (1,2-dibromoethane and 1,2-dibromo-3-chloropropane) in order to achieve lower reporting limits specified in the most recent version of the Permit. Per direction from IEPA, the Interim Groundwater Monitoring Program concentration limits need to be consistent with those in the Permit.

2.6 Data Quality Review and Data Management

Laboratory data were provided in electronic form and included data qualifiers on the basis of the laboratory's quality control or to indicate sample analysis information. The data were independently reviewed and qualified by AECOM. One hundred percent of the data were subjected to a data quality review. Evaluation of the data followed procedures outlined in the USEPA National Functional Guidelines for Organic Superfund Methods Data Review (USEPA, 2020). Data qualifiers were also added by AECOM, as appropriate, and are included on **Table 3** and in the laboratory results in **Appendix C**. The results of the data quality review are discussed in **Section 3.2**.

Field data and documentation collected as part of this scope of work became part of the project file. AECOM maintains the files for the site and the database management system.

3 Groundwater Sampling Results

This section presents the results of the 2Q22 groundwater gauging and sampling event.

3.1 Groundwater Monitoring Well Gauging Results

The comprehensive quarterly groundwater monitoring well gauging for the 2Q22 event was conducted between April 4 and 6, 2022. Well T-64 was remeasured on April 7, 2022 due to anomalous initial results. This groundwater monitoring well gauging was conducted in accordance with the Interim Groundwater Monitoring Program, and the results can be found in **Table 1a**. Groundwater levels in most wells in the vicinity of the West Fenceline and central portion of the WRR have fallen approximately 0.75 to 1.5 feet since the 1Q22 gauging event. Groundwater levels in most wells in the eastern portion of the WRR have fallen approximately 0.5 to 1 foot since the 1Q22 gauging event. Water levels are above the top of the screens in the majority of the wells gauged during the 2Q22 event. The potentiometric surface observed during the 2Q22 groundwater monitoring well gauging (**Figures 3a** and **3b**) illustrates an inward gradient with groundwater flow toward the WRR groundwater production wells.

During the 2Q22 quarterly groundwater monitoring well gauging event, LNAPL was detected in three Interim Groundwater Monitoring Program groundwater monitoring wells (P-55R, P-66, and P-68) (**Table 1a**). These monitoring wells are located in the WRR. In these wells, LNAPL thicknesses ranged from 0.08 to 0.48 feet. Measured LNAPL thickness and the number of locations where it was observed during the 2Q22 quarterly gauging events was generally comparable to that observed in 1Q22, with the exception of LNAPL detected in P-66; LNAPL was last detected in P-66 during 4th Quarter 2012 (4Q12).

The Illinois Emergency Management Agency (IEMA) was notified on November 22, 2020 of a release of gasoline from a Buckeye Partners (Wood River Pipeline, LLC) pipeline located to the south of well P-58 along the WRR West Fenceline, and to the north of well P-66 on WRR Main Property as indicated on **Figures 2, 3b, 4a,** and **5**. The release is associated with IEPA Violation Notice L-2021-00084, LPC #1190905036 – Madison County. Groundwater monitoring wells P-58 and P-66 have yielded some anomalous observations/detections since the reported release; these wells will be gauged, and sampled in the absence of LNAPL, during the quarterly Roxana Interim Groundwater Monitoring program.

During the 2Q22 quarterly groundwater gauging event, LNAPL was not observed in groundwater monitoring wells located in the Village; however, 0.03 feet of LNAPL was detected in ROST-4-PZ(E) during the quarterly groundwater sampling event (**Table 1a** and **1b**). **Figures 4a** and **4b** illustrate the measured LNAPL thickness observed along the West Fenceline and inside the refinery, respectively, during the 2Q22 gauging event.

During 2Q22, LNAPL was observed in groundwater monitoring wells T-24 and P-66 located on WRR property at a thickness greater than 0.10 feet and was removed using bailers[2]. The recovered LNAPL was placed in a double-walled lube cube located on the WRR North Property, the contents of which are taken to the WRR oil-water separators for reprocessing.

3.2 Data Quality Review Results

A total of 13 sample delivery groups (SDGs) were prepared and sent to TestAmerica for the 2Q22 event. Fifty-one different groundwater sample sets were prepared and analyzed for VOCs and SVOCs (including PAHs). The 51 samples included 40 different investigative sample sets, five field duplicate sets, and three matrix spike/matrix spike duplicate (MS/MSD) sets. SDGs for 2Q22 are presented in **Appendix C**.

Trip blanks (TBs), equipment blanks (EBs), and laboratory method blanks were analyzed to evaluate for the existence and magnitude of any contamination resulting from field and laboratory activities. Five different EB sets were collected for this quarter. A TB set was included in every cooler that contained samples for VOC analysis. A total of 14 TB sets were analyzed for groundwater VOCs. Laboratory method blanks were analyzed with every analytical batch.

[2] LNAPL > 0.10 feet is a project specific criterion for removal, based on practicality with the removal technique.

Based on laboratory control sample (LCS), MS/MSD, surrogate, holding time, and field duplicate criteria, the groundwater analytical results reported were accepted for their intended use.

- Due to anomalous bis(2-ethylhexyl) phthalate results, the laboratory re-extracted and re-analyzed for bis(2-ethylhexyl) phthalate in two investigative samples (P93A-ROX-041922 and P93D-ROX-041922); bis(2-ethylhexyl) phthalate is a common laboratory and field contaminant. The extraction holding time criteria was exceeded for the re-extracted samples; however, the results from these re-analyses were consistent with historical data (non-detect). Based on professional judgement, the results from the re-analyses were used for the purposes of this report.

Analytical results qualified by AECOM are specified in the data reviews presented in **Appendix C**.

3.3 Analytical Results and Discussion

Table 2 presents cumulative information on groundwater sampling field parameters for Main Sand aquifer wells. These results are consistent with those observed in the 1Q22 sampling event. The laboratory analytical results for the groundwater samples collected during this event are presented in **Table 3**.

Analytical detections were compared to the concentration limits as provided in Condition IV(E)(1) of the Permit for the WRB Refining LP Wood River Refinery[3]. These concentration limits include the Groundwater Quality Standards for Class I: Potable Resource Groundwater (35 IAC 620, Subpart D, Section 410) (Part 620) (IEPA, 2012c), the IEPA Tiered Approach to Corrective Action Objectives (TACO) Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Groundwater Ingestion Route (35 IAC 742, Appendix B, Table E) (IEPA, 2007), and the IEPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 1 Tables) (IEPA, 2018). Where screening values were available from multiple sources from the ones mentioned above, screening values from Part 620 were used preferentially over the screening values found in TACO and Chemicals not in TACO sources. All three sources are checked on a quarterly basis to ensure the most current published screening values are being used. The results of this screening comparison are presented in **Table 3**.

Samples from 11 groundwater monitoring wells in the Interim Groundwater Monitoring Program (four in the Village, seven in the WRR along the West Fenceline) exhibited exceedances of the groundwater screening criteria for one or more of the following constituents:

- Benzene
- 1,2,4-Trimethylbenzene
- Benzo(a)pyrene
- Phenol
- Naphthalene
- Benzo(a)anthracene
- 2-Methylnaphthalene

Figure 5 presents concentrations of analytes that exceeded the indicated screening criteria for 2Q22. These findings are generally consistent with the results from previous sampling events, with the exception of first-time PAH detections (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, dibenz(a,h)acridine, dibenzo(a,h)anthracene, and/or indeno(1,2,3-cd)pyrene) at nine locations; these detections were below their corresponding screening value.

Figure 6 presents a plan view depiction of benzene analytical results in groundwater across the site. **Figure 7** presents a cross-section along Chaffer Avenue with a vertical distribution of the benzene concentrations in groundwater superimposed. **Figure 8** presents a cross-section across the Roxana Public Works Yard with a vertical distribution of the benzene analytical results in groundwater superimposed.

[3] IEPA requested that the Interim Groundwater Monitoring Program be consistent with the RCRA Part B Permit.

Appendix D-1 contains benzene concentration trend plots for selected monitoring wells[4] to represent groundwater conditions in the 4th Street area and Public Works Yard area, respectively:

- 4th Street area – MW-22, ROST-4 PZ(C), P-59, and T-12
- Public Works Yard area – MW-7, MW-8, MW-25, and P-57

Beginning in 2Q21, a Mann-Kendall analysis of the analytical benzene results from the eight sampled groundwater wells in the 4th Street and Public Works Yard areas was conducted. The Mann-Kendall analysis was performed using GWSDAT (GroundWater Spatio-Temporal Data Analysis Tool). As of 2Q22, statistically significant downward trends were displayed for six wells, no wells displayed statistically significant increasing trends, and the remaining two wells displayed trends that were not statistically significant[5]. Results from the Mann-Kendall analysis conducted via GWSDAT are presented in **Appendix D-2**.

[4] In a meeting with IEPA on April 5, 2018, the AECOM presentation included benzene concentration trend plots pertinent to GMZ discussion. IEPA verbally requested that benzene concentration trend plots for selected monitoring wells be incorporated into Roxana Program quarterly reports.
[5] Results are significant if p value is equal to or below 0.05.

4 Summary and Conclusions

AECOM conducted the 2Q22 Interim Groundwater Monitoring Program, and the following conclusions are based on the data and information collected as part of this program:

- During 2Q22, groundwater level data indicate groundwater flow from the Investigation Area is moving toward groundwater production wells at the WRR. Groundwater levels in wells in the vicinity of the West Fenceline and central portion of the WRR have fallen approximately 0.75 to 1.5 feet since the 1Q22 gauging event. Groundwater levels in most wells in the eastern portion of the WRR have fallen approximately 0.5 to 1 foot since the previous quarter.

- Measured LNAPL thickness and the number of locations where it was observed during the 2Q22 quarterly gauging events was generally comparable to that observed in 1Q22, with the exception of LNAPL detected in P-66; LNAPL was last detected in P-66 during 4Q12. WRB/P66 notified IEMA on November 22, 2020 of a release of gasoline from a Buckeye Partners (Wood River Pipeline, LLC) pipeline located to the south of well P-58 along the WRR West Fenceline, and to the north of well P-66 on WRR Main Property. Wells P-58 and P-66 will be gauged and sampled in the absence of LNAPL during the 3Q22 Roxana Interim Groundwater Monitoring program.

- The analytical results from 2Q22 are generally consistent with the results from previous sampling events, with the exception of several first-time, below screening value, PAH detections in nine samples.

- Benzene concentration plots presented in **Appendix D-1** continue to show stable or decreasing trends.

- GWSDAT charts presented in **Appendix D-2** show statistically significant downward trends displayed for six wells, no wells displayed statistically significant increasing trends, and the remaining two wells displayed trends that are not statistically significant.

- The data and observations presented in this groundwater monitoring report provide further support for the conclusions and requested course of action presented in the proposed Groundwater Management Zone (GMZ) (AECOM 2016b).

4.1 Limitations

Shell shall have the right to make and retain copies of and use all Work Product provided. However, such use shall be limited to the particular Site and project for which the Work Product is provided. Shell and its agents may release the Work Product to third parties at its sole risk and discretion. This report is based on data, site conditions, and other information that is generally applicable as of the date of this report, and the conclusions and recommendations herein are therefore applicable only to that time frame and to the report in its entirety.

Data may have been provided to AECOM by Shell or a third party and used in preparing this report. AECOM has relied on this information as furnished, and is neither responsible for, nor has confirmed the accuracy of this information.

5 References

AECOM, 2015 (AECOM, 2015); *Demonstration to Verify the Extent of Groundwater Contamination Has Been Delineated Roxana, Illinois*. Prepared for Shell Oil Products US (Shell), dated April 16, 2015.

AECOM, 2016 (AECOM, 2016a); *Additional Information – Groundwater Management Zone*. Prepared for Shell Oil Products US (Shell), dated January 29, 2016.

AECOM, 2016 (AECOM, 2016b); *Proposed Groundwater Management Zone*. Prepared for Shell Oil Products US (Shell), dated May 19, 2016.

AECOM, 2016 (AECOM, 2016c); *Response to IEPA Letter dated July 27, 2016 – Groundwater Conditions near East 3rd and Chaffer Streets*. Prepared for Shell Oil Products US (Shell), dated October 14, 2016.

AECOM, 2018 (AECOM, 2018a); *Response to IEPA Emails dated October 4-23, 2017 – GMZ Response to Comments*. Prepared for Shell Oil Products US (Shell), dated January 2, 2018.

AECOM, 2018 (AECOM, 2018b); *Groundwater Management Zone – Additional Information*. Prepared for Shell Oil Products US (Shell), dated September 26, 2018.

AECOM, 2020 (AECOM, 2020a); *Response to IEPA Notice of Permit Renewal Application Incompleteness*. Prepared for Shell Oil Products US (Shell) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated September 4, 2020.

AECOM, 2020 (AECOM, 2020b); *Class 1* Permit Modification – Response to Condition 4.b. in Attachment A and Condition V.D.3. of the 12/20/2019 IEPA Letter with Modified Permit*. Prepared for Shell, dated October 12, 2020.

AECOM, 2022 (AECOM, 2022a); *Public Works Yard (PWY) Steam Enhanced Extraction (SEE) Workplan*. Prepared for Shell, dated January 31, 2022.

AECOM, 2022 (AECOM, 2022b); Additional Information Supplemental to the Proposed Groundwater Management Zone. Prepared for Shell, dated March 18, 2022

AECOM, 2022 (AECOM, 2022c); *Shell GESS Health and Safety Plan: Rand Avenue, Roxana / Route 111, and WRR Investigation and Remediation*. Prepared for Shell Oil Products US (Shell), dated February 2, 2022.

Illinois Environmental Protection Agency, 2007 (IEPA, 2007); 35 Illinois Administrative Code 742, Tiered Approach to Corrective Action Objectives. Appendix B. *Table E – Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Groundwater Ingestion Route*. Effective February 23, 2007; accessed on June 17, 2022.

Illinois Environmental Protection Agency, 2010 (IEPA, 2010a); *Letter providing approval with comments the SOPUS 2010 Delineation Report*. Issued to Shell Oil Products US (Shell), dated August 5, 2010.

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Tables

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TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
MW 01											
3Q21	442.83	7/7/2021	NE	37.27	NA	NA	NA	405.56	394.03 - 384.03 (48.80 - 58.80)	0.0	*
4Q21		10/5/2021	NE	37.81	NA	NA	NA	405.02		0.1	*
1Q22		1/3/2022	NE	39.03	NA	NA	NA	403.80		0.0	*
2Q22		4/5/2022	NE	39.78	NA	NA	NA	403.05		0.0	*
MW 02											
3Q21	443.93	7/6/2021	NE	38.66	NA	NA	NA	405.27	394.06 - 384.06 (49.87 - 59.87)	40.3	*
4Q21		10/4/2021	NE	39.11	NA	NA	NA	404.82		9.8	*
1Q22		1/3/2022	NE	40.41	NA	NA	NA	403.52		317.2	*
2Q22		4/4/2022	NE	41.13	NA	NA	NA	402.80		161.2	*
MW 03											
3Q21	430.23	7/7/2021	NE	24.30	NA	NA	NA	405.93	395.56 - 385.56 (34.67 - 44.67)	0.0	*
4Q21		10/5/2021	NE	25.09	NA	NA	NA	405.14		0.2	*
1Q22		1/4/2022	NE	26.20	NA	NA	NA	404.03		0.3	*
2Q22		4/5/2022	NE	26.94	NA	NA	NA	403.29		0.0	*
MW 04											
3Q21	441.31	7/7/2021	NE	35.64	NA	NA	NA	405.67	396.25 - 386.25 (45.06 - 55.06)	0.0	*
4Q21		10/5/2021	NE	36.29	NA	NA	NA	405.02		0.4	*
1Q22		1/4/2022	NE	37.43	NA	NA	NA	403.88		0.0	*
2Q22		4/5/2022	NE	38.19	NA	NA	NA	403.12		0.0	*
MW 05											
3Q21	429.98	7/7/2021	NE	24.02	NA	NA	NA	405.96	396.01 - 386.01 (33.97 - 43.97)	0.0	*
4Q21		10/5/2021	NE	24.79	NA	NA	NA	405.19		2.8	*
1Q22		1/4/2022	NE	25.90	NA	NA	NA	404.08		0.0	*
2Q22		4/5/2022	NE	26.62	NA	NA	NA	403.36		0.0	*
MW 06A											
3Q21	432.33	7/7/2021	NE	26.06	NA	NA	NA	406.27	398.48 - 388.48 (33.85 - 43.85)	0.0	*
4Q21		10/5/2021	NE	26.94	NA	NA	NA	405.39		0.0	*
1Q22		1/4/2022	NE	28.02	NA	NA	NA	404.31		0.1	*
2Q22		4/5/2022	NE	28.70	NA	NA	NA	403.63		0.0	*
MW 06B											
3Q21	432.37	7/7/2021	NE	26.12	NA	NA	NA	406.25	368.32 - 363.32 (64.05 - 69.05)	0.0	*
4Q21		10/5/2021	NE	26.98	NA	NA	NA	405.39		0.0	*
1Q22		1/4/2022	NE	28.07	NA	NA	NA	404.30		0.1	*
2Q22		4/5/2022	NE	28.76	NA	NA	NA	403.61		0.0	*
MW 06C											
3Q21	432.18	7/7/2021	NE	25.94	NA	NA	NA	406.24	347.23 - 342.23 (84.95 - 89.95)	0.0	*
4Q21		10/5/2021	NE	26.78	NA	NA	NA	405.40		0.0	*
1Q22		1/4/2022	NE	27.86	NA	NA	NA	404.32		0.1	*
2Q22		4/5/2022	NE	28.53	NA	NA	NA	403.65		0.0	*
MW 06D											
3Q21	432.06	7/7/2021	NE	25.76	NA	NA	NA	406.30	327.34 - 322.34 (104.72 - 109.72)	0.0	*
4Q21		10/5/2021	NE	26.63	NA	NA	NA	405.43		0.0	*
1Q22		1/4/2022	NE	27.73	NA	NA	NA	404.33		0.1	*
2Q22		4/5/2022	NE	28.39	NA	NA	NA	403.67		0.0	*
MW 07											
3Q21	443.31	7/6/2021	NE	37.74	NA	NA	NA	405.57	400.39 - 390.39 (42.92 - 52.92)	1005.0	*
4Q21		10/4/2021	NE	38.33	NA	NA	NA	404.98		18.2	*
1Q22		1/3/2022	NE	39.64	NA	NA	NA	403.67		65.6	*
2Q22		4/4/2022	NE	40.28	NA	NA	NA	403.03		2.6	*
MW 08											
3Q21	434.43	7/7/2021	NE	28.51	NA	NA	NA	405.92	400.83 - 390.83 (33.60 - 43.60)	27.3	*
4Q21		10/5/2021	NE	29.29	NA	NA	NA	405.14		0.0	*
1Q22		1/4/2022	NE	30.38	NA	NA	NA	404.05		0.0	*
2Q22		4/5/2022	NE	31.12	NA	NA	NA	403.31		0.5	*
MW 09											
3Q21	445.28	7/6/2021	NE	38.86	NA	NA	NA	406.42	399.24 - 389.24 (46.04 - 56.04)	0.0	*
4Q21		10/4/2021	NE	39.21	NA	NA	NA	406.07		0.1	*
1Q22		1/3/2022	NE	40.43	NA	NA	NA	404.85		0.2	*
2Q22		4/4/2022	NE	41.43	NA	NA	NA	403.85		0.0	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
MW 10											
3Q21	445.06	7/6/2021	NE	38.78	NA	NA	NA	406.28	400.63 - 390.63 (44.43 - 54.43)	0.0	*
4Q21		10/4/2021	NE	39.09	NA	NA	NA	405.97		0.1	*
1Q22		1/3/2022	NE	40.33	NA	NA	NA	404.73		0.1	*
2Q22		4/4/2022	NE	41.30	NA	NA	NA	403.76		0.0	*
MW 11											
3Q21	442.38	7/6/2021	NE	36.53	NA	NA	NA	405.85	400.72 - 390.72 (41.66 - 51.66)	0.0	*
4Q21		10/4/2021	NE	36.90	NA	NA	NA	405.48		0.0	*
1Q22		1/3/2022	NE	38.14	NA	NA	NA	404.24		0.2	*
2Q22		4/5/2022	NE	39.04	NA	NA	NA	403.34		0.0	*
MW 12											
3Q21	442.64	7/7/2021	NE	36.95	NA	NA	NA	405.69	400.72 - 390.72 (41.92 - 51.92)	0.0	*
4Q21		10/5/2021	NE	37.49	NA	NA	NA	405.15		0.3	*
1Q22		1/3/2022	NE	38.72	NA	NA	NA	403.92		0.2	*
2Q22		4/5/2022	NE	39.54	NA	NA	NA	403.10		0.0	*
MW 13											
3Q21	430.30	7/7/2021	NE	23.75	NA	NA	NA	406.55	405.50 - 395.50 (24.80 - 34.80)	0.0	*
4Q21		10/5/2021	NE	24.71	NA	NA	NA	405.59		0.0	*
1Q22		1/4/2022	NE	25.72	NA	NA	NA	404.58		5.7	
2Q22		4/5/2022	NE	26.43	NA	NA	NA	403.87		71.2	
MW 14											
3Q21	434.61	7/7/2021	NE	28.15	NA	NA	NA	406.46	401.19 - 391.19 (33.42 - 43.42)	94.3	*
4Q21		10/6/2021	NE	29.02	NA	NA	NA	405.59		41.3	*
1Q22		1/5/2022	NE	30.17	NA	NA	NA	404.44		2.9	*
2Q22		4/6/2022	NE	30.85	NA	NA	NA	403.76		64.5	*
MW 16											
3Q21	443.60	7/7/2021	NE	38.18	NA	NA	NA	405.42	406.10 - 396.10 (37.50 - 47.50)	0.0	
4Q21		10/4/2021	NE	38.57	NA	NA	NA	405.03		0.0	
1Q22		1/4/2022	NE	39.62	NA	NA	NA	403.98		0.0	
2Q22		4/5/2022	NE	40.70	NA	NA	NA	402.90		0.0	
MW 17											
3Q21	441.78	7/6/2021	NE	36.63	NA	NA	NA	405.15	407.49 - 392.49 (34.29 - 49.29)	18.0	
4Q21		10/4/2021	NE	36.85	NA	NA	NA	404.93		0.0	
1Q22		1/3/2022	NE	38.02	NA	NA	NA	403.76		0.1	
2Q22		4/4/2022	NE	39.09	NA	NA	NA	402.69		0.0	
MW 18											
3Q21	442.24	7/6/2021	NE	37.26	NA	NA	NA	404.98	407.32 - 392.32 (34.92 - 49.92)	0.0	
4Q21		10/4/2021	NE	37.46	NA	NA	NA	404.78		0.0	
1Q22		1/3/2022	NE	38.68	NA	NA	NA	403.56		0.0	
2Q22		4/4/2022	NE	39.77	NA	NA	NA	402.47		0.0	
MW 19											
3Q21	442.98	7/6/2021	NE	37.88	NA	NA	NA	405.10	406.64 - 391.64 (36.34 - 51.34)	0.0	
4Q21		10/4/2021	NE	38.16	NA	NA	NA	404.82		0.0	
1Q22		1/3/2022	NE	39.38	NA	NA	NA	403.60		0.0	
2Q22		4/4/2022	NE	40.41	NA	NA	NA	402.57		0.0	
MW 20											
3Q21	443.86	7/6/2021	NE	38.70	NA	NA	NA	405.16	407.98 - 392.98 (35.88 - 50.88)	0.0	
4Q21		10/4/2021	NE	39.06	NA	NA	NA	404.80		0.0	
1Q22		1/3/2022	NE	40.35	NA	NA	NA	403.51		0.0	
2Q22		4/4/2022	NE	41.22	NA	NA	NA	402.64		0.0	
MW 21											
3Q21	444.01	7/6/2021	NE	38.87	NA	NA	NA	405.14	409.00 - 394.00 (35.01 - 50.01)	0.0	
4Q21		10/4/2021	NE	39.19	NA	NA	NA	404.82		0.0	
1Q22		1/3/2022	NE	40.55	NA	NA	NA	403.46		0.5	
2Q22		4/4/2022	NE	41.22	NA	NA	NA	402.79		0.0	
MW 22											
3Q21	442.38	7/7/2021	NE	36.84	NA	NA	NA	405.54	403.95 - 393.95 (38.43 - 48.43)	0.0	*
4Q21		10/4/2021	NE	37.18	NA	NA	NA	405.20		0.0	*
1Q22		1/3/2022	NE	38.37	NA	NA	NA	404.01		0.0	*
2Q22		4/5/2022	NE	39.36	NA	NA	NA	403.02		0.0	

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
MW 23											
3Q21	431.57	7/7/2021	NE	25.31	NA	NA	NA	406.26	402.55 - 392.55 (29.02 - 39.02)	0.0	*
4Q21		10/5/2021	NE	26.28	NA	NA	NA	405.29		5.5	*
1Q22		1/4/2022	NE	27.38	NA	NA	NA	404.19		0.2	*
2Q22		4/5/2022	NE	27.98	NA	NA	NA	403.59		20.0	*
MW 24											
3Q21	443.65	7/7/2021	NE	37.81	NA	NA	NA	405.84	404.04 - 394.04 (39.61 - 49.61)	0.0	*
4Q21		10/5/2021	NE	38.28	NA	NA	NA	405.37		0.0	*
1Q22		1/3/2022	NE	39.44	NA	NA	NA	404.21		0.0	*
2Q22		4/5/2022	NE	40.34	NA	NA	NA	403.31		0.0	
MW 25											
3Q21	438.53	7/6/2021	NE	32.81	NA	NA	NA	405.72	402.94 - 392.94 (35.59 - 45.59)	65.9	*
4Q21		10/5/2021	NE	33.47	NA	NA	NA	405.06		200.8	*
1Q22		1/4/2022	NE	34.59	NA	NA	NA	403.94		140.6	*
2Q22		4/5/2022	NE	35.34	NA	NA	NA	403.19		94.1	*
MW 26											
3Q21	441.23	7/7/2021	NE	35.63	NA	NA	NA	405.60	403.08 - 393.08 (38.15 - 48.15)	0.0	*
4Q21		10/5/2021	NE	36.22	NA	NA	NA	405.01		3.0	*
1Q22		1/3/2022	NE	37.44	NA	NA	NA	403.79		0.2	*
2Q22		4/5/2022	NE	38.15	NA	NA	NA	403.08		0.0	
MW 27											
3Q21	443.60	7/6/2021	NE	37.06	NA	NA	NA	406.54	403.81 - 393.81 (39.79 - 49.79)	0.0	*
4Q21		10/4/2021	NE	37.19	NA	NA	NA	406.41		0.1	*
1Q22		1/3/2022	NE	38.25	NA	NA	NA	405.35		0.2	*
2Q22		4/5/2022	NE	39.35	NA	NA	NA	404.25		0.0	*
MW 28											
3Q21	443.55	7/6/2021	NE	36.33	NA	NA	NA	407.22	409.94 - 399.94 (33.61 - 43.61)	0.0	
4Q21		10/4/2021	NE	36.31	NA	NA	NA	407.24		0.1	
1Q22		1/3/2022	NE	37.48	NA	NA	NA	406.07		0.1	
2Q22		4/5/2022	NE	38.45	NA	NA	NA	405.10		0.0	
P 01											
3Q21	442.98	7/7/2021	NE	27.98	NA	NA	NA	415.00	380.76 - 375.76 (62.22 - 67.22)	0.0	*
4Q21		10/5/2021	NE	28.95	NA	NA	NA	414.03		0.0	*
1Q22		1/5/2022	NE	31.32	NA	NA	NA	411.66		0.0	*
2Q22		4/5/2022	NE	31.60	NA	NA	NA	411.38		0.0	*
P 4U											
3Q21	442.74	7/7/2021	NE	29.36	NA	NA	NA	413.38	361.59 - 359.59 (81.15 - 83.15)	0.0	*
4Q21		10/5/2021	NE	30.15	NA	NA	NA	412.59		0.0	*
1Q22		1/5/2022	NE	32.32	NA	NA	NA	410.42		0.0	*
2Q22		4/5/2022	NE	32.90	NA	NA	NA	409.84		0.0	*
P 5L											
3Q21	444.01	7/7/2021	NE	29.02	NA	NA	NA	414.99	303.61 - 301.61 (140.40 - 142.40)	0.0	*
4Q21		10/5/2021	NE	30.04	NA	NA	NA	413.97		0.0	*
1Q22		1/5/2022	NE	32.25	NA	NA	NA	411.76		0.0	*
2Q22		4/5/2022	NE	32.74	NA	NA	NA	411.27		0.0	*
P 5U											
3Q21	444.42	7/7/2021	NE	30.42	NA	NA	NA	414.00	313.79 - 311.79 (130.63 - 132.63)	0.0	*
4Q21		10/5/2021	NE	31.19	NA	NA	NA	413.23		0.0	*
1Q22		1/5/2022	NE	33.44	NA	NA	NA	410.98		0.0	*
2Q22		4/5/2022	NE	34.02	NA	NA	NA	410.40		0.0	*
P 6U											
3Q21	443.63	7/7/2021	NE	29.97	NA	NA	NA	413.66	363.13 - 361.13 (80.50 - 82.50)	0.0	*
4Q21		10/5/2021	NE	30.81	NA	NA	NA	412.82		0.0	*
1Q22		1/5/2022	NE	32.95	NA	NA	NA	410.68		0.0	*
2Q22		4/5/2022	NE	33.53	NA	NA	NA	410.10		0.0	*
P 7U											
3Q21	444.08	7/7/2021	NE	30.12	NA	NA	NA	413.96	383.00 - 381.00 (61.08 - 63.08)	0.0	*
4Q21		10/5/2021	NE	31.01	NA	NA	NA	413.07		0.0	*
1Q22		1/5/2022	NE	33.15	NA	NA	NA	410.93		0.0	*
2Q22		4/5/2022	NE	33.75	NA	NA	NA	410.33		0.0	*

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TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 8U											
3Q21	442.07	7/7/2021	NE	30.50	NA	NA	NA	411.57	382.72 - 380.72 (59.35 - 61.35)	0.0	*
4Q21		10/5/2021	NE	31.12	NA	NA	NA	410.95		0.0	*
1Q22		1/5/2022	NE	33.06	NA	NA	NA	409.01		0.0	*
2Q22		4/5/2022	NE	33.81	NA	NA	NA	408.26		0.0	*
P 9U											
3Q21	445.20	7/7/2021	NE	35.25	NA	NA	NA	409.95	344.61 - 342.61 (100.59 - 102.59)	0.0	*
4Q21		10/5/2021	NE	35.72	NA	NA	NA	409.48		0.0	*
1Q22		1/3/2022	NE	37.48	NA	NA	NA	407.72		0.0	*
2Q22		4/5/2022	NE	38.37	NA	NA	NA	406.83		0.0	*
P 11L											
3Q21	442.76	7/7/2021	NE	31.44	NA	NA	NA	411.32	332.55 - 330.55 (110.21 - 112.21)	0.0	*
4Q21		10/5/2021	NE	31.98	NA	NA	NA	410.78		0.0	*
1Q22		1/5/2022	NE	34.05	NA	NA	NA	408.71		0.0	*
2Q22		4/5/2022	NE	34.74	NA	NA	NA	408.02		0.0	*
P 11U											
3Q21	443.38	7/7/2021	NE	32.03	NA	NA	NA	411.35	343.46 - 341.46 (99.92 - 101.92)	0.0	*
4Q21		10/5/2021	NE	32.63	NA	NA	NA	410.75		0.0	*
1Q22		1/5/2022	NE	34.65	NA	NA	NA	408.73		0.0	*
2Q22		4/5/2022	NE	35.38	NA	NA	NA	408.00		0.0	*
P 14											
3Q21	443.01	7/7/2021	NE	28.06	NA	NA	NA	414.95	395.54 - 385.54 (47.47 - 57.47)	0.0	*
4Q21		10/5/2021	NE	29.01	NA	NA	NA	414.00		0.0	*
1Q22		1/5/2022	NE	31.40	NA	NA	NA	411.61		0.0	*
2Q22		4/5/2022	NE	31.69	NA	NA	NA	411.32		0.0	*
P 15											
3Q21	443.88	7/7/2021	NE	30.01	NA	NA	NA	413.87	398.43 - 388.43 (45.45 - 55.45)	0.0	*
4Q21		10/5/2021	NE	30.81	NA	NA	NA	413.07		0.0	*
1Q22		1/5/2022	NE	32.93	NA	NA	NA	410.95		0.0	*
2Q22		4/5/2022	NE	33.58	NA	NA	NA	410.30		0.0	*
P 16											
3Q21	442.84	7/7/2021	NE	28.86	NA	NA	NA	413.98	397.10 - 387.10 (45.74 - 55.74)	0.0	*
4Q21		10/5/2021	NE	29.71	NA	NA	NA	413.13		0.0	*
1Q22		1/5/2022	NE	31.88	NA	NA	NA	410.96		0.0	*
2Q22		4/5/2022	NE	32.77	NA	NA	NA	410.07		0.0	*
P 43											
3Q21	444.62	7/7/2021	NE	32.87	NA	NA	NA	411.75	381.06 - 371.06 (63.56 - 73.56)	0.0	*
4Q21		10/5/2021	NE	33.50	NA	NA	NA	411.12		0.0	*
1Q22		1/5/2022	NE	35.52	NA	NA	NA	409.10		0.0	*
2Q22		4/5/2022	NE	36.25	NA	NA	NA	408.37		0.0	*
P 53											
3Q21	446.57	7/7/2021	NE	38.21	NA	NA	NA	408.36	406.26 - 381.26 (40.31 - 65.31)	0.0	*
4Q21		10/5/2021	NE	38.52	NA	NA	NA	408.05		0.0	*
1Q22		1/4/2022	NE	39.57	NA	NA	NA	407.00		0.2	*
2Q22		4/4/2022	NE	40.63	NA	NA	NA	405.94		0.0	
P 54											
3Q21	442.52	7/6/2021	NE	36.52	NA	NA	NA	406.00	404.52 - 379.52 (38.00 - 63.00)	0.0	*
4Q21		10/5/2021	NE	37.02	NA	NA	NA	405.50		0.0	*
1Q22		1/3/2022	NE	38.22	NA	NA	NA	404.30		0.0	
2Q22		4/5/2022	NE	39.06	NA	NA	NA	403.46		0.0	
P 55R											
3Q21	444.01	7/6/2021	37.04	37.10	406.91	406.97	0.06	406.96	403.58 - 393.58 (40.43 - 50.43)	115.3	*
4Q21		10/4/2021	36.85	36.99	407.02	407.16	0.14	407.13		108.5	*
1Q22		1/3/2022	37.44	37.49	406.52	406.57	0.05	406.56		350.1	*
2Q22		4/4/2022	39.01	39.09	404.92	405.00	0.08	404.98		209.5	*
P 56											
3Q21	446.32	7/6/2021	NE	41.22	NA	NA	NA	405.10	405.50 - 380.50 (40.82 - 65.82)	159.2	
4Q21		10/4/2021	NE	41.54	NA	NA	NA	404.78		76.1	
1Q22		1/3/2022	NE	42.69	NA	NA	NA	403.63		1.3	
2Q22		4/4/2022	NE	43.66	NA	NA	NA	402.66		4.8	

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TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 57											
3Q21	447.15	7/6/2021	NE	41.87	NA	NA	NA	405.28	402.96 - 392.96 (44.19 - 54.19)	47.3	*
4Q21		10/4/2021	NE	42.36	NA	NA	NA	404.79		6.0	*
1Q22		1/3/2022	NE	43.52	NA	NA	NA	403.63		117.6	*
2Q22		4/4/2022	NE	44.30	NA	NA	NA	402.85		76.1	
P 58											
3Q21	445.16	7/6/2021	39.65	39.69	405.47	405.51	0.04	405.50	404.95 - 379.95 (40.21 - 65.21)	33.7	*
4Q21		10/4/2021	40.23	40.24	404.92	404.93	0.01	404.93		0.1	
1Q22		1/3/2022	NE	41.43	NA	NA	NA	403.73		0.1	
2Q22		4/4/2022	NE	42.10	NA	NA	NA	403.06		0.0	
P 59											
3Q21	447.07	7/6/2021	NE	42.08	NA	NA	NA	404.99	399.16 - 374.16 (47.91 - 72.91)	14.8	*
4Q21		10/4/2021	NE	42.33	NA	NA	NA	404.74		147.2	*
1Q22		1/3/2022	NE	43.42	NA	NA	NA	403.65		262.3	*
2Q22		4/4/2022	NE	44.52	NA	NA	NA	402.55		275.2	*
P 60											
3Q21	446.88	7/6/2021	NE	41.48	NA	NA	NA	405.40	402.23 - 382.23 (44.65 - 64.65)	7.3	*
4Q21		10/4/2021	NE	41.67	NA	NA	NA	405.21		7.7	*
1Q22		1/3/2022	NE	42.83	NA	NA	NA	404.05		14.9	*
2Q22		4/4/2022	NE	44.52	NA	NA	NA	402.98		3.5	*
P 61											
3Q21	444.66	7/6/2021	40.02	40.07	404.59	404.64	0.05	404.63	398.98 - 373.98 (45.68 - 70.68)	151.6	*
4Q21		10/4/2021	40.28	40.30	404.36	404.38	0.02	404.38		135.9	*
1Q22		1/4/2022	41.22	41.23	403.43	403.44	0.01	403.44		82.0	*
2Q22		4/4/2022	NE	42.54	NA	NA	NA	402.12		74.6	*
P 62											
3Q21	442.60	7/6/2021	37.51	37.54	405.06	405.09	0.03	405.08	401.13 - 376.13 (41.47 - 66.47)	185.0	*
4Q21		10/4/2021	37.79	37.80	404.80	404.81	0.01	404.81		60.5	*
1Q22		1/4/2022	38.67	38.70	403.90	403.93	0.03	403.92		12.0	*
2Q22		4/4/2022	39.82	39.84	402.76	402.78	0.02	402.78		22.5	*
P 63											
3Q21	446.06	7/6/2021	41.13	41.17	404.89	404.93	0.04	404.92	398.77 - 373.77 (47.29 - 72.29)	40.1	*
4Q21		10/4/2021	41.32	41.33	404.73	404.74	0.01	404.74		2.8	*
1Q22		1/4/2022	42.35	42.40	403.66	403.71	0.05	403.70		128.5	*
2Q22		4/4/2022	43.38	43.39	402.67	402.68	0.01	402.68		126.1	*
P 64											
3Q21	446.78	7/6/2021	42.41	42.42	404.36	404.37	0.01	404.37	399.55 - 374.55 (47.23 - 72.23)	192.1	*
4Q21		10/4/2021	42.55	42.56	404.22	404.23	0.01	404.23		99.2	*
1Q22		1/4/2022	43.45	43.46	403.32	403.33	0.01	403.33		22.1	*
2Q22		4/4/2022	44.54	44.60	402.18	402.24	0.06	402.23		78.3	*
P 65											
3Q21	444.77	7/6/2021	NE	39.82	NA	NA	NA	404.95	397.75 - 372.75 (47.02 - 72.02)	0.8	*
4Q21		10/4/2021	NE	40.16	NA	NA	NA	404.61		2.2	*
1Q22		1/4/2022	NE	41.22	NA	NA	NA	403.55		0.4	*
2Q22		4/4/2022	NE	42.12	NA	NA	NA	402.65		1.6	*
P 66											
3Q21	437.00	7/7/2021	NE	31.05	NA	NA	NA	405.95	402.28 - 377.28 (34.72 - 59.72)	69.8	*
4Q21		10/6/2021	NE	31.89	NA	NA	NA	405.11		37.6	*
1Q22		1/5/2022	NE	33.00	NA	NA	NA	404.00		52.5	*
2Q22		4/6/2022	33.63	34.11	402.89	403.37	0.48	403.27		240.1	*
P 67											
3Q21	444.30	7/7/2021	37.25	37.29	407.01	407.05	0.04	407.04	402.32 - 377.32 (41.98 - 66.98)	1.1	*
4Q21		10/6/2021	NE	38.03	NA	NA	NA	406.27		30.9	*
1Q22		1/5/2022	39.33	39.35	404.95	404.97	0.02	404.97		2.3	*
2Q22		4/6/2022	39.93	39.94	404.36	404.37	0.01	404.37		3.5	*
P 68											
3Q21	445.38	7/6/2021	40.10	40.14	405.24	405.28	0.04	405.27	401.62 - 376.62 (43.76 - 68.76)	60.1	*
4Q21		10/4/2021	40.28	40.64	404.74	405.10	0.36	405.03		154.2	*
1Q22		1/4/2022	41.16	41.17	404.21	404.22	0.01	404.22		171.9	*
2Q22		4/4/2022	42.46	42.54	402.84	402.92	0.08	402.90		224.0	*

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TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 69											
3Q21	443.77	7/6/2021	NE	38.93	NA	NA	NA	404.84	402.95 - 377.95 (40.82 - 65.82)	21.7	*
4Q21		10/4/2021	NE	39.11	NA	NA	NA	404.66		166.0	*
1Q22		1/4/2022	NE	39.98	NA	NA	NA	403.79		47.1	*
2Q22		4/4/2022	NE	41.32	NA	NA	NA	402.45		0.0	
P 70											
3Q21	443.11	7/6/2021	NE	38.21	NA	NA	NA	404.90	398.44 - 373.44 (44.67 - 69.67)	261.7	*
4Q21		10/4/2021	NE	38.45	NA	NA	NA	404.66		213.0	*
1Q22		1/4/2022	39.36	39.40	403.71	403.75	0.04	403.74		265.9	*
2Q22		4/4/2022	NE	40.55	NA	NA	NA	402.56		182.4	*
P 71											
3Q21	445.09	7/6/2021	NE	39.42	NA	NA	NA	405.67	402.48 - 377.48 (42.61 - 67.61)	46.0	*
4Q21		10/4/2021	NE	39.81	NA	NA	NA	405.28		16.2	*
1Q22		1/4/2022	NE	40.56	NA	NA	NA	404.53		35.4	*
2Q22		4/4/2022	NE	41.47	NA	NA	NA	403.62		1.4	*
P 72											
3Q21	444.70	7/6/2021	NE	38.99	NA	NA	NA	405.71	398.93 - 373.93 (45.77 - 70.77)	9.2	*
4Q21		10/4/2021	NE	39.49	NA	NA	NA	405.21		13.6	*
1Q22		1/4/2022	NE	40.36	NA	NA	NA	404.34		2.2	*
2Q22		4/4/2022	NE	41.22	NA	NA	NA	403.48		4.5	*
P 73											
3Q21	444.02	7/6/2021	NE	39.35	NA	NA	NA	404.67	402.42 - 377.42 (41.59 - 66.59)	76,8	*
4Q21		10/4/2021	NE	39.84	NA	NA	NA	404.18		35.6	*
1Q22		1/4/2022	NE	39.76	NA	NA	NA	404.26		16.8	*
2Q22		4/4/2022	NE	41.59	NA	NA	NA	402.43		72.5	*
P 74											
3Q21	442.93	7/6/2021	NE	38.12	NA	NA	NA	404.81	399.10 - 374.10 (43.83 - 68.83)	10.7	*
4Q21		10/4/2021	NE	38.32	NA	NA	NA	404.61		6.3	*
1Q22		1/4/2022	NE	39.22	NA	NA	NA	403.71		0.0	*
2Q22		4/4/2022	NE	40.12	NA	NA	NA	402.81		0.0	*
P 75											
3Q21	446.68	7/7/2021	NE	40.96	NA	NA	NA	405.72	403.55 - 378.55 (43.13 - 68.13)	27.4	*
4Q21		10/6/2021	NE	41.78	NA	NA	NA	404.90		43.7	*
1Q22		1/5/2022	NE	43.01	NA	NA	NA	403.67		37.6	*
2Q22		4/6/2022	NE	43.57	NA	NA	NA	403.11		0.0	
P 82A											
3Q21	434.94	7/8/2021	NE	27.74	NA	NA	NA	407.20	401.73 - 386.73 (33.21 - 48.21)	0.0	*
4Q21		10/6/2021	NE	25.76	NA	NA	NA	409.18		0.0	*
1Q22		1/5/2022	NE	27.03	NA	NA	NA	407.91		0.2	*
2Q22		4/6/2022	NE	27.64	NA	NA	NA	407.30		0.0	*
P 82B											
3Q21	434.68	7/8/2021	NE	24.44	NA	NA	NA	410.24	371.88 - 369.88 (62.80 - 64.80)	0.0	*
4Q21		10/6/2021	NE	25.47	NA	NA	NA	409.21		0.0	*
1Q22		1/5/2022	NE	26.86	NA	NA	NA	407.82		0.0	*
2Q22		4/6/2022	NE	27.36	NA	NA	NA	407.32		0.0	*
P 82C											
3Q21	434.41	7/8/2021	NE	24.16	NA	NA	NA	410.25	351.64 - 349.64 (82.77 - 84.77)	0.0	*
4Q21		10/6/2021	NE	25.19	NA	NA	NA	409.22		0.0	*
1Q22		1/5/2022	NE	26.56	NA	NA	NA	407.85		0.0	*
2Q22		4/6/2022	NE	27.06	NA	NA	NA	407.35		0.0	*
P 82D											
3Q21	435.09	7/8/2021	NE	24.94	NA	NA	NA	410.15	323.55 - 321.55 (111.54 - 113.54)	0.0	*
4Q21		10/6/2021	NE	25.97	NA	NA	NA	409.12		0.0	*
1Q22		1/5/2022	NE	27.35	NA	NA	NA	407.74		0.0	*
2Q22		4/6/2022	NE	27.82	NA	NA	NA	407.27		0.0	*
P 83A											
3Q21	445.54	7/6/2021	NE	38.54	NA	NA	NA	407.00	398.14 - 383.14 (47.40 - 62.40)	0.0	*
4Q21		10/6/2021	NE	38.77	NA	NA	NA	406.77		0.0	*
1Q22		1/3/2022	NE	40.08	NA	NA	NA	405.46		0.0	*
2Q22		4/4/2022	NE	40.93	NA	NA	NA	404.61		0.0	*

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TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 83B											
3Q21	445.77	7/6/2021	NE	38.80	NA	NA	NA	406.97	371.97 - 369.97 (73.80 - 75.80)	0.0	*
4Q21		10/6/2021	NE	39.03	NA	NA	NA	406.74		0.0	*
1Q22		1/3/2022	NE	40.30	NA	NA	NA	405.47		0.0	*
2Q22		4/4/2022	NE	41.17	NA	NA	NA	404.60		0.0	*
P 83C											
3Q21	445.95	7/6/2021	NE	38.96	NA	NA	NA	406.99	353.56 - 351.56 (92.39 - 94.39)	0.0	*
4Q21		10/6/2021	NE	39.20	NA	NA	NA	406.75		0.0	*
1Q22		1/3/2022	NE	40.46	NA	NA	NA	405.49		0.0	*
2Q22		4/4/2022	NE	41.32	NA	NA	NA	404.63		0.0	*
P 83D											
3Q21	445.86	7/6/2021	NE	38.94	NA	NA	NA	406.92	312.06 - 310.06 (133.80 - 135.80)	0.0	*
4Q21		10/6/2021	NE	39.17	NA	NA	NA	406.69		0.0	*
1Q22		1/3/2022	NE	40.45	NA	NA	NA	405.41		0.0	*
2Q22		4/4/2022	NE	41.30	NA	NA	NA	404.56		0.0	*
P 84A											
3Q21	446.63	7/7/2021	NE	39.10	NA	NA	NA	407.53	397.71 - 382.71 (48.92 - 63.92)	0.0	*
4Q21		10/5/2021	NE	39.44	NA	NA	NA	407.19		0.0	*
1Q22		1/4/2022	NE	40.50	NA	NA	NA	406.13		0.1	*
2Q22		4/4/2022	NE	41.60	NA	NA	NA	405.03		0.0	*
P 84B											
3Q21	446.35	7/7/2021	NE	38.82	NA	NA	NA	407.53	372.85 - 370.85 (73.50 - 75.50)	0.0	*
4Q21		10/5/2021	NE	39.16	NA	NA	NA	407.19		0.0	*
1Q22		1/4/2022	NE	40.25	NA	NA	NA	406.10		0.1	*
2Q22		4/5/2022	NE	41.32	NA	NA	NA	405.03		0.0	*
P 84C											
3Q21	446.37	7/7/2021	NE	38.83	NA	NA	NA	407.54	352.32 - 350.32 (94.05 - 96.05)	0.0	*
4Q21		10/5/2021	NE	39.17	NA	NA	NA	407.20		0.0	*
1Q22		1/4/2022	NE	40.26	NA	NA	NA	406.11		0.1	*
2Q22		4/5/2022	NE	41.28	NA	NA	NA	405.09		0.0	*
P 84D											
3Q21	446.38	7/7/2021	NE	38.83	NA	NA	NA	407.55	325.55 - 323.55 (120.83 - 122.83)	0.0	*
4Q21		10/5/2021	NE	39.17	NA	NA	NA	407.21		0.0	*
1Q22		1/4/2022	NE	40.26	NA	NA	NA	406.12		0.1	*
2Q22		4/5/2022	NE	41.27	NA	NA	NA	405.11		0.0	*
P 88A											
3Q21	443.27	7/7/2021	NE	30.58	NA	NA	NA	412.69	404.87 - 389.87 (38.40 - 53.40)	0.0	*
4Q21		10/6/2021	NE	31.01	NA	NA	NA	412.26		0.0	*
1Q22		1/4/2022	NE	32.27	NA	NA	NA	411.00		0.1	*
2Q22		4/6/2022	NE	33.57	NA	NA	NA	409.70		0.0	*
P 88B											
3Q21	443.35	7/7/2021	NE	30.64	NA	NA	NA	412.71	371.70 - 369.70 (71.65 - 73.65)	0.0	*
4Q21		10/6/2021	NE	31.07	NA	NA	NA	412.28		0.0	*
1Q22		1/4/2022	NE	32.33	NA	NA	NA	411.02		0.1	*
2Q22		4/6/2022	NE	33.62	NA	NA	NA	409.73		0.0	*
P 88C											
3Q21	443.31	7/7/2021	NE	30.78	NA	NA	NA	412.53	351.01 - 349.01 (92.30 - 94.30)	0.0	*
4Q21		10/6/2021	NE	31.02	NA	NA	NA	412.29		0.0	*
1Q22		1/4/2022	NE	32.27	NA	NA	NA	411.04		0.0	*
2Q22		4/6/2022	NE	33.56	NA	NA	NA	409.75		0.0	*
P 88D											
3Q21	443.38	7/7/2021	NE	30.72	NA	NA	NA	412.66	331.21 - 329.21 (112.17 - 114.17)	0.0	*
4Q21		10/6/2021	NE	31.17	NA	NA	NA	412.21		0.0	*
1Q22		1/4/2022	NE	32.42	NA	NA	NA	410.96		0.1	*
2Q22		4/6/2022	NE	33.69	NA	NA	NA	409.69		0.0	*
P 89B											
3Q21	447.64	7/7/2021	NE	38.34	NA	NA	NA	409.30	370.28 - 368.28 (77.36 - 79.36)	0.0	*
4Q21		10/5/2021	NE	38.87	NA	NA	NA	408.77		0.0	*
1Q22		1/5/2022	NE	40.52	NA	NA	NA	407.12		0.0	*
2Q22		4/5/2022	NE	41.28	NA	NA	NA	406.36		0.0	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 89C											
3Q21	447.96	7/7/2021	NE	38.68	NA	NA	NA	409.28	351.56 - 349.56 (96.40 - 98.40)	0.0	*
4Q21		10/5/2021	NE	39.22	NA	NA	NA	408.74		0.0	*
1Q22		1/5/2022	NE	40.84	NA	NA	NA	407.12		0.0	*
2Q22		4/5/2022	NE	41.61	NA	NA	NA	406.35		0.0	*
P 89D											
3Q21	447.83	7/7/2021	NE	38.72	NA	NA	NA	409.11	309.33 - 307.33 (138.50 - 140.50)	0.0	*
4Q21		10/5/2021	NE	39.30	NA	NA	NA	408.53		0.0	*
1Q22		1/5/2022	NE	40.85	NA	NA	NA	406.98		0.0	*
2Q22		4/5/2022	NE	41.58	NA	NA	NA	406.25		0.0	*
P 91A											
3Q21	447.43	7/6/2021	43.99	44.00	403.43	403.44	0.01	403.44	395.92 - 380.92 (51.51 - 66.51)	37.6	*
4Q21		10/4/2021	43.95	43.96	403.47	403.48	0.01	403.48		10.2	*
1Q22		1/4/2022	44.66	44.67	402.76	402.77	0.01	402.77		7.7	*
2Q22		4/5/2022	NE	45.85	NA	NA	NA	401.58		177.6	*
P 91B											
3Q21	447.47	7/6/2021	NE	44.12	NA	NA	NA	403.35	372.78 - 370.78 (74.69 - 76.69)	14.5	*
4Q21		10/4/2021	NE	44.07	NA	NA	NA	403.40		7.4	*
1Q22		1/4/2022	NE	44.79	NA	NA	NA	402.68		0.0	*
2Q22		4/5/2022	NE	45.97	NA	NA	NA	401.50		6.0	*
P 91C											
3Q21	447.27	7/6/2021	NE	43.87	NA	NA	NA	403.40	352.54 - 350.54 (94.73 - 96.73)	1.3	*
4Q21		10/4/2021	NE	43.84	NA	NA	NA	403.43		0.0	*
1Q22		1/4/2022	NE	44.51	NA	NA	NA	402.76		0.0	*
2Q22		4/5/2022	NE	45.71	NA	NA	NA	401.56		0.7	*
P 91D											
3Q21	447.26	7/6/2021	NE	43.88	NA	NA	NA	403.38	278.94 - 276.94 (168.32 - 170.32)	1.5	*
4Q21		10/4/2021	NE	43.87	NA	NA	NA	403.39		0.0	*
1Q22		1/4/2022	NE	44.52	NA	NA	NA	402.74		0.0	*
2Q22		4/5/2022	NE	45.71	NA	NA	NA	401.55		8.2	*
P 92A											
3Q21	446.39	7/6/2021	NE	41.85	NA	NA	NA	404.54	398.82 - 383.82 (47.57 - 62.57)	4.2	*
4Q21		10/4/2021	42.19	42.20	404.19	404.20	0.01	404.20		5.2	*
1Q22		1/4/2022	43.05	43.10	403.29	403.34	0.05	403.33		49.3	*
2Q22		4/4/2022	NE	44.08	NA	NA	NA	402.31		28.0	*
P 92B											
3Q21	446.33	7/6/2021	NE	41.79	NA	NA	NA	404.54	371.92 - 369.92 (74.41 - 76.41)	0.0	*
4Q21		10/4/2021	NE	42.10	NA	NA	NA	404.23		0.0	*
1Q22		1/4/2022	NE	42.97	NA	NA	NA	403.36		0.0	*
2Q22		4/4/2022	NE	44.01	NA	NA	NA	402.32		0.0	*
P 92C											
3Q21	446.34	7/6/2021	NE	41.78	NA	NA	NA	404.56	353.38 - 348.38 (92.96 - 97.96)	1.1	*
4Q21		10/4/2021	NE	42.08	NA	NA	NA	404.26		0.0	*
1Q22		1/4/2022	NE	42.97	NA	NA	NA	403.37		0.0	*
2Q22		4/4/2022	NE	43.99	NA	NA	NA	402.35		0.0	*
P 92D											
3Q21	446.15	7/6/2021	NE	41.65	NA	NA	NA	404.50	305.15 - 303.15 (141.00 - 143.00)	0.0	*
4Q21		10/4/2021	NE	41.08	NA	NA	NA	405.07		0.0	*
1Q22		1/4/2022	NE	42.87	NA	NA	NA	403.28		0.0	*
2Q22		4/4/2022	NE	43.87	NA	NA	NA	402.28		0.0	*
P 93A											
3Q21	445.37	7/6/2021	NE	40.03	NA	NA	NA	405.34	402.30 - 392.30 (43.07 - 53.07)	0.4	*
4Q21		10/4/2021	NE	40.56	NA	NA	NA	404.81		0.0	*
1Q22		1/3/2022	NE	41.79	NA	NA	NA	403.58		0.0	*
2Q22		4/4/2022	NE	42.47	NA	NA	NA	402.90		0.0	*
P 93B											
3Q21	446.70	7/6/2021	NE	41.37	NA	NA	NA	405.33	371.92 - 369.92 (74.78 - 76.78)	0.1	*
4Q21		10/4/2021	NE	41.88	NA	NA	NA	404.82		0.0	*
1Q22		1/3/2022	NE	43.06	NA	NA	NA	403.64		0.0	*
2Q22		4/4/2022	NE	43.80	NA	NA	NA	402.90		0.0	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 93C											
3Q21	446.55	7/6/2021	NE	41.21	NA	NA	NA	405.34	353.67 - 348.67 (92.88 - 97.88)	0.0	*
4Q21		10/4/2021	NE	41.47	NA	NA	NA	405.08		0.0	*
1Q22		1/3/2022	NE	42.90	NA	NA	NA	403.65		0.0	*
2Q22		4/4/2022	NE	43.83	NA	NA	NA	402.72		0.0	*
P 93D											
3Q21	446.97	7/6/2021	NE	41.47	NA	NA	NA	405.50	321.31 - 319.31 (125.66 - 127.66)	0.0	*
4Q21		10/4/2021	NE	42.09	NA	NA	NA	404.88		0.0	*
1Q22		1/3/2022	NE	43.28	NA	NA	NA	403.69		0.0	*
2Q22		4/4/2022	NE	44.03	NA	NA	NA	402.94		0.0	*
P 94											
3Q21	445.04	7/6/2021	NE	34.18	NA	NA	NA	410.86	398.80 - 383.80 (46.24 - 61.24)	0.2	*
4Q21		10/5/2021	NE	34.70	NA	NA	NA	410.34		0.0	*
1Q22		1/3/2022	NE	36.49	NA	NA	NA	408.55		0.0	*
2Q22		4/4/2022	NE	37.36	NA	NA	NA	407.68		0.0	*
P 95											
3Q21	443.95	7/7/2021	NE	28.61	NA	NA	NA	415.34	407.43 - 392.43 (36.52 - 51.52)	0.0	*
4Q21		10/6/2021	NE	28.93	NA	NA	NA	415.02		0.0	*
1Q22		1/4/2022	NE	30.18	NA	NA	NA	413.77		0.1	*
2Q22		4/6/2022	NE	31.64	NA	NA	NA	412.31		0.0	*
P 102											
3Q21	445.14	7/7/2021	NE	31.95	NA	NA	NA	413.19	402.39 - 382.39 (42.75 - 62.75)	20.3	*
4Q21		10/6/2021	NE	32.29	NA	NA	NA	412.85		52.8	*
1Q22		1/5/2022	NE	34.26	NA	NA	NA	410.88		1.1	*
2Q22		4/6/2022	NE	35.36	NA	NA	NA	409.78		1.7	*
P 114R											
3Q21	429.48	7/7/2021	NE	22.46	NA	NA	NA	407.02	406.47 - 396.47 (23.01 - 33.01)	0.0	*
4Q21		10/5/2021	NE	23.86	NA	NA	NA	405.62		6.2	
1Q22		1/4/2022	NE	24.88	NA	NA	NA	404.60		10.8	
2Q22		4/5/2022	NE	25.48	NA	NA	NA	404.00		48.4	
P 115											
3Q21	433.54	7/7/2021	NE	26.52	NA	NA	NA	407.02	401.24 - 381.24 (32.30 - 52.30)	0.0	*
4Q21		10/5/2021	NE	27.88	NA	NA	NA	405.66		0.0	*
1Q22		1/4/2022	NE	28.97	NA	NA	NA	404.57		0.1	*
2Q22		4/5/2022	NE	29.41	NA	NA	NA	404.13		0.0	*
P 116											
3Q21	436.79	7/7/2021	NE	29.89	NA	NA	NA	406.90	399.35 - 379.35 (37.44 - 57.44)	0.0	*
4Q21		10/5/2021	NE	31.37	NA	NA	NA	405.42		1.7	*
1Q22		1/4/2022	NE	32.44	NA	NA	NA	404.35		0.1	*
2Q22		4/5/2022	NE	32.81	NA	NA	NA	403.98		0.0	*
P 117											
3Q21	432.87	7/8/2021	NE	26.15	NA	NA	NA	406.72	399.94 - 379.94 (32.93 - 52.93)	0.0	*
4Q21		10/5/2021	NE	27.62	NA	NA	NA	405.25		1.2	*
1Q22		1/4/2022	NE	28.69	NA	NA	NA	404.18		0.1	*
2Q22		4/5/2022	NE	29.03	NA	NA	NA	403.84		0.0	*
P 118											
3Q21	431.48	7/7/2021	NE	24.81	NA	NA	NA	406.67	400.36 - 384.43 (31.12 - 47.05)	0.0	*
4Q21		10/5/2021	NE	26.65	NA	NA	NA	404.83		0.0	*
1Q22		1/4/2022	NE	27.66	NA	NA	NA	403.82		0.0	*
2Q22		4/5/2022	NE	27.74	NA	NA	NA	403.74		0.0	*
P 119											
3Q21	432.11	7/7/2021	NE	25.09	NA	NA	NA	407.02	401.44 - 385.51 (30.67 - 46.60)	0.0	*
4Q21		10/5/2021	NE	26.11	NA	NA	NA	406.00		0.1	*
1Q22		1/4/2022	NE	27.03	NA	NA	NA	405.08		0.1	*
2Q22		4/5/2022	NE	27.78	NA	NA	NA	404.33		0.0	*
P 120											
3Q21	433.00	7/7/2021	NE	25.21	NA	NA	NA	407.79	401.62 - 385.69 (31.38 - 47.31)	0.0	*
4Q21		10/5/2021	NE	26.25	NA	NA	NA	406.75		0.2	*
1Q22		1/4/2022	NE	27.58	NA	NA	NA	405.42		0.0	*
2Q22		4/5/2022	NE	27.99	NA	NA	NA	405.01		0.0	*

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TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
P 129											
3Q21	432.66	7/7/2021	NE	26.50	NA	NA	NA	406.16	400.69 - 384.76 (31.97 - 47.90)	0.0	*
4Q21		10/5/2021	NE	29.28	NA	NA	NA	403.38		0.0	*
1Q22		1/4/2022	NE	30.12	NA	NA	NA	402.54		0.0	*
2Q22		4/5/2022	NE	29.36	NA	NA	NA	403.30		0.0	*
ROST 3 MW											
3Q21	442.52	7/6/2021	NE	36.61	NA	NA	NA	405.91	404.71 - 394.71 (37.81 - 47.81)	66.0	*
4Q21		10/5/2021	NE	36.98	NA	NA	NA	405.54		0.0	*
1Q22		1/3/2022	NE	38.10	NA	NA	NA	404.42		0.0	
2Q22		4/5/2022	NE	39.12	NA	NA	NA	403.40		31.5	
ROST 4 PZ											
3Q21	442.15	7/6/2021	NE	36.04	NA	NA	NA	406.11	407.22 - 397.22 (34.93 - 44.93)	0.6	
4Q21		10/4/2021	NE	36.08	NA	NA	NA	406.07		1.5	
1Q22		1/3/2022	NE	37.27	NA	NA	NA	404.88		0.2	
2Q22		4/4/2022	NE	38.21	NA	NA	NA	403.94		0.0	
ROST 4 PZ(A)											
3Q21	442.15	7/6/2021	NE	35.30	NA	NA	NA	406.85	407.38 - 397.38 (34.77 - 44.77)	40.4	
4Q21		10/4/2021	NE	35.15	NA	NA	NA	407.00		33.3	
1Q22		1/3/2022	NE	36.34	NA	NA	NA	405.81		0.0	
2Q22		4/4/2022	NE	37.36	NA	NA	NA	404.79		0.0	
ROST 4 PZ(B)											
3Q21	442.40	7/6/2021	NE	35.98	NA	NA	NA	406.42	407.35 - 397.35 (35.05 - 45.05)	0.0	
4Q21		10/4/2021	NE	35.95	NA	NA	NA	406.45		0.0	
1Q22		1/3/2022	NE	37.10	NA	NA	NA	405.30		0.0	
2Q22		4/4/2022	NE	38.22	NA	NA	NA	404.18		0.0	
ROST 4 PZ(C)											
3Q21	442.97	7/6/2021	NE	36.91	NA	NA	NA	406.06	408.02 - 398.02 (34.95 - 44.95)	0.0	
4Q21		10/4/2021	NE	37.02	NA	NA	NA	405.95		0.1	
1Q22		1/3/2022	NE	38.13	NA	NA	NA	404.84		0.1	
2Q22		4/5/2022	NE	39.17	NA	NA	NA	403.80		0.0	
ROST 4 PZ(D)											
3Q21	442.92	7/6/2021	NE	36.83	NA	NA	NA	406.09	407.95 - 397.95 (34.97 - 44.97)	0.0	
4Q21		10/4/2021	NE	36.88	NA	NA	NA	406.04		0.7	
1Q22		1/3/2022	NE	38.03	NA	NA	NA	404.89		0.8	
2Q22		4/5/2022	NE	38.96	NA	NA	NA	403.96		0.0	
ROST 4 PZ(E)											
3Q21	441.98	7/6/2021	NE	36.05	NA	NA	NA	405.93	407.23 - 397.23 (34.75 - 44.75)	0.0	
4Q21		10/4/2021	NE	36.14	NA	NA	NA	405.84		1.0	
1Q22		1/3/2022	37.20	37.21	404.77	404.78	0.01	404.78		0.0	Initial gauge.
		1/11/2022	NE	37.09	NA	NA	NA	404.89		0.0	Confirmation gauge.
2Q22		4/4/2022	NE	38.19	NA	NA	NA	403.79		0.0	
		4/18/2022	38.34	38.37	403.61	403.64	0.03	403.63		0.0	
ROST 4 PZ(F)											
3Q21	442.12	7/6/2021	NE	36.31	NA	NA	NA	405.81	407.59 - 397.59 (34.53 - 44.53)	0.0	
4Q21		10/4/2021	NE	36.40	NA	NA	NA	405.72		0.1	
1Q22		1/3/2022	NE	37.40	NA	NA	NA	404.72		0.0	
2Q22		4/4/2022	NE	39.41	NA	NA	NA	402.71		0.0	
ROST 4 PZ(G)											
3Q21	442.20	7/6/2021	NE	36.69	NA	NA	NA	405.51	407.92 - 397.92 (34.28 - 44.28)	89.5	
4Q21		10/4/2021	NE	36.97	NA	NA	NA	405.23		108.9	
1Q22		1/3/2022	NE	38.15	NA	NA	NA	404.05		308.5	
2Q22		4/5/2022	NE	39.16	NA	NA	NA	403.04		50.3	
S 1											
3Q21	444.06	7/6/2021	38.95	38.97	405.09	405.11	0.02	405.11	Unknown	87.9	
4Q21		10/4/2021	39.35	39.37	404.69	404.71	0.02	404.71		113.8	
1Q22		1/4/2022	40.26	40.28	403.78	403.80	0.02	403.80		61.7	
2Q22		4/4/2022	41.24	41.25	402.81	402.82	0.01	402.82		141.5	
T 1											
3Q21	445.61	7/6/2021	NE	39.12	NA	NA	NA	406.49	398.61 - 388.61 (47.00 - 57.00)	0.0	*
4Q21		10/4/2021	NE	39.40	NA	NA	NA	406.21		0.0	*
1Q22		1/3/2022	NE	40.57	NA	NA	NA	405.04		0.0	*
2Q22		4/4/2022	NE	41.55	NA	NA	NA	404.06		0.0	*

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TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
T 2											
3Q21	443.40	7/6/2021	NE	37.32	NA	NA	NA	406.08	392.90 - 372.76 (50.49 - 70.64)	0.0	*
4Q21		10/4/2021	NE	37.54	NA	NA	NA	405.86		0.0	*
1Q22		1/4/2022	NE	38.56	NA	NA	NA	404.84		0.0	*
2Q22		4/4/2022	NE	39.61	NA	NA	NA	403.79		0.0	*
T 3											
3Q21	449.21	7/6/2021	NE	44.38	NA	NA	NA	404.83	403.99 - 388.99 (45.22 - 60.22)	0.0	*
4Q21		10/4/2021	NE	44.46	NA	NA	NA	404.75		0.0	*
1Q22		1/3/2022	NE	45.76	NA	NA	NA	403.45		0.2	
2Q22		4/4/2022	NE	46.57	NA	NA	NA	402.64		0.0	
T 4											
3Q21	446.82	7/6/2021	NE	43.02	NA	NA	NA	403.80	396.80 - 381.80 (50.02 - 65.02)	0.2	*
4Q21		10/5/2021	NE	43.38	NA	NA	NA	403.44		0.3	*
1Q22		1/4/2022	NE	43.86	NA	NA	NA	402.96		0.0	*
2Q22		4/5/2022	NE	44.70	NA	NA	NA	402.12		0.0	*
T 5											
3Q21	443.66	7/6/2021	NE	37.86	NA	NA	NA	405.80	395.33 - 378.78 (48.33 - 64.88)	1.7	*
4Q21		10/4/2021	NE	38.36	NA	NA	NA	405.30		2.1	*
1Q22		1/4/2022	NE	39.37	NA	NA	NA	404.29		1.0	*
2Q22		4/4/2022	NE	40.30	NA	NA	NA	403.36		2.5	*
T 6											
3Q21	446.78	7/6/2021	NE	41.57	NA	NA	NA	405.21	394.27 - 380.02 (52.51 - 66.76)	0.7	*
4Q21		10/4/2021	NE	41.99	NA	NA	NA	404.79		4.2	*
1Q22		1/3/2022	NE	43.22	NA	NA	NA	403.56		0.2	*
2Q22		4/4/2022	NE	43.97	NA	NA	NA	402.81		1.4	*
T 7											
3Q21	444.26	7/7/2021	NE	37.18	NA	NA	NA	407.08	395.54 - 380.54 (48.72 - 63.72)	1.0	*
4Q21		10/6/2021	NE	38.06	NA	NA	NA	406.20		9.5	*
1Q22		1/6/2022	NE	39.26	NA	NA	NA	405.00		2.0	*
2Q22		4/6/2022	NE	39.92	NA	NA	NA	404.34		2.1	*
T 12											
3Q21	444.99	7/6/2021	NE	39.93	NA	NA	NA	405.06	398.16 - 372.16 (46.83 - 72.83)	50.1	*
4Q21		10/4/2021	NE	40.10	NA	NA	NA	404.89		49.1	*
1Q22		1/3/2022	NE	41.99	NA	NA	NA	403.00		3.5	*
2Q22		4/4/2022	NE	42.39	NA	NA	NA	402.60		3.1	*
T 13											
3Q21	443.76	7/6/2021	NE	36.87	NA	NA	NA	406.89	399.95 - 373.95 (43.81 - 69.81)	0.0	*
4Q21		10/4/2021	NE	37.21	NA	NA	NA	406.55		0.0	*
1Q22		1/3/2022	NE	38.78	NA	NA	NA	404.98		0.0	*
2Q22		4/4/2022	NE	39.41	NA	NA	NA	404.35		0.0	*
T 15											
3Q21	445.35	7/6/2021	NE	39.06	NA	NA	NA	406.29	396.95 - 370.95 (48.40 - 74.40)	0.0	*
4Q21		10/4/2021	NE	39.21	NA	NA	NA	406.14		0.0	*
1Q22		1/4/2022	NE	40.31	NA	NA	NA	405.04		0.0	*
2Q22		4/4/2022	NE	41.35	NA	NA	NA	404.00		0.0	*
T 17											
3Q21	446.19	7/6/2021	NE	37.54	NA	NA	NA	408.65	401.72 - 375.72 (44.47 - 70.47)	0.0	*
4Q21		10/5/2021	NE	38.02	NA	NA	NA	408.17		0.1	*
1Q22		1/3/2022	NE	39.53	NA	NA	NA	406.66		0.2	*
2Q22		4/4/2022	NE	40.34	NA	NA	NA	405.85		0.0	*
T 19											
3Q21	446.99	7/6/2021	NE	43.01	NA	NA	NA	403.98	396.22 - 370.22 (50.77 - 76.77)	30.8	*
4Q21		10/5/2021	NE	43.42	NA	NA	NA	403.57		52.7	*
1Q22		1/4/2022	NE	43.91	NA	NA	NA	403.08		2.3	*
2Q22		4/5/2022	NE	44.74	NA	NA	NA	402.25		8.5	*
T 21											
3Q21	444.22	7/7/2021	NE	28.81	NA	NA	NA	415.41	412.26 - 386.26 (31.96 - 57.96)	0.0	*
4Q21		10/6/2021	NE	29.15	NA	NA	NA	415.07		0.0	*
1Q22		1/5/2022	NE	30.91	NA	NA	NA	413.31		0.5	*
2Q22		4/6/2022	NE	31.91	NA	NA	NA	412.31		0.0	*

TABLE 1a
QUARTERLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
T 22											
3Q21	442.37	7/7/2021	NE	30.46	NA	NA	NA	411.91	410.82 - 385.12 (31.55 - 57.25)	0.0	*
4Q21		10/6/2021	NE	31.14	NA	NA	NA	411.23		0.0	*
1Q22		1/5/2022	NE	32.83	NA	NA	NA	409.54		0.2	
2Q22		4/6/2022	NE	33.47	NA	NA	NA	408.90		0.0	
T 23											
3Q21	432.90	7/8/2021	NE	23.18	NA	NA	NA	409.72	405.67 - 379.67 (27.23 - 53.23)	0.0	*
4Q21		10/6/2021	NE	24.21	NA	NA	NA	408.69		0.0	*
1Q22		1/5/2022	NE	25.92	NA	NA	NA	406.98		0.0	*
2Q22		4/6/2022	NE	26.05	NA	NA	NA	406.85		0.0	*
T 24											
3Q21	444.00	7/6/2021	38.80	38.93	405.07	405.20	0.13	405.17	402.50 - 376.85 (41.50 - 67.15)	1.1	*
4Q21		10/4/2021	39.05	39.09	404.91	404.95	0.04	404.94		0.1	*
1Q22		1/4/2022	39.94	39.99	404.01	404.06	0.05	404.05		16.8	*
2Q22		4/4/2022	41.11	41.24	402.76	402.89	0.13	402.86		0.0	*
T 28											
3Q21	444.56	7/6/2021	NE	37.47	NA	NA	NA	407.09	Unknown	0.0	
4Q21		10/4/2021	NE	37.68	NA	NA	NA	406.88		0.0	
1Q22		1/3/2022	NE	39.14	NA	NA	NA	405.42		0.0	
2Q22		4/4/2022	NE	39.94	NA	NA	NA	404.62		0.0	
T 37											
3Q21	447.44	7/7/2021	NE	38.18	NA	NA	NA	409.26	398.58 - 378.58 (48.85 - 68.85)	0.0	*
4Q21		10/5/2021	NE	38.72	NA	NA	NA	408.72		0.0	*
1Q22		1/5/2022	NE	40.36	NA	NA	NA	407.08		0.0	*
2Q22		4/5/2022	NE	41.10	NA	NA	NA	406.34		0.0	*
T 38											
3Q21	445.89	7/7/2021	NE	34.89	NA	NA	NA	411.00	396.75 - 376.75 (49.14 - 69.14)	0.0	*
4Q21		10/5/2021	NE	35.38	NA	NA	NA	410.51		0.0	*
1Q22		1/5/2022	NE	37.73	NA	NA	NA	408.16		0.0	*
2Q22		4/5/2022	NE	38.39	NA	NA	NA	407.50		0.0	*
T 62											
3Q21	432.16	7/7/2021	NE	24.90	NA	NA	NA	407.26	412.45 - 382.45 (19.71 - 49.71)	0.0	
4Q21		10/5/2021	NE	26.07	NA	NA	NA	406.09		0.0	
1Q22		1/4/2022	NE	27.02	NA	NA	NA	405.14		0.1	
2Q22		4/5/2022	NE	27.72	NA	NA	NA	404.44		0.0	
T 63											
3Q21	431.55	7/7/2021	NE	24.36	NA	NA	NA	407.19	411.57 - 381.57 (19.98 - 49.98)	0.0	
4Q21		10/5/2021	NE	25.75	NA	NA	NA	405.80		0.0	
1Q22		1/4/2022	NE	26.79	NA	NA	NA	404.76		0.1	
2Q22		4/5/2022	NE	27.32	NA	NA	NA	404.23		0.0	
T 64											
3Q21	429.10	7/7/2021	NE	22.08	NA	NA	NA	407.02	409.29 - 379.29 (19.81 - 49.81)	67.8	
4Q21		10/5/2021	NE	23.86	NA	NA	NA	405.24		0.0	
1Q22		1/4/2022	NE	24.94	NA	NA	NA	404.16		0.0	
2Q22		4/7/2022	NE	25.19	NA	NA	NA	403.91		0.0	

NOTES:

1) Elevations presented in this table are relative to the 1988 NAVD datum.

2) The corrected water level elevations presented in this table were corrected by a specific grav ty of 0.80 for the wells in which LNAPL was identified.

3) PID values measured with a 10.6 electron volt (eV) lamp photoionization detector.

4) btoc Below Top of Casing; ppm parts per million; NA Not Applicable; NE Not Encountered; NM Not Measured

5) * Indicates that the LNAPL and/or water level is above the top of the screened zone of the well.

6) Table includes comprehensive groundwater monitoring well gauging data for the last 4 quarters from the combined V llage of Roxana Interim Groundwater Monitoring Program and the WRB Refining LP Wood River Refinery Program.

7) The screened interval for certain monitoring wells was adjusted based on an evaluation of the results of annual bottom depth gauging conducted in the first quarter of each year.

8) Top of casing and screened interval for the groundwater monitoring wells in the Roxana Interim Groundwater Monitoring Program and the WRR Program were adjusted based on surveying conducted in 2Q19, in accordance with Permit Condition IV.J.9, which requires w surveyed every five (5) years

TABLE 1b
2Q22 WEEKLY GROUNDWATER MONITORING WELL GAUGING RESULTS

WELL ID & EVENT	TOP OF CASING (elev.)	DATE GAUGED	DEPTH TO PRODUCT (ft btoc)	DEPTH TO WATER (ft btoc)	WATER PRODUCT INTERFACE (elev.)	PRODUCT (elev.)	PRODUCT THICKNESS (ft)	CORRECTED WATER LEVEL (elev.)	SCREENED INTERVAL (elev.) (ft btoc)	WELL HEAD PID (ppm)	Comments
ROST 4 PZ(E)											
Weekly	441.98	4/26/2022	38.26	38.28	403.70	403.72	0.02	403.72	407.23 - 397.23 (34.75 - 44.75)	NM	
		5/3/2022	NE	38.16	NA	NA	NA	403.82		NM	
		5/10/2022	38.34	38.37	403.61	403.64	0.03	403.63		NM	
		5/17/2022	38.25	38.27	403.71	403.73	0.02	403.73		NM	
		5/24/2022	38.20	38.21	403.76	403.77	0.01	403.77		0.0	
		5/31/2022	38.15	38.16	403.82	403.83	0.01	403.83		0.0	
		6/7/2022	NE	38.10	NA	NA	NA	403.88		0.0	
		6/14/2022	NE	38.04	NA	NA	NA	403.94		0.0	

NOTES:

1) Elevations presented in this table are relative to the 1988 NAVD datum.

2) The corrected water level elevations presented in this table were corrected by a spec fic gravity of 0.80 for the we ls in which LNAPL was identified.

3) PID values measured with a 10.6 electron vo t (eV) lamp photoionization detector.

4) btoc Below Top of Casing; ppm parts per million; NA Not Applicable; NE Not Encountered; NM Not Measured

5) * Indicates that the LNAPL and/or water level is above the top of the screened zone of the well.

6) Top of casing and screened interval for the groundwater monitoring we ls in the Roxana Interim Groundwater Monitoring Program and the WRR Program were adjusted based on surveying conducted in 2Q19, in accordance with Permit Condition IV.J.9, which requires wells be surveyed every five (5) years.

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-01							
3Q21	6.81	20.00	1.133	8.95	1.86	26.7	
4Q21	6.88	18.90	1.096	27 05	0.64	-23 2	
1Q22	6.85	16.22	0.942	9.52	0.96	122.5	
2Q22	6.78	17.10	1.013	24 80	0.37	58 2	
MW-02							
3Q21	7.20	20.50	1.093	3.17	1.61	-218.9	
4Q21	7.12	19.00	0.990	5.36	0.66	21 2	
1Q22	7.14	16.07	1.003	10 30	0.46	-129.2	
2Q22	7.15	16.37	1.021	4.61	0.20	-123.2	
MW-03							
3Q21	6.85	20.40	1.109	1.12	1.49	-140.2	
4Q21	6.69	19.20	1.368	11 84	0.45	-88.4	
1Q22	6.84	15.94	1.347	1.19	0.44	-135.4	
2Q22	6.69	16.73	1.492	3.69	0.18	-56 8	
MW-04							
3Q21	6.62	19.70	1.147	1.17	1.22	96.7	
4Q21	6.54	17.90	0.990	42 34	0.71	171.4	
1Q22	6.79	16.13	0.961	17 03	0.70	-53 0	
2Q22	6.54	15.38	1.134	15 23	0.37	103.2	
MW-05							
3Q21	6.38	19.50	0.976	5.89	2.02	-92.7	
4Q21	6.60	19.10	1.050	3.43	0.59	47.1	
1Q22	6.94	16.46	1.190	2.53	0.47	-144.4	
2Q22	6.67	17.80	1.134	5.26	0.28	35.7	
MW-06A							
3Q21	6.98	22.10	1.130	49 88	0.81	-88 9	
4Q21	6.52	20.30	1.444	30.10	0.50	-51 2	
1Q22	6.80	18.30	1.196	33 24	0.44	-121.2	
2Q22	6.52	18.20	1.189	29 00	0.16	-67.7	
MW-06B							
3Q21	7.37	21.10	0.756	15 28	0.92	-58 9	
4Q21	6.93	20.50	0.963	0.00	0.41	-35.4	
1Q22	7.06	16.20	0.794	2.89	0.53	-106.6	
2Q22	7.06	17.59	0.832	7.91	0.37	-61 8	
MW-06C							
3Q21	7.40	20.10	0.666	0.06	0.89	-14 3	
4Q21	6.63	19.60	0.690	4.65	0.52	101.9	
1Q22	7.24	14.31	0.655	8.62	2.79	83 9	
2Q22	7.08	17.24	0.761	3.11	0.37	-70 8	
MW-06D							
3Q21	7.02	20.70	0.992	30 23	1.04	-41.4	
4Q21	7.03	19.40	0.964	43.70	0.44	-105.4	
1Q22	7.09	15.04	1.056	27.13	2.43	97 5	
2Q22	6.91	17.36	1.314	10 87	0.19	-62.1	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-07							
3Q21	6.80	20.60	1.275	0.00	1.15	65 5	
4Q21	6.73	19.00	1.197	6.06	0.59	72 3	
1Q22	6.72	16.49	1.216	12.14	0.64	-59 6	
2Q22	6.78	17.66	1.470	5.16	0.27	16 0	
MW-08							
3Q21	6.78	19.40	1.435	0.00	1.08	-25 5	
4Q21	6.70	19.00	1.176	15 33	0.62	59 0	
1Q22	6.83	16.57	1.255	7.91	0.71	-133.9	
2Q22	6.81	16.77	1.409	11 56	0.27	3.0	
MW-09							
3Q21	7.70	21.40	1.578	15.74	0.88	-15 2	
4Q21	6.81	18.50	1.257	6.01	0.64	6.0	
1Q22	6.84	14.57	1.142	16 63	0.72	-67.7	
2Q22	6.71	17.31	1.300	18 85	2.58	84 9	
MW-10							
3Q21	7.92	23.00	1.060	36 30	0.85	-81 0	
4Q21	6.76	19.20	1.641	16.40	0.49	-32.1	
1Q22	6.99	18.01	1.365	47.48	0.67	-105.6	
2Q22	6.96	17.28	1.494	37 26	0.25	-83 6	
MW-11							
3Q21	6.54	19.00	1.462	10.16	2.01	-69.1	
4Q21	6.75	18.70	1.647	6.20	0.67	8.7	
1Q22	6.84	14.59	1.437	48 34	0.72	-53.4	
2Q22	6.83	16.48	1.493	6.97	2.70	78 0	
MW-12							
3Q21	6.96	20.80	0.893	1.56	1.71	130.1	
4Q21	6.56	18.20	0.987	1.77	0.59	140.1	
1Q22	6.97	17.06	0.859	16.40	0.84	109.6	
2Q22	6.97	16.99	0.912	7.53	0.34	2.7	
MW-13							
3Q21	6.82	23.20	1.029	49 53	0.83	-168.4	
4Q21	6.57	20.70	1.305	22 98	0.55	-94.1	
1Q22	6.70	17.90	1.206	49 63	0.57	-124.8	
2Q22	6.42	19.12	1.233	32.49	0.21	-19.7	
MW-14							
3Q21	6.84	20.40	1.264	10.71	0.93	-43.4	
4Q21	6.57	19.20	1.008	10.70	0.66	92.4	
1Q22	6.71	17.08	1.202	17 96	0.71	52 3	
2Q22	6.63	15.60	1.225	37.70	0.20	-33 8	
MW-16							
3Q21	6.45	20.00	0.913	12 51	1.94	21 2	
4Q21	6.78	19.80	0.927	15 32	0.72	39 2	
1Q22	6.85	15.29	0.803	34 63	0.85	-57.4	
2Q22	6.72	16.29	0.900	8.48	0.40	14.4	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-22							
3Q21	7.00	21.60	1.254	11 53	1.57	-68 0	
4Q21	6.79	19.60	1.269	10 34	0.69	9.8	
1Q22	6.98	15.75	1.289	7.46	0.57	-52.7	
2Q22	6.97	17.69	1.195	4.68	0.29	3.1	
MW-23							
3Q21	6.20	19.40	0.990	70 02	1.89	-63 2	
4Q21	6.52	18.80	1.192	38 55	0.48	-48 0	
1Q22	6.50	16.07	0.985	32 59	0.74	-76 3	
2Q22	6.62	17.31	0.959	16 34	0.28	-22 3	
MW-24							
3Q21	6.90	20.00	1.204	0.00	1.95	144.0	
4Q21	6.88	19.10	1.453	1.90	0.75	49 3	
1Q22	6.92	15.79	1.221	29 33	1.01	13.7	
2Q22	7.00	17.53	1.627	10 06	2.67	87.7	
MW-25							
3Q21	6.85	21.20	1.139	23.78	1.14	62 9	
4Q21	6.74	18.80	1.061	13.45	0.74	135.0	
1Q22	6.90	17.03	1.022	10 55	0.72	-96 8	
2Q22	6.82	17.47	1.217	42 28	0.18	21 8	
MW-26							
3Q21	6.81	20.60	1.382	5.43	1.78	136.5	
4Q21	6.67	19.40	1.607	14 57	0.67	56.1	
1Q22	6.70	15.13	1.528	12 68	0.58	127.2	
2Q22	6.76	16.94	1.580	23 64	0.41	19 5	
MW-27							
3Q21	6.71	19.00	0.927	7.66	3.00	66 8	
4Q21	6.81	18.70	0.924	12 33	2.17	45 3	
1Q22	6.91	16.99	0.810	39.42	1.61	104.5	
2Q22	6.87	15.29	0.933	14.72	0.80	25 6	
MW-28							
3Q21	6.42	19.90	1.345	20 96	1.80	-33.1	
4Q21	6.56	18.30	1.473	33 87	0.66	113.1	
1Q22	6.74	17.92	1.150	36.79	0.52	-53 2	
2Q22	6.65	17.30	1.129	20 21	0.28	48.4	
P-54							
3Q21	6.71	21.00	0.892	0.00	2.00	115.8	
4Q21	6.69	19.10	1.135	1.02	2.57	34 6	
1Q22	6.82	13.91	1.367	1.97	2.87	194.5	
2Q22	6.85	13.38	1.367	6.22	2.03	65 2	
P-55R							
3Q21	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q21	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-56							
3Q21	7.13	23.30	1.259	9.93	0.83	-92 5	
4Q21	7.14	18.91	1.055	2.14	0.88	-123.7	
1Q22	7.02	17.70	1.092	5.85	0.43	-144.6	
2Q22	7.03	17.98	1.097	16.10	0.48	-140.9	
P-57							
3Q21	6.92	24.40	1.067	0.88	0.95	-129.5	
4Q21	6.88	21.20	0.979	4.65	0.54	-54 3	
1Q22	7.01	16.18	1.106	6.75	0.79	-51 2	
2Q22	6.88	18.30	1.067	2.39	0.27	-65.4	
P-58							
3Q21	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q21	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q22	6.83	18.70	1.382	17 01	0.41	-141.3	
2Q22	6.68	18.82	1.434	16 04	0.23	-29.1	
P-59							
3Q21	6.62	24.80	1.185	0.00	0.90	-48 8	
4Q21	6.60	22.96	1.224	23 30	0.88	-87 3	
1Q22	6.53	19.20	1.397	2.21	0.45	-120.6	
2Q22	6.46	18.42	1.412	2.81	0.30	27.4	
P-66							
3Q21	6.76	23.40	1.243	7.86	0.91	-142.7	Initial sample.
	6.76	22.99	1.314	1.61	0.32	-120.5	Confirmation sample.
4Q21	6.65	20.07	1.334	4.04	1.21	-70.1	
1Q22	6.66	17.48	1.335	2.70	0.67	-63 3	
2Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-68							
3Q21	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q21	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-74							
3Q21	7.04	25.50	0.292	1.84	6.82	93 2	
4Q21	6.57	22.60	0.209	8.01	0.62	11 5	
1Q22	6.43	16.70	0.207	9.12	0.57	69.7	
2Q22	6.69	15.17	0.194	9.89	1.35	106.4	
P-93A							
3Q21	6.54	22.10	1.152	0.00	1.11	102.9	
4Q21	6.44	18.40	1.181	2.03	1.03	60.4	
1Q22	6.47	18.60	1.398	0.00	0.44	-51 9	
2Q22	6.65	19.84	1.332	2.49	0.47	-51 3	
P-93B							
3Q21	6.55	19.40	1.337	0.00	1.15	85 2	
4Q21	6.71	18.70	1.276	46 31	0.90	-68 8	
1Q22	6.69	17.35	1.362	3.14	0.51	-119.4	
2Q22	6.58	15.20	1.302	2.78	0.31	46 9	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-93C							
3Q21	7.04	20.20	1.017	1.14	0.88	-54 3	
4Q21	6.85	20.20	1.023	0.00	0.68	-24.7	
1Q22	6.87	15.50	1.067	4.93	0.75	-43.7	
2Q22	7.06	17.80	1.033	5.23	0.56	-117.7	
P-93D							
3Q21	7.04	19.30	1.180	0.00	1.22	56 2	
4Q21	6.97	18.25	1.120	8.00	0.92	-70 0	
1Q22	7.17	13.50	1.200	6.66	1.06	-11 5	
2Q22	7.11	16.86	1.207	5.39	0.81	-104.2	
P-114R							
3Q21	6.88	24.00	0.915	49 97	0.76	-189.8	
4Q21	6.58	22.50	1.078	28.72	0.40	-132.4	
1Q22	6.78	19.93	0.934	45 55	0.55	-133.0	
2Q22	6.70	20.16	1.155	32 51	0.17	-80 2	
ROST-3-MW							
3Q21	6.48	18.80	1.220	4.65	1.88	-74 0	
4Q21	6.64	19.00	1.463	7.60	0.53	-29 2	
1Q22	6.76	14.79	1.333	15.79	0.80	-97 5	
2Q22	6.74	16.26	1.273	42.45	0.20	-50 6	
ROST-4-PZ(C)							
3Q21	6.85	19.70	1.151	24.47	1.59	-111.9	
4Q21	6.71	17.70	1.301	19 63	0.80	163.5	
1Q22	6.91	16.86	1.504	6.73	0.35	-273.0	
2Q22	6.76	16.50	1.393	7.99	0.23	-60 8	
ROST-4-PZ(E)							
3Q21	6.90	21.70	1.595	8.43	1.46	-108.1	
4Q21	6.79	19.20	1.864	20.16	0.59	47 0	
1Q22	6.82	18.09	1.731	8.60	0.53	-110.1	
2Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
ROST-4-PZ(G)							
3Q21	6.49	20.20	1.147	4.46	1.77	-97 0	
4Q21	6.69	19.10	1.314	2.80	0.57	-4.1	
1Q22	6.91	17.13	1.252	3.65	0.47	-149.3	
2Q22	6.73	16.87	1.296	4.90	0.27	35 9	
T-12							
3Q21	6.80	23.70	1.690	4.18	0.95	-27 9	
4Q21	6.86	20.65	1.512	6.27	1.08	-104.9	
1Q22	7.11	18.15	1.453	5.07	0.64	-99 3	
2Q22	7.02	19.22	1.532	3.87	0.60	-142.3	

NOTES:

1) Field parameters were collected using a YSI ProDSS.

2) NM = Not Measured

3) * = Equipment malfunction. Results are suspect.

4) Negative parameter readings for Turbidity and DO are recorded as zero.

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	1-Chlorohexane	Cymene (p-Isopropyltoluene)	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Toluene	Trichlorofluoromethane
Screening Values (mg/L)			6.3 [1]	0.005 [1]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.100 [1]	0.07 [1]				0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	1.0 [1]	2.1 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-01	MW1-ROX-071221	7/12/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00076 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW1-ROX-101321	10/13/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW1-ROX-011222	1/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW1-ROX-041322	4/13/2022	<0.025	<0.001	<0.025	<0.001	<0.001	0.0011	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0039	<0 001	<0.001	<0.001	<0 001	<0.001
MW-02	MW2-ROX-071421	7/14/2021	<0.13	0.0024 J	<0.13	<0.005	0.0071	<0 005	<0.005	<0 005	<0.005	<0 005	0 0059	<0.025	0 31	0 063	<0 005	0.031	0.096	<0.005	0.0055	<0.005
	MW2-ROX-101521	10/15/2021	<0.025	0.0016	0.007 J	0.0045	0.0047	<0 001	<0.001	<0 001	<0.001	<0 001	0 0039	<0.005	0.063	0 043	<0 001	0.013	0.066	<0.001	0.0039	<0.001
	MW2-ROX-011122	1/11/2022	<0.13	<0.005	<0.13	<0.005	0.0061	<0 005	<0.005	<0 005	<0.005	<0 005	0 0059	<0.025	0.14	0 057	<0 005	0.019	0.086	<0.005	0.005	<0.005
	MW2-ROX-041422	4/14/2022	<0.025	0.0013	<0.025	0.0013	0.0031	<0 001	<0.001	<0 001	<0.001	<0 001	0 0028	<0.005	0.072	0 032	<0 001	0.012	0.045	<0.001	0.0033	<0.001
	MW2-ROX-041422-DUP	4/14/2022	<0.025	0.0013	<0.025	0.0017	0.0038	<0 001	<0.001	<0 001	<0.001	<0 001	0 0039	<0.005	0.082	0 036	<0 001	0.014	0.054	<0.001	0.0036	<0.001
MW-03	MW3-ROX-071221	7/12/2021	<0.025	0 00065 J	<0.025	<0.001	0.00078 J	0.00066 J	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	0 013	0.00079 J	<0 001	0.023	<0.001	0.0096	<0.001
	MW3-ROX-101521	10/15/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	0 0016	<0 001	<0 001	0.004	<0.001	0.0016	<0.001
	MW3-ROX-101521-DUP	10/15/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	0 0014	<0 001	<0 001	0.0035	<0.001	0.0012	<0.001
	MW3-ROX-011022	1/10/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW3-ROX-041222	4/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0005 J	<0 005	<0.001	<0.001	<0 001	<0.001
MW-04	MW4-ROX-071921	7/19/2021	<0.025	0 00059 J	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0015	<0 001	<0.001	<0.001	0.00047 J	<0.001
	MW4-ROX-101921	10/19/2021	<0 025 UJ	0 00068 J	<0.025 UJ	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00066 J	<0 001	<0.001	<0.001	0.00086 J	<0.001
	MW4-ROX-011122	1/11/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00054 J	<0 001	<0.001	<0.001	0.00049 J	<0.001
	MW4-ROX-041922	4/19/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0009 J	<0 005	<0.001	<0.001	0.00082 J	<0.001
MW-05	MW5-ROX-071421	7/14/2021	<0.025	<0.001	<0.025	<0.001	<0.001	0.00097 J	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0042	<0 001	<0.001	<0.001	<0 001	<0.001
	MW5-ROX-101421	10/14/2021	<0.025	<0.001	<0.025	<0.001	<0.001	0.0014	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0071	<0 001	<0.001	<0.001	<0 001	<0.001
	MW5-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0.001	<0.001	0.0016	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0024	<0 001	<0.001	<0.001	<0 001	<0.001
	MW5-ROX-041322	4/13/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
MW-06A	MW6A-ROX-070921	7/9/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6A-ROX-101121	10/11/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00059 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6A-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00054 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6A-ROX-041122	4/11/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00041 J	<0 001	<0.001	<0.001	<0 001	<0.001
MW-06B	MW6B-ROX-070921	7/9/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6B-ROX-101121	10/11/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00052 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6B-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00041 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6B-ROX-041122	4/11/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00035 J	<0 001	<0.001	<0.001	<0 001	<0.001
MW-06C	MW6C-ROX-070921	7/9/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6C-ROX-101221	10/12/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00034 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6C-ROX-010622	1/6/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00031 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6C-ROX-041122	4/11/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00036 J	<0 001	<0.001	<0.001	<0 001	<0.001
MW-06D	MW6D-ROX-071221	7/12/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6D-ROX-101221	10/12/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6D-ROX-010622	1/6/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW6D-ROX-041122	4/11/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
MW-07	MW7-ROX-071921	7/19/2021	<130	890	<130	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5
	MW7-ROX-101921	10/19/2021	<63	570	<63	<2.5	<2 5	<2.5	<2 5	<2.5	<2.5	<2.5	<2.5	<13	<2.5	<2 5	<2.5	<2.5	<2.5	<2 5	<2.5	<2 5
	MW7-ROX-101921-DUP	10/19/2021	<63	620	<63	<2.5	<2 5	<2.5	<2 5	<2.5	<2.5	<2.5	<2.5	<13	<2.5	<2 5	<2.5	<2.5	<2.5	<2 5	<2.5	<2 5
	MW7-ROX-011122	1/11/2022	<13 UJ	850	<13 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0 5 UJ	<2.5 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<0 5 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	
	MW7-ROX-011122-DUP	1/11/2022	<13 UJ	740	<13 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0 5 UJ	<2.5 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<0 5 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	
	MW7-ROX-041922	4/19/2022	<13 UJ	820	<13 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0 5 UJ	<2.5 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<2 5 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	
	MW7-ROX-041922-DUP	4/19/2022	<13	950	<13	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5	<0.5	<2 5	<0.5	<0 5	<0.5	<2.5	<0.5	<0 5	0.24 J	<0 5	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	1-Chlorohexane	Cymene (p-Isopropyltoluene)	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Toluene	Trichlorofluoromethane
Screening Values (mg/L)			6.3 [1]	0.005 [1]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.100 [1]	0.07 [1]				0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	1.0 [1]	2.1 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-08	MW8-ROX-071921	7/19/2021	<50	270	<50	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2
	MW8-ROX-071921-DUP	7/19/2021	<50	270	<50	<2	<2	<2	<2	<2	<2	<2	<2	<10	<2	<2	<2	<2	<2	<2	<2	<2
	MW8-ROX-101921	10/19/2021	<25	110	<25	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	0.43 J	<1
	MW8-ROX-011122	1/11/2022	<5	260	<5	<0.2	<0 2	<0.2	<0 2	<0.2	<0.2	<0.2	<0.2	<1	0.16 J	<0 2	<0.2	<0.2	<0.2	<0 2	0.11 J	<0 2
	MW8-ROX-041922	4/19/2022	<13 UJ	350	<13 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0.5 UJ	<0 5 UJ	<2.5 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<2 5 UJ	<0 5 UJ	<0.5 UJ	<0 5 UJ	<0.5 UJ
MW-09	MW9-ROX-070821	7/8/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW9-ROX-100721	10/7/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW9-ROX-010622	1/6/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW9-ROX-040722	4/7/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
MW-10	MW10-ROX-070821	7/8/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW10-ROX-100721	10/7/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW10-ROX-011222	1/12/2022	<0.025	0 00036 J	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW10-ROX-041422	4/14/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
MW-11	MW11-ROX-071221	7/12/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW11-ROX-100721	10/7/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW11-ROX-010622	1/6/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW11-ROX-040722	4/7/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
MW-12	MW12-ROX-070921	7/9/2021	<0.025	0.0005 J	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW12-ROX-101521	10/15/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW12-ROX-011222	1/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW12-ROX-041222	4/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
MW-13	MW13-ROX-071221	7/12/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW13-ROX-100821	10/8/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00049 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW13-ROX-011022	1/10/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0023	<0 001	<0.001	<0.001	<0 001	<0.001
	MW13-ROX-041422	4/14/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00083 J	<0 005	<0.001	<0.001	<0 001	<0.001
MW-14	MW14-ROX-071321	7/13/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW14-ROX-101321	10/13/2021	<0.025	<0.001	<0.025	<0.001 UJ	<0 001 UJ	<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001 UJ	<0.001 UJ	<0.005	<0.001 UJ	<0 001 UJ	<0 001	<0 001	<0.001 UJ	<0 001 UJ	<0 001	<0.001
	MW14-ROX-011322	1/13/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW14-ROX-040822	4/8/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
MW-16	MW16-ROX-071221	7/12/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW16-ROX-100821	10/8/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW16-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW16-ROX-041222	4/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
MW-22	MW22-ROX-071521	7/15/2021	<0.025	0 00071 J	<0.025	<0.001	<0.001	0.00095 J	<0.001	<0 001	<0.001	<0 001	0 00081 J	<0.005	0 01	0 0043	<0 001	0.0075	0.0064	<0.001	0.00082 J	<0.001
	MW22-ROX-071521-DUP	7/15/2021	<0.025	<0.001	<0.025	<0.001	0.00081 J	0.00066 J	<0.001	<0 001	<0.001	<0 001	0.001	<0.005	0.011	0 005	<0 001	0.0091	0.0081	<0.001	0.00085 J	<0.001
	MW22-ROX-101521	10/15/2021	<0.025	0 00038 J	<0.025	<0.001	<0.001	0.00089 J	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	0.0023	0 0009 J	<0 001	0.0015	0.0016	<0.001	<0 001	<0.001
	MW22-ROX-011022	1/10/2022	<0.025	0.0006 J	<0.025	<0.001	<0.001	0.0011	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	0.0014	0.00063 J	<0 001	0.0011	0.00073 J	<0.001	<0 001	<0.001
	MW22-ROX-041522	4/15/2022	<0.025	0.0031	<0.025	<0.001	0 0009 J	0.0025	<0.001	<0 001	<0.001	<0 001	0 0012	<0.005	0.025	0 0078	<0 001	0.016	0.014	<0.001	0.0027	<0.001
MW-23	MW23-ROX-071321	7/13/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW23-ROX-101321	10/13/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0 001 UJ	<0 001	<0.001	<0.005	<0.001	<0.001	0.00025 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW23-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00028 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW23-ROX-041222	4/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00025 J	<0 001	<0.001	<0.001	<0 001	<0.001

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TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	1-Chlorohexane	Cymene (p-Isopropyltoluene)	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Toluene	Trichlorofluoromethane
Screening Values (mg/L)			6.3 [1]	0.005 [1]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.100 [1]	0.07 [1]				0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	1.0 [1]	2.1 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-24	MW24-ROX-070921	7/9/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW24-ROX-100721	10/7/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW24-ROX-010722	1/7/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW24-ROX-040722	4/7/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
MW-25	MW25-ROX-071921	7/19/2021	<0.025	0 043	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0026	<0 001	<0.001	<0.001	<0 001	<0.001
	MW25-ROX-101921	10/19/2021	<0.025	0 028	0 0027 J	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0019	<0 001	<0.001	<0.001	<0 001	<0.001
	MW25-ROX-011122	1/11/2022	<0.025	0.02	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00039 J	<0 001	<0.001	<0.001	<0 001	<0.001
	MW25-ROX-041922	4/19/2022	<0.025	0 013	<0.025	<0.001	<0.001	<0 001	0 0034	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
MW-26	MW26-ROX-070921	7/9/2021	<0.025	0 00043 J	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW26-ROX-101421	10/14/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	0.006	0 00057 J
	MW26-ROX-011122	1/11/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW26-ROX-041122	4/11/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00036 J	<0 001	<0.001	<0.001	<0 001	<0.001
MW-27	MW27-ROX-071321	7/13/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW27-ROX-101321	10/13/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW27-ROX-011222	1/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	MW27-ROX-040822	4/8/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
MW-28	MW28-ROX-071521	7/15/2021	<0.025	0.0066	<0.025	<0.001	0.0023	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	0 001	0.073	<0 001	<0.001	<0.001	<0 001	<0.001
	MW28-ROX-101821	10/18/2021	<0.025	0.0071	<0.025	<0.001	0.0012	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.027	<0 001	<0.001	<0.001	<0 001	<0.001
	MW28-ROX-101821-DUP	10/18/2021	<0.025	0.0066	<0.025	<0.001	0.00091 J	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.024	<0 001	<0.001	<0.001	<0 001	<0.001
	MW28-ROX-011222	1/12/2022	<0.025	<0.001	<0.025	<0.001	0.00085 J	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0028	<0 001	<0.001	<0.001	<0 001	<0.001
	MW28-ROX-041322	4/13/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0028	<0 001	<0.001	<0.001	<0 001	<0.001
P-54	P54-ROX-070921	7/9/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	P54-ROX-101421	10/14/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	0.0005 J	<0.001	<0 001	<0 001	<0.001	<0.001	0.0062	0 00062 J
	P54-ROX-011022	1/10/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	P54-ROX-040822	4/8/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
P-56	P56-ROX-071421	7/14/2021	<0.13	<0.005	<0.13	<0.005	<0.005	<0 005	<0.005	<0 005	<0.005	<0 005	<0.005	<0.025	0.0052	0 016	<0 005	0.0092	0.019	<0.005	<0 005	<0.005
	P56-ROX-101821	10/18/2021	<0.025	0.0029	<0.025	0.00082 J	0.0015	<0 001	<0.001	<0 001	0 0011	<0 001	0 00088 J	<0.005	0.0016	0 012	<0 001	0.0039	0.015	<0.001	0.0012	<0.001
	P56-ROX-011222	1/12/2022	0.024 J	0.0006 J	0.004 J	0.00094 J	0.0018	<0 001	<0.001	<0 001	<0.001	<0 001	0 00092 J	<0.005	0.001	0 012	<0 001	0.0017	0.014	<0.001	0.00082 J	<0.001
	P56-ROX-011222-DUP	1/12/2022	0.024 J	0 00058 J	0 0041 J	0.00088 J	0.0017	<0 001	<0.001	<0 001	<0.001	<0 001	0.0009 J	<0.005	0.0012	0 013	<0 001	0.0019	0.014	<0.001	0.00089 J	<0.001
	P56-ROX-042022	4/20/2022	<0.025	<0.001	<0.025	0.0013	0.0022	<0 001	<0.001	<0 001	<0.001	<0 001	0 0013	<0.005	0.0033	0 021	<0 001	<0 005	0.024	<0.001	0.0012	<0.001
P-57	P57-ROX-071421	7/14/2021	<0.025	0.18	0 0095 J *+ J	0.0036	0.0059	0.0061	<0.001	<0 001	<0.001	<0 001	0 0012	<0.005	0.0022	0 027	<0 001	0.044	0 03	<0.001	0.0062	<0.001
	P57-ROX-101821	10/18/2021	<0.63	3	<0.63	<0.025	<0.025	<0 025	<0.025	<0 025	<0.025	<0 025	<0.025	<0.13	0.02 J	0.022 J	<0 025	0.055	0 02 J	<0.025	<0 025	<0.025
	P57-ROX-011422	1/14/2022	<0.025	0 011	<0.025	0.0025	0.0039	0.0064	<0.001	<0 001	<0.001	<0 001	0 00086 J	<0.005	0.00054 J	0 017	<0 001	0.011	0.017	<0.001	0.0037	<0.001
	P57-ROX-041522	4/15/2022	<0.025	0 048	<0.025	<0.001	0 0008 J	0.0017	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	0.00052 J	0 0067	<0 001	0.0095	0.0053	<0.001	0.0023	<0.001
P-58	P58-ROX-011322	1/13/2022	<25	180	<25	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1
	P58-ROX-011322-DUP	1/13/2022	<25	170	<25	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1
	P58-ROX-041822	4/18/2022	<13	190	<13	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<2 5	0.34 J	<0 5	<0.5	<2.5	<0.5	<0 5	<0.5	<0 5
	P58-ROX-041822-DUP	4/18/2022	<13	210	<13	<0.5	<0 5	<0.5	<0 5	<0.5	<0.5	<0.5	<0.5	<2 5	0.43 J	<0 5	<0.5	<2.5	<0.5	<0 5	<0.5	<0 5
P-59	P59-ROX-071521	7/15/2021	<0 5	3.4	<0 5	<0 02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0 02	<0.1	0.3	0 048	<0.02	0.15	0 07	<0.02	0.15	<0.02
	P59-ROX-102021	10/20/2021	<0 5	3.9	<0 5	<0 02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0 02	<0.1	0 24	0 052	<0.02	0.17	0.089	0.02	0.14	<0.02
	P59-ROX-102021-DUP	10/20/2021	<0 5	3.9	<0 5	<0 02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0 02	<0.1	0 24	0 053	<0.02	0.19	0.096	<0.02	0.14	<0.02
	P59-ROX-011322	1/13/2022	<0.025	4.1	<0.025	<0.001	0.0023	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	0.16	0 044	<0 001	0.18	0.066	<0.001	0.13	<0.001
	P59-ROX-041822	4/18/2022	<0 5	3.8	<0 5	<0 02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0 02	<0.1	0 35	0 054	<0.02	0.17	0.096	<0.02	0.17	<0.02

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TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs																		
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	1-Chlorohexane	Cymene (p-Isopropyltoluene)	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Toluene	Trichlorofluoromethane
Screening Values (mg/L)			6.3 [1]	0.005 [1]	4.2 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]	0.100 [1]	0.07 [1]				0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]	0.1 [1]	1.0 [1]	2.1 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-66	P66-ROX-071321	7/13/2021	<0.05	1.2	<0.05	0.0059	0.0096	0.005	<0.002	<0 002	<0.002	<0 002	<0.002	<0.01	0.16	0 055	<0 002	0.014	0.091	<0.002	3.9	<0.002
	P66-ROX-080921	8/9/2021	<0.13	0.82	<0.13	<0.005	0 0047 J	<0 005	<0.005	<0 005	<0.005	<0 005	<0.005	<0.025	0.11	0 039	<0 005	0.016	0.069	<0.005	2.3	<0.005
	P66-ROX-102021	10/20/2021	<0.25	1	<0.25	<0 01	0 0094 J	<0.01	<0.01	<0.01	<0 01	<0.01	<0 01	<0.05	0.17	0 073	<0.01	0.017	0.12	<0.01	0.17	<0.01
	P66-ROX-102021-DUP	10/20/2021	<0.25	0.98	<0.25	<0 01	0 0091 J	<0.01	<0.01	<0.01	<0 01	<0.01	<0 01	<0.05	0.16	0 072	<0.01	0.015	0.12	<0.01	0.18	<0.01
	P66-ROX-011322	1/13/2022	<0.13	0.6	<0.13	<0.005	0 0044 J	<0 005	<0.005	<0 005	<0.005	<0 005	<0.005	<0.025	0.062	0 033	<0 005	0.0082	0.041	<0.005	0.78	<0.005
P-74	P74-ROX-071421	7/14/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	P74-ROX-101221	10/12/2021	<0.025	0 089	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	0.0015	<0.001
	P74-ROX-011322	1/13/2022	<0.025	0.18	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00054 J	<0 001	<0.001	<0.001	0.0014	<0.001
	P74-ROX-011322-DUP	1/13/2022	<0.025	0.15	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00053 J	<0 001	<0.001	<0.001	0.0012	<0.001
	P74-ROX-041822	4/18/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
	P74-ROX-041822-DUP	4/18/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
P-93A	P93A-ROX-071521	7/15/2021	<0 025 UJ	<0 001 UJ	<0.025 UJ	<0.001 UJ	<0 001 UJ	<0.001 UJ	<0 001 UJ	<0.001 UJ	<0 001 UJ	<0.001 UJ	<0.001 UJ	<0.005 UJ	<0.001 UJ	<0 001 UJ	<0.001 UJ	<0 001	<0.001 UJ	<0 001 UJ	<0.001 UJ	<0 001 UJ
	P93A-ROX-071521-DUP	7/15/2021	<0.025	0 057	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	P93A-ROX-101921	10/19/2021	<0.025	0.0033	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	P93A-ROX-011222	1/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	0.00086 J	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	P93A-ROX-041922	4/19/2022	<0.025	0.0076	<0.025	<0.001	<0.001	0.0013	<0.001	<0 001	<0.001	0.00077 J	<0.001	0.00025 J	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
P-93B	P93B-ROX-071621	7/16/2021	<50 UJ	1100	<50 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ
	P93B-ROX-071621-DUP	7/16/2021	<50 UJ	990	<50 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ	<2 UJ
	P93B-ROX-101921	10/19/2021	<25	940	<25	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	0.59 J	<1
	P93B-ROX-011322	1/13/2022	<130	870	<130	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<5	<5	<5	<5	<5
	P93B-ROX-042022	4/20/2022	<130	920	<130	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<25	<5	<5	<5	<5
P-93C	P93C-ROX-071221	7/12/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0024	<0 001	<0.001	<0.001	<0 001	<0.001
	P93C-ROX-101221	10/12/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0022	<0 001	<0.001	<0.001	<0 001	<0.001
	P93C-ROX-011022	1/10/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0063	<0 001	<0.001	<0.001	<0 001	<0.001
	P93C-ROX-041922	4/19/2022	<0.025	0 047	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0031	<0 005	<0.001	<0.001	<0 001	<0.001
P-93D	P93D-ROX-071621	7/16/2021	<0.025	0.0027	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0014	<0 001	<0.001	<0.001	<0 001	<0.001
	P93D-ROX-101821	10/18/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00084 J	<0 001	<0.001	<0.001	<0 001	<0.001
	P93D-ROX-011422	1/14/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00082 J	<0 001	<0.001	<0.001	<0 001	<0.001
	P93D-ROX-041922	4/19/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.001	<0 005	<0.001	<0.001	<0 001	<0.001

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			VOCs																		
			Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	1-Chlorohexane	Cymene (p-Isopropyltoluene)	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene	Styrene	Toluene	Trichlorofluoromethane
Screening Values (mg/L)			**6.3** [1]	**0.005** [1]	**4.2** [1]	**0.35** [3]	**0.7** [3]	**0.7** [3]	**0.7** [1]	**0.100** [1]	**0.07** [1]				**0.7** [1]	**0.7** [1]	**0.07** [1]	**0.14** [1]	**0.7** [3]	**0.1** [1]	**1.0** [1]	**2.1** [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-114R	P114R-ROX-071221	7/12/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0021	<0 001	<0.001	<0.001	<0 001	<0.001
	P114R-ROX-100821	10/8/2021	0.01 J *+ J	0.0006 J	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0012	<0 001	<0.001	<0.001	<0 001	<0.001
	P114R-ROX-011022	1/10/2022	<0.025	0 00084 J	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.0022	<0 001	<0.001	<0.001	<0 001	<0.001
	P114R-ROX-041422	4/14/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	0.00093 J	<0 005	<0.001	<0.001	<0 001	<0.001
ROST-3-MW	ROST3MW-ROX-071421	7/14/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	ROST3MW-ROX-100821	10/8/2021	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	ROST3MW-ROX-010622	1/6/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	<0 001	<0.001
	ROST3MW-ROX-041222	4/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
ROST-4-PZ(C)	ROST4PZC-ROX-071421	7/14/2021	<0.13	0.0028 J	<0.13	<0.005	<0.005	<0 005	<0.005	<0 005	<0.005	<0 005	<0.005	<0.025	0.014	0 0084	<0 005	0.079	0.013	<0.005	0.0064	<0.005
	ROST4PZC-ROX-071421-DUP	7/14/2021	<0.13	0.0024 J	<0.13	<0.005	<0.005	<0 005	<0.005	<0 005	<0.005	<0 005	<0.005	<0.025	0.011	0 0069	<0 005	0.067	0.013	<0.005	0.0064	<0.005
	ROST4PZC-ROX-101821	10/18/2021	<0.025	0.0022	0.006 J	<0.001	<0.001	<0 001	0 00058 J	<0 001	<0.001	<0 001	<0.001	<0.005	0.0018	0 004	<0 001	0.027	0.0077	<0.001	0.0048	<0.001
	ROST4PZC-ROX-011122	1/11/2022	<0.025	0 00094 J	<0.025	<0.001	0 0007 J	<0 001	<0.001	<0 001	<0.001	<0 001	0.001	<0.005	0.00089 J	0 0057	<0 001	0.008	0.0095	<0.001	<0 001	<0.001
	ROST4PZC-ROX-041522	4/15/2022	<0.025	0 00023 J	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
ROST-4-PZ(E)	ROST4PZE-ROX-071521	7/15/2021	<0.05	0.06	<0.05	<0.002	0 0017 J	<0 002	<0.002	<0 002	<0.002	<0 002	<0.002	<0.01	0 38	0 015	<0 002	0.13	0.027	<0.002	0.033	<0.002
	ROST4PZE-ROX-101821	10/18/2021	<0.05	0 043	<0.05	<0.002	<0.002	<0 002	<0.002	<0 002	<0.002	<0 002	<0.002	<0.01	0 21	0 0078	<0 002	0.1	0.013	<0.002	0.022	<0.002
	ROST4PZE-ROX-011222	1/12/2022	0.037 J J	0 044	0 0081 J	0.0016 J	0 0016 J	<0 002	<0.002	0.0005 J	<0.001	<0 002	0.0017 J	<0.01	0 34	0 013	<0 002	0.11	0.022	<0.002	0 03	<0.002
	ROST4PZE-ROX-011222-DUP	1/12/2022	1 3 J	0 037	<0.05	<0.002	0 0017 J	<0 002	<0.002	<0 002	<0.002	<0 002	0.0015 J	<0.01	0 38	0 015	<0 002	0.11	0.023	<0.002	0.034	<0 002 UJ
ROST-4-PZ(G)	ROST4PZG-ROX-071321	7/13/2021	<0.025	0 00046 J	<0.025 UJ	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	0.00075 J	<0.001	0.00084 J	<0.001
	ROST4PZG-ROX-101421	10/14/2021	<0.025	0 00042 J *+ J	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	0.0024	<0.001
	ROST4PZG-ROX-011022	1/10/2022	<0.025	0 00049 J	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 001	<0.001	<0.001	0.00041 J	<0.001
	ROST4PZG-ROX-041522	4/15/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
	ROST4PZG-ROX-041522-DUP	4/15/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0 001	<0.001	<0 001	<0.001	<0.005	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0 001	<0.001
T-12	T12-ROX-071521	7/15/2021	<0 5	2.2	<0 5	<0 02	<0.02	<0.02	<0.02	<0.02	<0 02	<0.02	<0 02	<0.1	0.028	<0.02	<0.02	0.031	<0 02	<0.02	0.064	<0.02
	T12-ROX-102021	10/20/2021	<0.25	1.9	<0.25	<0 01	<0.01	<0.01	<0.01	<0.01	<0 01	<0.01	<0 01	<0.05	0 01	0 0058 J	0.0049 J	0.018	0.0082 J	<0.01	0.029	<0.01
	T12-ROX-011422	1/14/2022	0 066	1.1	0.024 J	<0.002	<0.002	<0 002	<0.002	<0 002	<0.002	<0 002	<0.002	<0.01	0.0032	0 0014 J	0.0039	0.0021	0.002	<0.002	0.012	<0.002
	T12-ROX-042022	4/20/2022	<0.25	1.2	<0.25	<0 01	<0.01	<0.01	<0.01	<0.01	<0 01	<0.01	<0 01	<0.05	0.013	<0.01	0.0028 J	<0 05	0 008 J	<0.01	0.026	<0.01

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs					SVOCs													
			1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	p-Chloroaniline	2-Chloronaphthalene	Chrysene (1,2-Benzphenanthracene)
Screening Values (mg/L)			0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.006 [1]	1.4 [2]	0.028 [2]	0.56 [3]	0.012 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-01	MW1-ROX-071221	7/12/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0096 UJ	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
	MW1-ROX-101321	10/13/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW1-ROX-011222	1/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0.028 UJ	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	0.00016 J
	MW1-ROX-041322	4/13/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
MW-02	MW2-ROX-071421	7/14/2021	0.046	0.022	0.17	0.015 J	0.18	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0 0099	<0.0099	<0.0099	0 0059 J	<0.0099	<0 0002
	MW2-ROX-101521	10/15/2021	0.019	0.026	0 025	0.0026 J	0.028	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW2-ROX-011122	1/11/2022	0.013	0.027	0 062	0.0069 J	0.069	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW2-ROX-041422	4/14/2022	0.011	0.015	0 032	0.0035 J	0.035	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0096 UJ	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
	MW2-ROX-041422-DUP	4/14/2022	0.013	0.018	0 038	0.0042 J	0.042	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0095 UJ	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
MW-03	MW3-ROX-071221	7/12/2021	<0 001	<0.001	0.03	0.0038 J	0.034	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0.0095 UJ	<0.0096	<0.0095	<0 0095	<0.0095	<0.00019
	MW3-ROX-101521	10/15/2021	<0 001	<0.001	0.0057	0 00084 J	0.0065 J	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW3-ROX-101521-DUP	10/15/2021	<0 001	<0.001	0.0047 J	0 00076 J	0.0055 J	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW3-ROX-011022	1/10/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 031	<0.01	<0 01	<0.01	<0.01	<0.01	<0.00021
	MW3-ROX-041222	4/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	0.000055 J	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0096 UJ	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
MW-04	MW4-ROX-071921	7/19/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	0 024 J	0 0031 J	<0 01	<0.01	<0.01	<0.01	<0 0002
	MW4-ROX-101921	10/19/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW4-ROX-011122	1/11/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW4-ROX-041922	4/19/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019 U	<0.00019	0.00012 J	<0 029	<0 0097	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
MW-05	MW5-ROX-071421	7/14/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	0.032	<0 0096	0.0052 J	<0.0096	<0 0096	<0.0096	<0.00019
	MW5-ROX-101421	10/14/2021	<0 001	<0.001	0.00066 J	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW5-ROX-010722	1/7/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	MW5-ROX-041322	4/13/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	0.00013 J	<0.00019	<0 029	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
MW-06A	MW6A-ROX-070921	7/9/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0 031	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	MW6A-ROX-101121	10/11/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0.029 UJ	<0.0095 UJ	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW6A-ROX-010722	1/7/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0097	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
	MW6A-ROX-041122	4/11/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00042 U	<0.00019 UJ	<0.00019 U	0 00016 J *+ J	0 00014 J	<0.00019 UJ	0.00014 J	0 027 J	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	0 0001 J
MW-06B	MW6B-ROX-070921	7/9/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	MW6B-ROX-101121	10/11/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	0.0073 J	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW6B-ROX-010722	1/7/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0 0099	<0.0099	<0.0099	<0 0099	<0.0099	<0 0002
	MW6B-ROX-041122	4/11/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	0.0001 J *+ J	0 00006 J	<0.00019 UJ	<0.00019	<0 028	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
MW-06C	MW6C-ROX-070921	7/9/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0 031	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	MW6C-ROX-101221	10/12/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW6C-ROX-010622	1/6/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0 0002	<0.0002	<0 0002	<0 029	<0 0098	<0.0098	<0.0098	<0 0098	<0.0098	<0 0002
	MW6C-ROX-041122	4/11/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019 U	0 00012 J *+ J	0 000055 J J	<0.00019 UJ	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
MW-06D	MW6D-ROX-071221	7/12/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 032	<0.011 UJ	<0.011	<0 011	<0.011	<0.011	<0.00021
	MW6D-ROX-101221	10/12/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW6D-ROX-010622	1/6/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0 029	<0 0098	<0.0098	<0.0098	<0 0098	<0.0098	<0 0002
	MW6D-ROX-041122	4/11/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019 U	0 00011 J *+ J	0 000076 J	<0.00019 UJ	<0.00019	<0 028	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
MW-07	MW7-ROX-071921	7/19/2021	<5	<5	<25	<25	<50	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	0.041 *1	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	MW7-ROX-101921	10/19/2021	<2.5	<2 5	<13	<13	<25	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW7-ROX-101921-DUP	10/19/2021	<2.5	<2 5	<13	<13	<25	0.00038	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW7-ROX-011122	1/11/2022	<0 5 UJ	<0.5 UJ	<2.5 UJ	<2.5 UJ	<5 UJ	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	0.031	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
	MW7-ROX-011122-DUP	1/11/2022	<0 5 UJ	<0.5 UJ	<2.5 UJ	<2.5 UJ	<5 UJ	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	0.031	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW7-ROX-041922	4/19/2022	<0 5 UJ	<0.5 UJ	<2.5 UJ	<2.5 UJ	<5 UJ	<0 0002	<0.0002	<0 0002 UJ	<0 0002	<0 0002	0 000087 J	<0.0002	<0 0002	0 022 J	<0.0099 UJ	<0.0099	<0.0099	<0 0099	<0.0099	<0 0002
	MW7-ROX-041922-DUP	4/19/2022	<0.5	<0 5	<2.5	<2.5	<5	<0 0002	<0.0002	<0 0002 UJ	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	0 022 J	<0.0099 UJ	<0.0099	<0.0099	<0 0099	<0.0099	<0 0002

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs					SVOCs														
			1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	p-Chloroaniline	2-Chloronaphthalene	Chrysene (1,2-Benzphenanthracene)
Screening Values (mg/L)			0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.006 [1]	1.4 [2]	0.028 [2]	0.56 [3]	0.012 [1]
Location	Sample ID	Sample Date	Analytical Results (mg/L)																			
MW-08	MW8-ROX-071921	7/19/2021	<2	<2	<10	<10	<20	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 031	<0.01	<0 01	<0.01	<0.01	<0.01	<0.00021
	MW8-ROX-071921-DUP	7/19/2021	<2	<2	<10	<10	<20	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 031	<0.01	<0 01	<0.01	<0.01	<0.01	<0.00021
	MW8-ROX-101921	10/19/2021	<1	<1	<5	<5	<10	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW8-ROX-011122	1/11/2022	<0.2	<0 2	0.35 J	<1	0.45 J	0.00027	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
	MW8-ROX-041922	4/19/2022	<0 5 UJ	<0.5 UJ	<2.5 UJ	<2.5 UJ	<5 UJ	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0097 UJ	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
MW-09	MW9-ROX-070821	7/8/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW9-ROX-100721	10/7/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW9-ROX-010622	1/6/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW9-ROX-040722	4/7/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019 U	<0 00024 U	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
MW-10	MW10-ROX-070821	7/8/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0 0098	<0.0098	<0.0098	<0 0098	<0.0098	<0 0002
	MW10-ROX-100721	10/7/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	0 012 J	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW10-ROX-011222	1/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0.028 UJ	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW10-ROX-041422	4/14/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0095 UJ	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
MW-11	MW11-ROX-071221	7/12/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0.0095 UJ	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW11-ROX-100721	10/7/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW11-ROX-010622	1/6/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW11-ROX-040722	4/7/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0 0002 UJ	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0 029	<0 0098	<0.0098	<0.0098	<0 0098	<0.0098	<0 0002
MW-12	MW12-ROX-070921	7/9/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW12-ROX-101521	10/15/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW12-ROX-011222	1/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0.028 UJ	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW12-ROX-041222	4/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0097 UJ	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
MW-13	MW13-ROX-071221	7/12/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0 01 UJ	<0 01	<0.01	<0.01	<0.01	<0 0002
	MW13-ROX-100821	10/8/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW13-ROX-011022	1/10/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	0.0055 J	<0.0094	<0 0094	<0.0094	<0.00019
	MW13-ROX-041422	4/14/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0097 UJ	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
MW-14	MW14-ROX-071321	7/13/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	0 023 J	<0.01	<0 01	<0.01	<0.01	<0.01	<0.00021
	MW14-ROX-101321	10/13/2021	<0.001 UJ	<0 001 UJ	<0.005 UJ	<0 005 UJ	<0.01 UJ	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0.0094 UJ	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW14-ROX-011322	1/13/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0.029 UJ	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
	MW14-ROX-040822	4/8/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	0 000088 J *+ J	<0.00019	0.00013 J J	0 00014 J	0.00012 J	0.00012 J	<0 029	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	0.00012 J
MW-16	MW16-ROX-071221	7/12/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0.0095 UJ	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW16-ROX-100821	10/8/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW16-ROX-010722	1/7/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0096	0.0051 J	<0.0096	<0 0096	<0.0096	<0.00019
	MW16-ROX-041222	4/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0 00019 UJ	0.00011 J J	0.00008 J J	<0.00019	<0 00019 UJ	<0 029	<0.0096 UJ	<0.0096	<0.0096	<0 0096	<0.0096	<0 00019 UJ
MW-22	MW22-ROX-071521	7/15/2021	0.043	0 0067	0 013	0.0016 J	0.015	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW22-ROX-071521-DUP	7/15/2021	0.051	0 0085	0 016	0.0019 J	0.018	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW22-ROX-101521	10/15/2021	0.014	0 00089 J	0.0017 J	<0.005	0.0021 J	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW22-ROX-011022	1/10/2022	0.028	0 0049	0.0015 J	<0.005	0.0019 J	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0 031	<0.01	<0 01	<0.01	<0 01	<0.01	<0 0002
	MW22-ROX-041522	4/15/2022	0.1	0.019	0 032	0.0029 J	0.035	<0.00019	<0 00019	<0.00019 UJ	<0.00019	0.000058 J	0 00011 J	<0.00019	0.00011 J	<0 029	<0.0097 UJ	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
MW-23	MW23-ROX-071321	7/13/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0097	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
	MW23-ROX-101321	10/13/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	0.0086 J	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW23-ROX-010722	1/7/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW23-ROX-041222	4/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	0.000086 J J	0 000078 J J	<0 00019	<0.00019	<0.00019	<0 029	<0.0096 UJ	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs					SVOCs													
			1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	p-Chloroaniline	2-Chloronaphthalene	Chrysene (1,2-Benzphenanthracene)
Screening Values (mg/L)			0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.006 [1]	1.4 [2]	0.028 [2]	0.56 [3]	0.012 [1]
Location	Sample ID	Sample Date	Analytical Results (mg/L)																			
MW-24	MW24-ROX-070921	7/9/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW24-ROX-100721	10/7/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW24-ROX-010722	1/7/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
	MW24-ROX-040722	4/7/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
MW-25	MW25-ROX-071921	7/19/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	0 023 J	<0.01	<0 01	<0.01	<0.01	<0.01	<0.00021
	MW25-ROX-101921	10/19/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW25-ROX-011122	1/11/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
	MW25-ROX-041922	4/19/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0 0002 UJ	<0 0002	<0 0002	0 000067 J	<0.0002	<0 0002	<0.03	<0 01 UJ	<0 01	<0.01	<0.01	<0.01	<0 0002
MW-26	MW26-ROX-070921	7/9/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	MW26-ROX-101421	10/14/2021	<0 001	<0.001	0.0012 J	<0.005	0.0017 J	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW26-ROX-011122	1/11/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	MW26-ROX-041122	4/11/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	0 00015 J *+ J	0 00013 J	0 00025	0.00011 J	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
MW-27	MW27-ROX-071321	7/13/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	0 023 J	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	MW27-ROX-101321	10/13/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	MW27-ROX-011222	1/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0.028 UJ	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW27-ROX-040822	4/8/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	0 00011 J	0 000092 J	<0.00019	0.000097 J	<0 028	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
MW-28	MW28-ROX-071521	7/15/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	0 024 J	<0.01	<0 01	0.00055 J	<0.01	<0.01	<0 0002
	MW28-ROX-101821	10/18/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	MW28-ROX-101821-DUP	10/18/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00018	<0 00018	<0.00018	<0.00018	<0 00018	<0 00018	<0.00018	<0.00018	<0 027	<0 0092	<0.0092	<0.0092	<0 0092	<0.0092	<0.00018
	MW28-ROX-011222	1/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03 UJ	<0.01	<0 01	<0.01	<0 01 UJ	<0.01	<0 0002
	MW28-ROX-041322	4/13/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019 H UJ	<0.00019 H UJ	0.000054 J H J	<0 00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0 00019 H UJ	<0 029	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019 H UJ
P-54	P54-ROX-070921	7/9/2021	<0 001	<0.001	<0 005	<0.005	<0 01	0 00012 J	0.000078 J	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
	P54-ROX-101421	10/14/2021	<0 001	<0.001	0.0019 J	0.0009 J	0.0028 J	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	P54-ROX-011022	1/10/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	P54-ROX-040822	4/8/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	0 00011 J	0 000083 J	<0.00019	<0.00019	<0 029	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
P-56	P56-ROX-071421	7/14/2021	0.023	0 0063	0 055	<0.025	0.057	0.00044	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	P56-ROX-101821	10/18/2021	0.017	0 0052	0 039	0.0012 J	0 04	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	0.0051 J	<0.0094	<0 0094	<0.0094	<0.00019
	P56-ROX-011222	1/12/2022	0.011	0 0034	0 024	0 00078 J	0.025	0.00047	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0.029 UJ	<0 0096	<0.0096	<0.0096	<0.0096 UJ	<0.0096	<0.00019
	P56-ROX-011222-DUP	1/12/2022	0.013	0 0038	0 026	0 00086 J	0.027	0.00041	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03 UJ	<0.01	<0 01	<0.01	<0 01 UJ	<0.01	<0 0002
	P56-ROX-042022	4/20/2022	0.013	0 0045	0 034	0.001 J	0.035	0.00081	<0.0002	<0 0002 UJ	<0 0002	<0 0002	<0.0002	<0 0002 UJ	<0 0002	<0.03	<0 01 UJ	<0 01	<0.01	<0.01	<0.01	<0 0002
P-57	P57-ROX-071421	7/14/2021	<0 001	<0.001	0.0023 J	<0.005	0.0025 J	0.00029	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 031	<0.01	<0 011 H UJ	<0.01	<0 01	<0.01	<0.00021
	P57-ROX-101821	10/18/2021	<0 025	<0.025	<0.13	<0.13	<0 25	0.00045	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	P57-ROX-011422	1/14/2022	<0 001	<0.001	0.0013 J	<0.005	0.0016 J	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	P57-ROX-041522	4/15/2022	<0 001	<0.001	<0 005	<0.005	<0 01	0.00034	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0096 UJ	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
P-58	P58-ROX-011322	1/13/2022	<1	<1	<5	<5	<10	0.00088	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0.028 UJ	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	P58-ROX-011322-DUP	1/13/2022	<1	<1	<5	<5	<10	0.00094	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.029 UJ	<0 0098	<0.0098	<0.0098	<0 0098	<0.0098	<0 0002
	P58-ROX-041822	4/18/2022	<0.5	<0 5	<2.5	<2.5	<5	0.00087	0.00042	<0.00019 UJ	0.00023	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0097 UJ	<0.0097	<0.0097	<0 0097	<0.0097	0.00028
	P58-ROX-041822-DUP	4/18/2022	<0.5	<0 5	<2.5	<2.5	<5	0.0007	0.00039	<0.00019 UJ	0.00019	0.00021	<0 00019	<0.00019	<0.00019	<0 029	<0.0097 UJ	<0.0097	<0.0097	<0 0097	<0.0097	0.00024
P-59	P59-ROX-071521	7/15/2021	0.14	0.053	0.29	0.013 J	0 31	<0.00021	<0 00021	<0.00021	0.00012 J	<0 00021	<0 00021	<0.00021	<0.00021	0.047	<0.01	<0 01	<0.01	<0 01	<0.01	0 0001 J
	P59-ROX-102021	10/20/2021	0.078	0.061	0.21	<0.1	0 22	0 00047 J	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0.01	<0 01	<0.01	<0 01	<0.01	<0 0002
	P59-ROX-102021-DUP	10/20/2021	0 08	0.063	0.21	<0.1	0 22	<0.0002 UJ	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0.01	<0 01	<0.01	<0 01	<0.01	<0 0002
	P59-ROX-011322	1/13/2022	0.046	0.048	0.16	0.007	0.16	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	0 034 J	<0.01	<0 01	<0.01	<0 01	<0.01	<0 0002
	P59-ROX-041822	4/18/2022	0.15	0.063	0.3	<0.1	0 31	0.0004	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 057	<0.019 UJ	<0.019	<0 019	<0.019	<0.019	<0.00019

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs					SVOCs													
			1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	p-Chloroaniline	2-Chloronaphthalene	Chrysene (1,2-Benzphenanthracene)
Screening Values (mg/L)			0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.006 [1]	1.4 [2]	0.028 [2]	0.56 [3]	0.012 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-66	P66-ROX-071321	7/13/2021	0.038	0 0086	0.49	0.27	0.76	0.0013	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	0.11	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	P66-ROX-080921	8/9/2021	0.024	0 0076	0.41	0 2	0 61	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	0 061 J	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	P66-ROX-102021	10/20/2021	0.039	0.01	0.57	0.28	0 85	0.0015	<0 00021	<0.00021	<0.00021	<0 00021	<0.00021 UJ	<0.00021	<0.00021	<0 031	<0.01	<0 01	<0.01	<0.01	<0.01	<0.00021
	P66-ROX-102021-DUP	10/20/2021	0.039	0.01	0.55	0.27	0 82	0.0013	<0.0002	<0.0002	<0 0002	<0 0002	<0 0002 UJ	<0.0002	<0 0002	<0.03	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	P66-ROX-011322	1/13/2022	0.013	0.0042 J	0.22	0.11	0 33	0.0016	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	0 041 J	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
P-74	P74-ROX-071421	7/14/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 031	<0.01	<0.01 H UJ	<0.01	<0.01	<0.01	<0.00021
	P74-ROX-101221	10/12/2021	0.0009 J	<0.001	0.0032 J	<0.005	0.0036 J	<0.00018	<0 00018	<0.00018	<0.00018	<0 00018	<0 00018	<0.00018	<0.00018	<0 028	<0 0092	<0.0092	<0.0092	<0 0092	<0.0092	<0.00018
	P74-ROX-011322	1/13/2022	0.0011	<0.001	0.0031 J	<0.005	0.0036 J	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0.029 UJ	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	P74-ROX-011322-DUP	1/13/2022	<0 001	<0.001	0.0021 J	<0.005	0.0024 J	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0.031 UJ	<0.01	<0 01	<0.01	<0 01	<0.01	<0.00021
	P74-ROX-041822	4/18/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0097 UJ	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
	P74-ROX-041822-DUP	4/18/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	0 000052 J	<0.00019	<0.00019	<0 029	<0.0096 UJ	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
P-93A	P93A-ROX-071521	7/15/2021	<0.001 UJ	<0 001 UJ	<0.005 UJ	<0 005 UJ	<0.01 UJ	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 031	<0.01	<0 01	<0.01	<0.01	<0.01	<0.00021
	P93A-ROX-071521-DUP	7/15/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 031	<0.01	<0 01	<0.01	<0.01	<0.01	<0.00021
	P93A-ROX-101921	10/19/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0 029	<0 0098	<0.0098	<0.0098	<0 0098	<0.0098	<0 0002
	P93A-ROX-011222	1/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	0.03 J	<0 0098	<0.0098	<0.0098 UJ	<0.0098	<0.0098	<0 0002
	P93A-ROX-041922	4/19/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0 0002 UJ	<0 0002	0 00014 J	0 00014 J	<0.0002	<0 0002	<0.03	<0 01 UJ	<0.01 H UJ	<0.01	<0.01	<0.01	<0 0002
P-93B	P93B-ROX-071621	7/16/2021	<2 UJ	<2 UJ	<10 UJ	<10 UJ	<20 UJ	<0.00021	0.000074 J	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 031	<0 01 UJ	<0 01	<0.01	<0.01	<0.01	<0.00021
	P93B-ROX-071621-DUP	7/16/2021	<2 UJ	<2 UJ	<10 UJ	<10 UJ	<20 UJ	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 031	<0.01	<0 01	<0.01	<0.01	<0.01	<0.00021
	P93B-ROX-101921	10/19/2021	<1	<1	<5	<5	<10	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0 0099	<0.0099	<0.0099	<0 0099	<0.0099	<0 0002
	P93B-ROX-011322	1/13/2022	<5	<5	<25	<25	<50	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.029 UJ	<0 0098	<0.0098	<0.0098	<0 0098	<0.0098	<0 0002
	P93B-ROX-042022	4/20/2022	<5	<5	<25	<25	<50	<0.00021	<0 00021	0.00019 J	0.00013 J	<0 00021	<0 00021	<0.00021 UJ	<0.00021	<0 031	<0 01 UJ	<0 01	<0.01	<0.01	<0.01	0.000078 J
P-93C	P93C-ROX-071221	7/12/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 031	<0.01	<0 01	<0.01	<0.01	<0.01	<0.00021
	P93C-ROX-101221	10/12/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0.0094 UJ	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	P93C-ROX-011022	1/10/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0095	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
	P93C-ROX-041922	4/19/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	0 00013 J	0 00011 J	<0.00019	<0.00019	<0 029	<0.0097 UJ	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
P-93D	P93D-ROX-071621	7/16/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00022 H UJ	<0.00022 H UJ	<0.00022 H UJ	<0 00022 H UJ	<0.00022 H UJ	<0.00022 H UJ	<0.00022 H UJ	<0 00022 H UJ	<0.032 H UJ	<0.011 H UJ	<0 011 H UJ	<0.011 H UJ	<0.011 H UJ	<0 011 H UJ	<0 00022 H UJ
	P93D-ROX-101821	10/18/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	P93D-ROX-011422	1/14/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0097	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
	P93D-ROX-041922	4/19/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0 0002	<0.0002	<0 0002 UJ	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0.0099 UJ	<0.01 H UJ	<0.0099	<0 0099	<0.0099	<0 0002

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TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs					SVOCs													
			1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Benzoic Acid	Benzyl alcohol	bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	p-Chloroaniline	2-Chloronaphthalene	Chrysene (1,2-Benzphenanthracene)
Screening Values (mg/L)			0.07 [3]	0.07 [3]	10 [1]		10 [1]	0.42 [1]	0.42 [3]	2.1 [1]	0.00013 [1]	0.0002 [1]	0.00018 [1]	0.21 [3]	0.00017 [1]	28 [1]	0.7 [3]	0.006 [1]	1.4 [2]	0.028 [2]	0.56 [3]	0.012 [1]
Location	Sample ID	Sample Date	Analytical Results (mg/L)																			
P-114R	P114R-ROX-071221	7/12/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00022	<0 00022	<0.00022	<0.00022	<0 00022	<0 00022	<0.00022	<0.00022	0 021 J	<0.011 UJ	0.0059 J	<0 011	<0.011	<0.011	<0.00022
	P114R-ROX-100821	10/8/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	0.031	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	P114R-ROX-011022	1/10/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	P114R-ROX-041422	4/14/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0095 UJ	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
ROST-3-MW	ROST3MW-ROX-071421	7/14/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00021	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	0 023 J	<0.011	<0.011	<0 011	<0.011	<0.011	<0.00021
	ROST3MW-ROX-100821	10/8/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	ROST3MW-ROX-010622	1/6/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	ROST3MW-ROX-041222	4/12/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	0.000054 J J	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0.0095 UJ	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
ROST-4-PZ(C)	ROST4PZC-ROX-071421	7/14/2021	0 02	0 0089	0 095	<0.025	0.096	0.0018	<0.0002	0 00042	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	ROST4PZC-ROX-071421-DUP	7/14/2021	0.018	0 0078	0 081	<0.025	0.082	0.0018	<0 00019	0 00052	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	0 024 J	<0 0095	0.0051 J	<0.0095	<0 0095	<0.0095	<0.00019
	ROST4PZC-ROX-101821	10/18/2021	0.0091	0.002	0.02	0 00073 J	0.021	0.0018	0.00026	0 00035	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	ROST4PZC-ROX-011122	1/11/2022	0.0091	0 00087 J	0.0093	<0.005	0.0099 J	0.0015	0.00027	0 00032	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0096	<0.0096	<0.0096	<0 0096	<0.0096	<0.00019
	ROST4PZC-ROX-041522	4/15/2022	<0 001	<0.001	<0 005	<0.005	<0 01	0 001	<0 00019	<0.00019 UJ	<0.00019	0.000059 J	<0 00019	<0.00019	<0.00019	<0 029	<0.0095 UJ	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
ROST-4-PZ(E)	ROST4PZE-ROX-071521	7/15/2021	0.15	0.029	0.42	0.055	0.47	0.0017	0.00026	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 029	<0 0097	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
	ROST4PZE-ROX-101821	10/18/2021	0.085	0.016	0.24	0.036	0 28	0.0037	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	0.0014 J	<0.00019
	ROST4PZE-ROX-011222	1/12/2022	0.17	0.032	0.44	0.054	0.49	0.0011	<0 00019	0 00048	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0.029 UJ	<0 0096	<0.0096	<0.0096	<0.0096 UJ	<0.0096	<0.00019
	ROST4PZE-ROX-011222-DUP	1/12/2022	0.18	0.037	0.53	0.057	0 59	0.0013	0.00023	0.0006	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0 029	<0 0098	<0.0098	<0.0098	<0 0098	<0.0098	<0 0002
ROST-4-PZ(G)	ROST4PZG-ROX-071321	7/13/2021	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0094	<0.0094	<0.0094	<0 0094	<0.0094	<0.00019
	ROST4PZG-ROX-101421	10/14/2021	<0 001	<0.001	0.0015 J	<0.005	0.0021 J	<0.00019	<0 00019	<0.00019	<0.00019	<0 00019	<0 00019	<0.00019	<0.00019	<0 028	<0 0093	<0.0093	<0.0093	<0 0093	<0.0093	<0.00019
	ROST4PZG-ROX-011022	1/10/2022	<0 001	<0.001	0.00066 J	<0.005	<0 01	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0 0099	<0.0099	<0.0099	<0 0099	<0.0099	<0 0002
	ROST4PZG-ROX-041522	4/15/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	0.000067 J	<0 00019	<0.00019	<0.00019	<0 029	<0.0097 UJ	<0.0097	<0.0097	<0 0097	<0.0097	<0.00019
	ROST4PZG-ROX-041522-DUP	4/15/2022	<0 001	<0.001	<0 005	<0.005	<0 01	<0.00019	<0 00019	<0.00019 UJ	<0.00019	<0 00019	0 000057 J	<0.00019	<0.00019	<0 029	<0.0095 UJ	<0.0095	<0.0095	<0 0095	<0.0095	<0.00019
T-12	T12-ROX-071521	7/15/2021	0 02	0.014 J	0.17	<0.1	0.18 J	0 00015 J	<0 00021	<0.00021	<0.00021	<0 00021	<0 00021	<0.00021	<0.00021	<0 032	<0.011	<0.011	<0 011	<0.011	<0.011	<0.00021
	T12-ROX-102021	10/20/2021	<0.01	0.011	0 043 J	<0 05	0 046 J	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	<0.03	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	T12-ROX-011422	1/14/2022	<0 002	0.003	0 018	0.0021 J	0.021	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0.0002	<0 0002	0.033	<0.01	<0 01	<0.01	<0.01	<0.01	<0 0002
	T12-ROX-042022	4/20/2022	0 01	0.0089 J	0 067	<0 05	0 072 J	<0 0002	<0.0002	<0.0002	<0 0002	<0 0002	<0.0002	<0 0002 UJ	<0 0002	<0.03 UJ	<0.0099 UJ	<0.0099	<0.0099	<0 0099	<0.0099	<0 0002

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TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																		
			Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)				**0.0003** [1]	**0.007** [3]	**5.6** [1]	**0.14** [2]	**0.7** [1]	**0.14** [2]	**0.28** [1]	**0.28** [1]		**0.00043** [1]	**0.49** [3]	**0.028** [1]	**0.35** [1]	**0.14** [3]	**0.001** [1]	**0.21** [3]	**0.1** [1]	**0.21** [1]	**0.007** [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-01	MW1-ROX-071221	7/12/2021	<0.0096	<0.00019	<0 0096	0 00039 J	<0.0096	0 0028 J	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096
	MW1-ROX-101321	10/13/2021	<0.0094	<0.00019	<0 0094	<0 0094 U	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW1-ROX-011222	1/12/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	0.003 J	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095 UJ
	MW1-ROX-041322	4/13/2022	<0.0096	<0.00019	<0 0096	<0 0096 U	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096
MW-02	MW2-ROX-071421	7/14/2021	<0.0099	<0 0002	<0 0099	<0 0099	<0.0099	<0.0099	<0 0099	<0 0002	<0.0002	<0 0099	<0.0002	0.0077	0 0069	<0 0099	<0 02	<0.02	<0.0002	<0 0099	<0 0002	<0.0099
	MW2-ROX-101521	10/15/2021	<0.0093	<0.00019	<0 0093	0.0003 J	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	0.0065	0 0099	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	MW2-ROX-011122	1/11/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	0.0096	0.015	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW2-ROX-041422	4/14/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	0 011	0.017	<0 0096	<0.019	<0 019	<0 00019	<0.0096 UJ	<0.00019	<0.0096 UJ
	MW2-ROX-041422-DUP	4/14/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	0 013	0.018	<0 0095	<0.019	<0 019	<0 00019	<0.0095 UJ	<0.00019	<0.0095 UJ
MW-03	MW3-ROX-071221	7/12/2021	<0.0095	<0.00019	<0 0095	0.0006 J	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW3-ROX-101521	10/15/2021	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	0.00011 J	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW3-ROX-101521-DUP	10/15/2021	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW3-ROX-011022	1/10/2022	<0 01	<0.00021	<0.01	<0.01	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	<0.00021	<0 00021	<0.01	<0.021	<0 021	<0 00021	<0.01	<0.00021	<0.01 UJ
	MW3-ROX-041222	4/12/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096
MW-04	MW4-ROX-071921	7/19/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
	MW4-ROX-101921	10/19/2021	<0.0093	<0.00019	<0 0093	<0 0093 U	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	<0.00019	<0 00019	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	MW4-ROX-011122	1/11/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW4-ROX-041922	4/19/2022	<0.0097	<0.00019	<0 0097	<0 0097	<0.0097	<0.0097	<0 0097	0.00017 J	<0 00019	<0 0097	0.00012 J	0.000086 J	<0 00019	<0 0097	<0.019	<0 019	0 00011 J	<0 0097	0.000098 J	<0.0097
MW-05	MW5-ROX-071421	7/14/2021	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096
	MW5-ROX-101421	10/14/2021	<0.0094	<0.00019	<0 0094	0 00059 J	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW5-ROX-010722	1/7/2022	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
	MW5-ROX-041322	4/13/2022	<0.0096	0 00017 J	<0 0096	<0 0096	<0.0096	0 0035 J	<0 0096	<0.00017 U	<0 00019	<0 0096	0.00014 J	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019 U	<0.0096
MW-06A	MW6A-ROX-070921	7/9/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
	MW6A-ROX-101121	10/11/2021	<0.0095	<0.00019	<0 0095	<0.0095 UJ	<0 0095 UJ	<0.0095	<0 0095	0.00012 J	<0 00019	<0 0095	<0.00019	0.000089 J	0 00008 J	<0.0095 UJ	<0 019 UJ	<0.019 UJ	<0 00019	<0.0095 UJ	0.000072 J	<0.0095
	MW6A-ROX-010722	1/7/2022	<0.0097	<0.00019	<0 0097	<0 0097	<0.0097	<0.0097	<0 0097	<0.00019	<0 00019	<0 0097	<0.00019	<0.00019	<0 00019	<0 0097	<0.019	<0 019	<0 00019	<0 0097	<0.00019	<0.0097
	MW6A-ROX-041122	4/11/2022	<0.0094	0 00011 J	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	0 0001 J	<0 00019	<0 0094	0.00015 J	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	0.000071 J	<0.0094
MW-06B	MW6B-ROX-070921	7/9/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
	MW6B-ROX-101121	10/11/2021	<0.0095	<0.00019	<0 0095	<0.0095 UJ	<0.0095	<0.0095	0 00033 J	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW6B-ROX-010722	1/7/2022	<0.0099	<0 0002	<0 0099	<0 0099	<0.0099	<0.0099	<0 0099	<0 0002	<0.0002	<0 0099	<0.0002	<0 0002	<0.0002	<0 0099	<0 02	<0.02	<0.0002	<0 0099	<0 0002	<0.0099
	MW6B-ROX-041122	4/11/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	0.004 J	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
MW-06C	MW6C-ROX-070921	7/9/2021	<0 01	<0 0002	<0.01	0 00094 J	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
	MW6C-ROX-101221	10/12/2021	<0.0094	<0.00019	<0 0094	<0.0094 UJ	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW6C-ROX-010622	1/6/2022	<0.0098	<0 0002	<0 0098	<0 0098	<0.0098	<0.0098	<0 0098	<0 0002	<0.0002	<0 0098	<0.0002	<0 0002	<0.0002	<0 0098	<0 02	<0.02	<0.0002	<0 0098	<0 0002	<0.0098
	MW6C-ROX-041122	4/11/2022	<0.0093	0 000078 J J	<0 0093	<0 0093 U	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	0.00013 J J	<0.00019	<0 00019	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
MW-06D	MW6D-ROX-071221	7/12/2021	<0.011	<0.00021	<0.011	0.001 J	<0.011	<0 011	<0.011	<0.00021	<0 00021	<0.011	<0.00021	0.0016	0.000078 J	<0.011	<0.021	<0 021	<0 00021	<0.011	<0.00021	<0 011
	MW6D-ROX-101221	10/12/2021	<0.0094	<0.00019	<0 0094	<0.0094 UJ	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW6D-ROX-010622	1/6/2022	<0.0098	<0 0002	<0 0098	<0 0098	<0.0098	<0.0098	<0 0098	<0 0002	<0.0002	<0 0098	<0.0002	<0 0002	<0.0002	<0 0098	<0 02	<0.02	<0.0002	<0 0098	<0 0002	<0.0098
	MW6D-ROX-041122	4/11/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
MW-07	MW7-ROX-071921	7/19/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	0.0018	0 0025	<0.01	0 00073 J	<0.02	<0.0002	0.038	<0 0002	<0.01
	MW7-ROX-101921	10/19/2021	<0.0093	<0.00019	<0 0093	<0.0093 UJ	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	0 0023 J	0 0028	<0 0093	0.0011 J	<0 019	<0 00019	0.068 J	<0.00019	<0.0093
	MW7-ROX-101921-DUP	10/19/2021	<0.0093	<0.00019	<0 0093	<0 0093	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	0 0017 J	0.003	<0 0093	0.0015 J	<0 019	<0 00019	0.14 J	<0.00019	<0.0093
	MW7-ROX-011122	1/11/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0 00019 UJ	0 0031	<0 0096	0 00089 J	<0 019	<0 00019	0.14	<0.00019	<0.0096
	MW7-ROX-011122-DUP	1/11/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	0 0029 J	0 0034	<0 0095	0 00097 J	<0 019	<0 00019	0.12	<0.00019	<0.0095
	MW7-ROX-041922	4/19/2022	<0.0099	<0 0002	<0 0099	0 00069 J	<0.0099	<0.0099	<0 0099	<0 0002	<0.0002	<0 0099	<0.0002	0.0015	0 0023	<0 0099	<0 02	<0.02	0.00021	0.082	0.000091 J	<0.0099
	MW7-ROX-041922-DUP	4/19/2022	<0.0099	<0 0002	<0 0099	<0 0099	<0.0099	<0.0099	<0 0099	<0 0002	<0.0002	<0 0099	<0.0002	0.0016	0 0021	<0 0099	<0 02	<0.02	0.00024	0.084	<0 0002	<0.0099

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TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																		
			Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)				0.0003 [1]	0.007 [3]	5.6 [1]	0.14 [2]	0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	Sample ID	Sample Date	Analytical Results (mg/L)																			
MW-08	MW8-ROX-071921	7/19/2021	<0 01	<0.00021	<0.01	<0.01	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	0.01	0 0022	<0.01	0 00069 J	<0 021	<0 00021	0.3	<0.00021	<0.01
	MW8-ROX-071921-DUP	7/19/2021	<0 01	<0.00021	<0.01	<0.01	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	0.0086	0 0022	<0.01	0 00077 J	<0 021	<0 00021	0.33	<0.00021	<0.01
	MW8-ROX-101921	10/19/2021	<0.0093	<0.00019	<0 0093	<0 0093 U	<0.0093	<0.0093	<0 0093	<0.00019	0.00046	<0 0093	<0.00019	0 012	0 0022	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	MW8-ROX-011122	1/11/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	0.00049	<0 0096	<0.00019	0 018	0 0045	<0 0096	<0.019	<0 019	<0 00019	0.39	<0.00019	<0.0096
	MW8-ROX-041922	4/19/2022	<0.0097	<0.00019	<0 0097	<0 0097	<0.0097	<0.0097	<0 0097	<0.00019	<0 00019	<0 0097	<0.00019	0 012	0 0048	<0 0097	<0.019	<0 019	<0 00019	0.26	<0.00019	<0.0097
MW-09	MW9-ROX-070821	7/8/2021	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW9-ROX-100721	10/7/2021	<0.0094	<0.00019	<0 0094	<0 0094 U	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW9-ROX-010622	1/6/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW9-ROX-040722	4/7/2022	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	0.00008 J	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
MW-10	MW10-ROX-070821	7/8/2021	<0.0098	<0 0002	<0 0098	<0 0098	<0.0098	<0.0098	<0 0098	<0 0002	<0.0002	<0 0098	<0.0002	<0 0002	<0.0002	<0 0098	<0 02	<0.02	<0.0002	<0 0098	<0 0002	<0.0098
	MW10-ROX-100721	10/7/2021	<0.0093	<0.00019	<0 0093	<0 0093 U	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	<0.00019	<0 00019	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	MW10-ROX-011222	1/12/2022	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094 UJ
	MW10-ROX-041422	4/14/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0.0095 UJ	<0.00019	<0.0095 UJ
MW-11	MW11-ROX-071221	7/12/2021	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW11-ROX-100721	10/7/2021	<0.0093	<0.00019	<0 0093	<0 0093 U	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	<0.00019	<0 00019	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	MW11-ROX-010622	1/6/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW11-ROX-040722	4/7/2022	<0.0098	<0 0002	<0 0098	<0 0098	<0.0098	<0.0098	<0 0098	<0 0002	<0.0002	<0 0098	<0.0002	<0 0002	<0.0002	<0 0098	<0 02	<0.02	<0.0002	<0 0098	<0 0002	<0.0098
MW-12	MW12-ROX-070921	7/9/2021	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	0 00013 J	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	0.0031 J
	MW12-ROX-101521	10/15/2021	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019 U	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW12-ROX-011222	1/12/2022	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	0.000081 J	<0 00019	<0 0094	<0.00019 U	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094 UJ
	MW12-ROX-041222	4/12/2022	<0.0097	<0.00019	<0 0097	<0 0097	<0.0097	<0.0097	<0 0097	<0.00019	<0 00019	<0 0097	<0.00019	<0.00019	<0 00019	<0 0097	<0.019	<0 019	<0 00019	<0 0097	<0.00019	<0.0097
MW-13	MW13-ROX-071221	7/12/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
	MW13-ROX-100821	10/8/2021	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW13-ROX-011022	1/10/2022	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094 UJ
	MW13-ROX-041422	4/14/2022	<0.0097	<0.00019	<0 0097	<0 0097	<0.0097	<0.0097	<0 0097	<0.00019	<0 00019	<0 0097	<0.00019	<0.00019	<0 00019	<0 0097	<0.019	<0 019	<0 00019	<0.0097 UJ	<0.00019	<0.0097 UJ
MW-14	MW14-ROX-071321	7/13/2021	<0 01	<0.00021	<0.01	0 00071 J	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	<0.00021	<0 00021	<0.01	<0.021	<0 021	<0 00021	<0.01	<0.00021	<0.01
	MW14-ROX-101321	10/13/2021	<0.0094	<0.00019	<0 0094	<0 0094 U	<0 0094 UJ	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0.0094 UJ	<0 019 UJ	<0.019 UJ	<0 00019	<0.0094 UJ	<0.00019	<0.0094
	MW14-ROX-011322	1/13/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096
	MW14-ROX-040822	4/8/2022	0.0025 J	0.0001 J	<0 0096	<0 0096 U	<0.0096	<0.0096	0.0045 J	0.00015 J	<0 00019	<0 0096	0.00017 J	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	0.00012 J	<0.0096
MW-16	MW16-ROX-071221	7/12/2021	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW16-ROX-100821	10/8/2021	<0.0093	<0.00019	<0 0093	<0 0093 U	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	<0.00019	<0 00019	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	MW16-ROX-010722	1/7/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096
	MW16-ROX-041222	4/12/2022	<0.0096	<0.00019 UJ	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	0.0001 J J	<0 00019	<0.0096 UJ	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	0.000055 J J	<0.0096
MW-22	MW22-ROX-071521	7/15/2021	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	0.0015	0 0011	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW22-ROX-071521-DUP	7/15/2021	<0.0095	<0.00019	<0 0095	0 00058 J	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	0.0015	0 0012	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW22-ROX-101521	10/15/2021	<0.0093	<0.00019	<0 0093	<0 0093	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	0.00044	0 00014 J	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	MW22-ROX-011022	1/10/2022	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	0.00083	0 00012 J	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01 UJ
	MW22-ROX-041522	4/15/2022	<0.0097	<0.00019	<0 0097	<0 0097	<0.0097	<0.0097	<0 0097	0.00014 J	<0 00019	<0 0097	0.0001 J	0.0044	0 0051	<0 0097	<0.019	<0 019	<0 00019	<0.0097 UJ	0.000073 J	<0.0097 UJ
MW-23	MW23-ROX-071321	7/13/2021	<0.0097	<0.00019	<0 0097	0.0009 J	<0.0097	<0.0097	<0 0097	<0.00019	<0 00019	<0 0097	<0.00019	<0.00019	0.000084 J	<0 0097	<0.019	<0 019	<0 00019	<0 0097	<0.00019	<0.0097
	MW23-ROX-101321	10/13/2021	<0.0095	<0.00019	<0 0095	<0 0095 U	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW23-ROX-010722	1/7/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW23-ROX-041222	4/12/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	0 0001 J J	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096

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TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																		
			Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)				0.0003 [1]	0.007 [3]	5.6 [1]	0.14 [2]	0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	Sample ID	Sample Date	Analytical Results (mg/L)																			
MW-24	MW24-ROX-070921	7/9/2021	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW24-ROX-100721	10/7/2021	<0.0095	<0.00019	<0 0095	<0 0095 U	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	0.00007 J	0.000057 J	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW24-ROX-010722	1/7/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096
	MW24-ROX-040722	4/7/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096
MW-25	MW25-ROX-071921	7/19/2021	<0 01	<0.00021	<0.01	<0.01	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	0.000095 J	0.000093 J	<0.01	<0.021	<0 021	<0 00021	<0.01	<0.00021	<0.01
	MW25-ROX-101921	10/19/2021	<0.0093	<0.00019	<0 0093	<0 0093 U	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	<0.00019	<0 00019	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	MW25-ROX-011122	1/11/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096
	MW25-ROX-041922	4/19/2022	<0 01	<0 0002	<0.01	0 00061 J	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
MW-26	MW26-ROX-070921	7/9/2021	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	MW26-ROX-101421	10/14/2021	<0.0093	<0.00019	<0 0093	<0 0093	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	<0.00019	<0 00019	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	MW26-ROX-011122	1/11/2022	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
	MW26-ROX-041122	4/11/2022	<0.0094	0.00023	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	0 00025	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
MW-27	MW27-ROX-071321	7/13/2021	<0 01	<0 0002	<0.01	0 00089 J	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
	MW27-ROX-101321	10/13/2021	<0.0093	<0.00019	<0 0093	<0 0093 U	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	<0.00019	0.000058 J	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	MW27-ROX-011222	1/12/2022	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094 UJ
	MW27-ROX-040822	4/8/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	0.0039 J	0.000099 J	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	0.000047 J	<0.0095
MW-28	MW28-ROX-071521	7/15/2021	0.0025 J	<0 0002	<0.01	<0.01	<0 01	<0.01	0.0025 J	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
	MW28-ROX-101821	10/18/2021	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	MW28-ROX-101821-DUP	10/18/2021	<0.0092	<0.00018	<0 0092	0 00038 J	<0.0092	<0.0092	<0 0092	<0.00018	<0 00018	<0 0092	<0.00018	<0.00018	<0 00018	<0 0092	<0.018	<0 018	<0 00018	<0 0092	<0.00018	<0.0092
	MW28-ROX-011222	1/12/2022	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01
	MW28-ROX-041322	4/13/2022	<0.0095	<0.00019 H UJ	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	0.000087 J H J	<0.00019 H UJ	<0 0095	<0 00019 H UJ	<0 00019 H UJ	<0.00019 H UJ	<0 0095	<0.019	<0 019	0 000055 J H *+ J	<0 0095	<0 00019 H UJ	<0.0095
P-54	P54-ROX-070921	7/9/2021	<0.0096	<0.00019	<0 0096	0.0007 J	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	0.00021	0.00027	<0 0096	<0.019	<0 019	0.000054 J	<0 0096	<0.00019	<0.0096
	P54-ROX-101421	10/14/2021	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	P54-ROX-011022	1/10/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095 UJ
	P54-ROX-040822	4/8/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	0.000086 J	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	<0 00019	<0 0096	<0.00019	<0.0096
P-56	P56-ROX-071421	7/14/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	0 011	0.011	<0.01	<0 02	<0.02	0.00074	<0.01	<0 0002	<0.01
	P56-ROX-101821	10/18/2021	<0.0094	<0.00019	0.00051 J	0 00025 J	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	0 016	0.019	<0 0094	<0.019	<0 019	0 0011	<0 0094	<0.00019	<0.0094
	P56-ROX-011222	1/12/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0.00019 UJ	<0 0096	<0.00019	0.01 J	0.0091 J	<0 0096	<0.019	<0 019	0.00076	<0 0096	<0.00019	<0.0096
	P56-ROX-011222-DUP	1/12/2022	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	0 00043 J	<0.01	<0.0002	0.013 J	0.013 J	<0.01	<0 02	<0.02	0.00093	<0.01	<0 0002	<0.01
	P56-ROX-042022	4/20/2022	<0 01	<0 0002	0.00053 J	<0.01	<0 01	<0.01	<0.01	<0 0002	0.00045	<0.01	<0.0002	0 017	0.016	<0.01	<0 02	<0.02 UJ	0.001	<0.01	0.000046 J	<0.01 UJ
P-57	P57-ROX-071421	7/14/2021	<0 01	<0.00021	0.00052 J	<0.01	<0 01	<0.01	<0.01	<0.00021	0 0004	<0.01	<0.00021	0 014	0.018	<0.01	<0.021	<0 021	0.00024	0.017	<0.00021	<0.01
	P57-ROX-101821	10/18/2021	<0.0094	<0.00019	<0 0094	0 00039 J	<0.0094	<0.0094	0.0021 J	<0.00019	0 0007	0 016	<0.00019	0 022	0.02	<0 0094	<0.019	<0 019	<0 00019	0.087	<0.00019	<0.0094
	P57-ROX-011422	1/14/2022	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	0 012	0 0076	<0.01	<0 02	<0.02	<0.0002	<0.01	<0 0002	<0.01 UJ
	P57-ROX-041522	4/15/2022	<0.0096	<0.00019	0.00055 J	<0 0096	<0.0096	<0.0096	<0 0096	0.000099 J	0.00052	<0 0096	<0.00019	0 028	0.029	<0 0096	<0.019	<0 019	0.00036	<0.0096 UJ	<0.00019	<0.0096 UJ
P-58	P58-ROX-011322	1/13/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0.00019 UJ	<0 0095	<0.00019	0 055	0.024	<0 0095	<0.019	<0 019	0 0015	0.57	<0 00019 UJ	<0.0095
	P58-ROX-011322-DUP	1/13/2022	<0.0098	<0 0002	<0 0098	<0 0098	<0.0098	<0.0098	<0 0098	<0 0002	0.002 J	<0 0098	<0.0002	0 056	0.025	<0 0098	<0 02	<0.02	0 0018	0.45	0.00087 J	<0.0098
	P58-ROX-041822	4/18/2022	<0.0097	<0.00019	0 0014 J	<0 0097	<0.0097	<0.0097	<0 0097	0.00026	0.002	<0 0097	<0.00019	0 081	0.036	<0 0097	<0.019	<0 019	0 0016	0.6	0.00058	<0.0097
	P58-ROX-041822-DUP	4/18/2022	<0.0097	<0.00019	0 0016 J	<0 0097	<0.0097	<0.0097	<0 0097	0.00022	0 0016	<0 0097	<0.00019	0 081	0.035	<0 0097	<0.019	<0 019	0 0014	0.67	0.00053	<0.0097
P-59	P59-ROX-071521	7/15/2021	<0 01	<0.00021	<0.01	<0.01	0.0043 J	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	0 013	0.019	<0.01	0.0018 J	<0 021	0.00082	0.069	0.0003	<0.01
	P59-ROX-102021	10/20/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	0.02	0.028	<0.01	<0 02	<0.02	<0.0002	0.053	<0 0002	<0.01
	P59-ROX-102021-DUP	10/20/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	0.001 J	<0.0002	0 021	0.028	<0.01	<0 02	<0.02	<0.0002	0.041	<0 0002	<0.01
	P59-ROX-011322	1/13/2022	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	0 018	0.025	<0.01	<0 02	<0.02	<0.0002	0.059	<0 0002	<0.01
	P59-ROX-041822	4/18/2022	<0.019	<0.00019	<0.019	<0.019	<0.019	<0 019	<0.019	<0.00019	<0 00019	<0.019	<0.00019	0 019	0.026	<0.019	<0.038	<0 038	0.00088	0.028	<0.00019	<0 019

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SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																		
			Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)				0.0003 [1]	0.007 [3]	5.6 [1]	0.14 [2]	0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	Sample ID	Sample Date	Analytical Results (mg/L)																			
P-66	P66-ROX-071321	7/13/2021	<0 01	<0 0002	0 0011 J	<0.01	<0 01	<0.01	<0.01	0.00015 J	<0.0002	<0.01	<0.0002	0 041	0.019	0 025	0.026	<0.02	<0.0002	0.029	0.00039	<0.01
	P66-ROX-080921	8/9/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	0.04	0.014	0 011	0.022	<0.02	<0.0002	0.015	0.0002	<0.01
	P66-ROX-102021	10/20/2021	<0 01	<0.00021	0 0014 J	<0.01	<0 01	<0.01	<0.01	<0.00021	0.0011 J	0 0017 J	<0.00021	0 055	0.025	<0.01	0.0025 J	<0 021	0 00045 J	0.025	<0.00021	<0.01
	P66-ROX-102021-DUP	10/20/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002 UJ	0 0013 J	<0.0002	0 068	0.032	<0.01	0.0024 J	<0.02	<0 0002 UJ	0.021	<0 0002	<0.01
	P66-ROX-011322	1/13/2022	<0.0096	<0.00019	0.00086 J	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	0 0025	<0 0096	<0.00019	0 082	0.029	0 0062 J	0 01 J	<0 019	<0 00019	0.019	<0.00019	<0.0096
P-74	P74-ROX-071421	7/14/2021	<0 01	<0.00021	<0.01	<0.01 U	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	<0.00021	<0 00021	<0.01	<0.021	<0 021	<0 00021	<0.01	<0.00021	<0.01
	P74-ROX-101221	10/12/2021	<0.0092	<0.00018	<0 0092	<0 0092 U	<0.0092	<0.0092	<0 0092	<0.00018	<0 00018	<0 0092	<0.00018	0.00035	0.00028	<0 0092	0 00088 J	<0 018	<0 00018	0.02	<0.00018	<0.0092
	P74-ROX-011322	1/13/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095
	P74-ROX-011322-DUP	1/13/2022	<0 01	<0.00021	<0.01	<0.01	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	<0.00021	<0 00021	<0.01	<0.021	<0 021	<0 00021	0 0032 J	<0.00021	<0.01
	P74-ROX-041822	4/18/2022	<0.0097	<0.00019	<0 0097	0 00033 J	<0.0097	<0.0097	<0 0097	<0.00019	<0 00019	<0 0097	<0.00019	<0.00019	<0 00019	<0 0097	<0.019	<0 019	<0 00019	<0 0097	<0.00019	<0.0097
	P74-ROX-041822-DUP	4/18/2022	<0.0096	<0.00019	<0 0096	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	<0 00019	<0 0096	<0.00019	<0.00019	<0 00019	<0 0096	<0.019	<0 019	0.000037 J	<0 0096	<0.00019 U	<0.0096
P-93A	P93A-ROX-071521	7/15/2021	<0 01	<0.00021	<0.01	0.001 J	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	0.00015 J	0 00011 J	<0.01	<0.021	<0 021	<0 00021	0 0035 J	0.000046 J	<0.01
	P93A-ROX-071521-DUP	7/15/2021	<0 01	<0.00021	<0.01	<0.01	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	0.00018 J	0.000083 J	<0.01	<0.021	<0 021	0.000043 J	<0.01	<0.00021	<0.01
	P93A-ROX-101921	10/19/2021	<0.0098	<0 0002	<0 0098	<0 0098	<0.0098	<0.0098	<0 0098	<0 0002	<0.0002	<0 0098	<0.0002	<0 0002	<0.0002	<0 0098	<0 02	<0.02	<0.0002	<0 0098	<0 0002	<0.0098
	P93A-ROX-011222	1/12/2022	<0.0098	<0 0002	<0 0098	<0 0098	<0.0098	<0.0098	<0 0098	<0 0002	<0.0002	<0 0098	<0.0002	0.00019 J	<0.0002	<0 0098	<0 02	<0.02	<0.0002	<0 0098	<0 0002	<0.0098
	P93A-ROX-041922	4/19/2022	<0 01	0 00016 J	<0.01	<0.01	<0 01	<0.01	<0.01	0.00011 J	<0.0002	<0.01	0.00017 J	<0 0002	<0.0002	<0.01	<0 02	<0.02	0.000079 J	<0.01	<0 0002	<0.01
P-93B	P93B-ROX-071621	7/16/2021	<0 01	<0.00021	<0.01	0.0014 J	<0.01 UJ	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	<0.00021	0 00016 J	<0 01 UJ	<0 021 UJ	<0.021 UJ	<0 00021	0.0039 J J	<0.00021	<0.01
	P93B-ROX-071621-DUP	7/16/2021	<0 01	<0.00021	<0.01	<0.01	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	<0.00021	0.000079 J	<0.01	0.0019 J	<0 021	<0 00021	0.19 J	<0.00021	<0.01
	P93B-ROX-101921	10/19/2021	<0.0099	<0 0002	<0 0099	<0 0099	0.0057 J	<0.0099	<0 0099	<0 0002	<0.0002	<0 0099	<0.0002	<0 0002	<0.0002	<0 0099	0.003 J	<0.02	<0.0002	0.29	<0 0002	<0.0099
	P93B-ROX-011322	1/13/2022	<0.0098	<0 0002	<0 0098	<0 0098	0.0039 J	<0.0098	<0 0098	<0 0002	<0.0002	<0 0098	<0.0002	<0 0002	<0.0002	<0 0098	0.002 J	<0.02	<0.0002	0.37	<0 0002	<0.0098
	P93B-ROX-042022	4/20/2022	<0 01	<0.00021	<0.01	<0.01	0.0042 J	<0.01	<0.01	0.00036	<0 00021	<0.01	<0.00021	0.00012 J	0 00012 J	<0.01	0.0025 J	<0.021 UJ	0.00043	0.4	0.00026	<0.01
P-93C	P93C-ROX-071221	7/12/2021	<0 01	<0.00021	<0.01	<0.01	<0 01	<0.01	<0.01	<0.00021	<0 00021	<0.01	<0.00021	<0.00021	<0 00021	<0.01	<0.021	<0 021	<0 00021	<0.01	<0.00021	<0.01
	P93C-ROX-101221	10/12/2021	<0.0094	<0.00019	<0 0094	<0 0094 U	<0 0094 UJ	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0.0094 UJ	<0 019 UJ	<0.019 UJ	<0 00019	<0.0094 UJ	<0.00019	<0.0094
	P93C-ROX-011022	1/10/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	<0.00019	<0.0095 UJ
	P93C-ROX-041922	4/19/2022	<0.0097	0 00013 J	<0 0097	<0 0097	<0.0097	<0.0097	<0 0097	0.000093 J	<0 00019	<0 0097	0.00017 J	<0.00019	<0 00019	<0 0097	<0.019	<0 019	0.000045 J	<0 0097	<0.00019	<0.0097
P-93D	P93D-ROX-071621	7/16/2021	<0.011 H UJ	<0.00022 H UJ	<0.011 H UJ	<0.011 H UJ	<0.011 H UJ	<0.011 H UJ	<0 011 H UJ	<0 00022 H UJ	<0.00022 H UJ	<0.011 H UJ	<0 00022 H UJ	<0 00022 H UJ	<0.00022 H UJ	<0.011 H UJ	<0 022 H UJ	<0.022 H UJ	<0.00022 H UJ	<0 011 H UJ	<0 00022 H UJ	<0.011 H UJ
	P93D-ROX-101821	10/18/2021	<0.0093	<0.00019	<0 0093	<0 0093	<0.0093	<0.0093	0.0022 J	<0.00019	<0 00019	<0 0093	<0.00019	<0.00019	<0 00019	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	P93D-ROX-011422	1/14/2022	<0.0097	<0.00019	<0 0097	<0 0097	<0.0097	<0.0097	<0 0097	<0.00019	<0 00019	<0 0097	<0.00019	<0.00019	<0 00019	<0 0097	<0.019	<0 019	<0 00019	<0 0097	<0.00019	<0.0097 UJ
	P93D-ROX-041922	4/19/2022	<0.0099	<0 0002	<0 0099	0 00039 J	<0.0099	<0.0099	<0 0099	<0 0002	<0.0002	<0 0099	<0.0002	<0 0002	<0.0002	<0 0099	<0 02	<0.02	<0.0002	<0 0099	<0 0002	<0.0099

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																		
			Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Di-n-butyl phthalate	Di-n-octyl phthalate	Fluoranthene	Fluorene	Indene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-Cresol)	3 & 4-Methylphenol (m & p-Cresol)	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)				0.0003 [1]	0.007 [3]	5.6 [1]	0.14 [2]	0.7 [1]	0.14 [2]	0.28 [1]	0.28 [1]		0.00043 [1]	0.49 [3]	0.028 [1]	0.35 [1]	0.14 [3]	0.001 [1]	0.21 [3]	0.1 [1]	0.21 [1]	0.007 [3]
Location	Sample ID	Sample Date	Analytical Results (mg/L)																			
P-114R	P114R-ROX-071221	7/12/2021	0.0043 J	<0.00022	<0.011	<0.011	<0.011	<0 011	<0.011	<0.00022	<0 00022	<0.011	<0.00022	<0.00022	<0 00022	<0.011	<0.022	<0 022	<0 00022	<0.011	<0.00022	<0 011
	P114R-ROX-100821	10/8/2021	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	P114R-ROX-011022	1/10/2022	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094 UJ
	P114R-ROX-041422	4/14/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0.0095 UJ	<0.00019	<0.0095 UJ
ROST-3-MW	ROST3MW-ROX-071421	7/14/2021	<0.011	<0.00021	<0.011	<0.011	<0.011	<0 011	<0.011	<0.00021	<0 00021	<0.011	<0.00021	<0.00021	<0 00021	<0.011	<0.021	<0 021	<0 00021	<0.011	<0.00021	<0 011
	ROST3MW-ROX-100821	10/8/2021	<0.0094	<0.00019	<0 0094	<0 0094 U	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	ROST3MW-ROX-010622	1/6/2022	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	ROST3MW-ROX-041222	4/12/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	<0 00019	<0 0095	<0.019	<0 019	<0 00019	<0 0095	0.000041 J J	<0.0095
ROST-4-PZ(C)	ROST4PZC-ROX-071421	7/14/2021	<0 01	<0 0002	0 0016 J	<0.01	<0 01	<0.01	<0.01	<0 0002	0 0015	<0.01	<0.0002	0 052	0.046	<0.01	<0 02	<0.02	0 0043	<0.01	0.000078 J	<0.01
	ROST4PZC-ROX-071421-DUP	7/14/2021	<0.0095	<0.00019	0 0016 J	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	0 0013	<0 0095	<0.00019	0 051	0.045	<0 0095	<0.019	<0 019	0.004	<0 0095	0.000049 J	<0.0095
	ROST4PZC-ROX-101821	10/18/2021	<0.0094	<0.00019	0.00091 J	0 00067 J	<0.0094	<0.0094	<0 0094	<0.00019	0 0013	<0 0094	<0.00019	0 041	0 0086	<0 0094	<0.019	0.0014 J	0 0033	<0 0094	0 0001 J	<0.0094
	ROST4PZC-ROX-011122	1/11/2022	<0.0096	<0.00019	0.00046 J	<0 0096	<0.0096	<0.0096	<0 0096	<0.00019	0 0011	<0 0096	<0.00019	0 032	0 0029	<0 0096	<0.019	<0 019	0 0031	<0 0096	0.000084 J	<0.0096
	ROST4PZC-ROX-041522	4/15/2022	<0.0095	<0.00019	0.00082 J	<0 0095 U	<0.0095	<0.0095	<0 0095	0.00012 J	0.001	<0 0095	0.00005 J	0.0056	<0 00019	<0 0095	<0.019	<0 019	0 0028	<0.0095 UJ	0.000098 J	<0.0095 UJ
ROST-4-PZ(E)	ROST4PZE-ROX-071521	7/15/2021	<0.0097	<0.00019	0.002 J	<0 0097	0.0044 J	<0.0097	<0 0097	0.000074 J	0 0016	<0 0097	<0.00019	0 055	0.069	<0 0097	<0.019	<0 019	0 0056	<0 0097	0.00017 J	<0.0097
	ROST4PZE-ROX-101821	10/18/2021	<0.0093	<0.00019	<0 0093	0 00076 J	<0.0093	<0.0093	<0 0093	<0.00019	0 0023	0 0041 J	<0.00019	0.11	0.13	<0 0093	<0.019	<0 019	0 0088	<0 0093	0.00029	<0.0093
	ROST4PZE-ROX-011222	1/12/2022	<0.0096	<0.00019	0.00039 J	<0 0096	<0 0096 UJ	<0.0096	<0 0096	<0.00019	0.001 J	0 0023 J	<0.00019	0 038	0.035	<0.0096 UJ	<0 019 UJ	<0.019 UJ	0 0024	<0.0096 UJ	<0.00019	<0.0096
	ROST4PZE-ROX-011222-DUP	1/12/2022	<0.0098	<0 0002	0.00089 J	<0 0098	<0.0098	<0.0098	<0 0098	<0 0002	0.0013 J	0 0031 J	<0.0002	0 041	0.04	<0 0098	<0 02	<0.02	0 0023	<0 0098	0.00012 J	<0.0098 UJ
ROST-4-PZ(G)	ROST4PZG-ROX-071321	7/13/2021	<0.0094	<0.00019	<0 0094	<0 0094	<0.0094	<0.0094	<0 0094	<0.00019	<0 00019	<0 0094	<0.00019	<0.00019	<0 00019	<0 0094	<0.019	<0 019	<0 00019	<0 0094	<0.00019	<0.0094
	ROST4PZG-ROX-101421	10/14/2021	<0.0093	<0.00019	<0 0093	0 00046 J	<0.0093	<0.0093	<0 0093	<0.00019	<0 00019	<0 0093	<0.00019	<0.00019	<0 00019	<0 0093	<0.019	<0 019	<0 00019	<0 0093	<0.00019	<0.0093
	ROST4PZG-ROX-011022	1/10/2022	<0.0099	<0 0002	<0 0099	<0 0099	<0.0099	<0.0099	<0 0099	<0 0002	<0.0002	<0 0099	<0.0002	<0 0002	<0.0002	<0 0099	<0 02	<0.02	<0.0002	<0 0099	<0 0002	<0.0099 UJ
	ROST4PZG-ROX-041522	4/15/2022	<0.0097	<0.00019	<0 0097	<0 0097	<0.0097	<0.0097	<0 0097	0.000088 J	<0 00019	<0 0097	<0.00019	<0.00019	0 00009 J	<0 0097	<0.019	<0 019	<0 00019	<0.0097 UJ	0.000051 J	<0.0097 UJ
	ROST4PZG-ROX-041522-DUP	4/15/2022	<0.0095	<0.00019	<0 0095	<0 0095	<0.0095	<0.0095	<0 0095	<0.00019	<0 00019	<0 0095	<0.00019	<0.00019	0.000063 J	<0 0095	<0.019	<0 019	0.000055 J	<0.0095 UJ	<0.00019	<0.0095 UJ
T-12	T12-ROX-071521	7/15/2021	<0.011	<0.00021	<0.011	<0.011	0.0075 J	<0 011	<0.011	<0.00021	<0 00021	0 0035 J	<0.00021	0.0017	0.00026	<0.011	0.0018 J	<0 021	<0 00021	0.23	<0.00021	<0 011
	T12-ROX-102021	10/20/2021	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	0 0023 J	<0.0002	0.0058	0 0027	<0.01	0.0013 J	<0.02	<0.0002	0.14	<0 0002	<0.01
	T12-ROX-011422	1/14/2022	<0 01	<0 0002	<0.01	<0.01	<0 01	<0.01	<0.01	<0 0002	<0.0002	<0.01	<0.0002	<0 0002	<0.0002	<0.01	<0 02	<0.02	<0.0002	0.036	<0 0002	<0.01 UJ
	T12-ROX-042022	4/20/2022	<0.0099	<0 0002	<0 0099	<0 0099	<0 0099 UJ	<0.0099	<0 0099	<0 0002	<0.0002	0 0016 J	<0.0002	<0 0002	<0.0002	<0.0099 UJ	<0.02 UJ	<0.02 UJ	<0.0002	0.0076 J J	<0 0002	<0.0099 UJ

Notes

1 Denotes screening critieria source from 35 I A.C. 620, Subpart D.

2 Denotes screening critieria source from 35 I A.C. 742 (TACO), Appendix B, Table E.

3 Denotes screening criteria source from IL EPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 1 Tables).

Groundwater monitoring wells designated for sampling in the Interim Groundwater Monitoring Program, P-55R and P-68, contained LNAPL; therefore, these wells were not sampled.

The screened interval for certain monitoring wells was adjusted based on an evaluation of the results of annual bottom depth gauging conducted in the first quarter of each year.

Indicates a historical exceedance of screening criteria.

Indicates a current exceedance of screening criteria.

Empty shaded cell without a value indicates previous quarter analyte result was rejected or the analyte was not analyzed.

Empty cell without a value indicates current quarter analyte result was rejected or the analyte was not analyzed.

LABORATORY QUALIFIERS

B = Target analyte was identified in the method blank, indicating possible lab contamination.

J = The analyte was detected below the reporting limit. Result is estimated.

H = Analyzed or extracted out of holding time criteria.

F1 = Indicates MS and/or MSD recovery is outside acceptance limit.

*+ = Indicates LCS and/or LCSD is outside acceptance limit, high biased

*1 = LCS/LCSD RPD is outside contol limit

<# ## Indicates the analyte was not detected above the given reporting limit.

AECOM QUALIFIERS

J = The result is estimated.

UJ = Estimated non-detect.

U = Result is non-detect.

Figures

The following MVS Descriptions and Assumptions apply to **Figure 6**. C Tech Development Corporation's Mining Visualization System, Version 9.94 (MVS 9.94) was used to model the estimated distribution of benzene in the groundwater.

MVS Descriptions and Assumptions:

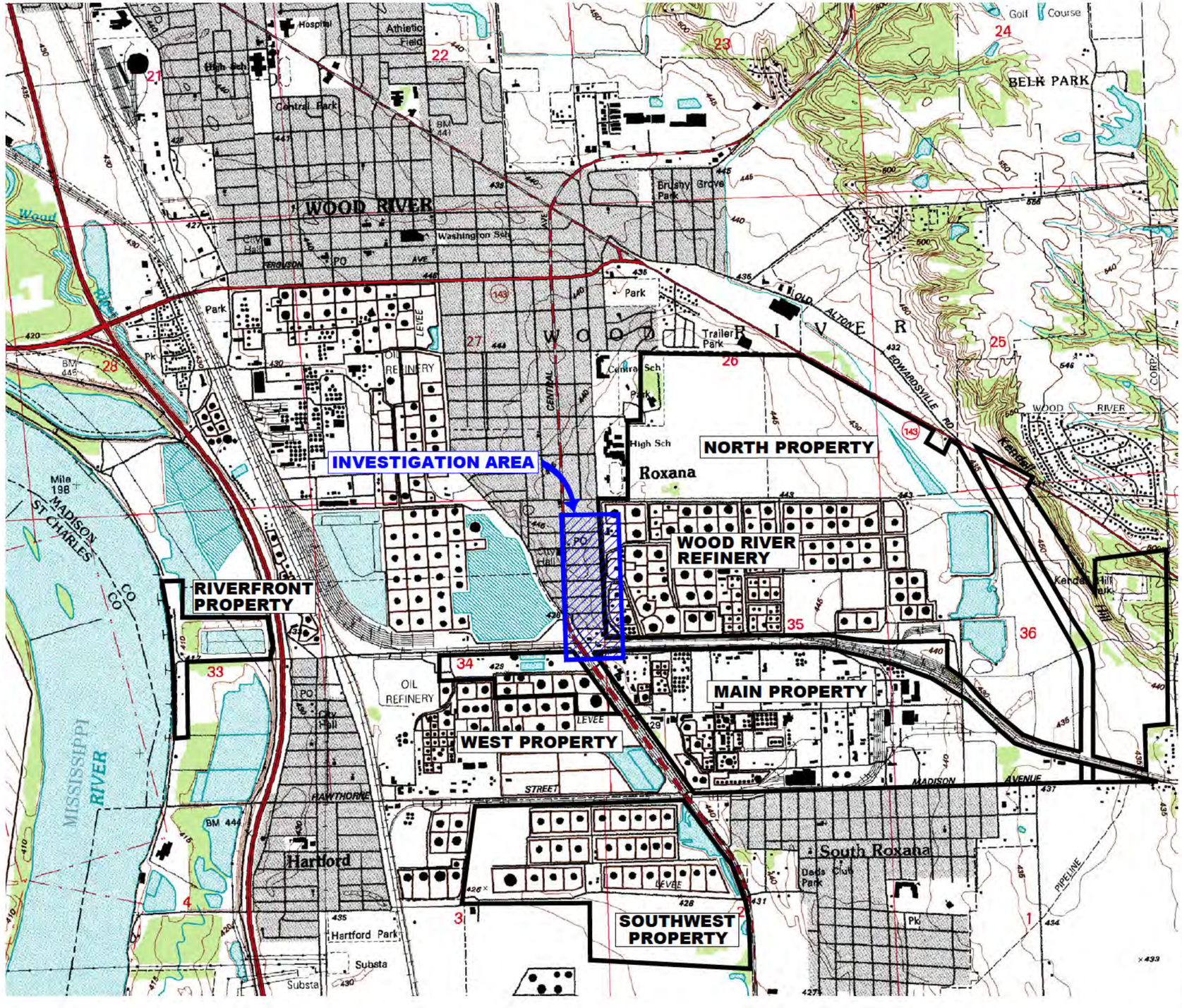
Plan View Model Output – The data input for the plan view model was not limited by depth and was modeled in two dimensions (2D). Regardless of sample depth, benzene concentrations were modeled on a flat horizontal plane.

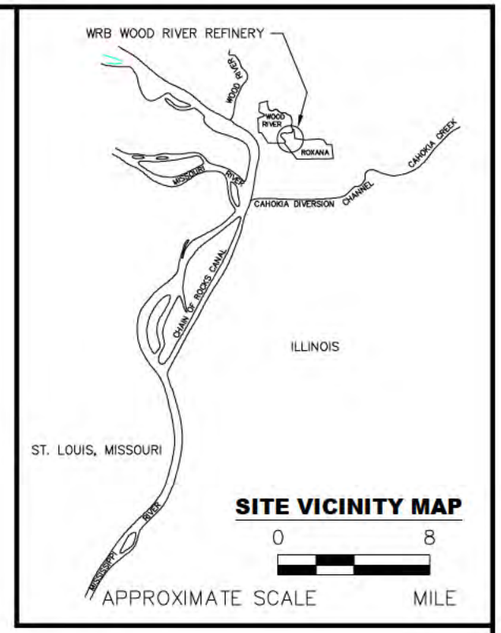
Inward Kriging / Boundary Cut-off – This method of Kriging limits the horizontal extent of data modeling to the extent of the data on the x/y plane in a convex hull.

More simplified, if each sampling location were represented by a tack pushed into the model's surface and a rubber band stretched around them, the model would be represented by the space inside the rubber band.

Duplicate Samples – In locations and depths where duplication samples were collected, the higher concentration was used.

Detection Limits – In cases where the lab reported a non-detect, half the value of the lab reporting limit was used in the model. This conservative method is based on the assumption that the sample is likely not free of benzene, but the quantity contained is lower than detectable at the analyzed dilution.





LEGEND

WOOD RIVER REFINERY PROPERTY BOUNDARY

INVESTIGATION AREA

SOURCE: ELECTRONIC USGS DIGITAL RASTER GRAPHIC 7.5 MINUTE TOPOGRAPHIC MAP OF WOOD RIVER, IL–MO REVISED 1994.

0 2000

APPROXIMATE SCALE FEET

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60674381

AECOM

DRN. BY:gds July 2022 DSGN. BY:mar CHKD. BY:wmp	Investigation Area Location Map	FIG. NO. 1

File: C:\USERS\LORENTE\AECOM\GDS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\USF00686-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2022 GW RPT\WORKSPACE\20220620\FIGURE 2 GROUNDWATER MONITORING WELL SAMPLING LOCATIONS.DWG Last edited: Mar, 07, 22 @ 11:16 AM by: lorente

LEGEND

- ROXANA INTERIM GROUNDWATER MONITORING WELL LOCATION
- GROUNDWATER MONITORING WELL LOCATION (NOT INCLUDED IN THE ROXANA INTERIM GROUNDWATER MONITORING PROGRAM)
- GROUNDWATER PIEZOMETER LOCATION
- GROUNDWATER PIEZOMETER LOCATION (NOT INCLUDED IN THE ROXANA INTERIM GROUNDWATER MONITORING PROGRAM)
- * ROXANA INTERIM GROUNDWATER MONITORING WELL SAMPLING LOCATION

FIRST ST
SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER AVE
RAND AVENUE
VILLAGE OF ROXANA
NORTH PROPERTY
WEST PROPERTY
MAIN PROPERTY
BP
1986 APPROXIMATE BENZENE RELEASE SITE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

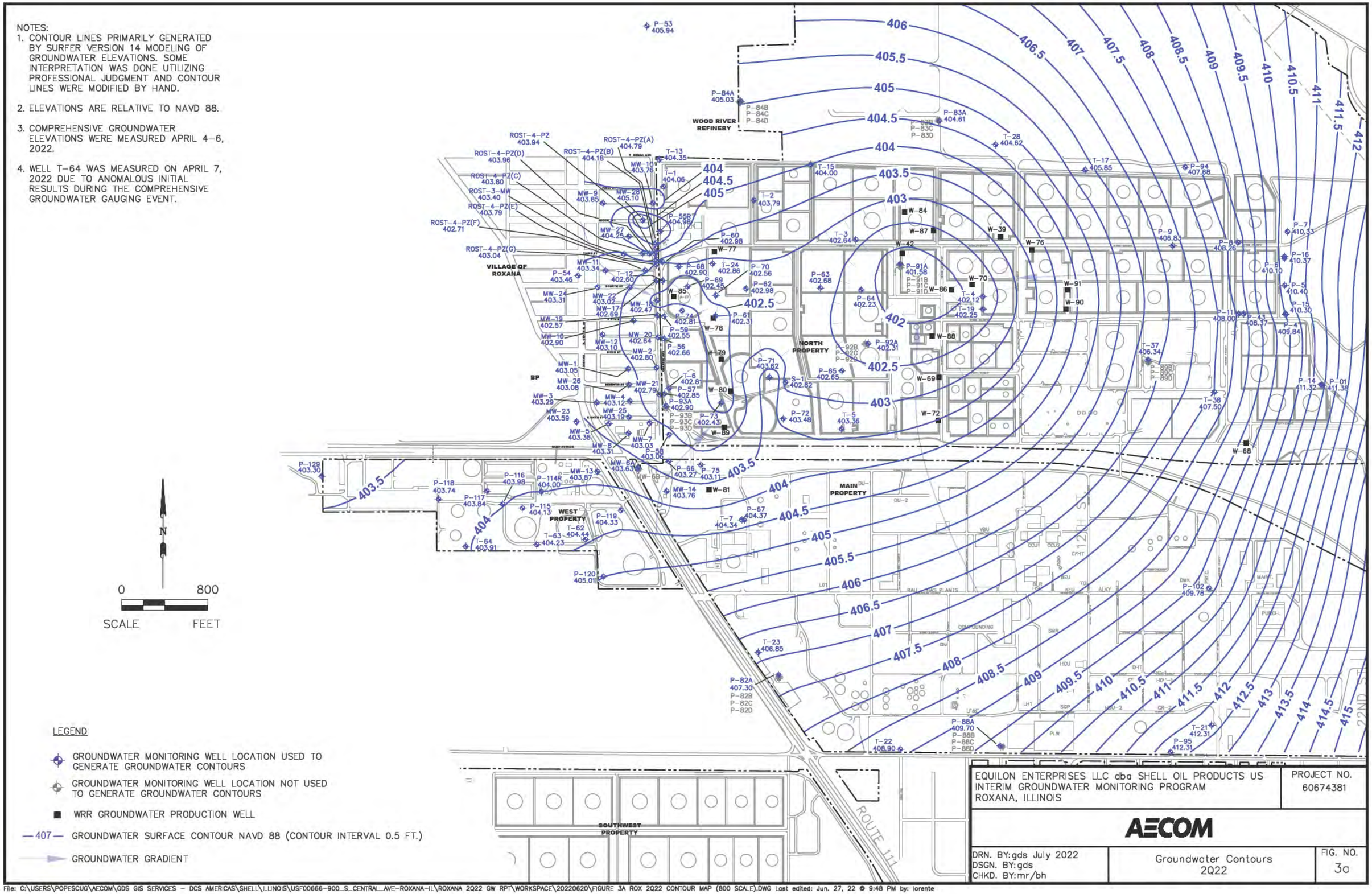
PZ-1(101)
PZ-1(85)
MW-9 *
MW-10 *
MW-28 *
MW-27 *
P-55R *
ROST-4-PZ(A)
ROST-4-PZ(B)
ROST-4-PZ(C) *
ROST-4-PZ
P-60-11
ROST-3-MW *
ROST-4-PZ(D)
ROST-4-PZ(E) *
ROST-4-PZ(F)
P-60-S
P-60-12
P-60
P-68 *
P-60-13
ROST-4-PZ(G) *
MW-11 *
P-54 *
MW-24 *
MW-17
T-12 *
MW-22 *
P-69
MW-18
P-70
P-74 *
MW-19
P-59 *
P-61
MW-16 *
GP-9-PZ
PZ-2(84)
PZ-2(70.5)
MW-12 *
MW-20
P-56 *
MW-2 *
MW-1 *
MW-26 *
T-6
MW-21
P-57 *
MW-4 *
MW-3 *
P-93A *
P-93B *
P-93C *
P-93D *
P-73
MW-25 *
MW-5 *
MW-7 *
MW-23 *
MW-8 *
P-58 *
MW-13 *
MW-6A
MW-6B *
MW-6C *
MW-6D *
P-66 *
P-75
MW-14 *
P-114R *

A-26
A-27
T-1
T-24

0 200
SCALE FEET
N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60674381
AECOM		
DRN. BY:gds July 2022 DSGN. BY:mr CHKD. BY:wmp	Roxana Interim Groundwater Monitoring Well Locations	FIG. NO. 2

NOTES:
1. CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 14 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
2. ELEVATIONS ARE RELATIVE TO NAVD 88.
3. COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED APRIL 4–6, 2022.
4. WELL T–64 WAS MEASURED ON APRIL 7, 2022 DUE TO ANOMALOUS INITIAL RESULTS DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT.



LEGEND

- GROUNDWATER MONITORING WELL LOCATION USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER MONITORING WELL LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS
- WRR GROUNDWATER PRODUCTION WELL
- —407— GROUNDWATER SURFACE CONTOUR NAVD 88 (CONTOUR INTERVAL 0.5 FT.)
- GROUNDWATER GRADIENT

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS

PROJECT NO. 60674381

AECOM

DRN. BY:gds July 2022
DSGN. BY:gds
CHKD. BY:mr/bh

Groundwater Contours 2Q22

FIG. NO. 3a

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES – DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2Q22 GW RPT\WORKSPACE\20220620\FIGURE 3A ROX 2Q22 CONTOUR MAP (800 SCALE).DWG Last edited: Jun. 27, 22 @ 9:48 PM by: lorente

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2Q22 GW RPT\WORKSPACE\20220620\FIGURE 3B GW CONTOURS 2Q22 WF.DWG Last edited: Jun. 27, 22 @ 6:33 PM by: lorente

LEGEND

- GROUNDWATER MONITORING WELL LOCATION USED TO GENERATE GROUNDWATER CONTOURS
- GROUNDWATER MONITORING WELL LOCATION NOT USED TO GENERATE GROUNDWATER CONTOURS
- WRR GROUNDWATER PRODUCTION WELL
- —405— GROUNDWATER SURFACE CONTOUR (CONTOUR INTERVAL 0.5 FT)
- GROUNDWATER GRADIENT

NOTES:

1. CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 14 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
2. ELEVATIONS ARE RELATIVE TO NAVD 88.
3. COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED APRIL 4–6, 2022.
4. WELL T–64 WAS MEASURED ON APRIL 7, 2022 DUE TO ANOMALOUS INITIAL RESULTS DURING THE COMPREHENSIVE GROUNDWATER GAUGING EVENT.

WOOD RIVER REFINERY

TYDEMAN AVE

FIRST ST

SECOND ST

THIRD ST

VILLAGE OF ROXANA

FOURTH ST

FIFTH ST

SIXTH ST

SEVENTH ST

EIGHTH ST

HIGHWAY 111 (S. CENTRAL AVE)

CHAFFER AVE

RAND AVENUE

BP

WEST PROPERTY

1986 APPROXIMATE BENZENE RELEASE SITE

404.5

405

404

403.5

403

402.5

T-13 404 35
T-1 404.06
T-2 403.79
MW-10 403.76
MW-9 403.85
MW-28 405.10
ROST-4-PZ(B) 404.18
P-55R 404.98
MW-27 404.25
ROST-4-PZ(A) 404.79
ROST-4-PZ(D) 403.96
ROST-4-PZ(C) 403.80
ROST-4-PZ 403.94
W–77
ROST-3-MW 403.40
ROST-4-PZ(E) 403.79
ROST-4-PZ(F) 402.71
P-60 402.98
T-24 402.86
ROST-4-PZ(G) 403.04
P-68 402.90
MW-11 403.34
T-12 402.60
MW-17 402.69
P-54 403.46
MW-24 403.31
MW-22 403.02
P-69 402.45
P-62 402.98
W–85
A–27
P-70 402.56
MW-18 402.47
P-74 402.81
P-61 402.31
MW-19 402.57
W–78
P-59 402 55
MW-16 402.90
MW-12 403.10
MW-20 402.64
P-56 402.66
W–79
MW-2 402.80
MW-1 403.05
MW-26 403 08
T-6 402 81
P-71 403.62
W–80
MW-4 403.12
MW-21 402.79
P-57 402 85
S-1 402 82
P-73 402.43
P-93A 402.90
P-93B
P-93C
P-93D
MW-3 403 29
MW-25 403.19
P-72 403.48
MW-23 403.59
MW-5 403.36
MW-7 403.03
W–89
MW-8 403.31
P-58 403.06
P-66 403.27
P-75 403.11
MW-6A 403.63
MW-6B
MW-6C
MW-6D
MW-13 403.87
P-117 403.84
P-116 403.98
P-114R 404.00
MW-14 403.76
W–81
P-115 404.13
P-119 404.33
P-67 404.37
T-7 404.34
T-64 403.91
T-63 404.23
T-62 404.44

0 300
SCALE FEET
N

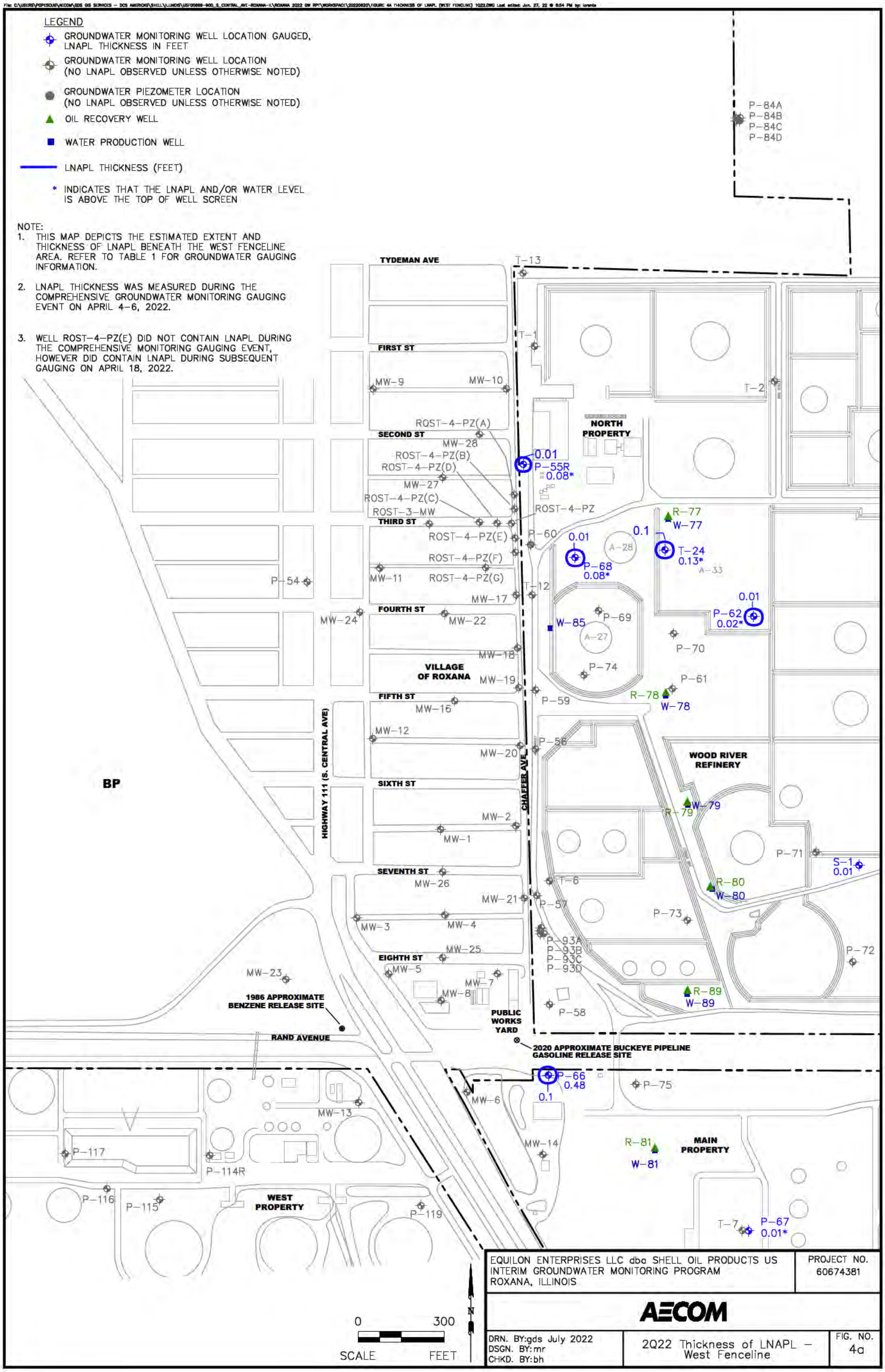
EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60674381
AECOM		
DRN. BY: gds July 2022 DSGN. BY: gds CHKD. BY: mr/bh	Groundwater Contours 2Q22– West Fenceline	FIG. NO. 3b

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\USF00888-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2022 GW RPT\WORKSPACE\20220620\FIGURE 4A THICKNESS OF LNAPL (WEST FENCLINE) 1Q22.DWG Last edited: Jun. 27, 22 @ 6:54 PM by: ioreola

LEGEND

- GROUNDWATER MONITORING WELL LOCATION GAUGED, LNAPL THICKNESS IN FEET
- GROUNDWATER MONITORING WELL LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- GROUNDWATER PIEZOMETER LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- OIL RECOVERY WELL
- WATER PRODUCTION WELL
- LNAPL THICKNESS (FEET)
- * INDICATES THAT THE LNAPL AND/OR WATER LEVEL IS ABOVE THE TOP OF WELL SCREEN

NOTE:
1. THIS MAP DEPICTS THE ESTIMATED EXTENT AND THICKNESS OF LNAPL BENEATH THE WEST FENCELINE AREA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.
2. LNAPL THICKNESS WAS MEASURED DURING THE COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON APRIL 4-6, 2022.
3. WELL ROST-4-PZ(E) DID NOT CONTAIN LNAPL DURING THE COMPREHENSIVE MONITORING GAUGING EVENT, HOWEVER DID CONTAIN LNAPL DURING SUBSEQUENT GAUGING ON APRIL 18, 2022.



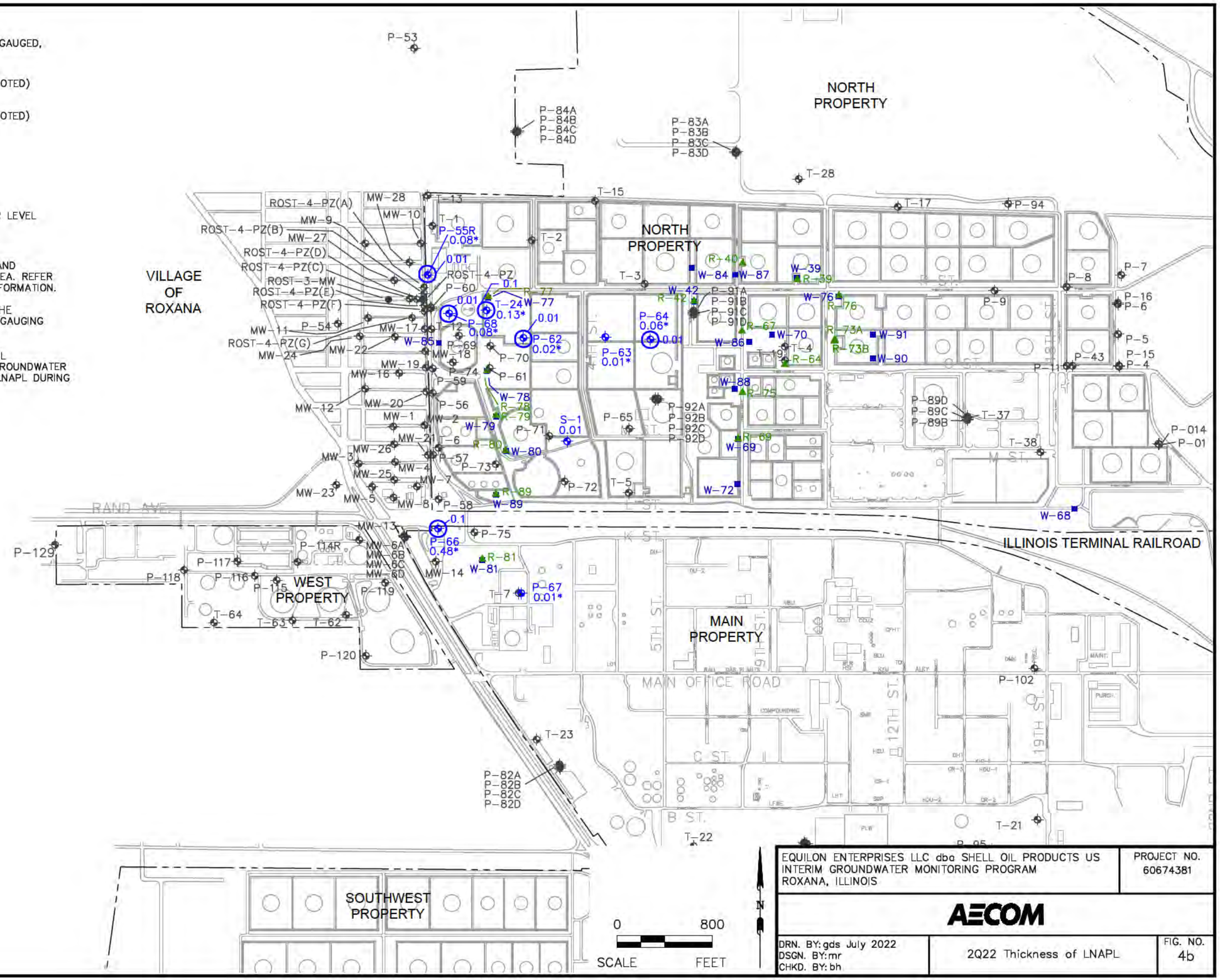
EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60674381
AECOM		
DRN. BY:gds July 2022 DSGN. BY:mr CHKD. BY:bh	2Q22 Thickness of LNAPL – West Fenceline	FIG. NO. 4a

LEGEND

- GROUNDWATER MONITORING WELL LOCATION GAUGED, LNAPL THICKNESS IN FEET
- GROUNDWATER MONITORING WELL LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- GROUNDWATER PIEZOMETER LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- OIL RECOVERY WELL
- WATER PRODUCTION WELL
- LNAPL THICKNESS (FEET)
- * INDICATES THAT THE LNAPL AND/OR WATER LEVEL IS ABOVE THE TOP OF WELL SCREEN

NOTES:

1. THIS MAP DEPICTS THE ESTIMATED EXTENT AND THICKNESS OF LNAPL BENEATH THE WRR AREA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.
2. LNAPL THICKNESS WAS MEASURED DURING THE COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON APRIL 4-6, 2022.
3. WELL ROOST-4PZ(E) DID NOT CONTAIN LNAPL DURING THE SUBSEQUENT COMPREHENSIVE GROUNDWATER MONITORING EVENT, HOWEVER DID CONTAIN LNAPL DURING SUBSEQUENT GAUGING ON APRIL 18, 2022.



EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60674381
AECOM	
DRN. BY: gds July 2022 DSGN. BY: mr CHKD. BY: bh	2Q22 Thickness of LNAPL
	FIG. NO. 4b

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\USF00666-900 S CENTRAL AVE-ROXANA-IL\ROXANA 2022 GW RPT\WORKSPACE\20220620\EDIT.28.06.2022\FIGURE 5 2022 GROUNDWATER ANALYTICAL RESULTS SUMMARY VER 1.DWG Last edited: Jun. 29, 22 @ 9:05 AM by: lorente

LEGEND

- GROUNDWATER MONITORING WELL SAMPLING LOCATION
- GROUNDWATER MONITORING WELL LOCATION NOT SAMPLED
- GROUNDWATER PIEZOMETER LOCATION NOT SAMPLED

NOTES:

1. PER DIRECTION FROM IEPA, ANALYTICAL RESULTS ARE SCREENED AGAINST CRITERIA OUTLINED IN THE WRR RCRA PART B PERMIT.
2. GROUNDWATER SCREENING CRITERIA.

Analyte	Screening Criteria (mg/L)
Benzene	0.005
Naphthalene	0.14
1,2,4-Trimethylbenzene	0.07
Benzo(a)anthracene	0.00013
Benzo(a)pyrene	0.0002
2-Methylnaphthalene	0.028
Phenol	0.1

3. MULTIPLE RESULTS (e.g., 820 / 950) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
4. WELLS IDENTIFIED IN BLUE WITH NO DATA BOX INDICATE THE RESULTS DID NOT EXCEED SCREENING CRITERIA.
5. WELLS P-55R, P-66, P-68 AND ROST-4-PZ(E) WERE NOT SAMPLED DURING 2Q22 DUE TO THE PRESENCE OF LNAPL.

MW-9 MW-10 SECOND ST MW-28 P-55R MW-27 ROST-4-PZ(A) ROST-4-PZ(B) ROST-4-PZ(C) THIRD ST ROST-3-MW ROST-4-PZ(D) ROST-4-PZ(E) ROST-4-PZ(F) ROST-4-PZ P-60 MW-11 ROST-4-PZ(G) P-54 T-12 MW-17 MW-24 FOURTH ST MW-22 MW-18 MW-19 FIFTH ST MW-16 MW-12 VILLAGE OF ROXANA MW-20 SIXTH ST HIGHWAY 111 (S. CENTRAL AVE) MW-1 MW-2 SEVENTH ST MW-26 MW-21 MW-4 MW-3 P-93A P-93B P-93C P-93D EIGHTH ST MW-5 MW-25 MW-7 MW-8 MW-23 1986 APPROXIMATE BENZENE RELEASE SITE WEST PROPERTY MW-13 P-114R MW-6A MW-6B MW-6C MW-6D MW-14 MAIN PROPERTY NORTH PROPERTY A-34 A-33 P-69 WOOD RIVER REFINERY P-70 A-27 P-74 P-61 P-59 P-56 1ST STREET 2ND STREET CHAFFER AVE T-6 P-57 F-78 A-22 P-73 P-58 2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE P-66 P-75

Sample Location	T-12
Sampled 4/20/2022	Result (mg/L)
Benzene	1.2

Sample Location	MW-22
Sampled 4/15/2022	Result (mg/L)
1,2,4-Trimethylbenzene	0.1

Sample Location	P-74
Sampled 1/13/2022	Result (mg/L)
Benzene	0.18 / 0.15

Sample Location	P-59
Sampled 4/18/2022	Result (mg/L)
Benzene	3.8
Naphthalene	0.17
1,2,4-Trimethylbenzene	0.15

Sample Location	P-57
Sampled 4/15/2022	Result (mg/L)
Benzene	0.048
2-Methylnaphthalene	0.029

Sample Location	P-58
Sampled 4/18/2022	Result (mg/L)
Benzene	190 / 210
Benzo(a)anthracene	0.00023 / 0.00019
Benzo(a)pyrene	<0.00019 / **0.00021**
2-Methylnaphthalene	0.036 / 0.035
Phenol	0.60 / 0.67

Sample Location	MW-1
Sampled 1/12/2022	Result (mg/L)
Benzo(a)anthracene	0.00019

Sample Location	MW-7
Sampled 4/19/2022	Result (mg/L)
Benzene	820 / 950

Sample Location	MW-25
Sampled 4/19/2022	Result (mg/L)
Benzene	0.013

Sample Location	MW-8
Sampled 4/19/2022	Result (mg/L)
Benzene	350
Phenol	0.26

Sample Location	P-93A	P-93B	P-93C
Sampled 4/19, 4/20/2022	Result (mg/L)	Result (mg/L)	Result (mg/L)
Benzene	0.0076	920	0.047
Phenol		0.4	

0 200 SCALE FEET N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60674381
AECOM	
DRN. BY:gds July 2022 DSGN. BY:mr CHKD. BY:bh	2Q22 Groundwater Monitoring Well Analytical Exceedances
	FIG. NO. 5

File: C:\USERS\POPESCUG\AECOM\GDS GIS SERVICES – DCS AMERICAS\SHELL\ILLINOIS\USF00668-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 2Q22 GW RPT\WORKSPACE\20220620\FIGURE 6 1Q22 DISSOLVED PHASE BENZENE CONCENTRATIONS IN GROUNDWATER.DWG Last edited: Jun. 27, 22 @ 9:34 PM by: lorente

LEGEND

- GROUNDWATER MONITORING WELL SAMPLING LOCATION
- GROUNDWATER MONITORING WELL LOCATION NOT SAMPLED
- GROUNDWATER MONITORING WELL, LNAPL THICKNESS IN FEET
- GROUNDWATER PIEZOMETER LOCATION NOT SAMPLED
- GROUNDWATER PIEZOMETER, LNAPL THICKNESS IN FEET
- OIL RECOVERY WELL
- WATER PRODUCTION WELL
- LNAPL THICKNESS (FEET)
- * INDICATES THAT THE LNAPL AND/OR WATER LEVEL IS ABOVE THE TOP OF WELL SCREEN
- EXTENT OF MVS MODEL DATA SET
- 50.0 GROUNDWATER CONCENTRATION BENZENE (mg/L)

NOTES:

1. IMAGES GENERATED UTILIZING CTECH MINING VISUALIZATION SYSTEM MODELING SOFTWARE. CONCENTRATIONS BETWEEN KNOWN DATA POINTS (E.G. GROUNDWATER MONITORING WELLS) ARE INTERPOLATIONS AND EXTRAPOLATIONS OF THE MEASURED DATA. SOME INTERPRETATION WAS COMPLETED UTILIZING PROFESSIONAL JUDGEMENT AND CONTOUR LINES WERE MODIFIED BY HAND.
2. ALL RESULTS SHOWN IN mg/L.
3. ANALYTICAL REPORTING LIMITS ARE SHOWN FOR SAMPLES WITH NON-DETECT RESULTS (e.g., <0.001 mg/L).
4. NON-DETECT VALUES ARE MODELED AT HALF THE REPORTING LIMIT.
5. MULTIPLE RESULTS (e.g. 820 / 950) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
6. CONTOUR LINES IN AREA OF P-55R AND P-66 ADJUSTED BASED ON AVAILABLE 2Q22 AND HISTORICAL ANALYTICAL DATA FROM WELLS IN THE AREA.
7. J = THE RESULT IS ESTIMATED.
8. AT WELL CLUSTER LOCATIONS, THE HIGHEST VALUE WAS USED FOR CONTOURING PURPOSES.

SECOND ST
THIRD ST
FOURTH ST
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER AVE
1ST STREET
2ND STREET
RAND AVENUE
VILLAGE OF ROXANA
NORTH PROPERTY
MAIN PROPERTY
WEST PROPERTY
WOOD RIVER REFINERY
PUBLIC WORKS YARD
BP

PZ-1(101) PZ-1(85) MW-9 <0.001 MW-10 <0.001 MW-28 <0.001 MW-27 <0.001 ROST-4-PZ(A) ROST-4-PZ(B) ROST-4-PZ(C) 0.00023 J ROST-3-MW <0.001 ROST-4-PZ(D) ROST-4-PZ(E) 0.03 ROST-4-PZ(F) ROST-4-PZ(G) MW-11 <0.001 <0.001 / <0.001 P-54 <0.001 MW-24 <0.001 MW-22 0.0031 MW-17 MW-18 MW-16 <0.001 MW-19 PZ-2(84) PZ-2(70.5) MW-12 <0.001 MW-20 P-56 <0.001 MW-2 0.0013 / 0.0013 MW-01 <0.001 MW-26 <0.001 MW-4 <0.001 MW-3 <0.001 MW-25 0.013 MW-5 <0.001 MW-23 <0.001 MW-7 820 / 950 MW-8 350 P-58 190 / 210 MW-13 <0.001 MW-6A <0.001 MW-6B <0.001 MW-6C <0.001 MW-6D <0.001 P-114R <0.001 MW-14 <0.001 P-115

P-55R 0.01 0.08* P-60-11 P-60-S P-60 ROST-4-PZ P-60-12 P-60-13 0.01 P-68 0.08* 0.01 P-59 3.8 P-74 <0.001 / <0.001 P-57 0.048 P-93A 0.0076 P-93B 920 P-93C 0.047 P-93D <0.001 P-66 0.1 0.48* T-12 1.2 T-24 0.13* T-6

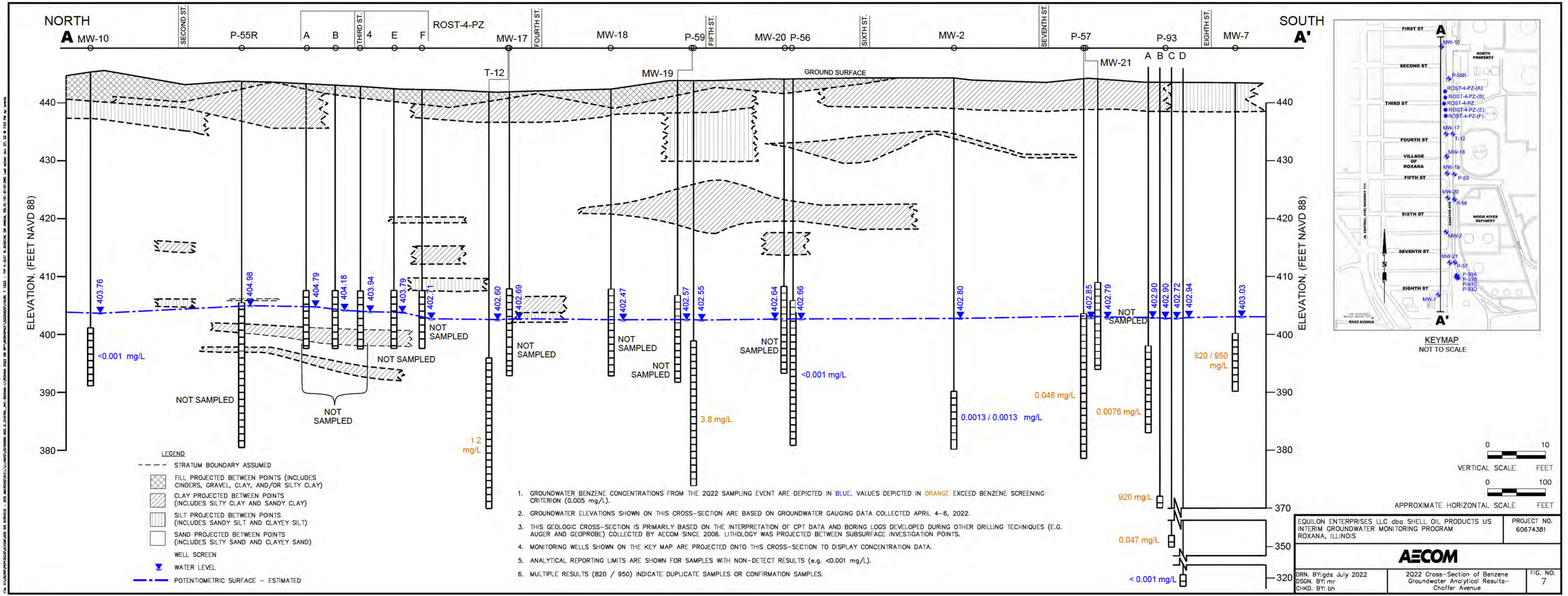
0.005 0.05 0.5 5 50 500

A-34 A-28 A-33 A-27 A-22 P-69 P-70 P-61 P-73 P-75 F-73 F-74 F-75 F-76 F-77 F-78

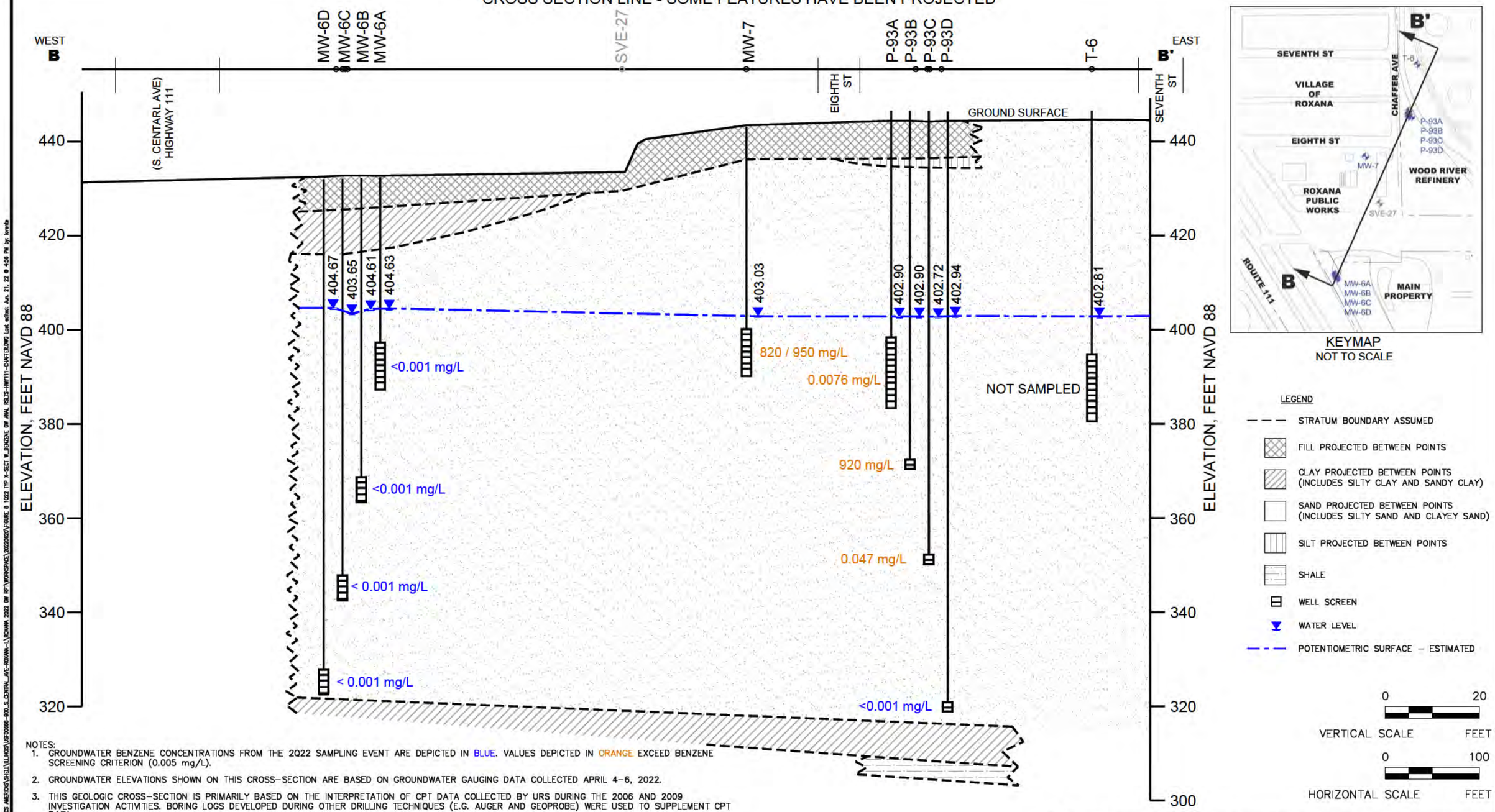
R-77 W-77 R-78 W-78 R-79 W-79 R-80 W-80 R-81 W-81 R-85 W-85 R-89 W-89

0 200 SCALE FEET N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60674381
AECOM		
DRN. BY:gds July 2022 DSGN. BY:mr CHKD. BY:bh	2Q22 Dissolved Phase Benzene Concentrations in Groundwater	FIG. NO. 6


NORTH
A
MW-10
SECOND ST.
P-55R
A
B
THIRD ST.
4
E
F
ROST-4-PZ
MW-17
FOURTH ST.
MW-18
P-59
FIFTH ST.
MW-20
P-56
SIXTH ST.
MW-2
SEVENTH ST.
P-57
P-93
EIGHTH ST.
MW-7
SOUTH
A'
T-12
MW-19
GROUND SURFACE
MW-21
A B C D
ELEVATION, (FEET NAVD 88)
440
430
420
410
400
390
380
370
350
320
403.76
404.98
404.79
404.18
403.94
403.79
402.71
402.60
402.69
402.47
402.57
402.55
402.64
402.66
402.80
402.85
402.79
402.90
402.90
402.72
402.94
403.03
<0.001 mg/L
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
<0.001 mg/L
0.0013 / 0.0013 mg/L
0.048 mg/L
0.0076 mg/L
820 / 950 mg/L
1.2 mg/L
3.8 mg/L
920 mg/L
0.047 mg/L
< 0.001 mg/L
LEGEND
STRATUM BOUNDARY ASSUMED
FILL PROJECTED BETWEEN POINTS (INCLUDES CINDERS, GRAVEL, CLAY, AND/OR SILTY CLAY)
CLAY PROJECTED BETWEEN POINTS (INCLUDES SILTY CLAY AND SANDY CLAY)
SILT PROJECTED BETWEEN POINTS (INCLUDES SANDY SILT AND CLAYEY SILT)
SAND PROJECTED BETWEEN POINTS (INCLUDES SILTY SAND AND CLAYEY SAND)
WELL SCREEN
WATER LEVEL
POTENTIOMETRIC SURFACE – ESTIMATED
1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 2Q22 SAMPLING EVENT ARE DEPICTED IN BLUE. VALUES DEPICTED IN ORANGE EXCEED BENZENE SCREENING CRITERION (0.005 mg/L).
2. GROUNDWATER ELEVATIONS SHOWN ON THIS CROSS-SECTION ARE BASED ON GROUNDWATER GAUGING DATA COLLECTED APRIL 4–6, 2022.
3. THIS GEOLOGIC CROSS-SECTION IS PRIMARILY BASED ON THE INTERPRETATION OF CPT DATA AND BORING LOGS DEVELOPED DURING OTHER DRILLING TECHNIQUES (E.G. AUGER AND GEOPROBE) COLLECTED BY AECOM SINCE 2006. LITHOLOGY WAS PROJECTED BETWEEN SUBSURFACE INVESTIGATION POINTS.
4. MONITORING WELLS SHOWN ON THE KEY MAP ARE PROJECTED ONTO THIS CROSS-SECTION TO DISPLAY CONCENTRATION DATA.
5. ANALYTICAL REPORTING LIMITS ARE SHOWN FOR SAMPLES WITH NON-DETECT RESULTS (e.g. <0.001 mg/L).
6. MULTIPLE RESULTS (820 / 950) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
FIRST ST
SECOND ST
THIRD ST
FOURTH ST
VILLAGE OF ROXANA
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
WOOD RIVER REFINERY
NORTH PROPERTY
MW-10
P-55R
ROST-4-PZ-(A)
ROST-4-PZ-(B)
ROST-4-PZ
ROST-4-PZ-(E)
ROST-4-PZ-(F)
MW-17
T-12
MW-18
MW-19
P-59
MW-20
P-56
MW-2
MW-21
P-57
P-93A
P-93B
P-93C
P-93D
MW-7
KEYMAP
NOT TO SCALE
0
10
VERTICAL SCALE FEET
0
100
APPROXIMATE HORIZONTAL SCALE FEET
EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US
INTERIM GROUNDWATER MONITORING PROGRAM
ROXANA, ILLINOIS
PROJECT NO. 60674381
AECOM
DRN. BY: gds July 2022
DSGN. BY: mr
CHKD. BY: bh
2Q22 Cross-Section of Benzene Groundwater Analytical Results–Chaffer Avenue
FIG. NO. 7

CROSS SECTION LINE - SOME FEATURES HAVE BEEN PROJECTED



KEYMAP
NOT TO SCALE

LEGEND

- STRATUM BOUNDARY ASSUMED
- FILL PROJECTED BETWEEN POINTS
- CLAY PROJECTED BETWEEN POINTS (INCLUDES SILTY CLAY AND SANDY CLAY)
- SAND PROJECTED BETWEEN POINTS (INCLUDES SILTY SAND AND CLAYEY SAND)
- SILT PROJECTED BETWEEN POINTS
- SHALE
- WELL SCREEN
- WATER LEVEL
- POTENTIOMETRIC SURFACE – ESTIMATED

VERTICAL SCALE 0 20 FEET

HORIZONTAL SCALE 0 100 FEET

NOTES:

1. GROUNDWATER BENZENE CONCENTRATIONS FROM THE 2Q22 SAMPLING EVENT ARE DEPICTED IN BLUE. VALUES DEPICTED IN ORANGE EXCEED BENZENE SCREENING CRITERION (0.005 mg/L).
2. GROUNDWATER ELEVATIONS SHOWN ON THIS CROSS-SECTION ARE BASED ON GROUNDWATER GAUGING DATA COLLECTED APRIL 4–6, 2022.
3. THIS GEOLOGIC CROSS-SECTION IS PRIMARILY BASED ON THE INTERPRETATION OF CPT DATA COLLECTED BY URS DURING THE 2006 AND 2009 INVESTIGATION ACTIVITIES. BORING LOGS DEVELOPED DURING OTHER DRILLING TECHNIQUES (E.G. AUGER AND GEOPROBE) WERE USED TO SUPPLEMENT CPT DATA.
4. THE DEPTH AND THICKNESS OF INDIVIDUAL STRATA DEPICTED MAY BE BASED ON CPT LOGS GENERATED AT NEARBY LOCATIONS. THEREFORE, WELL SCREENS MAY APPEAR TO BE PARTIALLY WITHIN CLAY LAYERS OR SHALLOWER/DEEPER WITHIN A PERMEABLE STRATUM THAN ACTUAL CONDITIONS DUE TO MAP PROJECTIONS.
5. LITHOLOGICAL INFORMATION FROM SVE-27 WAS OBTAINED FROM BORING LOG TO SUPPLEMENT SITE GEOLOGY ONLY.
6. HISTORIC BORING LOG IS NOT AVAILABLE FOR T-6.
7. ANALYTICAL REPORTING LIMITS ARE SHOWN FOR SAMPLES WITH NON-DETECT RESULTS (e.g. <0.001 mg/L).
8. MULTIPLE RESULTS (820 / 950) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60674381
AECOM	
DRN. BY:gds July 2022 DSGN. BY:mr CHKD. BY:bh	2Q22 Cross-Section of Benzene Groundwater Analytical Results–Roxana Public Works Yard
	FIG. NO. 8

File: C:\USERS\WORKSOMA\ACCOM\DOS GIS SERVICES - DOS MERCROS\SHELL\ILLINOIS\60674381 - 4900 S. CENTRAL AVE-ROXANA-IL\ROXANA 2022 GW MPT\WORKSPACE\20220803\FIGURE 8 1022 TYP X-SECT W_BENZENE GW ANAL RSLTS-HWY111-CHAFFER.DWG Last edited: Jun. 21, 22 @ 4:55 PM by: loretta

Appendix A

Regulatory History

Appendix A

Regulatory History

The Interim Groundwater Monitoring Program (Program) began in the 4th Quarter 2010 (4Q10), and the first report was submitted on January 14, 2011. On March 3, 2011, a conference call was held among representatives of Equilon Enterprises LLC d/b/a Shell Oil Products US (SOPUS), Illinois Environmental Protection Agency (IEPA), and URS Corporation (URS) to discuss the Program and IEPA's general comments on the 4Q10 report. Subsequent report modifications were incorporated during 1st Quarter 2011 (1Q11) and 2nd Quarter 2011 (2Q11). Additional items and comments regarding the Program were presented by IEPA on June 16, 2011 (IEPA, 2011a) and August 31, 2011 (IEPA, 2011b) letters. These items and comments were addressed in the 3rd Quarter 2011 (3Q11) and 4th Quarter 2011 (4Q11) reports.

In a March 14, 2012 letter (CA-24) from IEPA to SOPUS (IEPA, 2012a), IEPA requested groundwater piezometer ROST-3-PZ and groundwater monitoring well ROST-4-PZ(C) be added to the Program. These monitoring locations were added to the Program in 2nd Quarter 2012 (2Q12).

In a second letter (CA-25) dated March 14, 2012 from IEPA to SOPUS (IEPA, 2012b), IEPA requested that perched groundwater be evaluated at groundwater monitoring piezometers P-60-12S, P-60-13S, ROST-5-PZ, ROST-7-PZ, ROST-10-PZ, and ROST-21-PZ. These perched groundwater monitoring piezometers were incorporated into the Program beginning in 2Q12. In a letter dated August 16, 2013 (URS, 2013a), URS, on behalf of SOPUS, informed the IEPA of the determination that the perched groundwater monitoring piezometers are either dry, based on the criteria given in IEPA's March 14, 2012 letter, or not able to be sampled per the groundwater sampling standard operating procedure (SOP) due to slow recharge. The IEPA, during phone conversations, requested that certain piezometers remain in the Program. In response to this request, a letter dated January 14, 2014 was submitted to IEPA (URS, 2014a), stating that these piezometers will remain in the Program. A separate letter dated January 14, 2014 was submitted to the IEPA (URS, 2014b), requesting removal of ROST-5-PZ and ROST-10-PZ based on Condition 8(a) of the March 14, 2012 IEPA letter (CA-25), which states that ROST-5-PZ and ROST-10-PZ must remain within the Program for one year before the determination is made that these wells are dry. IEPA responded to the August 16, 2013 and both January 14, 2014 letters in a correspondence dated July 27, 2016 (IEPA, 2016a). In the July 27, 2016 letter, IEPA approved the request to abandon perched wells P-60-12S, P-60-13S, ROST-5-PZ, ROST-7-PZ, ROST-10-PZ, and ROST-21-PZ and remove them from the Program. Abandonment activities were conducted on September 15, 2016.

In the March 14, 2012 letter (CA-25), IEPA also requested the installation of groundwater monitoring wells in the Village of Roxana (Village) to evaluate potential light non-aqueous phase liquid (LNAPL). These groundwater monitoring wells (MW-16 through MW-22 and MW-24) were installed during 4th Quarter 2012 (4Q12) and incorporated into the Program beginning in 1st Quarter 2013 (1Q13).

On May 31, 2012, IEPA verbally requested the following be incorporated into the 2Q12 report:

- The ROST-4 series of groundwater monitoring wells and piezometers in the groundwater elevation contour maps;
- A groundwater contour map focusing on the West Fenceline area in the Village; and
- A Roxana site and WRR LNAPL map.

In an April 8, 2013 letter from IEPA to SOPUS (IEPA, 2013a), IEPA requested a discussion of irregular potentiometric contours in the ROST-4-PZ area and P-60 area wells. This response was submitted to the IEPA in a letter dated July 29, 2013 (URS, 2013b). In a letter dated July 27, 2016 (IEPA, 2016b), IEPA approved the July 29, 2013 letter with the following conditions and modifications:

– Address the potentiometric high in the northern portion of the Study Area, by submitting a proposal within 120 days, which at a minimum will include:
    - o A proposal to install nested wells that will track the area of the low-permeability zone.
    - o The nested wells must be adequate to verify groundwater quality, flow direction, and hydraulic gradient, and these wells should show that pumping overcomes potential radial flow.
- A text section must be added to the Program quarterly reports to provide a detailed discussion of the potentiometric surface in this area.

AECOM responded to the July 27, 2016 letter in a letter dated October 14, 2016 (AECOM, 2016c). A response to this letter is pending as of the date of this report.

In a July 18, 2013 letter from IEPA to SOPUS (IEPA, 2013b), IEPA approved a change in gauging frequencies for wells in the Program. The list of wells to be gauged on a weekly basis was reduced and a new list of wells to be gauged on a monthly basis was initiated. This letter also requested that any free-phase hydrocarbon (FPH) and photoionization detector (PID) data collected at the well heads be included in the quarterly groundwater monitoring reports. The modified gauging frequencies for wells began the week of July 22, 2013. The list of wells gauged during each routine event is reviewed on a regular basis and modified to meet the conditions requested by the IEPA. The additional reporting requirements were first incorporated in the 3rd Quarter 2013 (3Q13) report.

In a June 13, 2014 letter from IEPA to SOPUS (IEPA, 2014a), IEPA requested the installation of four groundwater monitoring wells in the Village to monitor the extent and effectiveness of corrective action efforts within the residential area. The access agreement with the Village was signed on August 12, 2014, and well installation began in September 2014 and was completed in October 2014. These groundwater monitoring wells (MW-25 through MW-28) were added to the Program in 4th Quarter 2014 (4Q14).

In an October 9, 2014 letter from IEPA to SOPUS (IEPA, 2014b), IEPA approved the installation plan for a groundwater monitoring well located on BP property with certain conditions and modifications. Well MW-23 was installed during January 2015 and was added to the Program in 1st Quarter 2015 (1Q15).

In a letter dated November 25, 2014 (IEPA, 2014c), IEPA approved the proposed plan for groundwater corrective action (submitted to IEPA on November 14, 2013 (URS, 2013c)), with the following conditions:

– The 1Q15 groundwater samples obtained from: (1) the current monitoring well network; (2) the four new wells required by the modified Resource Conservation and Recovery Act (RCRA) Hazardous Waste Management Post-Closure Permit (Permit) at the WRR, issued September 23, 2010 (modified December 20, 2019) (IEPA, 2010b); and (3) the new well required by the October 9, 2014, letter must be used in a demonstration to verify the extent of groundwater contamination has been delineated; or

– If SOPUS cannot define the extent of contamination, a proposal for additional investigation must be submitted.

On December 5, 2014, a letter was submitted to IEPA by URS (URS, 2014c), on behalf of SOPUS, requesting a reduction in the routine gauging performed as part of the Program. In a letter dated August 2, 2017 (IEPA, 2017), IEPA approved the December 5, 2014 request to reduce the frequency of routine gauging from weekly/monthly to quarterly with the following condition:

– Groundwater monitoring wells ROST-4-PZ(E) and ROST-4-PZ(G) must be added to the list of wells sampled quarterly for groundwater quality. These monitoring wells were added to the sampling portion of the Program in 4th Quarter 2017.

On April 16, 2015, AECOM, on behalf of SOPUS, submitted a demonstration to verify the extent of groundwater contamination has been delineated (AECOM, 2015). The demonstration is based on monitoring data from wells in the Roxana Program. Additional information was submitted to IEPA in a letter dated January 29, 2016 (AECOM, 2016a). In a letter dated February 23, 2016 (IEPA, 2016c), IEPA agreed with this determination and required a Groundwater Management Zone (GMZ) proposal be submitted within 90 days. The GMZ proposal was submitted by AECOM, on behalf of SOPUS, on May 19, 2016 (AECOM, 2016b). IEPA provided comments via email in October 2017; AECOM responded to IEPA comments on January 2, 2018 (AECOM, 2018a). Meetings with SOPUS, AECOM

and IEPA representatives were held on April 5, 2018 and July 19, 2018 in order to provide additional information regarding the proposed GMZ. On September 26, 2018, AECOM, on behalf of SOPUS, submitted *Groundwater Management Zone – Additional Information* to present information requested via email dated September 5, 2018 (AECOM, 2018b).

In a letter dated May 22, 2015, IEPA provided approval for the April 3, 2013, Groundwater Monitoring Well and Vapor Monitoring Point Installation Report (IEPA, 2015).

In a meeting on April 5, 2018, IEPA verbally requested that benzene concentration trend plots for selected monitoring wells be incorporated into Roxana Program quarterly reports. This information is discussed in **Section 3** of the Program quarterly report. These trend plots were first included with the 2nd Quarter 2018 (2Q18) monitoring report.

On October 25, 2019, IEPA approved the Roxana Groundwater Ordinance for use as an institutional control in accordance with Title 35 of the Illinois Administrative Code Part 742 (35 IAC 742) to restrict access to groundwater (IEPA, 2019).

SOPUS's current Resource Conservation and Recovery Act (RCRA) Permit at the WRR was issued by IEPA on September 23, 2010 and expired October 28, 2020 (IEPA, 2010b). A Permit renewal application was submitted to IEPA on April 29, 2020 in accordance with Condition VI(B)(6) of the Permit and a letter from IEPA dated November 6, 2019. A timely filing of the renewal application was made and, therefore the conditions of the Permit are stayed. On June 30, 2020, IEPA issued a Notice of Incompleteness letter after conducting a completeness review of the Permit renewal application (IEPA, 2020a); AECOM submitted the Permit Application Completeness Response to IEPA on September 4, 2020 (AECOM, 2020a). IEPA issued a letter on October 30, 2020 indicating they have determined the application to be complete (IEPA, 2020b).

On October 12, 2020, AECOM, on behalf of SOPUS, requested a Class 1* Permit Modification (AECOM, 2020b) in response to an IEPA issued letter dated December 20, 2019. The December 20, 2019 letter issued approval and comments related to several Hazardous Waste Management Post-Closure Permit (Permit) Modifications requests and included a modified Permit. The letter included a condition requesting the installation of a new B-level groundwater monitoring well to be added to the Roxana Interim Groundwater Monitoring Program to intercept potential groundwater contamination observed at P-93B. The October 12th AECOM response indicated the B-level impact observed in P-93B has been delineated to the west and, therefore the installation of a new groundwater monitoring well does not appear to be necessary at this time and as such is not proposed.

A conference call was held on June 24, 2021 and included representatives of IEPA, SOPUS and AECOM. The primary purpose of the call was to introduce new team members and have a high-level discussion of the Program.

During an October 14, 2021 conference call among representatives of IEPA, SOPUS and AECOM, a high-level technical discussion of the Program was presented, primarily focused on routine monitoring activities and to introduce the potential impact observed from the Buckeye pipeline release.

On January 31, 2022, the Public Works Yard (PWY) Steam Enhanced Extraction (SEE) Workplan was submitted for IEPA review and approval (AECOM, 2022a). This Workplan provided the final design as well as the plan and schedule for construction, operation, post-shutdown monitoring and decommissioning for the proposed SEE system at the Roxana PWY.

On March 18, 2022, AECOM, on behalf of Shell, submitted Additional Information Supplemental to the Proposed Groundwater Management Zone in response to phone conversations with IEPA in December 2021 through February 2022 (AECOM, 2022b).

Appendix B

Low Flow Groundwater Sampling Data Sheets

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/13/22 WEATHER: OVERCAST 70°

MONITORING WELL ID: MW-1 SAMPLE ID: MW1-ROX-041322

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 53.80 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 59.13 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.66 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 48.80 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 19.47 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
STABLE: (over 4 readings)					Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	0949	39.72	clear	none	16.9	0.72	1.004 mS/cm uS/cm	6.73	69.9	34.23
300	0956	39.72	↓	↓	16.8	0.56	1.011 mS/cm uS/cm	6.76	65.8	32.74
600	0954	39.72			16.9	0.48	1.012 mS/cm uS/cm	6.77	62.5	30.86
900	0958	↓			17.0	0.41	1.012 mS/cm uS/cm	6.78	60.1	28.41
1200	0953				17.1	0.37	1.013 mS/cm uS/cm	6.78	58.2	24.80
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM 4/13/22

Start Time: 0949 MM 4/13 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 0951 Average Purge Rate (mL/min): 300 Date Calibrated: 4/13/22

SAMPLING DATA

Sample Date: 4/13/22 Sample Time: 0955 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace [X] Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/14/22 WEATHER: clear 46°

MONITORING WELL ID: MW-2 SAMPLE ID: MW2-ROX-041422

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 54.87 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 60.20 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 41.25 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 49.87 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 100.4 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 18.95 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0907	41.23	Clear	Strong HC	15.7	0.58	1.015 mS/cm uS/cm	6.99	7.44	5.07
300	0908	41.23	1		15.9	0.47	1.019 mS/cm uS/cm	7.02	-11.11	4.55
600	0909	41.23			15.9	0.43	1.022 mS/cm uS/cm	7.04	-26.29	4.51
900	0910				16.0	0.37	1.021 mS/cm uS/cm	7.07	-42.28	4.36
1200	0911				16.1	0.35	1.023 mS/cm uS/cm	7.08	-54.11	4.22
1500	0912				16.0	0.32	1.022 mS/cm uS/cm	7.10	-65.74	4.25
1800	0913				16.1	0.29	1.022 mS/cm uS/cm	7.11	-77.00	4.28
2100	0914				16.2	0.27	1.022 mS/cm uS/cm	7.11	-85.67	4.44
2400	0915				16.2	0.25	1.023 mS/cm uS/cm	7.12	-94.37	4.42
2700	0916				16.3	0.24	1.019 mS/cm uS/cm	7.13	-103.35	4.42
3000	0917				16.3	0.22	1.022 mS/cm uS/cm	7.13	-104.37	4.55
3300	0918				16.2	0.20	1.022 mS/cm uS/cm	7.14	-115.88	4.53
3600	0919				16.3	0.19	1.021 mS/cm uS/cm	7.14	-123.16	4.60
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0907 Elapsed Time (min): 12 Water Quality Meter ID & SN: YSI ProDSS - 441624/42859

Stop Time: 0919 Average Purge Rate (mL/min): 300 Date Calibrated: 4/14/22

SAMPLING DATA

Sample Date: 4/14/22 Sample Time: 0925 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: EB, DUP

VOA Vials, No Headspace ☒ Initials: MM JW

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 3600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/12/22 WEATHER: Overcast 55°

MONITORING WELL ID: MW-3 SAMPLE ID: MW3-ROX-041222

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 39.67 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 45.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 27.00 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 34.67 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 18.00 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C) (STABLE: over 4 readings)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
0	0842	27.01	clear	none	15.8	0.78	1.468 mS/cm uS/cm	6.13	87.20	4.42
300	0843	27.01			16.1	0.55	1.481 mS/cm uS/cm	6.33	67.60	4.45
600	0844	27.01			16.2	0.44	1.489 mS/cm uS/cm	6.44	50.55	4.58
900	0845				16.3	0.38	1.494 mS/cm uS/cm	6.51	36.30	4.57 4.53 mm 4/12
1200	0846				16.3	0.32	1.496 mS/cm uS/cm	6.55	23.07	4.45 5.2 mm 4/12
1500	0847				16.4	0.29	1.495 mS/cm uS/cm	6.48	9.49	4.36 4.3 mm 4/12
1800	0848				16.5	0.26	1.497 mS/cm uS/cm	6.60	-3.40	4.80 30 mm 4/12
2100	0849				16.5	0.23	1.497 mS/cm uS/cm	6.63	-20.83	4.20
2400	0850				16.6	0.21	1.496 mS/cm uS/cm	6.64	-30.46	3.92
2700	0851				16.6	0.21	1.495 mS/cm uS/cm	6.66	-37.98	4.16
3000	0852				16.7	0.20	1.493 mS/cm uS/cm	6.66	-43.89	3.83
3300	0853				16.7	0.18	1.494 mS/cm uS/cm	6.68	-50.96	3.80
3600	0854				16.7	0.18	1.492 mS/cm uS/cm	6.69	-56.84	3.68
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Attended 4/12/22

Start Time: 0842 Elapsed Time (min): 12 Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 0854 Average Purge Rate (mL/min): 300 Date Calibrated: 4/12/22

SAMPLING DATA

Sample Date: 4/12/22 Sample Time: 0900 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace ☒ Initials: MM SN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 3600 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: J. Nichols / M. Massa

DATE: 4/19/22 WEATHER: Sunny / 39°

MONITORING WELL ID: MW-4 SAMPLE ID: MW4-RDX-041922

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 5006 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 55.39 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 38.27 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): N/E ft		
Depth to Top of Screen (btoc): 45.06 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 17.12 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0905	38.29	clear	slight	15.14	0.53	1.060 (mS/cm) uS/cm	6.41	130.14	12.87
300	0906	38.29	clear	slight	15.00	0.47	1.087 (mS/cm) uS/cm	6.45	122.13	16.68
600	~~0907~~ JN 0907	38.29	clear	slight	14.84	0.44	1.105 (mS/cm) uS/cm	6.49	114.72	15.92
900	0908	↓	↓	↓	15.11	0.41	1.117 (mS/cm) uS/cm	6.51	109.10	15.08
1200	0909				15.37	0.37	1.134 (mS/cm) uS/cm	6.53	103.15	15.23
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0905 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 24624/22859

Stop Time: 0909 Average Purge Rate (mL/min): 300 Date Calibrated: 4/19/22

SAMPLING DATA

Sample Date: 4/19/22 Sample Time: 0915 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: EB

VOA Vials, No Headspace ☑ Initials: JN / mm

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: M Massa JNichols

DATE: 4/13/22 WEATHER: partly cloudy 70°

MONITORING WELL ID: MW-5 SAMPLE ID: MW5-ROX-041322

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 38.97 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 44.30 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 26.43 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 33.97 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 17.87 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0813	26.57	clear	none	17.4	0.68	1.127 mS/cm uS/cm	6.50	104.5	4.167
300	0814	26.57			17.5	0.52	1.131 mS/cm uS/cm	6.55	92.0	4.496
600	0815	26.57			17.6	0.41	1.131 mS/cm uS/cm	6.59	79.2	5.142
900	0816				17.6	0.37	1.131 mS/cm uS/cm	6.61	70.3	5.258
1200	0817				17.6 7min	0.34	1.131 mS/cm uS/cm	6.62	62.6	5.322
1500	0818				17.7	0.31	1.131 mS/cm uS/cm	6.64	52.5	5.491
1800	0819				17.7	0.30	1.131 mS/cm uS/cm	6.65	48.0	5.10
2100	0820				17.8	0.29	1.132 mS/cm uS/cm	6.66	40.6	5.216
2400	0821				17.8	0.28	1.134 mS/cm uS/cm	6.67	35.7	5.216
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4/13/22

Start Time: 0813 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS -- 44624/42859

Stop Time: 0821 Average Purge Rate (mL/min): 300 Date Calibrated: 4/13/22

SAMPLING DATA

Sample Date: 4/13/22 Sample Time: 0825 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace [X] Initials: mm JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: J. Nichols / B. Howell

DATE: 041122 WEATHER: Light Rain

MONITORING WELL ID: MW-6A SAMPLE ID: MW 6A - ROX - 041122

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 38.85 ft btoc	Volume of Flow Through Cell : 320* mL	
Total Well Depth (btoc): 44.18 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 28.76 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft			
Depth to Top of Screen (btoc): 33.85 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 15.42 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1040	28.80	cloudy	none	17.10	1.04	1.085 mS/cm uS/cm	6.47	-22.62	138.15
3600	1050	29.80	cloudy	none	18.04	0.26	1.165 mS/cm uS/cm	6.49	-52.99	155.06
4500	1055	28.90	cloudy	none	18.25	0.23	1.172 mS/cm uS/cm	6.50	-60.10	75.70
6000	1100	↓	clear	↓	18.35	0.18	1.183 mS/cm uS/cm	6.51	-65.07	40.72
6300	1101		↓		18.31	0.17	1.186 mS/cm uS/cm	6.51	-65.99	37.20
6600	1102				18.33	0.16	1.186 mS/cm uS/cm	6.51	-66.78	32.85
6900	1103				18.20	0.15	1.187 mS/cm uS/cm	6.51	-67.65	28.99
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1040 Elapsed Time (min): 23 Water Quality Meter ID & SN: YSI ProDSS - 4FL24/42859

Stop Time: 1103 Average Purge Rate (mL/min): 300 Date Calibrated: 4/11/22

SAMPLING DATA

Sample Date: 041122 Sample Time: 1105 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: MS/MSD

VOA Vials, No Headspace ☑ Initials: BH JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 6900 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: J. Nichols / B. Howell

DATE: 041122 WEATHER: Light Rain

MONITORING WELL ID: MW-6B SAMPLE ID: MW6B-ROX-041122

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 66.55 ft btoc	Volume of Flow Through Cell: 320* mL	
Total Well Depth (btoc): 69.38 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 28.83 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft		Wellbore PID/FID Reading: 0.0 ppm	
Depth to Top of Screen (btoc): 64.05 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc		
Screen Length: 5 ft			
Water Column Height (not including NAPL): 40.55 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1142	28.84	clear	none	17.17	1.83	0.781 mS/cm uS/cm	7.09	-24.14	12.31
300	1143	28.84	clear	none	17.27	1.02	0.808 mS/cm uS/cm	7.06	-34.90	10.85
600	1144	28.84	clear	none	17.32	0.67	0.819 mS/cm uS/cm	7.05	-43.46	10.53
900	1145	↓	↓	↓	17.40	0.54	0.823 mS/cm uS/cm	7.05	-49.09	10.32
1200	1146				17.46	0.47	0.827 mS/cm uS/cm	7.05	-53.84	9.12
1500	1147				17.52	0.41	0.829 mS/cm uS/cm	7.05	-58.20	8.19
1800	1148				17.58	0.37	0.832 mS/cm uS/cm	7.05	-61.84	7.90
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1142 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 19624 / 12859

Stop Time: 1148 Average Purge Rate (mL/min): 300 Date Calibrated: 041122

SAMPLING DATA

Sample Date: 041122 Sample Time: 1155 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: none

VOA Vials, No Headspace ☑ Initials: B.H / J.N.

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: J. Nichols / B. Howell

DATE: 041122 WEATHER: Light Rain

MONITORING WELL ID: MW-6C SAMPLE ID: MW6C-ROX-041122

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 87.45 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 90.28 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 28.60 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 84.95 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 61.68 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.		pH	ORP (mV)	Turb (NTU)
0	1224	28.62	clear	none	17.51	1.73	0.702	mS/cm uS/cm	7.04	-12.55	6.26
300	1225	28.62	clear	none	17.38	0.77	0.730	mS/cm uS/cm	7.04	-27.56	5.87
600	1226	28.62	clear	none	17.24	0.63	0.739	mS/cm uS/cm	7.05	-36.13	4.87
900	1227	↓	↓	↓	17.18	0.54	0.745	mS/cm uS/cm	7.06	-45.09	4.19
1200	1229				17.14	0.48	0.756	mS/cm uS/cm	7.07	-53.11	3.72
1500	1229				17.24	0.43	0.755	mS/cm uS/cm	7.07	-59.76	3.38
1800	1230				17.26	0.42	0.760	mS/cm uS/cm	7.08	-65.44	3.11
2100	1231				17.23	0.37	0.761	mS/cm uS/cm	7.08	-70.81	3.11
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			

Start Time: 1125 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 4K624/42859

Stop Time: 1231 Average Purge Rate (mL/min): 300 Date Calibrated: 4/11/22

SAMPLING DATA

Sample Date: 4/11/22 Sample Time: 1235 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace ☑ Initials: JN / BH

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: Jamell Nichols / B. Howell

DATE: 04/11/22 | WEATHER: Light rain

MONITORING WELL ID: MW-6D | SAMPLE ID: MW6D-ROX-041122

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 107.22 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 110.05 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 28.47 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 104.72 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 81.58 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) — Monitor Temp. — +/-0.2 mg/L or +/-10% — +/-5% or +/-2 uS/cm — +/-0.2 mg/L — +/-20 mV — Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0945	28.47	clear	none	16.94	0.61	1.235 mS/cm uS/cm	6.68	57.70	40.67
300	0946	28.47			17.04	0.46	1.259 mS/cm uS/cm	6.75	35.57	36.00
600	0947	28.47			17.06	0.41	1.261 mS/cm uS/cm	6.78	22.53	34.04
900	0948				17.14	0.36	1.278 mS/cm uS/cm	6.80	9.02	28.62
1200	0949				17.13	0.33	1.288 mS/cm uS/cm	6.82	-8.37	24.59
1500	0950				17.14	0.31	1.284 mS/cm uS/cm	6.74	-18.47	22.35
1800	0951				17.24	0.28	1.299 mS/cm uS/cm	6.85	-28.41	20.20
2100	0952				17.25	0.25	1.304 mS/cm uS/cm	6.87	-37.11	16.70
2400	0953				17.26	0.23	1.307 mS/cm uS/cm	6.87	-44.05	14.78
2700	0954				17.31	0.21	1.310 mS/cm uS/cm	6.88	-50.68	13.88
3000	0955				17.37	0.20	1.312 mS/cm uS/cm	6.89	-57.08	11.35
3300	0956				17.35	0.19	1.314 mS/cm uS/cm	6.90	-62.08	10.87
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0945 | Elapsed Time (min): 11 | Water Quality Meter ID & SN: YSI ProDSS - 19624/12859

Stop Time: 0956 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/11/22

SAMPLING DATA

Sample Date: 041122 | Sample Time: 1000 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QC Samples: NONE

VOA Vials, No Headspace ☒ Initials: BH JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 3300 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: J. Nichols / M. Massa

DATE: 4/19/22 WEATHER: clear / 48°

MONITORING WELL ID: MW-7 SAMPLE ID: MW7 - ROX - 041922

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 47.92 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 52.92 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.28 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 42.92 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.1 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 12.64 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1153	40.31	clear	strong	16.77	6.65	1.498 mS/cm uS/cm	6.84	35.32	3.85
300	1154	40.31	clear	strong	17.11	0.45	1.509 mS/cm uS/cm	6.83	28.49	4.01
600	1155	40.31	clear	strong	17.27	0.37	1.506 mS/cm uS/cm	6.81	24.91	4.30
900	1156	↓	↓	↓	17.36	0.32	1.500 mS/cm uS/cm	6.79	21.83	4.64
1200	1157				17.45	0.30	1.484 mS/cm uS/cm	6.78	18.86	4.85
1500	1158				17.65	0.27	1.469 mS/cm uS/cm	6.78	15.97	5.16
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1153 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 44624/428569

Stop Time: 1158 Average Purge Rate (mL/min): 300 Date Calibrated: 4/19/22

SAMPLING DATA

Sample Date: 4/19/22 Sample Time: 1205 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: DUP

VOA Vials, No Headspace ☑ Initials: JN / mm

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1560 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: J. Nichols / M. Massa

DATE: 4/19/22 | WEATHER: Sunny / 42°

MONITORING WELL ID: MW-8 | SAMPLE ID: MW-RDX-041922

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 38.60 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 43.60 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 31.12 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ~~~ ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): ft		
Depth to Top of Screen (btoc): 33.60 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ~~~ ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 12.48 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ~~~ ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ~~~ ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) — Monitor Temp. — +/-0.2 mg/L or +/-10% — +/-5% or +/-2 uS/cm — +/-0.2 mg/L — +/-20 mV — Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1048	31.18	slight cloudy	strong	16.51	0.49	1.447 mS/cm uS/cm	6.83	28.16	16.61
300	1049	31.18	↓	↓	16.53	0.45	1.447 mS/cm uS/cm	6.83	25.15	16.16
600	1050	31.18	↓	↓	16.54	0.39	1.445 mS/cm uS/cm	6.82	19.86	15.49
900	1051	↓	↓	↓	16.74	0.33	1.428 mS/cm uS/cm	6.81	13.74	13.83
1200	1052	↓	clear	↓	16.88	0.29	1.419 mS/cm uS/cm	6.81	7.53	12.99
1500	1053	↓	clear	↓	16.77	0.26	1.408 mS/cm uS/cm	6.80	2.98	11.55
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1048 | Elapsed Time (min): 5 | Water Quality Meter ID & SN: YSI ProDSS -- 44624/42859

Stop Time: 1053 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/19/22

SAMPLING DATA

Sample Date: 4/19/22 | Sample Time: 1100 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QC Samples: none

VOA Vials, No Headspace ☑ Initials: JN / MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/7/22 WEATHER: Mostly cloudy 50°

MONITORING WELL ID: MW-9 SAMPLE ID: MW9-ROX-040722

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 51.04 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 56.37 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 41.43 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 46.04 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.01 4/7 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 14.94 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1028	41.43	clear	none	15.5	4.86	1.331 mS/cm uS/cm	6.46	104.56	9.63
300	1029	41.43			15.4	4.18	1.319 mS/cm uS/cm	6.54	99.64	9.09
600	1030	41.43			15.6	4.05	1.317 mS/cm uS/cm	6.55	98.43	8.01
900	1031				15.6	3.86	1.317 mS/cm uS/cm	6.57	96.79	9.09
1200	1032				15.9	3.60	1.307 mS/cm uS/cm	6.60	94.27	8.45
1500	1033				16.0	3.35	1.303 mS/cm uS/cm	6.62	91.92	8.57
1800	1034				15.9	3.29	1.304 mS/cm uS/cm	6.65	91.42	8.82
2100	1035				15.8	3.22	1.303 mS/cm uS/cm	6.64	90.62	15.09
2400	1036				16.2	3.06	1.289 mS/cm uS/cm	6.66	88.66	13.86
2700	1037				16.1	2.94	1.288 mS/cm uS/cm	6.67	89.67	14.54
3000	1038				17.1	2.85	1.285 mS/cm uS/cm	6.68	86.59	15.71
3300	1039				17.1	2.77	1.292 mS/cm uS/cm	6.68	85.99	16.16
3600	1040				17.2	2.66	1.293 mS/cm uS/cm	6.69	85.47	18.58
3900	1041				17.2	2.62	1.297 mS/cm uS/cm	6.69	85.30	18.57
4200	1042				17.3	2.57	1.300 mS/cm uS/cm	6.70	84.94	18.85
							mS/cm uS/cm			

4/7/22

Start Time: 1028 Elapsed Time (min): 14 Water Quality Meter ID & SN: YSI ProDSS -- 04A151/449560

Stop Time: 1042 Average Purge Rate (mL/min): 300 Date Calibrated: 4/7/22

SAMPLING DATA

Sample Date: 4/7/22 Sample Time: 1050 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 306 QA/QC Samples: EB

VOA Vials, No Headspace ☒ Initials: MMA JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 4200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: MMassa JNichols

DATE: 4/14/22 | WEATHER: CLEAR 59°

MONITORING WELL ID: MW-10 | SAMPLE ID: MW10-ROX-041422

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 49.43 ft btoc
Total Well Depth (btoc): 54.76 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
Depth to Water (btoc): 41.39 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
Depth to Top of Screen (btoc): 44.43 ft	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 13.37 ft	

Volume of Flow Through Cell : 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1336	41.41	cloudy brown	none	16.7	1.30	1.551 mS/cm uS/cm	7.20	-68.89	88.36
300	1337	41.41			16.9	0.56	1.556 mS/cm uS/cm	7.08	-78.03	86.61
600	1338	41.41			17.2	2.89	1.552 mS/cm uS/cm	7.08	-68.95	88.75
900	1339				17.1	0.39	1.544 mS/cm uS/cm	7.01	-74.53	171.72
1200	1340				17.2	0.47	1.519 mS/cm uS/cm	6.98	-77.99	131.59
1500	1341				17.2	0.38	1.508 mS/cm uS/cm	6.98	-79.36	96.70
1800	1342				17.3	0.32	1.503 mS/cm uS/cm	6.97	-80.60	69.21
2100	1343				17.3	0.29	1.500 mS/cm uS/cm	6.97	-81.52	54.89
2400	1344		clear		17.2	0.26	1.495 mS/cm uS/cm	6.96	-82.59	45.39
2700	1345				17.2	0.24	1.494 mS/cm uS/cm	6.96	-83.61	37.25
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

L Massa 4/14/22

Start Time: 1336 | Elapsed Time (min): 9 | Water Quality Meter ID & SN: YSI ProDSS -- 4462A/42859

Stop Time: 1345 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/14/22

SAMPLING DATA

Sample Date: 4/14/22 | Sample Time: 1350 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QC Samples: EB

VOA Vials, No Headspace ☒ Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: Melissa JNichols

DATE: 4/7/22 WEATHER: Mostly cloudy, 50°

MONITORING WELL ID: MW-11 SAMPLE ID: MW11-ROX-040722

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 46.66 ft btoc	Volume of Flow Through Cell : 320* mL	
Total Well Depth (btoc): 51.99 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 39.09 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft		Wellbore PID/FID Reading: 0.0 ppm	
Depth to Top of Screen (btoc): 41.66 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc		
Screen Length: 10 ft			
Water Column Height (not including NAPL): 12.90 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
STABLE: (over 4 readings)					Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1236	39.09	clear	none	16.0	4.95	1.429 mS/cm uS/cm	6.84	83.86	15.01
300	1237	39.09			16.2	4.40	1.493 mS/cm uS/cm	6.83	82.52	13.19
600	1238	39.09			16.3	4.00	1.497 mS/cm uS/cm	6.82	81.96	13.52
900	1239				16.4	3.76	1.498 mS/cm uS/cm	6.82	81.39	12.79
1200	1240				16.4	3.48	1.498 mS/cm uS/cm	6.82	80.71	11.90
1500	1241				16.3	3.30	1.499 mS/cm uS/cm	6.82	80.28	4.91
1800	1242				16.4	3.05	1.496 mS/cm uS/cm	6.83	79.99	8.94
2100	1243				16.4	2.98	1.498 mS/cm uS/cm	6.83	79.23	8.13
2400	1244				16.4	2.89	1.496 mS/cm uS/cm	6.83	78.88	7.98
2700	1245				16.4	2.83	1.496 mS/cm uS/cm	6.83	78.66	7.61
3000	1246				16.4	2.77	1.496 mS/cm uS/cm	6.83	78.44	7.65
3300	1247				16.4	2.69	1.492 mS/cm uS/cm	6.83	78.04	6.97
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Melissa 4/7/22

Start Time: 1236 Elapsed Time (min): 11 Water Quality Meter ID & SN: YSI ProDSS - 044151/44956

Stop Time: 1247 Average Purge Rate (mL/min): 300 Date Calibrated: 4/7/22

SAMPLING DATA

Sample Date: 4/7/22 Sample Time: 1250 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace [X] Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 4300 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: MMassa JNichols

DATE: 4/12/22 | WEATHER: OVERCAST 65°

MONITORING WELL ID: MW-12 | SAMPLE ID: MW12-ROX-041222

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 46.92 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 52.25 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.52 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		Wellbore PID/FID Reading: 42.0 4/12 ppm
Depth to Top of Screen (btoc): 41.92 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	
Screen Length: 10 ft		
Water Column Height (not including NAPL): 12.73 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

	STABLE: (over 4 readings)		+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm		+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1309	39.52	clear	none	16.6	0.58	0.907 mS/cm uS/cm	7.03	12.23	6.33
300	1310	39.52			16.7	0.49	0.908 mS/cm uS/cm	7.00	8.49	6.34
600	1311	39.52			16.8	0.41	0.909 mS/cm uS/cm	6.98	5.29	6.99
900	1312				16.9	0.37	0.911 mS/cm uS/cm	6.97	4.02	7.24
1200	1313				16.9	0.33	0.912 mS/cm uS/cm	6.96	2.67	7.53
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4/12/22

Start Time: 1309 | Elapsed Time (min): 4 | Water Quality Meter ID & SN: YSI ProDSS - 44624/12859

Stop Time: 1313 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/12/22

SAMPLING DATA

Sample Date: 4/12/22 | Sample Time: 1315 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QC Samples: NONE

VOA Vials, No Headspace ☒ Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/14/22 WEATHER: clear 52°

MONITORING WELL ID: MW-13 SAMPLE ID: MW13-ROX-041422

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc
Total Well Depth (btoc): 35.05 ft	
Depth to Water (btoc): 26.66 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 30.855 ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 24.80 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 8.39 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc

Volume of Flow Through Cell: 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1029	26.66	cloudy brown	none	18.5	1.26	1.227 ~~mS/cm~~ uS/cm	6.44	9.73	113.33
300	1030	26.66			18.8	0.43	1.228 ~~mS/cm~~ uS/cm	6.41	1.32	86.09
600	1031	26.66			19.0	0.34	1.226 ~~mS/cm~~ uS/cm	6.41	-3.91	66.20
900	1032				18.9	0.29	1.225 ~~mS/cm~~ uS/cm	6.41	-7.88	54.05
1200	1033		slightly cloudy		18.9	0.24	1.232 ~~mS/cm~~ uS/cm	6.41	-12.46	44.61
1500	1034		clear		19.0	0.22	1.234 ~~mS/cm~~ uS/cm	6.41	-16.36	40.80
1800	1035				19.1	0.20	1.232 ~~mS/cm~~ uS/cm	6.41	-19.73	32.48
							~~mS/cm~~ uS/cm			
							~~mS/cm~~ uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4/14/22

STABLE: (over 4 readings) Monitor Temp. +/-0.2 mg/L or +/-10% +/-5% or +/-2 uS/cm +/-0.2 mg/L +/-20 mV Monitor Turb Readings (<50)

Start Time: 1029 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 1035 Average Purge Rate (mL/min): 300 Date Calibrated: 4/14/22

SAMPLING DATA

Sample Date: 4/14/22 Sample Time: 1040 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace ☒ Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/8/22 WEATHER: Flurries 37°

MONITORING WELL ID: MW-14 SAMPLE ID: MW14-ROX-040822

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 38.42 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 44.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 30.92 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 33.42 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 74.9 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 13.08 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C) (STABLE: over 4 readings; Monitor Temp.)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
0	0957	30.94	clear	Slight HC	15.1	0.29	1.217 mS/cm uS/cm	6.58	-2.94	51.57
400	0958	30.94	↓	↓	15.1	0.23	1.221 mS/cm uS/cm	6.60	-20.08	44.51
600	0959	30.94			15.2	0.23	1.223 mS/cm uS/cm	6.60	-22.69	43.65
900	1000				15.3	0.21	1.225 mS/cm uS/cm	6.61	-26.59	42.16
1200	1001	↓			15.5	0.19	1.225 mS/cm uS/cm	6.62	-33.82	37.70
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMassa 4/8/22

Start Time: 0957 Elapsed Time (min): 64 Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 1001 Average Purge Rate (mL/min): 300 Date Calibrated: 4/8/22

SAMPLING DATA

Sample Date: 4/8/22 Sample Time: 1005 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: MS/MSD

VOA Vials, No Headspace ☒ Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMasca JNichols

DATE: 4/12/22 WEATHER: OVERCAST 57°

MONITORING WELL ID: MW-16 SAMPLE ID: MW16-ROX-04122

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 47.75 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.72 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.24 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 37.50 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 7.02 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0933	39.76	clear	none	15.8	0.60	0.898 mS/cm uS/cm	6.72	15.56	11.04
300	0934	39.76	↓	↓	15.9	0.51	0.899 mS/cm uS/cm	6.72	15.40	10.67
600	0935	39.76	↓	↓	16.1	0.43	0.899 mS/cm uS/cm	6.72	15.11	9.24
900	0936	↓	↓	↓	16.1	0.42	0.899 mS/cm uS/cm	6.72	14.87	9.06
1200	0937	↓	↓	↓	16.2	0.39	0.899 mS/cm uS/cm	6.72	14.36	8.48
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MW16-ROX-04122 4/12/22

Start Time: 0933 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 0937 Average Purge Rate (mL/min): 300 Date Calibrated: 4/12/22

SAMPLING DATA

Sample Date: 4/12/22 Sample Time: 0940 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: MS/MSD

VOA Vials, No Headspace ☒, Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: MMassa JNichols

DATE: 4/15/22 | WEATHER: party cloudy 57°

MONITORING WELL ID: MW-22 | SAMPLE ID: MW22-ROX-041522

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc
Total Well Depth (btoc): 48.68 ft	
Depth to Water (btoc): 39.45 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.065 ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 38.43 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 9.23 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc

Volume of Flow Through Cell : 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
STABLE: (over 4 readings)					Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	0945	39.46	clear	none	16.9	0.70	1.216 mS/cm uS/cm	7.02	50.83	9.93
300	0946	39.46			17.0	0.55	1.215 mS/cm uS/cm	7.00	42.18	9.15
600	0947	39.46			17.1	0.48	1.212 mS/cm uS/cm	6.99	34.71	7.44
900	0948	↓	↓	↓	17.4	0.38	1.205 mS/cm uS/cm	6.98	22.69	6.55
1200	0949				17.5	0.34	1.202 mS/cm uS/cm	6.97	16.25	5.78
1500	0950				17.6	0.31	1.197 mS/cm uS/cm	6.97	9.35	5.22
1800	0951				17.6	0.29	1.194 mS/cm uS/cm	6.97	3.12	4.68
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMassa 4/15/22

Start Time: 0945 | Elapsed Time (min): 6 | Water Quality Meter ID & SN: YSI ProDSS -- 44624/42859

Stop Time: 0951 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/15/22

SAMPLING DATA

Sample Date: 4/15/22 | Sample Time: 0955 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QC Samples: None

VOA Vials, No Headspace ☒ | Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/12/22 WEATHER: OVERCAST 65°

MONITORING WELL ID: MW-23 SAMPLE ID: MW23 - ROX - 041222

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 34.02 ft btoc
Total Well Depth (btoc): 39.27 ft	
Depth to Water (btoc): 27.98 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 29.02 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 12.71 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc

Volume of Flow Through Cell: 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 2.2 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1224	28.02	clear	none	16.9	0.64	0.962 mS/cm uS/cm	6.65	4.19	14.76
300	1225	28.02			16.9	0.46	0.961 mS/cm uS/cm	6.64	-5.56	13.26
600	1226	28.02			17.0	0.39	0.961 mS/cm uS/cm	6.63	-9.70	13.89
900	1227				17.1	0.35	0.961 mS/cm uS/cm	6.62	-14.08	15.70
1200	1228				17.2	0.31	0.960 mS/cm uS/cm	6.62	-18.15	16.07
1500	1229				17.3	0.27	0.959 mS/cm uS/cm	6.62	-22.28	16.34
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4/12/22

Start Time: 1224 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 1229 Average Purge Rate (mL/min): 300 Date Calibrated: 4/12/22

SAMPLING DATA

Sample Date: 4/12/22 Sample Time: 1235 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: NONE

VOA Vials, No Headspace [X] Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: MMassa JNichols

DATE: 4/7/22 | WEATHER: Mostly cloudy 58°

MONITORING WELL ID: MW-24 | SAMPLE ID: MW24-Rox-040722

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc
Total Well Depth (btoc): 49.86 ft	
Depth to Water (btoc): 40.38 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.35 ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 39.61 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 9.48 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc

Volume of Flow Through Cell: 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1405	40.41	clear	none	16.6	5.91	1.602 mS/cm uS/cm	7.16	85.03	8.06
300	1406	40.41			16.9	5.13	1.6062 mS/cm uS/cm	7.09	85.89	7.92
600	1407	40.41			17.0	4.65	1.6077 mS/cm uS/cm	7.06	86.44	8.40
900	1408				17.2	4.25	1.606 mS/cm uS/cm	7.04	87.01	8.67
1200	1409				17.4	3.96	1.610 mS/cm uS/cm	7.05	87.40	8.62
1500	1410				17.3	3.73	1.613 mS/cm uS/cm	7.02	87.81	9.09
1800	1411				17.4	3.54	1.6173 mS/cm uS/cm	7.02	88.09	10.43
2100	1412				17.3	3.36	1.614 mS/cm uS/cm	7.02	88.40	10.19
2400	1413				17.5	3.21	1.6194 mS/cm uS/cm	7.02	88.56	10.01
2700	1414				17.5	3.09	1.6209 mS/cm uS/cm	7.02	88.57	9.87
3000	1415				17.5	3.02	1.620 mS/cm uS/cm	7.01	88.59	10.20
3300	1416				17.5	2.92	1.6274 mS/cm uS/cm	7.01	88.48	9.81
3600	1417				17.5	2.86	1.6261 mS/cm uS/cm	7.01	88.35	9.47
3900	1418				17.5	2.77	1.6276 mS/cm uS/cm	7.01	88.09	9.77
4200	1419				17.6	2.70	1.633 mS/cm uS/cm	7.00	87.89	10.15
4500	1420	↓	↓	↓	17.5	2.66	1.636 mS/cm uS/cm	7.00	87.73	10.06

Start Time: 1405 | Elapsed Time (min): 15 | Water Quality Meter ID & SN: YSI ProDSS - 04A151/449S6

Stop Time: 1420 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/7/22

SAMPLING DATA

Sample Date: 4/7/22 | Sample Time: 1425 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QC Samples: None

VOA Vials, No Headspace ☒ Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 4500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW **PROJECT NUMBER:** 60674381 - 3.2.1/2/3 **FIELD PERSONNEL:** J. Nichols / M. Massa

DATE: 4/19/22 **WEATHER:** Sunny / 40°

MONITORING WELL ID: MW-25 **SAMPLE ID:** MW25-ROX-041922

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: JN 40.59 ft btoc
Total Well Depth (btoc): 45.84 ft	
Depth to Water (btoc): ~~35.40~~ 35.40 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ~~42.12~~ JN ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 35.59 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 10.44 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc

Volume of Flow Through Cell: 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 152.4 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
		STABLE: (over 4 readings)			Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1000	35.40	cloudy	moderate	16.99	0.22	1.218 mS/cm uS/cm	6.79	51.69	93.13
300	1001	35.40	cloudy	moderate	17.16	0.20	1.218 mS/cm uS/cm	6.80	46.80	83.01
600	1002	35.40	↓	↓	17.03	0.20	1.218 mS/cm uS/cm	6.80	41.70	74.16
900	1003	↓	↓	↓	17.15	0.19	1.220 mS/cm uS/cm	6.81	37.37	66.32
1200	1004	↓	↓	↓	17.20	0.19	1.217 mS/cm uS/cm	6.81	33.15	58.92
1500	1005	↓	clearer	↓	17.25	0.18	1.220 mS/cm uS/cm	6.81	29.11	52.43
1800	1006	↓	↓	↓	17.23	0.17	1.217 mS/cm uS/cm	6.81	25.30	47.53
2100	1007	↓	↓	↓	17.46	0.17	1.216 mS/cm uS/cm	6.81	21.78	42.27
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1000 **Elapsed Time (min):** 7 **Water Quality Meter ID & SN:** YSI ProDSS - 44624/42859

Stop Time: 1007 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 4/19/22

SAMPLING DATA

Sample Date: 4/19/22 **Sample Time:** 100 **Lab Analysis:** VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow **Sample Flow Rate (mL/min):** 300 **QA/QC Samples:** none

VOA Vials, No Headspace ☑ **Initials:** JN / MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: J. Nichols / B. Howell

DATE: 4/11/22 WEATHER: Light Rain

MONITORING WELL ID: MW-26 SAMPLE ID: MW26-ROX-04[illegible]22

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL	
Total Well Depth (btoc): 48.40 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 38.18 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 43.29 ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft			
Depth to Top of Screen (btoc): 38.15 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 10.22 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1400	38.20	clear	none	15.63	2.04	1.551 mS/cm uS/cm	6.91	34.89	32.19
300	1401	38.20	clear	none	16.21	0.91	1.577 mS/cm uS/cm	6.83	29.28	28.20
600	1402	38.20	clear	none	16.59	0.59	1.579 mS/cm uS/cm	6.80	25.71	25.91
900	1403	↓	↓	↓	16.79	0.50	1.579 mS/cm uS/cm	6.78	23.19	25.91
1200	1404				16.83	0.45	1.579 mS/cm uS/cm	6.77	21.10	24.56
1500	1405				~~16.93~~ 16.83	0.40	1.579 mS/cm uS/cm	6.76	19.46	23.63
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1400 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 19624 / 428859

Stop Time: 1405 Average Purge Rate (mL/min): 300 Date Calibrated: 4/11/22

SAMPLING DATA

Sample Date: 4/11/22 Sample Time: 1410 Lab Analysis: VOC, SVOC, PAH ~~19624/428859~~ JN

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: none

VOA Vials, No Headspace ☑ Initials: JN / BH

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: MMASSA JNichols

DATE: 4/8/22 | WEATHER: flurries 39°

MONITORING WELL ID: MW-27 | SAMPLE ID: MW27-ROX-040822

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 44.79 ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 50.04 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.47 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 39.79 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 10.57 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color (STABLE: over 4 readings)	Odor	Temp (°C) (Monitor Temp.)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
0	1147	39.91	clear	none	14.6	1.60	0.918 mS/cm uS/cm	6.99	24.59	54.15
300	1148	39.91			14.5	1.36	0.920 mS/cm uS/cm	6.95	25.85	44.23
600	1149	39.91			14.9	1.26	0.918 mS/cm uS/cm	6.92	26.87	35.37
900	1150	↓	↓	↓	15.0	1.16	0.924 mS/cm uS/cm	6.90	27.44	29.74
1200	1151				15.0	1.09	0.922 mS/cm uS/cm	6.89	27.58	23.23
1500	1152				15.2	0.99	0.928 mS/cm uS/cm	6.88	27.66	27.98
1800	1153				15.2	0.90	0.931 mS/cm uS/cm	6.88	27.18	22.21
2100	1154				15.3	0.85	0.931 mS/cm uS/cm	6.87	26.42	17.39
2400	1155				15.2	0.79	0.933 mS/cm uS/cm	6.87	25.59	14.71
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMassa 4/8/22

Start Time: 1147 | Elapsed Time (min): 8 | Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 1155 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/8/22

SAMPLING DATA

Sample Date: 4/8/22 | Sample Time: 1200 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QC Samples: NONE

VOA Vials, No Headspace [X], Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: mmassa JNichols

DATE: 4/12/22 WEATHER: mostly cloudy 70°

MONITORING WELL ID: MW-28 SAMPLE ID: MW28-ROX-041322

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc
Total Well Depth (btoc): 43.86 ft	
Depth to Water (btoc): 38.34 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 41.10 ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 33.61 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 5.52 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc

Volume of Flow Through Cell : 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
			STABLE: (over 4 readings)		Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	0858	38.39	clear	Slight HC	16.8	0.60	1.121 mS/cm uS/cm	6.65	53.9	21.13
300	0859	38.35	↓	↓	17.0	0.46	1.125 mS/cm uS/cm	6.64	53.4	25.46
600	0900	38.38	↓	↓	17.2	0.35	1.128 mS/cm uS/cm	6.64	51.8	20.99
900	0901	↓	↓	↓	17.3	0.32	1.129 mS/cm uS/cm	6.64	51.0	22.15
1200	0902	↓	↓	↓	17.3	0.29	1.130 mS/cm uS/cm	6.65	49.5	15.93
1500	0903	↓	↓	↓	17.3	0.28	1.129 mS/cm uS/cm	6.65	48.4	20.21
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4/13/22

Start Time: 0858 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS - 44624/428501

Stop Time: 0903 Average Purge Rate (mL/min): 300 Date Calibrated: 4/13/22

SAMPLING DATA

Sample Date: 4/13/22 Sample Time: 0905 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace [X] Initials: MMN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/8/22 WEATHER: Mostly cloudy 41°

MONITORING WELL ID: P-54 SAMPLE ID: P54-ROX-040822

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc
Total Well Depth (btoc): 63.00 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
Depth to Water (btoc): 39.15 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): 44.15 ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
Depth to Top of Screen (btoc): 38.00 ft	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc
Screen Length: 25 ft	
Water Column Height (not including NAPL): 23.85 ft	

Volume of Flow Through Cell: 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color (STABLE: over 4 readings)	Odor	Temp (°C) (Monitor Temp.)	DO (mg/L) (+/-0.2 mg/L or +/-10%)	Spec. Cond. (+/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
0	1341	39.16	Clear	none	13.1	2.27	1.364 mS/cm uS/cm	6.90	73.51	7.55
300	1342	39.15			13.2	2.19	1.371 mS/cm uS/cm	6.89	72.10	6.99
600	1343	39.15			13.0	2.12	1.381 mS/cm uS/cm	6.87	69.40	6.47
900	1344	39.15			13.1	2.05	1.372 mS/cm uS/cm	6.86	67.13	6.70
1200	1345	↓	↓	↓	13.3	2.03	1.366 mS/cm uS/cm	6.85	65.18	6.22
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4/8/22

Start Time: 1341 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS –

Stop Time: 1345 Average Purge Rate (mL/min): 300 Date Calibrated: 4/8/22

SAMPLING DATA

Sample Date: 4/8/22 Sample Time: 1350 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace [X] Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/15/22 WEATHER: rain 63°

MONITORING WELL ID: P-55R SAMPLE ID: —

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 50.68 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.19 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): 39.13 ft		
Depth to Top of Screen (btoc): 40.43 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 108.5 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 11.49 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) — Monitor Temp. — +/-0.2 mg/L or +/-10% — +/-5% or +/-2 uS/cm — +/-0.2 mg/L — +/-20 mV — Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4/15/22

Start Time: — Elapsed Time (min): — Water Quality Meter ID & SN: YSI ProDSS --

Stop Time: — Average Purge Rate (mL/min): — Date Calibrated: —

SAMPLING DATA

Sample Date: — Sample Time: — Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): — QA/QC Samples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Well not sampled due to presence of LNAPL

Estimated Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: M Heintz J.Mayer

DATE: 4/20/2022 | WEATHER: 48° light rain

MONITORING WELL ID: P56 | SAMPLE ID: P56-WRR-042022 P56-ROX-042022

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 65.82 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 43.68 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): — ft		
Depth to Top of Screen (btoc): 40.82 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ~48.68 ft btoc	Wellbore PID/FID Reading: 2.3 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 22.14 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0931	43.71	cloudy	~~none~~ slight	17.26	0.727	1.078 mS/cm uS/cm	6.99	-99.57	19.69
906	0934	43.68	cloudy	slight	16.76	0.6060	1.083 mS/cm uS/cm	7.03	-121.55	18.59
1200	0935	43.68	cloudy	slight	17.260	0.6001	1.083 mS/cm uS/cm	7.04	-128.77	18.00
1500	0936	43.68	cloudy	slight	17.34	0.5662	1.088 mS/cm uS/cm	7.04	-132.40	16.31
1800	0937	43.68	cloudy	slight	17.58	0.528	1.090 mS/cm uS/cm	7.05	-135.46	15.29
2100	0938	43.68	cloudy	slight	17.61	0.508	1.097 mS/cm uS/cm	7.06	-138.83	15.22
2400	0939	43.68	cloudy	slight	17.98	0.476	1.097 mS/cm uS/cm	7.03	-140.91	16.10
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0931 | Elapsed Time (min): 8 min | Water Quality Meter ID & SN: YSI ProDSS - 04319/16386

Stop Time: 0939 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/20/2022

SAMPLING DATA

Sample Date: 4/20/2022 | Sample Time: 0940 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QC Samples: None

VOA Vials, No Headspace ☒ Initials: MH

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2400 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/15/22 WEATHER: Overcast 61°

MONITORING WELL ID: P-57 SAMPLE ID: P57 - ROX - 041522

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 54.19 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 44.35 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 49.27 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 44.19 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 126.3 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 9.84 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1220	44.81	clear	Slight old water	17.8	0.79	1.056 mS/cm uS/cm	6.94	-0.44	3.18
300	1321	44.81			17.9	0.53	1.063 mS/cm uS/cm	6.92	-17.52	2.27
600	1322	44.81			18.0	0.44	1.066 mS/cm uS/cm	6.90	-29.13	2.55
900	1323				18.1	0.38	1.066 mS/cm uS/cm	6.89	-40.76	2.40
1200	1324				18.1	0.33	1.068 mS/cm uS/cm	6.89	-48.75	2.50
1500	1325				18.1	0.31	1.067 mS/cm uS/cm	6.88	-56.11	2.36
1800	1326				18.2	0.29	1.067 mS/cm uS/cm	6.88	-60.54	2.37
2100	1327				18.2	0.26	1.067 mS/cm uS/cm	6.87	-65.41	2.35
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMassa 4/15/22

Start Time: 1220 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 1327 Average Purge Rate (mL/min): 300 Date Calibrated: 4/15/22

SAMPLING DATA

Sample Date: 4/15/22 Sample Time: 1230 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace [X] Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: MMassa JNichols

DATE: 4/18/22 | WEATHER: mm 4/18 ~~mostly~~ partly cloudy 46°

MONITORING WELL ID: P-58 | SAMPLE ID: P58-ROX-041822

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ~~—~~ ft btoc	Volume of Flow Through Cell: 320* mL	
Total Well Depth (btoc): 65.21 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 42.15 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ~~—~~ ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft			
Depth to Top of Screen (btoc): 40.21 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): 47.15 ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 25 ft			
Water Column Height (not including NAPL): 23.06 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ~~—~~ ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ~~—~~ ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
			STABLE: (over 4 readings)		Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1242	42.36	Slight cloudy	Strong HC	17.7	0.44	1.416 mS/cm uS/cm	6.71	1.03	24.53
300	1243	42.36	black		18.1	0.37	1.412 mS/cm uS/cm	6.70	-6.21	21.51
600	1244	42.36			18.5	0.31	1.418 mS/cm uS/cm	6.69	-13.33	19.75
900	1245	↓			18.5	0.28	1.425 mS/cm uS/cm	6.68	-19.21	16.75
1200	1246				18.9	0.25	1.431 mS/cm uS/cm	6.68	-25.00	16.26
1500	1247				18.8	0.23	1.434 mS/cm uS/cm	6.68	-29.06	16.03
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4/18/22

Start Time: 1242 | Elapsed Time (min): 5 | Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 1247 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/18/22

SAMPLING DATA

Sample Date: 4/18/22 | Sample Time: 1250 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QCSamples: Dup

VOA Vials, No Headspace ☒ | Initials: MMJN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/18/22 WEATHER: Mostly cloudy 43°

MONITORING WELL ID: P-59 SAMPLE ID: P59-ROX-041822

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 72.91 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 44.65 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NF ft		
Depth to Top of Screen (btoc): 47.91 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): 52.91 ft btoc	Wellbore PID/FID Reading: 153.9 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 28.26 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1115	44.65 7min	clear	strong HC	17.4	0.28	1.373 mS/cm uS/cm	6.30	93.16	2.49
300	1116	44.67			17.7	0.60	1.430 mS/cm uS/cm	6.33	78.24	2.56
600	1117	44.67			17.9	0.49	1.420 mS/cm uS/cm	6.38	65.12	2.52
900	1118	↓	↓	↓	18.0	0.43	1.417 mS/cm uS/cm	6.41	54.99	2.59
1200	1119				18.0	0.38	1.413 mS/cm uS/cm	6.43	45.78	2.51
1500	1120				18.2	0.34	1.408 mS/cm uS/cm	6.45	38.50	2.74
1800	1121				18.4	0.31	1.403 mS/cm uS/cm	6.45	32.81	2.78
2100	1122	↓	↓	↓	18.4	0.29	1.411 mS/cm uS/cm	6.46	27.39	2.80
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMassa 4/18/22

Start Time: 1115 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS - 14624/12859

Stop Time: 1122 Average Purge Rate (mL/min): 300 Date Calibrated: 4/18/22

SAMPLING DATA

Sample Date: 4/18/22 Sample Time: 1125 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace ☒ Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW **PROJECT NUMBER:** 60674381 - 3.2.1/2/3 **FIELD PERSONNEL:** MMassa JNichols

DATE: 4/18/22 **WEATHER:** partly cloudy 54°

MONITORING WELL ID: P-66 **SAMPLE ID:** —

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 59.72 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 34.48 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.1 ppm
Depth to LNAPL/DNAPL (btoc): 33.58 ft		
Depth to Top of Screen (btoc): 34.72 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 203.1 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 25.24 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) — Monitor Temp. — +/-0.2 mg/L or +/-10% — +/-5% or +/-2 uS/cm — +/-0.2 mg/L — +/-20 mV — Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMassa 4/18/22

Start Time: — **Elapsed Time (min):** — **Water Quality Meter ID & SN:** YSI ProDSS —

Stop Time: — **Average Purge Rate (mL/min):** — **Date Calibrated:** —

SAMPLING DATA

Sample Date: — **Sample Time:** — **Lab Analysis:** VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow **Sample Flow Rate (mL/min):** — **QA/QC Samples:** —

VOA Vials, No Headspace ☐ **Initials:** —

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

NOT sampled due to presence of LNAPL

Estimated Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: mmassa JNichols

DATE: 4/15/22 WEATHER: rain 63°

MONITORING WELL ID: P-68 SAMPLE ID: —

INITIAL DATA

Well Diameter): 4 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 68.76 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 43.50 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): 43.55 ft		
Depth to Top of Screen (btoc): 43.76 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 83.6 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 25.16 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) — Monitor Temp. — +/-0.2 mg/L or +/-10% — +/-5% or +/-2 uS/cm — +/-0.2 mg/L — +/-20 mV — Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Not Sampled due to presence of LNAPL 4/15/22

Start Time: — Elapsed Time (min): — Water Quality Meter ID & SN: YSI ProDSS --

Stop Time: — Average Purge Rate (mL/min): — Date Calibrated: —

SAMPLING DATA

Sample Date: — Sample Time: — Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): — QA/QC Samples: —

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Not Sampled due to presence of LNAPL

Estimated Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/18/22 WEATHER: OVERCAST 41°

MONITORING WELL ID: P-74 SAMPLE ID: P74-ROX-041822

INITIAL DATA

Well Diameter): 4 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 68.83 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 40.65 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 43.83 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): 48.83 ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 28.15 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
		STABLE: (over 4 readings)			Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1018	40.98	clear	none	15.0	1.63	0.193 mS/cm uS/cm	6.61	121.95	60.31
300	1019	40.99	↓	↓	15.1	1.53	0.194 mS/cm uS/cm	6.63	115.65	9.66
600	1020	41.01			15.1	1.47	0.194 mS/cm uS/cm	6.65	112.11	9.77
900	1021	41.01			15.2	1.42	0.194 mS/cm uS/cm	6.66	109.61	9.59
1200	1022	41.01			15.0	1.37	0.194 mS/cm uS/cm	6.68	107.35	9.56
1500	1023	↓			15.1	1.35	0.194 mS/cm uS/cm	6.69	106.37	9.89
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMassa 4/18/22

Start Time: 1018 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 44624/12859

Stop Time: 1023 Average Purge Rate (mL/min): 300 Date Calibrated: 4/18/22

SAMPLING DATA

Sample Date: 4/18/22 Sample Time: 1030 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: Dup, EB

VOA Vials, No Headspace ☒ Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1500 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: M Heintz J Mayer

DATE: 4/19/2022 | WEATHER: 46° sunny

MONITORING WELL ID: P-93A | SAMPLE ID: P93A-WRK-041922 P93A-ROX-041922

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ~48 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 53.07 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 42.58 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): ft		
Depth to Top of Screen (btoc): 43.07 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.1 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 10.49 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L) (STABLE: over 4 readings; +/-0.2 mg/L or +/-10%)	Spec. Cond. (Monitor Temp.; +/-5% or +/-2 uS/cm)	pH (+/-0.2 mg/L)	ORP (mV) (+/-20 mV)	Turb (NTU) (Monitor Turb Readings (<50))
0	1234	42.64	clear	none	19.42	1.059	1.349 mS/cm uS/cm	6.108	-43.66	3.76
900	1237	42.63	clear	none	19.53	0.582	1.340 mS/cm uS/cm	6.105	-46.93	2.76
1200	1278	42.63	clear	none	19.33	0.563	1.338 mS/cm uS/cm	6.105	-48.58	2.53
1500	1234	42.63	clear	none	19.57	0.504	1.336 mS/cm uS/cm	6.105	-50.06	2.42
1800	1240	42.63	clear	none	19.84	0.470	1.332 mS/cm uS/cm	6.105	-51.28	2.49
				none			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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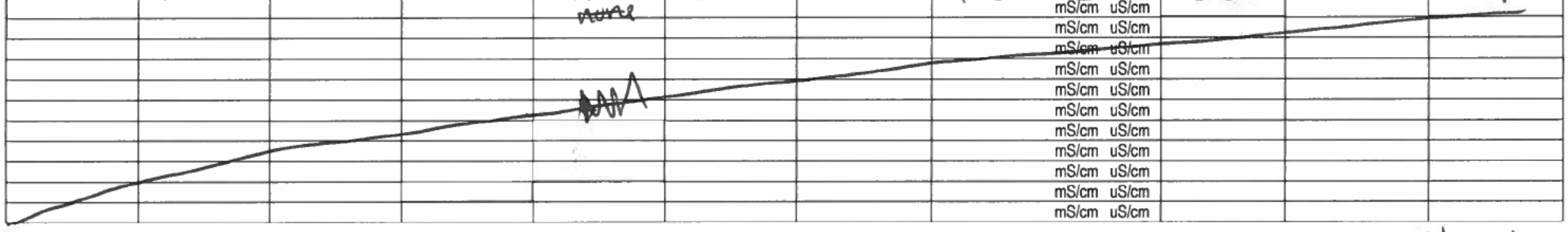

Start Time: 1234 | Elapsed Time (min): 6 | Water Quality Meter ID & SN: YSI ProDSS - 043915/462386

Stop Time: 1240 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/19/2022

SAMPLING DATA

Sample Date: 4/19/2022 | Sample Time: 1240 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QC Samples: None

VOA Vials, No Headspace: ☒ Initials: MH

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: J. Nichols / M. Massa

DATE: 4/20/22 WEATHER: Rain / 49°

MONITORING WELL ID: P-93B SAMPLE ID: P-93B-ROX-042022 / P-93B-WRR-042022

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ___ ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 76.78 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 43.75 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ___ ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 74.78 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ___ ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 2 ft		
Water Column Height (not including NAPL): 33.03 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ___ ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): 75.78 ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.		pH	ORP (mV)	Turb (NTU)
0	0915	43.76	clear	strong	14.96	0.80	1.294	mS/cm uS/cm	6.36	109.88	6.54
300	0916	43.76	clear	strong	14.98	0.63	1.302	mS/cm uS/cm	6.42	95.62	4.45
600	0917	43.76	clear	strong	15.03	0.53	1.303	mS/cm uS/cm	6.46	84.31	3.65
900	0918	↓	↓	↓	15.18	0.45	1.304	mS/cm uS/cm	6.49	74.85	4.42
1200	0919				15.21	0.41	1.306	mS/cm uS/cm	6.52	66.41	4.76
1500	0920				15.19	0.36	1.307	mS/cm uS/cm	6.54	59.42	3.01
1800	0921				15.03	0.33	1.308	mS/cm uS/cm	6.56	52.37	2.79
2100	0922				15.19	0.31	1.301	mS/cm uS/cm	6.58	46.93	2.78
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			
								mS/cm uS/cm			

Start Time: 0915 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS - 22624 / 22859

Stop Time: 0922 Average Purge Rate (mL/min): 300 Date Calibrated: 4/20/22

SAMPLING DATA

Sample Date: 4/20/22 Sample Time: 0925 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: none

VOA Vials, No Headspace ☑ Initials: JN/mm

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: M. Heintz J. Mayer

DATE: 4/19/2022 WEATHER: sunny 40°

MONITORING WELL ID: P-93C SAMPLE ID: P93C-RUX-041922 P93C-WRR-041922

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc
Total Well Depth (btoc): 97.88 ft	
Depth to Water (btoc): 43.73 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
Depth to LNAPL/DNAPL (btoc): 54.15 ft	
Depth to Top of Screen (btoc): 92.88 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc
Screen Length: 2 ft	
Water Column Height (not including NAPL): 54.14 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): 93.88 ft btoc

Volume of Flow Through Cell: 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

	STABLE: (over 4 readings)	Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1322	43.74	clear	none	17.97	0.788	1.033 mS/cm uS/cm	7.10	-120.14	10.44
900	1325	43.73	clear	none	17.75	0.680	1.031 mS/cm uS/cm	7.08	-117.43	7.24
1200	1326	43.73	clear	none	17.76	0.610	1.029 mS/cm uS/cm	7.07	-117.28	6.66
1500	1327	43.73	clear	none	17.75	0.600	1.031 mS/cm uS/cm	7.07	-117.36	5.74
1800	1328	43.73	clear	none	17.80	0.563	1.033 mS/cm uS/cm	7.06	-117.65	5.23
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MM

Start Time: 1322 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS 439I5/460386

Stop Time: 1328 Average Purge Rate (mL/min): 300 Date Calibrated: 4/19/2022

SAMPLING DATA

Sample Date: 4/19/2022 Sample Time: 1330 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: none

VOA Vials, No Headspace? Initials: MM

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: M Heintz J Mayer

DATE: 4/19/2022 | WEATHER: 45° sunny

MONITORING WELL ID: P-93D | SAMPLE ID: P93D - WER - 041922 P93D - ROX - 041922

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 127.91 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 44.09 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): — ft		
Depth to Top of Screen (btoc): 125.66 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 2 ft		
Water Column Height (not including NAPL): 83.82 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Dedicated Well Wizard

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1137	44.09	clear	none	16.75	9.596	1.192 (mS/cm) uS/cm	7.264	100.43	32.26
1200	1141	44.09	clear	none	16.77	2.694	1.200 (mS/cm) uS/cm	7.083	-71.02	14.40
1500	1142	44.09	clear	none	16.75	2.336	1.201 (mS/cm) uS/cm	7.093	-78.17	11.68
1800	1143	44.09	clear	none	16.72	1.866	1.200 (mS/cm) uS/cm	7.100	-83.90	11.67
2100	1144	44.09	clear	none	16.82	1.613	1.200 (mS/cm) uS/cm	7.101	-87.64	12.35
2400	1145	44.09	clear	none	16.92	1.397	1.203 (mS/cm) uS/cm	7.101	-91.86	12.79
3600	1147	44.09	clear	none	16.85	1.114	1.203 (mS/cm) uS/cm	7.098	-97.72	14.48
3300	1148	44.09	clear	none	16.93	0.944	1.205 (mS/cm) uS/cm	7.100	-100.16	5.86
3600	1149	44.09	clear	none	16.92	0.917	1.206 (mS/cm) uS/cm	7.100	-101.02	5.49
3900	1150	44.09	clear	none	16.93	0.846	1.206 (mS/cm) uS/cm	7.102	-102.84	5.18
4200	1151	44.09	clear	none	16.86	0.806	1.207 (mS/cm) uS/cm	7.105	-104.23	5.39
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1137 | Elapsed Time (min): 14 | Water Quality Meter ID & SN: YSI ProDSS - 043915 / 463866

Stop Time: 1151 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/19/2022

SAMPLING DATA

Sample Date: 4/19/2022 | Sample Time: 1155 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Bladder Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QCSamples: None

VOA Vials, No Headspace ☐ Initials:

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 4200 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/14/22 WEATHER: clear 54°

MONITORING WELL ID: P-114R SAMPLE ID: P114R-ROX-041422

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 33.31 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 25.67 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 29.49 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		
Depth to Top of Screen (btoc): 23.01 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 7.64 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	1119	25.76	cloudy	moderate HC	20.2	~~0.53~~ 1.34	1.264 mS/cm uS/cm	6.78	21.36	97.28
300	1120	25.76			19.8	~~0.37~~ 0.52	1.200 mS/cm uS/cm	6.70	-14.46	86.05
600	1121	25.76			19.8	0.34	~~1.191~~ 1.200 mS/cm uS/cm	6.68	-33.71	76.15
900	1122				19.9	0.32	1.191 mS/cm uS/cm	6.68	-44.48	69.59
1200	1123				20.0	0.28	1.190 mS/cm uS/cm	6.68	-51.73	66.49
1500	1124				19.8	0.25	1.187 mS/cm uS/cm	6.68	-58.12	60.42
1800	1125		clear		19.8	0.24	1.187 mS/cm uS/cm	6.68	-62.75	56.94
2100	1126				19.9	0.22	1.177 mS/cm uS/cm	6.69	-67.19	51.75
2400	1127				~~20.0~~ 19.9	0.20	1.171 mS/cm uS/cm	6.69	~~-71.97~~	45.04
2700	1128				~~19.9~~	0.19	1.166 mS/cm uS/cm	6.69	-74.43	41.43
3000	1129				~~19.8~~ 20.1	0.18	1.160 mS/cm uS/cm	6.69	-77.32	36.21
3300	1130				20.1	0.16	1.155 mS/cm uS/cm	6.69	-80.19	32.50
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4/14/22

Start Time: 1119 Elapsed Time (min): 11 Water Quality Meter ID & SN: YSI ProDSS -- 44624/42859

Stop Time: 1130 Average Purge Rate (mL/min): 300 Date Calibrated: 4/14/22

SAMPLING DATA

Sample Date: 4/14/22 Sample Time: 1135 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace ☒ Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 3300 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/12/22 WEATHER: OVERCAST 61°

MONITORING WELL ID: ROST-3-MW SAMPLE ID: ROST3MW-ROX 041222

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell : 320* mL	
Total Well Depth (btoc): 48.06 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 39.45 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 43.60 ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): NE ft		Wellbore PID/FID Reading: 1.8 ppm	
Depth to Top of Screen (btoc): 37.81 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc		
Screen Length: 10 ft			
Water Column Height (not including NAPL): 8.91 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
			STABLE: (over 4 readings)		Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1039	39.20	cloudy black	slight HC	15.5	0.56	1.260 mS/cm uS/cm	6.74	7.68	88.02
300	1040	39.20			15.7	0.42	1.263 mS/cm uS/cm	6.74	-4.83	85.32
600	1041	39.20			15.8	0.35	1.264 mS/cm uS/cm	6.74	-15.23	80.68
900	1042				15.9	0.33	1.264 mS/cm uS/cm	6.74	-19.76	70.71
1200	1043				16.0	0.28	1.266 mS/cm uS/cm	6.73	-26.67	88.15
1500	1044				16.0	0.26	1.267 mS/cm uS/cm	6.74	-32.82	66.30
1800	1045				16.1	0.25	1.268 mS/cm uS/cm	6.74	-40.76	57.89
2100	1046				16.2	0.23	1.269 mS/cm uS/cm	6.74	-44.20	56.30
2400	1047				16.2	0.21	1.271 mS/cm uS/cm	6.74	-46.64	46.52
2700	1048				16.2	0.20	1.273 mS/cm uS/cm	6.74	-50.55	42.45
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1039 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 1048 Average Purge Rate (mL/min): 300 Date Calibrated: 4/12/22

SAMPLING DATA

Sample Date: 4/12/22 Sample Time: 1050 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: None

VOA Vials, No Headspace ☒ Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW | PROJECT NUMBER: 60674381 - 3.2.1/2/3 | FIELD PERSONNEL: MMassa JNichols

DATE: 4/15/22 | WEATHER: Mostly cloudy 61°

MONITORING WELL ID: ROST-4-PZ(C) | SAMPLE ID: ROST4PZC-ROX-041522

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc
Total Well Depth (btoc): 45.20 ft	
Depth to Water (btoc): 39.28 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 42.24 ft btoc
Depth to LNAPL/DNAPL (btoc): NE ft	
Depth to Top of Screen (btoc): 34.95 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): ft btoc
Screen Length: 10 ft	
Water Column Height (not including NAPL): 5.92 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc

Volume of Flow Through Cell: 320* mL
Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Ambient PID/FID Reading: 0.0 ppm
Wellbore PID/FID Reading: 0.0 ppm

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
			STABLE: (over 4 readings)		Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1047	39.28	clear	slight HC/ oil water	15.8	0.54	1.422 mS/cm uS/cm	6.85	7.46	17.5
300	1048	39.28			16.0	0.42	1.422 mS/cm uS/cm	6.82	-1.57	17.2
600	1049	39.28			16.2	0.35	1.420 mS/cm uS/cm	6.81	-11.79	17.0
900	1050				16.2	0.32	1.419 mS/cm uS/cm	6.80	-19.42	16.8
1200	1051				16.2	0.30	1.419 mS/cm uS/cm	6.79	-27.09	15.7
1500	1052				16.3	0.27	1.408 mS/cm uS/cm	6.78	-34.28	14.5
1800	1053				16.4	0.25	1.404 mS/cm uS/cm	6.77	-41.99	12.5
2100	1054				16.4	0.24	1.400 mS/cm uS/cm	6.76	-49.60	12.2
2400	1055				16.4	0.23	1.397 mS/cm uS/cm	6.76	-54.72	9.53
2700	1056				16.5	0.22	1.393 mS/cm uS/cm	6.75	-60.75	7.99
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1047 | Elapsed Time (min): 9 | Water Quality Meter ID & SN: YSI ProDSS - 44624/42859

Stop Time: 1056 | Average Purge Rate (mL/min): 300 | Date Calibrated: 4/15/22

SAMPLING DATA

Sample Date: 4/15/22 | Sample Time: 1100 | Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow | Sample Flow Rate (mL/min): 300 | QA/QC Samples: None

VOA Vials, No Headspace [X] Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/18/22 WEATHER: OVERCAST 41°

MONITORING WELL ID: ROST-4-PZ(E) SAMPLE ID: —

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc	Volume of Flow Through Cell: 320* mL	
Total Well Depth (btoc): 45.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 28.37 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	Ambient PID/FID Reading: 0.0 ppm	
Depth to LNAPL/DNAPL (btoc): 38.34 ft			
Depth to Top of Screen (btoc): 34.75 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 9.63 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc		
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc		

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

4/18/22

Start Time: — Elapsed Time (min): — Water Quality Meter ID & SN: YSI ProDSS --

Stop Time: — Average Purge Rate (mL/min): — Date Calibrated: —

SAMPLING DATA

Sample Date: — Sample Time: — Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): — QA/QCSamples: ~~EB, DUP~~ mm 4/18

VOA Vials, No Headspace ☐ Initials: —

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Not sampled due to presence of LNAPL

Estimated Total Purge Volume: — mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: MMassa JNichols

DATE: 4/15/22 WEATHER: partly cloudy 52°

MONITORING WELL ID: ROST-4-PZ(G) SAMPLE ID: ROST4PZG-ROX-041522

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 44.53 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.29 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 42.01 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NF ft		
Depth to Top of Screen (btoc): 34.28 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 16.3 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 5.24 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

STABLE: (over 4 readings) | Monitor Temp. | +/-0.2 mg/L or +/-10% | +/-5% or +/-2 uS/cm | +/-0.2 mg/L | +/-20 mV | Monitor Turb Readings (<50)

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
0	0851	39.32	clear	none	15.3	1.26	1.179 ~~mS/cm~~ uS/cm	6.45	118.66	11.24
300	0852	39.32	↓	↓	15.7	0.80	1.204 ~~mS/cm~~ uS/cm	6.51	103.58	10.47
600	0853	39.32	↓	↓	16.0	0.59	1.225 ~~mS/cm~~ uS/cm	6.55	92.63	9.25
900	0854	↓	↓	↓	16.2	0.49	1.242 ~~mS/cm~~ uS/cm	6.59	81.24	8.04
1200	0855	↓	↓	↓	16.4	0.42	1.256 ~~mS/cm~~ uS/cm	6.63	70.70	7.82
1500	0856	↓	↓	↓	16.5	0.36	1.267 ~~mS/cm~~ uS/cm	6.65	63.25	7.08
1800	0857	↓	↓	↓	16.6	0.32	1.278 ~~mS/cm~~ uS/cm	6.68	54.16	6.09
2100	0858	↓	↓	↓	16.7	0.30	1.283 ~~mS/cm~~ uS/cm	6.69	47.90	5.41
2400	0859	↓	↓	↓	16.8	0.28	1.289 ~~mS/cm~~ uS/cm	6.71	41.55	5.02
2700	0900	↓	↓	↓	16.8	0.27	1.295 ~~mS/cm~~ uS/cm	6.73	35.92	4.90
							mS/cm uS/cm			
							~~mS/cm~~ uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

MMassa 4/15/22

Start Time: 0851 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS - 446624/42859

Stop Time: 0900 Average Purge Rate (mL/min): 300 Date Calibrated: 4/15/22

SAMPLING DATA

Sample Date: 4/15/22 Sample Time: 0905 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: Dup

VOA Vials, No Headspace ☒ Initials: MM JN

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 2700 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 2Q22 GW PROJECT NUMBER: 60674381 - 3.2.1/2/3 FIELD PERSONNEL: M. Heintz J. Mayer

DATE: 4/20/2022 WEATHER: overcast 54°

MONITORING WELL ID: T-12 SAMPLE ID: T12-WRR-042022 T12-RUX-042022

INITIAL DATA

Well Diameter): 6 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: ft btoc	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 72.83 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 42.33 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): — ft		
Depth to Top of Screen (btoc): 46.83 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): 51.83 ft btoc	Wellbore PID/FID Reading: 0.8 ppm
Screen Length: 26 ft		
Water Column Height (not including NAPL): 30.50 ft	IF SCREEN >10 FT & WATER COLUMN HEIGHT <10 FT – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT <4 FT – PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): — ft btoc	

PURGE DATA

Pump Type: Stainless Steel Submersible Pump

Purge Volume (mL)	Time	Depth to Water (ft)	Color	Odor	Temp (°C)	DO (mg/L)	Spec. Cond.	pH	ORP (mV)	Turb (NTU)
STABLE: (over 4 readings)					Monitor Temp.	+/-0.2 mg/L or +/-10%	+/-5% or +/-2 uS/cm	+/-0.2 mg/L	+/-20 mV	Monitor Turb Readings (<50)
0	1331	42.46	clear	slight	19.84	0.674	1.537 mS/cm uS/cm	7.02	-141.15	4.75
600	1333	42.36	clear	slight	19.79	0.651	1.539 mS/cm uS/cm	7.03	-143.87	4.27
900	1334	42.34	clear	slight	19.76	0.639	1.539 mS/cm uS/cm	7.02	-144.65	3.65
1200	1335	42.34	clear	slight	19.25	0.666	1.547 mS/cm uS/cm	7.02	-144.02	4.38
1500	1336	42.34	clear	slight	19.93	0.700	1.539 mS/cm uS/cm	7.02	-142.07	3.91
1800	1337	42.34	clear	slight	19.22	0.604	1.532 mS/cm uS/cm	7.02	-142.30	3.87
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
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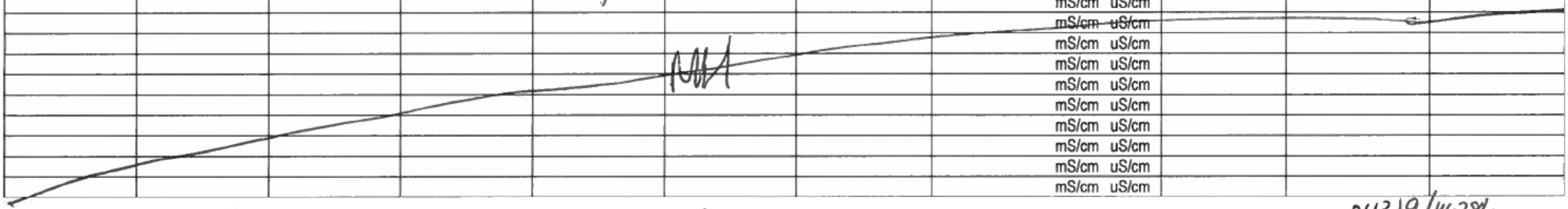

Start Time: 1331 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 04319/463866

Stop Time: 1337 Average Purge Rate (mL/min): 300 Date Calibrated: 4/20/2022

SAMPLING DATA

Sample Date: 4/20/22 Sample Time: 1340 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QC Samples: None

VOA Vials, No Headspace ☒ Initials: MH

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL

Estimated Total Purge Volume: 1800 mL

Appendix C

Data Review Forms and Laboratory Analytical Reports

See attached CD/DVD.

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218239-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Zachary Neigh

Date Reviewed: 6/13/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-040722-8260	TB-ROX-040722-8011
MW9-ROX-040722-EB	MW9-ROX-040722
MW11-ROX-040722	MW24-ROX-040722

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated chlorobenzene was detected in trip blank TB-ROX-040722-8260 and several PAHs were detected in equipment blank MW9-ROX-040722-EB; diethyl phthalate and acenaphthylene were detected in the method blanks. Several SVOC/PAH LCS/LCSD recoveries were outside evaluation criteria. Several PAH surrogate recoveries were outside criteria in several investigative and quality control samples. The continuing calibration verifications for aniline and hexachlorocyclopentadiene were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-040722-8260	VOCs	Chlorobenzene	0.64 µg/L
MW9-ROX-040722-EB	PAHs	Benzo[a]pyrene	0.094 µg/L
MW9-ROX-040722-EB	PAHs	Benzo[b]fluoranthene	0.060 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-573677/1-A	SVOCs	Diethyl phthalate	0.441 µg/L
MB 400-573677/1-A	PAHs	Acenaphthylene	0.102 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW9-ROX-040722	PAHs	Benzo[a]pyrene	-	**U**
MW9-ROX-040722	PAHs	Benzo[b]fluoranthene	0.24 µg/L	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-573677/3-A/4-A	SVOCs	Benzenethiol	**8/7**	NaN	10-120/30
LCS 400-573677/2-A	PAHs	Anthracene	**123**	NA	49-120
LCS 400-573677/2-A	PAHs	Fluorene	**132**	NA	45-125

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW9-ROX-040722	SVOCs	Benzenethiol	**UJ**
MW11-ROX-040722	SVOCs	Benzenethiol	**UJ**
MW24-ROX-040722	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW9-ROX-040722-EB	PAHs	Terphenyl-d_{14}	**160**	33-138
MW9-ROX-040722	PAHs	Terphenyl-d_{14}	**158**	33-138
MW11-ROX-040722	PAHs	Terphenyl-d_{14}	**150**	33-138

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW24-ROX-040722	PAHs	Terphenyl-d_{14}	**149**	33-138
MB 400-573677/1-A	PAHs	2-Fluorobiphenyl	**138**	15-122
MB 400-573677/1-A	PAHs	Nitrobenzene-d_5	**140**	19-130
MB 400-573677/1-A	PAHs	Terphenyl-d_{14}	**182**	33-138

Qualifications due to surrogate recoveries were not required if only one of three base/neutral PAH surrogate recoveries were outside evaluation criteria. Method blanks and equipment blanks are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for aniline and hexachlorocyclopentadiene were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW9-ROX-040722	SVOCs	Aniline	**UJ**
MW9-ROX-040722	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW11-ROX-040722	SVOCs	Aniline	**UJ**
MW11-ROX-040722	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW24-ROX-040722	SVOCs	Aniline	**UJ**
MW24-ROX-040722	SVOCs	Hexachlorocyclopentadiene	**UJ**

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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218239-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
4/20/2022 1:22:47 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com



LINKS

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Reviewed 6/13/2022 MR

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

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

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

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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Job ID: 400-218239-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218239-1

Comments
No additional comments.

Receipt
The samples were received on 4/9/2022 8:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 0.0° C, 0.0° C, 0.0° C, 0.0° C, 1.1° C and 1.3° C.

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-573618 recovered above the upper control limit for 1,2-Dichloropropane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-040722-8260 (400-218239-1), MW9-ROX-040722-EB (400-218239-3), MW9-ROX-040722 (400-218239-4), MW11-ROX-040722 (400-218239-5) and MW24-ROX-040722 (400-218239-6). The requested target analyte list includes 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: Sample TB-ROX-040722-8260 (400-218239-1) contained Chlorobenzene above the method detection limit. This target analyte concentration was confirmed by re-analysis of a different container.

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

GC/MS Semi VOA
Method 8270D: The method blank for preparation batch 400-573677 and analytical batch 400-573896 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-573677 and analytical batch 400-573896 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-573896 recovered outside acceptance criteria, low biased, for Aniline and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D LL: The method blank for preparation batch 400-573677 and analytical batch 400-573824 contained Acenaphthylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW9-ROX-040722-EB (400-218239-3), MW9-ROX-040722 (400-218239-4), MW11-ROX-040722 (400-218239-5) and MW24-ROX-040722 (400-218239-6). These results have been reported and qualified.

Method 8270D LL: The laboratory control sample (LCS) for preparation batch 400-573677 and analytical batch 400-574053 recovered outside control limits for the following analytes: Anthracene and Fluorene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Job ID: 400-218239-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574373 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574373 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218239-1	TB-ROX-040722-8260	Water	04/07/22 00:01	04/09/22 08:40
400-218239-2	TB-ROX-040722-8011	Water	04/07/22 00:01	04/09/22 08:40
400-218239-3	MW9-ROX-040722-EB	Water	04/07/22 08:10	04/09/22 08:40
400-218239-4	MW9-ROX-040722	Water	04/07/22 10:50	04/09/22 08:40
400-218239-5	MW11-ROX-040722	Water	04/07/22 12:50	04/09/22 08:40
400-218239-6	MW24-ROX-040722	Water	04/07/22 14:25	04/09/22 08:40

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Client Sample ID: TB-ROX-040722-8260

Lab Sample ID: 400-218239-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.64	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-040722-8011

Lab Sample ID: 400-218239-2

No Detections.

Client Sample ID: MW9-ROX-040722-EB

Lab Sample ID: 400-218239-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.094	J	0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.060	J	0.19	0.032	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW9-ROX-040722

Lab Sample ID: 400-218239-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	~~0.085~~	J 4	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.24~~	4	~~0.19~~ 0.24	0.032	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.080	J	0.19	0.064	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW11-ROX-040722

Lab Sample ID: 400-218239-5

No Detections.

Client Sample ID: MW24-ROX-040722

Lab Sample ID: 400-218239-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Client Sample ID: TB-ROX-040722-8260

Date Collected: 04/07/22 00:01
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/14/22 15:13	1
Acrolein	ND		20	3.3	ug/L			04/14/22 15:13	1
Acrylonitrile	ND		10	2.8	ug/L			04/14/22 15:13	1
Benzene	ND		1.0	0.13	ug/L			04/14/22 15:13	1
Bromobenzene	ND		1.0	0.54	ug/L			04/14/22 15:13	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/14/22 15:13	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/14/22 15:13	1
Bromoform	ND		5.0	0.25	ug/L			04/14/22 15:13	1
Bromomethane	ND		1.0	0.98	ug/L			04/14/22 15:13	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/14/22 15:13	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/14/22 15:13	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/14/22 15:13	1
Chlorobenzene	0.64	J	1.0	0.15	ug/L			04/14/22 15:13	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/14/22 15:13	1
Chloroethane	ND		1.0	0.76	ug/L			04/14/22 15:13	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/14/22 15:13	1
Chloroform	ND		1.0	1.0	ug/L			04/14/22 15:13	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/14/22 15:13	1
Chloromethane	ND		1.0	0.32	ug/L			04/14/22 15:13	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/14/22 15:13	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/14/22 15:13	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/14/22 15:13	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/14/22 15:13	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/14/22 15:13	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/14/22 15:13	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/14/22 15:13	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/14/22 15:13	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/14/22 15:13	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/14/22 15:13	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/14/22 15:13	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/14/22 15:13	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/14/22 15:13	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/14/22 15:13	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/14/22 15:13	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/14/22 15:13	1
2-Hexanone	ND		25	1.4	ug/L			04/14/22 15:13	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/14/22 15:13	1
Methylene bromide	ND		5.0	0.22	ug/L			04/14/22 15:13	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/14/22 15:13	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/14/22 15:13	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/14/22 15:13	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/14/22 15:13	1
Naphthalene	ND		1.0	1.0	ug/L			04/14/22 15:13	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/14/22 15:13	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/14/22 15:13	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/14/22 15:13	1
o-Xylene	ND		5.0	0.60	ug/L			04/14/22 15:13	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/14/22 15:13	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/14/22 15:13	1

Client Sample ID: TB-ROX-040722-8260
Date Collected: 04/07/22 00:01
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/14/22 15:13	1
Styrene	ND		1.0	1.0	ug/L			04/14/22 15:13	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/14/22 15:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/14/22 15:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/14/22 15:13	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/14/22 15:13	1
Toluene	ND		1.0	0.41	ug/L			04/14/22 15:13	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/14/22 15:13	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/14/22 15:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/14/22 15:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/14/22 15:13	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/14/22 15:13	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/14/22 15:13	1
Trichloroethene	ND		1.0	0.15	ug/L			04/14/22 15:13	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/14/22 15:13	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/14/22 15:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/14/22 15:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/14/22 15:13	1
Vinyl acetate	ND		25	0.93	ug/L			04/14/22 15:13	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/14/22 15:13	1
Xylenes, Total	ND		10	1.6	ug/L			04/14/22 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*04/14/22 15:13*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/14/22 15:13*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*04/14/22 15:13*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Client Sample ID: TB-ROX-040722-8011
Date Collected: 04/07/22 00:01
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.033	0.019	ug/L		04/13/22 15:23	04/19/22 14:09	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/13/22 15:23	04/19/22 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*51 - 149*	*04/13/22 15:23*	*04/19/22 14:09*	*1*

Client Sample ID: MW9-ROX-040722-EB

Date Collected: 04/07/22 08:10
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 16:57	1
Acrolein	ND		20	3.3	ug/L			04/13/22 16:57	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 16:57	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 16:57	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 16:57	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 16:57	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 16:57	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 16:57	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 16:57	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 16:57	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 16:57	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 16:57	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 16:57	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 16:57	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 16:57	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 16:57	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 16:57	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 16:57	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 16:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 16:57	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 16:57	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 16:57	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 16:57	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 16:57	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 16:57	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 16:57	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 16:57	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 16:57	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 16:57	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 16:57	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 16:57	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 16:57	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 16:57	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 16:57	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 16:57	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 16:57	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 16:57	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 16:57	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 16:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 16:57	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 16:57	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 16:57	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 16:57	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 16:57	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 16:57	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 16:57	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 16:57	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 16:57	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 16:57	1

Client Sample ID: MW9-ROX-040722-EB

Date Collected: 04/07/22 08:10
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 16:57	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 16:57	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 16:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 16:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 16:57	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 16:57	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 16:57	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 16:57	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 16:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 16:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 16:57	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 16:57	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 16:57	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 16:57	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 16:57	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 16:57	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 16:57	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 16:57	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 16:57	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 16:57	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/13/22 16:57*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*04/13/22 16:57*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*04/13/22 16:57*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		04/13/22 10:20	04/14/22 17:10	1
Acenaphthylene	ND		0.19	0.042	ug/L		04/13/22 10:20	04/14/22 17:10	1
Anthracene	ND	*+	0.19	0.030	ug/L		04/13/22 10:20	04/14/22 17:10	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		04/13/22 10:20	04/14/22 17:10	1
Benzo[a]pyrene	**0.094**	**J**	0.19	0.039	ug/L		04/13/22 10:20	04/14/22 17:10	1
Benzo[b]fluoranthene	**0.060**	**J**	0.19	0.032	ug/L		04/13/22 10:20	04/14/22 17:10	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/13/22 10:20	04/14/22 17:10	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		04/13/22 10:20	04/14/22 17:10	1
Chrysene	ND		0.19	0.069	ug/L		04/13/22 10:20	04/14/22 17:10	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		04/13/22 10:20	04/14/22 17:10	1
Fluoranthene	ND		0.19	0.064	ug/L		04/13/22 10:20	04/14/22 17:10	1
Fluorene	ND	*+	0.19	0.10	ug/L		04/13/22 10:20	04/14/22 17:10	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		04/13/22 10:20	04/14/22 17:10	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		04/13/22 10:20	04/14/22 17:10	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		04/13/22 10:20	04/14/22 17:10	1
Phenanthrene	ND		0.19	0.034	ug/L		04/13/22 10:20	04/14/22 17:10	1
Pyrene	ND		0.19	0.037	ug/L		04/13/22 10:20	04/14/22 17:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*117*		*15 - 122*	*04/13/22 10:20*	*04/14/22 17:10*	*1*
Nitrobenzene-d5	*122*		*19 - 130*	*04/13/22 10:20*	*04/14/22 17:10*	*1*

Client Sample ID: MW9-ROX-040722-EB
Date Collected: 04/07/22 08:10
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*160*	*S1+*	*33 - 138*	*04/13/22 10:20*	*04/14/22 17:10*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		04/13/22 10:20	04/14/22 21:56	1
Benzenethiol	ND	*-	9.4	1.6	ug/L		04/13/22 10:20	04/14/22 21:56	1
Benzoic acid	ND		28	6.8	ug/L		04/13/22 10:20	04/14/22 21:56	1
Benzyl alcohol	ND		9.4	1.9	ug/L		04/13/22 10:20	04/14/22 21:56	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		04/13/22 10:20	04/14/22 21:56	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		04/13/22 10:20	04/14/22 21:56	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		04/13/22 10:20	04/14/22 21:56	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		04/13/22 10:20	04/14/22 21:56	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		04/13/22 10:20	04/14/22 21:56	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		04/13/22 10:20	04/14/22 21:56	1
4-Chloroaniline	ND		9.4	3.2	ug/L		04/13/22 10:20	04/14/22 21:56	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		04/13/22 10:20	04/14/22 21:56	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		04/13/22 10:20	04/14/22 21:56	1
2-Chlorophenol	ND		9.4	2.1	ug/L		04/13/22 10:20	04/14/22 21:56	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		04/13/22 10:20	04/14/22 21:56	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		04/13/22 10:20	04/14/22 21:56	1
Dibenzofuran	ND		9.4	0.16	ug/L		04/13/22 10:20	04/14/22 21:56	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		04/13/22 10:20	04/14/22 21:56	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		04/13/22 10:20	04/14/22 21:56	1
Diethyl phthalate	ND		9.4	0.22	ug/L		04/13/22 10:20	04/14/22 21:56	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		04/13/22 10:20	04/14/22 21:56	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		04/13/22 10:20	04/14/22 21:56	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		04/13/22 10:20	04/14/22 21:56	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		04/13/22 10:20	04/14/22 21:56	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		04/13/22 10:20	04/14/22 21:56	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		04/13/22 10:20	04/14/22 21:56	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		04/13/22 10:20	04/14/22 21:56	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		04/13/22 10:20	04/14/22 21:56	1
1,4-Dioxane	ND		9.4	0.94	ug/L		04/13/22 10:20	04/14/22 21:56	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		04/13/22 10:20	04/14/22 21:56	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		04/13/22 10:20	04/14/22 21:56	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		04/13/22 10:20	04/14/22 21:56	1
Hexachloroethane	ND		9.4	3.9	ug/L		04/13/22 10:20	04/14/22 21:56	1
Indene	ND		9.4	0.94	ug/L		04/13/22 10:20	04/14/22 21:56	1
Isophorone	ND		9.4	0.13	ug/L		04/13/22 10:20	04/14/22 21:56	1
2-Methylphenol	ND		9.4	1.7	ug/L		04/13/22 10:20	04/14/22 21:56	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/13/22 10:20	04/14/22 21:56	1
2-Nitroaniline	ND		9.4	2.1	ug/L		04/13/22 10:20	04/14/22 21:56	1
3-Nitroaniline	ND		9.4	1.7	ug/L		04/13/22 10:20	04/14/22 21:56	1
4-Nitroaniline	ND		9.4	1.4	ug/L		04/13/22 10:20	04/14/22 21:56	1
Nitrobenzene	ND		9.4	0.12	ug/L		04/13/22 10:20	04/14/22 21:56	1
2-Nitrophenol	ND		9.4	4.9	ug/L		04/13/22 10:20	04/14/22 21:56	1
4-Nitrophenol	ND		9.4	2.0	ug/L		04/13/22 10:20	04/14/22 21:56	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		04/13/22 10:20	04/14/22 21:56	1

Client Sample ID: MW9-ROX-040722-EB

Date Collected: 04/07/22 08:10
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-3

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		04/13/22 10:20	04/14/22 21:56	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		04/13/22 10:20	04/14/22 21:56	1
Pentachlorophenol	ND		19	1.3	ug/L		04/13/22 10:20	04/14/22 21:56	1
Phenol	ND		9.4	2.4	ug/L		04/13/22 10:20	04/14/22 21:56	1
Pyridine	ND		9.4	3.0	ug/L		04/13/22 10:20	04/14/22 21:56	1
Quinoline	ND		9.4	4.2	ug/L		04/13/22 10:20	04/14/22 21:56	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		04/13/22 10:20	04/14/22 21:56	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		04/13/22 10:20	04/14/22 21:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*04/13/22 10:20*	*04/14/22 21:56*	*1*
2-Fluorophenol	*18*		*13 - 113*	*04/13/22 10:20*	*04/14/22 21:56*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*04/13/22 10:20*	*04/14/22 21:56*	*1*
Phenol-d5	*54*		*17 - 127*	*04/13/22 10:20*	*04/14/22 21:56*	*1*
Terphenyl-d14	*90*		*44 - 149*	*04/13/22 10:20*	*04/14/22 21:56*	*1*
2,4,6-Tribromophenol	*71*		*26 - 150*	*04/13/22 10:20*	*04/14/22 21:56*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.033	0.019	ug/L		04/13/22 15:23	04/19/22 14:29	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		04/13/22 15:23	04/19/22 14:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*125*		*51 - 149*	*04/13/22 15:23*	*04/19/22 14:29*	*1*

Client Sample ID: MW9-ROX-040722

Date Collected: 04/07/22 10:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 18:44	1
Acrolein	ND		20	3.3	ug/L			04/13/22 18:44	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 18:44	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 18:44	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 18:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 18:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 18:44	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 18:44	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 18:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 18:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 18:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 18:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 18:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 18:44	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 18:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 18:44	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 18:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 18:44	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 18:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 18:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 18:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 18:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 18:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 18:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 18:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 18:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 18:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 18:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 18:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 18:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 18:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 18:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 18:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 18:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 18:44	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 18:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 18:44	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 18:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 18:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 18:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 18:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 18:44	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 18:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 18:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 18:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 18:44	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 18:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 18:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 18:44	1

Client Sample ID: MW9-ROX-040722

Date Collected: 04/07/22 10:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 18:44	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 18:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 18:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 18:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 18:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 18:44	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 18:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 18:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 18:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 18:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 18:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 18:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 18:44	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 18:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 18:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 18:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 18:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 18:44	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 18:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 18:44	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 18:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*04/13/22 18:44*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*04/13/22 18:44*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*04/13/22 18:44*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		04/13/22 10:20	04/14/22 17:26	1
Acenaphthylene	ND		0.19	0.042	ug/L		04/13/22 10:20	04/14/22 17:26	1
Anthracene	ND	*+	0.19	0.030	ug/L		04/13/22 10:20	04/14/22 17:26	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		04/13/22 10:20	04/14/22 17:26	1
Benzo[a]pyrene	~~0.095~~	J u	0.19	0.040	ug/L		04/13/22 10:20	04/14/22 17:26	1
Benzo[b]fluoranthene	~~0.24~~	u	~~0.19~~ 0.24	0.032	ug/L		04/13/22 10:20	04/14/22 17:26	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/13/22 10:20	04/14/22 17:26	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		04/13/22 10:20	04/14/22 17:26	1
Chrysene	ND		0.19	0.070	ug/L		04/13/22 10:20	04/14/22 17:26	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		04/13/22 10:20	04/14/22 17:26	1
Fluoranthene	0.080	J	0.19	0.064	ug/L		04/13/22 10:20	04/14/22 17:26	1
Fluorene	ND	*+	0.19	0.10	ug/L		04/13/22 10:20	04/14/22 17:26	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/13/22 10:20	04/14/22 17:26	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		04/13/22 10:20	04/14/22 17:26	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/13/22 10:20	04/14/22 17:26	1
Phenanthrene	ND		0.19	0.034	ug/L		04/13/22 10:20	04/14/22 17:26	1
Pyrene	ND		0.19	0.038	ug/L		04/13/22 10:20	04/14/22 17:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*121*		*15 - 122*	*04/13/22 10:20*	*04/14/22 17:26*	*1*
Nitrobenzene-d5	*127*		*19 - 130*	*04/13/22 10:20*	*04/14/22 17:26*	*1*

Client Sample ID: MW9-ROX-040722

Date Collected: 04/07/22 10:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-4

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*158*	*S1+*	*33 - 138*	*04/13/22 10:20*	*04/14/22 17:26*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		04/13/22 10:20	04/14/22 22:17	1
Benzenethiol	ND	*	9.4	1.6	ug/L		04/13/22 10:20	04/14/22 22:17	1
Benzoic acid	ND		28	6.9	ug/L		04/13/22 10:20	04/14/22 22:17	1
Benzyl alcohol	ND		9.4	1.9	ug/L		04/13/22 10:20	04/14/22 22:17	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		04/13/22 10:20	04/14/22 22:17	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		04/13/22 10:20	04/14/22 22:17	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		04/13/22 10:20	04/14/22 22:17	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		04/13/22 10:20	04/14/22 22:17	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		04/13/22 10:20	04/14/22 22:17	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		04/13/22 10:20	04/14/22 22:17	1
4-Chloroaniline	ND		9.4	3.2	ug/L		04/13/22 10:20	04/14/22 22:17	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		04/13/22 10:20	04/14/22 22:17	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		04/13/22 10:20	04/14/22 22:17	1
2-Chlorophenol	ND		9.4	2.1	ug/L		04/13/22 10:20	04/14/22 22:17	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		04/13/22 10:20	04/14/22 22:17	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		04/13/22 10:20	04/14/22 22:17	1
Dibenzofuran	ND		9.4	0.16	ug/L		04/13/22 10:20	04/14/22 22:17	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		04/13/22 10:20	04/14/22 22:17	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		04/13/22 10:20	04/14/22 22:17	1
Diethyl phthalate	ND		9.4	0.23	ug/L		04/13/22 10:20	04/14/22 22:17	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		04/13/22 10:20	04/14/22 22:17	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		04/13/22 10:20	04/14/22 22:17	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		04/13/22 10:20	04/14/22 22:17	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		04/13/22 10:20	04/14/22 22:17	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		04/13/22 10:20	04/14/22 22:17	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		04/13/22 10:20	04/14/22 22:17	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		04/13/22 10:20	04/14/22 22:17	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		04/13/22 10:20	04/14/22 22:17	1
1,4-Dioxane	ND		9.4	0.94	ug/L		04/13/22 10:20	04/14/22 22:17	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		04/13/22 10:20	04/14/22 22:17	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		04/13/22 10:20	04/14/22 22:17	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/13/22 10:20	04/14/22 22:17	1
Hexachloroethane	ND		9.4	4.0	ug/L		04/13/22 10:20	04/14/22 22:17	1
Indene	ND		9.4	0.94	ug/L		04/13/22 10:20	04/14/22 22:17	1
Isophorone	ND		9.4	0.13	ug/L		04/13/22 10:20	04/14/22 22:17	1
2-Methylphenol	ND		9.4	1.7	ug/L		04/13/22 10:20	04/14/22 22:17	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/13/22 10:20	04/14/22 22:17	1
2-Nitroaniline	ND		9.4	2.1	ug/L		04/13/22 10:20	04/14/22 22:17	1
3-Nitroaniline	ND		9.4	1.7	ug/L		04/13/22 10:20	04/14/22 22:17	1
4-Nitroaniline	ND		9.4	1.4	ug/L		04/13/22 10:20	04/14/22 22:17	1
Nitrobenzene	ND		9.4	0.12	ug/L		04/13/22 10:20	04/14/22 22:17	1
2-Nitrophenol	ND		9.4	4.9	ug/L		04/13/22 10:20	04/14/22 22:17	1
4-Nitrophenol	ND		9.4	2.0	ug/L		04/13/22 10:20	04/14/22 22:17	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		04/13/22 10:20	04/14/22 22:17	1

Client Sample ID: MW9-ROX-040722

Date Collected: 04/07/22 10:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-4

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		04/13/22 10:20	04/14/22 22:17	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		04/13/22 10:20	04/14/22 22:17	1
Pentachlorophenol	ND		19	1.3	ug/L		04/13/22 10:20	04/14/22 22:17	1
Phenol	ND		9.4	2.5	ug/L		04/13/22 10:20	04/14/22 22:17	1
Pyridine	ND		9.4	3.0	ug/L		04/13/22 10:20	04/14/22 22:17	1
Quinoline	ND		9.4	4.2	ug/L		04/13/22 10:20	04/14/22 22:17	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		04/13/22 10:20	04/14/22 22:17	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		04/13/22 10:20	04/14/22 22:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*46 - 124*	*04/13/22 10:20*	*04/14/22 22:17*	*1*
2-Fluorophenol	*31*		*13 - 113*	*04/13/22 10:20*	*04/14/22 22:17*	*1*
Nitrobenzene-d5	*58*		*36 - 126*	*04/13/22 10:20*	*04/14/22 22:17*	*1*
Phenol-d5	*52*		*17 - 127*	*04/13/22 10:20*	*04/14/22 22:17*	*1*
Terphenyl-d14	*71*		*44 - 149*	*04/13/22 10:20*	*04/14/22 22:17*	*1*
2,4,6-Tribromophenol	*57*		*26 - 150*	*04/13/22 10:20*	*04/14/22 22:17*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.033	0.019	ug/L		04/13/22 15:23	04/19/22 14:49	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/13/22 15:23	04/19/22 14:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*126*		*51 - 149*	*04/13/22 15:23*	*04/19/22 14:49*	*1*

Client Sample ID: MW11-ROX-040722

Date Collected: 04/07/22 12:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 19:10	1
Acrolein	ND		20	3.3	ug/L			04/13/22 19:10	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 19:10	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 19:10	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 19:10	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 19:10	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 19:10	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 19:10	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 19:10	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 19:10	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 19:10	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 19:10	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 19:10	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 19:10	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 19:10	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 19:10	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 19:10	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 19:10	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 19:10	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 19:10	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 19:10	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 19:10	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 19:10	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 19:10	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 19:10	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 19:10	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 19:10	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 19:10	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:10	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:10	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:10	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 19:10	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 19:10	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 19:10	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 19:10	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 19:10	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 19:10	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 19:10	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 19:10	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 19:10	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 19:10	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 19:10	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 19:10	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 19:10	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 19:10	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 19:10	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 19:10	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 19:10	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 19:10	1

Client Sample ID: MW11-ROX-040722 **Lab Sample ID: 400-218239-5**
Date Collected: 04/07/22 12:50 **Matrix: Water**
Date Received: 04/09/22 08:40

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 19:10	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 19:10	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 19:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 19:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 19:10	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 19:10	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 19:10	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 19:10	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 19:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 19:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 19:10	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 19:10	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 19:10	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 19:10	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 19:10	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 19:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 19:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 19:10	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 19:10	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 19:10	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/13/22 19:10*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*04/13/22 19:10*	*1*
Toluene-d8 (Surr)	*89*		*64 - 132*		*04/13/22 19:10*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.031	ug/L		04/13/22 10:20	04/14/22 17:41	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/13/22 10:20	04/14/22 17:41	1
Anthracene	ND	*+	0.20	0.031	ug/L		04/13/22 10:20	04/14/22 17:41	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/13/22 10:20	04/14/22 17:41	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/13/22 10:20	04/14/22 17:41	1
Benzo[b]fluoranthene	ND		0.20	0.033	ug/L		04/13/22 10:20	04/14/22 17:41	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/13/22 10:20	04/14/22 17:41	1
Benzo[k]fluoranthene	ND		0.20	0.098	ug/L		04/13/22 10:20	04/14/22 17:41	1
Chrysene	ND		0.20	0.072	ug/L		04/13/22 10:20	04/14/22 17:41	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/13/22 10:20	04/14/22 17:41	1
Fluoranthene	ND		0.20	0.067	ug/L		04/13/22 10:20	04/14/22 17:41	1
Fluorene	ND	*+	0.20	0.11	ug/L		04/13/22 10:20	04/14/22 17:41	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/13/22 10:20	04/14/22 17:41	1
1-Methylnaphthalene	ND		0.20	0.072	ug/L		04/13/22 10:20	04/14/22 17:41	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/13/22 10:20	04/14/22 17:41	1
Phenanthrene	ND		0.20	0.035	ug/L		04/13/22 10:20	04/14/22 17:41	1
Pyrene	ND		0.20	0.039	ug/L		04/13/22 10:20	04/14/22 17:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*119*		*15 - 122*	*04/13/22 10:20*	*04/14/22 17:41*	*1*
Nitrobenzene-d5	*123*		*19 - 130*	*04/13/22 10:20*	*04/14/22 17:41*	*1*

Client Sample ID: MW11-ROX-040722

Date Collected: 04/07/22 12:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-5

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	150	S1+	33 - 138	04/13/22 10:20	04/14/22 17:41	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.8	3.7	ug/L		04/13/22 10:20	04/14/22 22:38	1
Benzenethiol	ND	*-	9.8	1.7	ug/L		04/13/22 10:20	04/14/22 22:38	1
Benzoic acid	ND		29	7.1	ug/L		04/13/22 10:20	04/14/22 22:38	1
Benzyl alcohol	ND		9.8	2.0	ug/L		04/13/22 10:20	04/14/22 22:38	1
Bis(2-chloroethoxy)methane	ND		9.8	0.16	ug/L		04/13/22 10:20	04/14/22 22:38	1
Bis(2-chloroethyl)ether	ND		9.8	2.6	ug/L		04/13/22 10:20	04/14/22 22:38	1
bis (2-chloroisopropyl) ether	ND		9.8	0.16	ug/L		04/13/22 10:20	04/14/22 22:38	1
Bis(2-ethylhexyl) phthalate	ND		9.8	4.9	ug/L		04/13/22 10:20	04/14/22 22:38	1
4-Bromophenyl phenyl ether	ND		9.8	0.20	ug/L		04/13/22 10:20	04/14/22 22:38	1
Butyl benzyl phthalate	ND		9.8	0.19	ug/L		04/13/22 10:20	04/14/22 22:38	1
4-Chloroaniline	ND		9.8	3.3	ug/L		04/13/22 10:20	04/14/22 22:38	1
4-Chloro-3-methylphenol	ND		9.8	3.7	ug/L		04/13/22 10:20	04/14/22 22:38	1
2-Chloronaphthalene	ND		9.8	0.14	ug/L		04/13/22 10:20	04/14/22 22:38	1
2-Chlorophenol	ND		9.8	2.2	ug/L		04/13/22 10:20	04/14/22 22:38	1
4-Chlorophenyl phenyl ether	ND		9.8	2.0	ug/L		04/13/22 10:20	04/14/22 22:38	1
Dibenz[a,h]acridine	ND		9.8	0.98	ug/L		04/13/22 10:20	04/14/22 22:38	1
Dibenzofuran	ND		9.8	0.17	ug/L		04/13/22 10:20	04/14/22 22:38	1
3,3'-Dichlorobenzidine	ND		9.8	2.5	ug/L		04/13/22 10:20	04/14/22 22:38	1
2,4-Dichlorophenol	ND		9.8	2.9	ug/L		04/13/22 10:20	04/14/22 22:38	1
Diethyl phthalate	ND		9.8	0.23	ug/L		04/13/22 10:20	04/14/22 22:38	1
2,4-Dimethylphenol	ND		9.8	3.4	ug/L		04/13/22 10:20	04/14/22 22:38	1
Dimethyl phthalate	ND		9.8	0.17	ug/L		04/13/22 10:20	04/14/22 22:38	1
Di-n-butyl phthalate	ND		9.8	2.6	ug/L		04/13/22 10:20	04/14/22 22:38	1
4,6-Dinitro-ortho-cresol	ND		9.8	1.6	ug/L		04/13/22 10:20	04/14/22 22:38	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/13/22 10:20	04/14/22 22:38	1
2,4-Dinitrotoluene	ND		9.8	1.9	ug/L		04/13/22 10:20	04/14/22 22:38	1
2,6-Dinitrotoluene	ND		9.8	1.9	ug/L		04/13/22 10:20	04/14/22 22:38	1
Di-n-octyl phthalate	ND		9.8	0.17	ug/L		04/13/22 10:20	04/14/22 22:38	1
1,4-Dioxane	ND		9.8	0.98	ug/L		04/13/22 10:20	04/14/22 22:38	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.8	0.98	ug/L		04/13/22 10:20	04/14/22 22:38	1
Hexachlorobenzene	ND		9.8	0.17	ug/L		04/13/22 10:20	04/14/22 22:38	1
Hexachlorocyclopentadiene	ND		20	2.5	ug/L		04/13/22 10:20	04/14/22 22:38	1
Hexachloroethane	ND		9.8	4.1	ug/L		04/13/22 10:20	04/14/22 22:38	1
Indene	ND		9.8	0.98	ug/L		04/13/22 10:20	04/14/22 22:38	1
Isophorone	ND		9.8	0.14	ug/L		04/13/22 10:20	04/14/22 22:38	1
2-Methylphenol	ND		9.8	1.8	ug/L		04/13/22 10:20	04/14/22 22:38	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/13/22 10:20	04/14/22 22:38	1
2-Nitroaniline	ND		9.8	2.2	ug/L		04/13/22 10:20	04/14/22 22:38	1
3-Nitroaniline	ND		9.8	1.8	ug/L		04/13/22 10:20	04/14/22 22:38	1
4-Nitroaniline	ND		9.8	1.5	ug/L		04/13/22 10:20	04/14/22 22:38	1
Nitrobenzene	ND		9.8	0.13	ug/L		04/13/22 10:20	04/14/22 22:38	1
2-Nitrophenol	ND		9.8	5.1	ug/L		04/13/22 10:20	04/14/22 22:38	1
4-Nitrophenol	ND		9.8	2.1	ug/L		04/13/22 10:20	04/14/22 22:38	1
N-Nitrosodimethylamine	ND		9.8	3.4	ug/L		04/13/22 10:20	04/14/22 22:38	1

Client Sample ID: MW11-ROX-040722

Date Collected: 04/07/22 12:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-5

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.8	3.2	ug/L		04/13/22 10:20	04/14/22 22:38	1
N-Nitrosodiphenylamine	ND		9.8	0.18	ug/L		04/13/22 10:20	04/14/22 22:38	1
Pentachlorophenol	ND		20	1.4	ug/L		04/13/22 10:20	04/14/22 22:38	1
Phenol	ND		9.8	2.5	ug/L		04/13/22 10:20	04/14/22 22:38	1
Pyridine	ND		9.8	3.1	ug/L		04/13/22 10:20	04/14/22 22:38	1
Quinoline	ND		9.8	4.4	ug/L		04/13/22 10:20	04/14/22 22:38	1
2,4,5-Trichlorophenol	ND		9.8	3.6	ug/L		04/13/22 10:20	04/14/22 22:38	1
2,4,6-Trichlorophenol	ND		9.8	3.4	ug/L		04/13/22 10:20	04/14/22 22:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*04/13/22 10:20*	*04/14/22 22:38*	*1*
2-Fluorophenol	*28*		*13 - 113*	*04/13/22 10:20*	*04/14/22 22:38*	*1*
Nitrobenzene-d5	*69*		*36 - 126*	*04/13/22 10:20*	*04/14/22 22:38*	*1*
Phenol-d5	*49*		*17 - 127*	*04/13/22 10:20*	*04/14/22 22:38*	*1*
Terphenyl-d14	*86*		*44 - 149*	*04/13/22 10:20*	*04/14/22 22:38*	*1*
2,4,6-Tribromophenol	*59*		*26 - 150*	*04/13/22 10:20*	*04/14/22 22:38*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.033	0.019	ug/L		04/13/22 15:23	04/19/22 15:10	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/13/22 15:23	04/19/22 15:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*130*		*51 - 149*	*04/13/22 15:23*	*04/19/22 15:10*	*1*

Client Sample ID: MW24-ROX-040722

Date Collected: 04/07/22 14:25
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 19:37	1
Acrolein	ND		20	3.3	ug/L			04/13/22 19:37	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 19:37	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 19:37	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 19:37	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 19:37	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 19:37	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 19:37	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 19:37	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 19:37	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 19:37	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 19:37	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 19:37	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 19:37	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 19:37	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 19:37	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 19:37	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 19:37	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 19:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 19:37	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 19:37	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 19:37	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 19:37	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 19:37	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 19:37	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 19:37	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 19:37	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 19:37	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:37	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:37	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:37	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 19:37	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 19:37	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 19:37	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 19:37	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 19:37	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 19:37	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 19:37	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 19:37	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 19:37	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 19:37	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 19:37	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 19:37	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 19:37	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 19:37	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 19:37	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 19:37	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 19:37	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 19:37	1

Client Sample ID: MW24-ROX-040722

Date Collected: 04/07/22 14:25
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 19:37	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 19:37	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 19:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 19:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 19:37	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 19:37	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 19:37	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 19:37	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 19:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 19:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 19:37	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 19:37	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 19:37	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 19:37	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 19:37	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 19:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 19:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 19:37	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 19:37	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 19:37	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 19:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/13/22 19:37*	*1*
Dibromofluoromethane	*110*		*75 - 126*		*04/13/22 19:37*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*04/13/22 19:37*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/13/22 10:20	04/14/22 17:57	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/13/22 10:20	04/14/22 17:57	1
Anthracene	ND	*+	0.19	0.031	ug/L		04/13/22 10:20	04/14/22 17:57	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/13/22 10:20	04/14/22 17:57	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/13/22 10:20	04/14/22 17:57	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/13/22 10:20	04/14/22 17:57	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/13/22 10:20	04/14/22 17:57	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/13/22 10:20	04/14/22 17:57	1
Chrysene	ND		0.19	0.071	ug/L		04/13/22 10:20	04/14/22 17:57	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/13/22 10:20	04/14/22 17:57	1
Fluoranthene	ND		0.19	0.065	ug/L		04/13/22 10:20	04/14/22 17:57	1
Fluorene	ND	*+	0.19	0.11	ug/L		04/13/22 10:20	04/14/22 17:57	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/13/22 10:20	04/14/22 17:57	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/13/22 10:20	04/14/22 17:57	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/13/22 10:20	04/14/22 17:57	1
Phenanthrene	ND		0.19	0.035	ug/L		04/13/22 10:20	04/14/22 17:57	1
Pyrene	ND		0.19	0.038	ug/L		04/13/22 10:20	04/14/22 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*113*		*15 - 122*	*04/13/22 10:20*	*04/14/22 17:57*	*1*
Nitrobenzene-d5	*117*		*19 - 130*	*04/13/22 10:20*	*04/14/22 17:57*	*1*

Client Sample ID: MW24-ROX-040722

Date Collected: 04/07/22 14:25
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-6

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*149*	*S1+*	*33 - 138*	*04/13/22 10:20*	*04/14/22 17:57*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.7	ug/L		04/13/22 10:20	04/14/22 23:00	1
Benzenethiol	ND		9.6	1.6	ug/L		04/13/22 10:20	04/14/22 23:00	1
Benzoic acid	ND		29	7.0	ug/L		04/13/22 10:20	04/14/22 23:00	1
Benzyl alcohol	ND		9.6	1.9	ug/L		04/13/22 10:20	04/14/22 23:00	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/13/22 10:20	04/14/22 23:00	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		04/13/22 10:20	04/14/22 23:00	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/13/22 10:20	04/14/22 23:00	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/13/22 10:20	04/14/22 23:00	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/13/22 10:20	04/14/22 23:00	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/13/22 10:20	04/14/22 23:00	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/13/22 10:20	04/14/22 23:00	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		04/13/22 10:20	04/14/22 23:00	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/13/22 10:20	04/14/22 23:00	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/13/22 10:20	04/14/22 23:00	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/13/22 10:20	04/14/22 23:00	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 23:00	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 23:00	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		04/13/22 10:20	04/14/22 23:00	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/13/22 10:20	04/14/22 23:00	1
Diethyl phthalate	ND		9.6	0.23	ug/L		04/13/22 10:20	04/14/22 23:00	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		04/13/22 10:20	04/14/22 23:00	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 23:00	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/13/22 10:20	04/14/22 23:00	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/13/22 10:20	04/14/22 23:00	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/13/22 10:20	04/14/22 23:00	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/13/22 10:20	04/14/22 23:00	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/13/22 10:20	04/14/22 23:00	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 23:00	1
1,4-Dioxane	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 23:00	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 23:00	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 23:00	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/13/22 10:20	04/14/22 23:00	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/13/22 10:20	04/14/22 23:00	1
Indene	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 23:00	1
Isophorone	ND		9.6	0.13	ug/L		04/13/22 10:20	04/14/22 23:00	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/13/22 10:20	04/14/22 23:00	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/13/22 10:20	04/14/22 23:00	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/13/22 10:20	04/14/22 23:00	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/13/22 10:20	04/14/22 23:00	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/13/22 10:20	04/14/22 23:00	1
Nitrobenzene	ND		9.6	0.12	ug/L		04/13/22 10:20	04/14/22 23:00	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/13/22 10:20	04/14/22 23:00	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/13/22 10:20	04/14/22 23:00	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		04/13/22 10:20	04/14/22 23:00	1

Client Sample ID: MW24-ROX-040722

Date Collected: 04/07/22 14:25
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-6

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/13/22 10:20	04/14/22 23:00	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/13/22 10:20	04/14/22 23:00	1
Pentachlorophenol	ND		19	1.3	ug/L		04/13/22 10:20	04/14/22 23:00	1
Phenol	ND		9.6	2.5	ug/L		04/13/22 10:20	04/14/22 23:00	1
Pyridine	ND		9.6	3.1	ug/L		04/13/22 10:20	04/14/22 23:00	1
Quinoline	ND		9.6	4.3	ug/L		04/13/22 10:20	04/14/22 23:00	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		04/13/22 10:20	04/14/22 23:00	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		04/13/22 10:20	04/14/22 23:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*04/13/22 10:20*	*04/14/22 23:00*	*1*
2-Fluorophenol	*21*		*13 - 113*	*04/13/22 10:20*	*04/14/22 23:00*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*04/13/22 10:20*	*04/14/22 23:00*	*1*
Phenol-d5	*58*		*17 - 127*	*04/13/22 10:20*	*04/14/22 23:00*	*1*
Terphenyl-d14	*93*		*44 - 149*	*04/13/22 10:20*	*04/14/22 23:00*	*1*
2,4,6-Tribromophenol	*66*		*26 - 150*	*04/13/22 10:20*	*04/14/22 23:00*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.034	0.019	ug/L		04/13/22 15:23	04/19/22 15:30	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/13/22 15:23	04/19/22 15:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*121*		*51 - 149*	*04/13/22 15:23*	*04/19/22 15:30*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218239-1	TB-ROX-040722-8260	96	101	98
400-218239-3	MW9-ROX-040722-EB	98	107	90
400-218239-4	MW9-ROX-040722	100	108	91
400-218239-5	MW11-ROX-040722	99	109	89
400-218239-6	MW24-ROX-040722	99	110	91
LCS 400-573618/1002	Lab Control Sample	100	99	92
LCS 400-573843/1002	Lab Control Sample	100	103	98
MB 400-573618/5	Method Blank	100	107	90
MB 400-573843/4	Method Blank	99	97	99

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218239-3	MW9-ROX-040722-EB	78	18	70	54	90	71
400-218239-4	MW9-ROX-040722	61	31	58	52	71	57
400-218239-5	MW11-ROX-040722	75	28	69	49	86	59
400-218239-6	MW24-ROX-040722	83	21	72	58	93	66
LCS 400-573677/2-A	Lab Control Sample	80	56	81	76	90	102
LCS 400-573677/3-A	Lab Control Sample	84	46	78	72	104	77
LCSD 400-573677/4-A	Lab Control Sample Dup	78	44	72	67	93	57
MB 400-573677/1-A	Method Blank	77	22	74	58	96	77

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218239-3	MW9-ROX-040722-EB	117	122	160 S1+
400-218239-4	MW9-ROX-040722	121	127	158 S1+
400-218239-5	MW11-ROX-040722	119	123	150 S1+
400-218239-6	MW24-ROX-040722	113	117	149 S1+
LCS 400-573677/2-A	Lab Control Sample	100	63	127
MB 400-573677/1-A	Method Blank	138 S1+	140 S1+	182 S1+

Surrogate Legend

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	**Client Sample ID**	**BFB1 (51-149)**
400-218239-2	TB-ROX-040722-8011	112
400-218239-3	MW9-ROX-040722-EB	125
400-218239-4	MW9-ROX-040722	126
400-218239-5	MW11-ROX-040722	130
400-218239-6	MW24-ROX-040722	121
LCS 400-573769/2-A	Lab Control Sample	124
LCSD 400-573769/3-A	Lab Control Sample Dup	123
MB 400-573769/1-A	Method Blank	105

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Client Sample ID: TB-ROX-040722-8260
Date Collected: 04/07/22 00:01
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573843	04/14/22 15:13	SAB	TAL PEN

Client Sample ID: TB-ROX-040722-8011
Date Collected: 04/07/22 00:01
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			31.5 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 14:09	DS	TAL PEN

Client Sample ID: MW9-ROX-040722-EB
Date Collected: 04/07/22 08:10
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 16:57	CAR	TAL PEN
Total/NA	Prep	3520C			267 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 21:56	VC1	TAL PEN
Total/NA	Prep	3520C			267 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			573824	04/14/22 17:10	KJA	TAL PEN
Total/NA	Prep	8011			32 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 14:29	DS	TAL PEN

Client Sample ID: MW9-ROX-040722
Date Collected: 04/07/22 10:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 18:44	CAR	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 22:17	VC1	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			573824	04/14/22 17:26	KJA	TAL PEN
Total/NA	Prep	8011			31.7 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 14:49	DS	TAL PEN

Client Sample ID: MW11-ROX-040722
Date Collected: 04/07/22 12:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218239-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 19:10	CAR	TAL PEN
Total/NA	Prep	3520C			255.4 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 22:38	VC1	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Client Sample ID: MW11-ROX-040722

Lab Sample ID: 400-218239-5

Date Collected: 04/07/22 12:50
Matrix: Water
Date Received: 04/09/22 08:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			255.4 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			573824	04/14/22 17:41	KJA	TAL PEN
Total/NA	Prep	8011			31.8 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 15:10	DS	TAL PEN

Client Sample ID: MW24-ROX-040722

Lab Sample ID: 400-218239-6

Date Collected: 04/07/22 14:25
Matrix: Water
Date Received: 04/09/22 08:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 19:37	CAR	TAL PEN
Total/NA	Prep	3520C			260.2 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 23:00	VC1	TAL PEN
Total/NA	Prep	3520C			260.2 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			573824	04/14/22 17:57	KJA	TAL PEN
Total/NA	Prep	8011			31.2 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 15:30	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-573618/5

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 14:17	CAR	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-573677/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 18:43	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			573824	04/14/22 15:22	KJA	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-573769/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 11:46	DS	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-573843/4
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573843	04/14/22 11:14	SAB	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-573618/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 12:47	CAR	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-573677/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 19:47	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			574053	04/15/22 15:16	PP1	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-573677/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 19:04	VC1	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-573769/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 12:06	DS	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-573843/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573843	04/14/22 10:14	SAB	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-573677/4-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 19:26	VC1	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-573769/3-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 12:27	DS	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

GC/MS VOA

Analysis Batch: 573618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218239-3	MW9-ROX-040722-EB	Total/NA	Water	8260B	
400-218239-4	MW9-ROX-040722	Total/NA	Water	8260B	
400-218239-5	MW11-ROX-040722	Total/NA	Water	8260B	
400-218239-6	MW24-ROX-040722	Total/NA	Water	8260B	
MB 400-573618/5	Method Blank	Total/NA	Water	8260B	
LCS 400-573618/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 573843

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218239-1	TB-ROX-040722-8260	Total/NA	Water	8260B	
MB 400-573843/4	Method Blank	Total/NA	Water	8260B	
LCS 400-573843/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 573677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218239-3	MW9-ROX-040722-EB	Total/NA	Water	3520C	
400-218239-4	MW9-ROX-040722	Total/NA	Water	3520C	
400-218239-5	MW11-ROX-040722	Total/NA	Water	3520C	
400-218239-6	MW24-ROX-040722	Total/NA	Water	3520C	
MB 400-573677/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-573677/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-573677/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-573677/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 573824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218239-3	MW9-ROX-040722-EB	Total/NA	Water	8270D LL	573677
400-218239-4	MW9-ROX-040722	Total/NA	Water	8270D LL	573677
400-218239-5	MW11-ROX-040722	Total/NA	Water	8270D LL	573677
400-218239-6	MW24-ROX-040722	Total/NA	Water	8270D LL	573677
MB 400-573677/1-A	Method Blank	Total/NA	Water	8270D LL	573677

Analysis Batch: 573896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218239-3	MW9-ROX-040722-EB	Total/NA	Water	8270D	573677
400-218239-4	MW9-ROX-040722	Total/NA	Water	8270D	573677
400-218239-5	MW11-ROX-040722	Total/NA	Water	8270D	573677
400-218239-6	MW24-ROX-040722	Total/NA	Water	8270D	573677
MB 400-573677/1-A	Method Blank	Total/NA	Water	8270D	573677
LCS 400-573677/2-A	Lab Control Sample	Total/NA	Water	8270D	573677
LCS 400-573677/3-A	Lab Control Sample	Total/NA	Water	8270D	573677
LCSD 400-573677/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	573677

Analysis Batch: 574053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-573677/2-A	Lab Control Sample	Total/NA	Water	8270D LL	573677

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

GC Semi VOA

Prep Batch: 573769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218239-2	TB-ROX-040722-8011	Total/NA	Water	8011	
400-218239-3	MW9-ROX-040722-EB	Total/NA	Water	8011	
400-218239-4	MW9-ROX-040722	Total/NA	Water	8011	
400-218239-5	MW11-ROX-040722	Total/NA	Water	8011	
400-218239-6	MW24-ROX-040722	Total/NA	Water	8011	
MB 400-573769/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-573769/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-573769/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 574373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218239-2	TB-ROX-040722-8011	Total/NA	Water	8011	573769
400-218239-3	MW9-ROX-040722-EB	Total/NA	Water	8011	573769
400-218239-4	MW9-ROX-040722	Total/NA	Water	8011	573769
400-218239-5	MW11-ROX-040722	Total/NA	Water	8011	573769
400-218239-6	MW24-ROX-040722	Total/NA	Water	8011	573769
MB 400-573769/1-A	Method Blank	Total/NA	Water	8011	573769
LCS 400-573769/2-A	Lab Control Sample	Total/NA	Water	8011	573769
LCSD 400-573769/3-A	Lab Control Sample Dup	Total/NA	Water	8011	573769

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-573618/5
Matrix: Water
Analysis Batch: 573618

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 14:17	1
Acrolein	ND		20	3.3	ug/L			04/13/22 14:17	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 14:17	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 14:17	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 14:17	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 14:17	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 14:17	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 14:17	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 14:17	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 14:17	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 14:17	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 14:17	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 14:17	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 14:17	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 14:17	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 14:17	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 14:17	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 14:17	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 14:17	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 14:17	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 14:17	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 14:17	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 14:17	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 14:17	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 14:17	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 14:17	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 14:17	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 14:17	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 14:17	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 14:17	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 14:17	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 14:17	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 14:17	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 14:17	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 14:17	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 14:17	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 14:17	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 14:17	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 14:17	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 14:17	1

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

Lab Sample ID: MB 400-573618/5
Matrix: Water
Analysis Batch: 573618

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 14:17	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 14:17	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 14:17	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 14:17	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 14:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 14:17	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 14:17	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 14:17	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 14:17	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 14:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 14:17	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 14:17	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 14:17	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 14:17	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 14:17	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 14:17	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 14:17	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 14:17	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 14:17	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 14:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*04/13/22 14:17*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*04/13/22 14:17*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*04/13/22 14:17*	*1*

Lab Sample ID: LCS 400-573618/1002
Matrix: Water
Analysis Batch: 573618

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	242		ug/L		121	43 - 160
Acrolein	500	548		ug/L		110	38 - 160
Acrylonitrile	500	677		ug/L		135	64 - 142
Benzene	50.0	60.6		ug/L		121	70 - 130
Bromobenzene	50.0	47.0		ug/L		94	70 - 132
Bromochloromethane	50.0	56.1		ug/L		112	70 - 130
Bromodichloromethane	50.0	55.8		ug/L		112	67 - 133
Bromoform	50.0	44.1		ug/L		88	57 - 140
Bromomethane	50.0	60.5		ug/L		121	10 - 160
2-Butanone (MEK)	200	241		ug/L		120	61 - 145
Carbon disulfide	50.0	55.7		ug/L		111	61 - 137
Carbon tetrachloride	50.0	52.5		ug/L		105	61 - 137
Chlorobenzene	50.0	50.6		ug/L		101	70 - 130
Dibromochloromethane	50.0	46.8		ug/L		94	67 - 135
Chloroethane	50.0	51.4		ug/L		103	55 - 141

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

Lab Sample ID: LCS 400-573618/1002
Matrix: Water
Analysis Batch: 573618

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	63.0		ug/L		126	10 - 160
Chloroform	50.0	56.8		ug/L		114	69 - 130
1-Chlorohexane	50.0	57.4		ug/L		115	69 - 130
Chloromethane	50.0	56.0		ug/L		112	58 - 137
cis-1,2-Dichloroethene	50.0	60.0		ug/L		120	68 - 130
cis-1,3-Dichloropropene	50.0	57.7		ug/L		115	69 - 132
1,2-Dichlorobenzene	50.0	48.0		ug/L		96	67 - 130
1,3-Dichlorobenzene	50.0	48.8		ug/L		98	70 - 130
1,4-Dichlorobenzene	50.0	48.8		ug/L		98	70 - 130
Dichlorodifluoromethane	50.0	35.8		ug/L		72	41 - 146
1,1-Dichloroethane	50.0	61.5		ug/L		123	70 - 130
1,2-Dichloroethane	50.0	57.0		ug/L		114	69 - 130
1,1-Dichloroethene	50.0	50.0		ug/L		100	63 - 134
1,2-Dichloropropane	50.0	63.3		ug/L		127	70 - 130
1,3-Dichloropropane	50.0	53.4		ug/L		107	70 - 130
2,2-Dichloropropane	50.0	51.5		ug/L		103	52 - 135
1,1-Dichloropropene	50.0	58.9		ug/L		118	70 - 130
Ethylbenzene	50.0	50.8		ug/L		102	70 - 130
Ethyl methacrylate	50.0	50.1		ug/L		100	68 - 130
Hexachlorobutadiene	50.0	49.5		ug/L		99	53 - 140
2-Hexanone	200	218		ug/L		109	65 - 137
Isopropylbenzene	50.0	49.2		ug/L		98	70 - 130
Methylene bromide	50.0	57.8		ug/L		116	70 - 130
Methylene Chloride	50.0	53.2		ug/L		106	66 - 135
4-Methyl-2-pentanone (MIBK)	200	255		ug/L		127	69 - 138
Methyl tert-butyl ether	50.0	54.6		ug/L		109	66 - 130
m-Xylene & p-Xylene	50.0	48.8		ug/L		98	70 - 130
Naphthalene	50.0	43.7		ug/L		87	47 - 149
n-Butylbenzene	50.0	51.4		ug/L		103	67 - 130
N-Propylbenzene	50.0	50.6		ug/L		101	70 - 130
o-Chlorotoluene	50.0	50.0		ug/L		100	70 - 130
o-Xylene	50.0	49.8		ug/L		100	70 - 130
p-Chlorotoluene	50.0	50.0		ug/L		100	70 - 130
p-Isopropyltoluene	50.0	48.7		ug/L		97	65 - 130
sec-Butylbenzene	50.0	50.0		ug/L		100	66 - 130
Styrene	50.0	49.7		ug/L		99	70 - 130
tert-Butylbenzene	50.0	48.8		ug/L		98	64 - 139
1,1,1,2-Tetrachloroethane	50.0	47.4		ug/L		95	67 - 131
1,1,2,2-Tetrachloroethane	50.0	51.3		ug/L		103	70 - 131
Tetrachloroethene	50.0	46.9		ug/L		94	65 - 130
Toluene	50.0	49.2		ug/L		98	70 - 130
trans-1,2-Dichloroethene	50.0	56.1		ug/L		112	70 - 130
trans-1,3-Dichloropropene	50.0	49.8		ug/L		100	63 - 130
1,2,3-Trichlorobenzene	50.0	46.3		ug/L		93	60 - 138
1,2,4-Trichlorobenzene	50.0	46.2		ug/L		92	60 - 140
1,1,1-Trichloroethane	50.0	53.3		ug/L		107	68 - 130
1,1,2-Trichloroethane	50.0	51.8		ug/L		104	70 - 130
Trichloroethene	50.0	55.6		ug/L		111	70 - 130
Trichlorofluoromethane	50.0	45.0		ug/L		90	65 - 138

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

Lab Sample ID: LCS 400-573618/1002
Matrix: Water
Analysis Batch: 573618

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	47.9		ug/L		96	70 - 130
1,2,4-Trimethylbenzene	50.0	50.6		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	50.0	49.4		ug/L		99	69 - 130
Vinyl acetate	100	99.0		ug/L		99	26 - 160
Vinyl chloride	50.0	50.8		ug/L		102	59 - 136
Xylenes, Total	100	98.6		ug/L		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*92*		*64 - 132*

Lab Sample ID: MB 400-573843/4
Matrix: Water
Analysis Batch: 573843

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/14/22 11:14	1
Acrolein	ND		20	3.3	ug/L			04/14/22 11:14	1
Acrylonitrile	ND		10	2.8	ug/L			04/14/22 11:14	1
Benzene	ND		1.0	0.13	ug/L			04/14/22 11:14	1
Bromobenzene	ND		1.0	0.54	ug/L			04/14/22 11:14	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/14/22 11:14	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/14/22 11:14	1
Bromoform	ND		5.0	0.25	ug/L			04/14/22 11:14	1
Bromomethane	ND		1.0	0.98	ug/L			04/14/22 11:14	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/14/22 11:14	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/14/22 11:14	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/14/22 11:14	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/14/22 11:14	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/14/22 11:14	1
Chloroethane	ND		1.0	0.76	ug/L			04/14/22 11:14	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/14/22 11:14	1
Chloroform	ND		1.0	1.0	ug/L			04/14/22 11:14	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/14/22 11:14	1
Chloromethane	ND		1.0	0.32	ug/L			04/14/22 11:14	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/14/22 11:14	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/14/22 11:14	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/14/22 11:14	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/14/22 11:14	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/14/22 11:14	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/14/22 11:14	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/14/22 11:14	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/14/22 11:14	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/14/22 11:14	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/14/22 11:14	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/14/22 11:14	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/14/22 11:14	1

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

Lab Sample ID: MB 400-573843/4
Matrix: Water
Analysis Batch: 573843

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/14/22 11:14	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/14/22 11:14	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/14/22 11:14	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/14/22 11:14	1
2-Hexanone	ND		25	1.4	ug/L			04/14/22 11:14	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/14/22 11:14	1
Methylene bromide	ND		5.0	0.22	ug/L			04/14/22 11:14	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/14/22 11:14	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/14/22 11:14	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/14/22 11:14	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/14/22 11:14	1
Naphthalene	ND		1.0	1.0	ug/L			04/14/22 11:14	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/14/22 11:14	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/14/22 11:14	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/14/22 11:14	1
o-Xylene	ND		5.0	0.60	ug/L			04/14/22 11:14	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/14/22 11:14	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/14/22 11:14	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/14/22 11:14	1
Styrene	ND		1.0	1.0	ug/L			04/14/22 11:14	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/14/22 11:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/14/22 11:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/14/22 11:14	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/14/22 11:14	1
Toluene	ND		1.0	0.41	ug/L			04/14/22 11:14	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/14/22 11:14	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/14/22 11:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/14/22 11:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/14/22 11:14	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/14/22 11:14	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/14/22 11:14	1
Trichloroethene	ND		1.0	0.15	ug/L			04/14/22 11:14	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/14/22 11:14	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/14/22 11:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/14/22 11:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/14/22 11:14	1
Vinyl acetate	ND		25	0.93	ug/L			04/14/22 11:14	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/14/22 11:14	1
Xylenes, Total	ND		10	1.6	ug/L			04/14/22 11:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/14/22 11:14*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*04/14/22 11:14*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*04/14/22 11:14*	*1*

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

Lab Sample ID: LCS 400-573843/1002
Matrix: Water
Analysis Batch: 573843

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	200		ug/L		100	43 - 160
Acrolein	250	254		ug/L		102	38 - 160
Acrylonitrile	500	544		ug/L		109	64 - 142
Benzene	50.0	51.5		ug/L		103	70 - 130
Bromobenzene	50.0	50.5		ug/L		101	70 - 132
Bromochloromethane	50.0	52.9		ug/L		106	70 - 130
Bromodichloromethane	50.0	52.8		ug/L		106	67 - 133
Bromoform	50.0	54.6		ug/L		109	57 - 140
Bromomethane	25.0	19.0		ug/L		76	10 - 160
2-Butanone (MEK)	200	229		ug/L		115	61 - 145
Carbon disulfide	50.0	51.2		ug/L		102	61 - 137
Carbon tetrachloride	50.0	54.7		ug/L		109	61 - 137
Chlorobenzene	50.0	49.8		ug/L		100	70 - 130
Dibromochloromethane	50.0	52.0		ug/L		104	67 - 135
Chloroethane	25.0	24.6		ug/L		99	55 - 141
2-Chloroethyl vinyl ether	25.0	32.2		ug/L		129	10 - 160
Chloroform	50.0	50.0		ug/L		100	69 - 130
1-Chlorohexane	50.0	50.7		ug/L		101	69 - 130
Chloromethane	25.0	26.6		ug/L		106	58 - 137
cis-1,2-Dichloroethene	50.0	53.0		ug/L		106	68 - 130
cis-1,3-Dichloropropene	50.0	56.0		ug/L		112	69 - 132
1,2-Dichlorobenzene	50.0	50.9		ug/L		102	67 - 130
1,3-Dichlorobenzene	50.0	51.8		ug/L		104	70 - 130
1,4-Dichlorobenzene	50.0	51.7		ug/L		103	70 - 130
Dichlorodifluoromethane	25.0	26.7		ug/L		107	41 - 146
1,1-Dichloroethane	50.0	50.5		ug/L		101	70 - 130
1,2-Dichloroethane	50.0	51.8		ug/L		104	69 - 130
1,1-Dichloroethene	50.0	49.4		ug/L		99	63 - 134
1,2-Dichloropropane	50.0	52.6		ug/L		105	70 - 130
1,3-Dichloropropane	50.0	51.4		ug/L		103	70 - 130
2,2-Dichloropropane	50.0	53.2		ug/L		106	52 - 135
1,1-Dichloropropene	50.0	51.7		ug/L		103	70 - 130
Ethylbenzene	50.0	51.0		ug/L		102	70 - 130
Ethyl methacrylate	50.0	54.9		ug/L		110	68 - 130
Hexachlorobutadiene	50.0	51.8		ug/L		104	53 - 140
2-Hexanone	200	216		ug/L		108	65 - 137
Isopropylbenzene	50.0	52.8		ug/L		106	70 - 130
Methylene bromide	50.0	52.7		ug/L		105	70 - 130
Methylene Chloride	50.0	52.0		ug/L		104	66 - 135
4-Methyl-2-pentanone (MIBK)	200	226		ug/L		113	69 - 138
Methyl tert-butyl ether	50.0	55.0		ug/L		110	66 - 130
m-Xylene & p-Xylene	50.0	51.5		ug/L		103	70 - 130
Naphthalene	50.0	52.6		ug/L		105	47 - 149
n-Butylbenzene	50.0	53.6		ug/L		107	67 - 130
N-Propylbenzene	50.0	52.0		ug/L		104	70 - 130
o-Chlorotoluene	50.0	51.2		ug/L		102	70 - 130
o-Xylene	50.0	51.9		ug/L		104	70 - 130
p-Chlorotoluene	50.0	51.4		ug/L		103	70 - 130

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

Lab Sample ID: LCS 400-573843/1002
Matrix: Water
Analysis Batch: 573843

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
p-Isopropyltoluene	50.0	53.2		ug/L		106	65 - 130
sec-Butylbenzene	50.0	52.4		ug/L		105	66 - 130
Styrene	50.0	53.2		ug/L		106	70 - 130
tert-Butylbenzene	50.0	51.0		ug/L		102	64 - 139
1,1,1,2-Tetrachloroethane	50.0	52.2		ug/L		104	67 - 131
1,1,2,2-Tetrachloroethane	50.0	51.8		ug/L		104	70 - 131
Tetrachloroethene	50.0	50.0		ug/L		100	65 - 130
Toluene	50.0	50.6		ug/L		101	70 - 130
trans-1,2-Dichloroethene	50.0	50.7		ug/L		101	70 - 130
trans-1,3-Dichloropropene	50.0	54.0		ug/L		108	63 - 130
1,2,3-Trichlorobenzene	50.0	50.8		ug/L		102	60 - 138
1,2,4-Trichlorobenzene	50.0	52.7		ug/L		105	60 - 140
1,1,1-Trichloroethane	50.0	53.9		ug/L		108	68 - 130
1,1,2-Trichloroethane	50.0	51.0		ug/L		102	70 - 130
Trichloroethene	50.0	53.9		ug/L		108	70 - 130
Trichlorofluoromethane	25.0	26.2		ug/L		105	65 - 138
1,2,3-Trichloropropane	50.0	50.4		ug/L		101	70 - 130
1,2,4-Trimethylbenzene	50.0	53.0		ug/L		106	70 - 130
1,3,5-Trimethylbenzene	50.0	51.6		ug/L		103	69 - 130
Vinyl acetate	50.0	56.9		ug/L		114	26 - 160
Vinyl chloride	25.0	25.7		ug/L		103	59 - 136
Xylenes, Total	100	103		ug/L		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*72 - 119*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-573677/1-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/13/22 10:20	04/14/22 18:43	1
Benzenethiol	ND		10	1.7	ug/L		04/13/22 10:20	04/14/22 18:43	1
Benzoic acid	ND		30	7.3	ug/L		04/13/22 10:20	04/14/22 18:43	1
Benzyl alcohol	ND		10	2.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/13/22 10:20	04/14/22 18:43	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/13/22 10:20	04/14/22 18:43	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/13/22 10:20	04/14/22 18:43	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/13/22 10:20	04/14/22 18:43	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/13/22 10:20	04/14/22 18:43	1
4-Chloroaniline	ND		10	3.4	ug/L		04/13/22 10:20	04/14/22 18:43	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/13/22 10:20	04/14/22 18:43	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/13/22 10:20	04/14/22 18:43	1
2-Chlorophenol	ND		10	2.2	ug/L		04/13/22 10:20	04/14/22 18:43	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-573677/1-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Dibenzofuran	ND		10	0.17	ug/L		04/13/22 10:20	04/14/22 18:43	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Diethyl phthalate	0.441	J	10	0.24	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/13/22 10:20	04/14/22 18:43	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/13/22 10:20	04/14/22 18:43	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/13/22 10:20	04/14/22 18:43	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/13/22 10:20	04/14/22 18:43	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/13/22 10:20	04/14/22 18:43	1
1,4-Dioxane	ND		10	1.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/13/22 10:20	04/14/22 18:43	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/13/22 10:20	04/14/22 18:43	1
Hexachloroethane	ND		10	4.2	ug/L		04/13/22 10:20	04/14/22 18:43	1
Indene	ND		10	1.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Isophorone	ND		10	0.14	ug/L		04/13/22 10:20	04/14/22 18:43	1
2-Methylphenol	ND		10	1.8	ug/L		04/13/22 10:20	04/14/22 18:43	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/13/22 10:20	04/14/22 18:43	1
2-Nitroaniline	ND		10	2.2	ug/L		04/13/22 10:20	04/14/22 18:43	1
3-Nitroaniline	ND		10	1.8	ug/L		04/13/22 10:20	04/14/22 18:43	1
4-Nitroaniline	ND		10	1.5	ug/L		04/13/22 10:20	04/14/22 18:43	1
Nitrobenzene	ND		10	0.13	ug/L		04/13/22 10:20	04/14/22 18:43	1
2-Nitrophenol	ND		10	5.2	ug/L		04/13/22 10:20	04/14/22 18:43	1
4-Nitrophenol	ND		10	2.1	ug/L		04/13/22 10:20	04/14/22 18:43	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/13/22 10:20	04/14/22 18:43	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/13/22 10:20	04/14/22 18:43	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/13/22 10:20	04/14/22 18:43	1
Pentachlorophenol	ND		20	1.4	ug/L		04/13/22 10:20	04/14/22 18:43	1
Phenol	ND		10	2.6	ug/L		04/13/22 10:20	04/14/22 18:43	1
Pyridine	ND		10	3.2	ug/L		04/13/22 10:20	04/14/22 18:43	1
Quinoline	ND		10	4.5	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/13/22 10:20	04/14/22 18:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*04/13/22 10:20*	*04/14/22 18:43*	*1*
2-Fluorophenol	*22*		*13 - 113*	*04/13/22 10:20*	*04/14/22 18:43*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*04/13/22 10:20*	*04/14/22 18:43*	*1*
Phenol-d5	*58*		*17 - 127*	*04/13/22 10:20*	*04/14/22 18:43*	*1*
Terphenyl-d14	*96*		*44 - 149*	*04/13/22 10:20*	*04/14/22 18:43*	*1*
2,4,6-Tribromophenol	*77*		*26 - 150*	*04/13/22 10:20*	*04/14/22 18:43*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-573677/2-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	76.3		ug/L		64	21 - 120
Benzoic acid	498	339		ug/L		68	10 - 144
Benzyl alcohol	120	105		ug/L		87	28 - 120
Bis(2-chloroethoxy)methane	120	89.9		ug/L		75	47 - 120
Bis(2-chloroethyl)ether	120	99.1		ug/L		83	44 - 120
bis (2-chloroisopropyl) ether	120	91.8		ug/L		76	33 - 121
Bis(2-ethylhexyl) phthalate	120	113		ug/L		94	52 - 147
4-Bromophenyl phenyl ether	120	102		ug/L		85	54 - 122
Butyl benzyl phthalate	120	112		ug/L		94	54 - 133
4-Chloroaniline	120	77.8		ug/L		65	26 - 120
4-Chloro-3-methylphenol	120	103		ug/L		86	48 - 131
2-Chloronaphthalene	120	101		ug/L		84	52 - 121
2-Chlorophenol	120	91.7		ug/L		76	40 - 120
4-Chlorophenyl phenyl ether	120	106		ug/L		89	56 - 125
Dibenz[a,h]acridine	120	123		ug/L		103	31 - 150
Dibenzofuran	120	105		ug/L		87	56 - 122
3,3'-Dichlorobenzidine	160	202		ug/L		126	36 - 132
2,4-Dichlorophenol	120	98.1		ug/L		82	49 - 120
Diethyl phthalate	120	112		ug/L		93	50 - 137
2,4-Dimethylphenol	120	100		ug/L		84	48 - 120
Dimethyl phthalate	120	104		ug/L		87	57 - 124
Di-n-butyl phthalate	120	119		ug/L		99	58 - 126
4,6-Dinitro-ortho-cresol	240	260		ug/L		108	23 - 148
2,4-Dinitrophenol	240	246		ug/L		102	10 - 150
2,4-Dinitrotoluene	120	110		ug/L		91	54 - 142
2,6-Dinitrotoluene	120	102		ug/L		85	55 - 130
Di-n-octyl phthalate	120	118		ug/L		99	57 - 138
1,4-Dioxane	120	76.0		ug/L		63	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	96.1		ug/L		80	45 - 124
Hexachlorobenzene	120	112		ug/L		93	52 - 129
Hexachlorocyclopentadiene	120	65.9		ug/L		55	10 - 134
Hexachloroethane	120	96.6		ug/L		80	20 - 120
Indene	120	94.0		ug/L		78	49 - 120
Isophorone	120	93.5		ug/L		78	48 - 120
2-Methylphenol	120	102		ug/L		85	46 - 124
3 & 4 Methylphenol	120	103		ug/L		86	45 - 120
2-Nitroaniline	120	95.4		ug/L		79	51 - 145
3-Nitroaniline	120	92.6		ug/L		77	37 - 127
4-Nitroaniline	120	122		ug/L		102	36 - 137
Nitrobenzene	120	88.1		ug/L		73	45 - 120
2-Nitrophenol	120	103		ug/L		86	40 - 124
4-Nitrophenol	240	206		ug/L		86	23 - 146
N-Nitrosodimethylamine	120	103		ug/L		86	29 - 137
N-Nitrosodi-n-propylamine	120	100		ug/L		83	45 - 120
N-Nitrosodiphenylamine	119	96.9		ug/L		81	54 - 120
Pentachlorophenol	240	221		ug/L		92	31 - 130
Phenol	120	100		ug/L		84	11 - 120
Pyridine	240	143		ug/L		59	16 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-573677/2-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Quinoline	120	112		ug/L		93	49 - 130
2,4,5-Trichlorophenol	120	104		ug/L		87	51 - 136
2,4,6-Trichlorophenol	120	103		ug/L		86	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*56*		*13 - 113*
Nitrobenzene-d5	*81*		*36 - 126*
Phenol-d5	*76*		*17 - 127*
Terphenyl-d14	*90*		*44 - 149*
2,4,6-Tribromophenol	*102*		*26 - 150*

Lab Sample ID: LCS 400-573677/3-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	9.42	J *-	ug/L		8	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*46*		*13 - 113*
Nitrobenzene-d5	*78*		*36 - 126*
Phenol-d5	*72*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*77*		*26 - 150*

Lab Sample ID: LCSD 400-573677/4-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	8.36	J *-	ug/L		7	10 - 120	NaN	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*46 - 124*
2-Fluorophenol	*44*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*67*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*57*		*26 - 150*

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-573677/1-A
Matrix: Water
Analysis Batch: 573824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/13/22 10:20	04/14/22 15:22	1
Acenaphthylene	0.102	J	0.20	0.045	ug/L		04/13/22 10:20	04/14/22 15:22	1
Anthracene	ND		0.20	0.032	ug/L		04/13/22 10:20	04/14/22 15:22	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/13/22 10:20	04/14/22 15:22	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/13/22 10:20	04/14/22 15:22	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/13/22 10:20	04/14/22 15:22	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/13/22 10:20	04/14/22 15:22	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/13/22 10:20	04/14/22 15:22	1
Chrysene	ND		0.20	0.074	ug/L		04/13/22 10:20	04/14/22 15:22	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/13/22 10:20	04/14/22 15:22	1
Fluoranthene	ND		0.20	0.068	ug/L		04/13/22 10:20	04/14/22 15:22	1
Fluorene	ND		0.20	0.11	ug/L		04/13/22 10:20	04/14/22 15:22	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/13/22 10:20	04/14/22 15:22	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/13/22 10:20	04/14/22 15:22	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/13/22 10:20	04/14/22 15:22	1
Phenanthrene	ND		0.20	0.036	ug/L		04/13/22 10:20	04/14/22 15:22	1
Pyrene	ND		0.20	0.040	ug/L		04/13/22 10:20	04/14/22 15:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*138*	*S1+*	*15 - 122*	*04/13/22 10:20*	*04/14/22 15:22*	*1*
Nitrobenzene-d5	*140*	*S1+*	*19 - 130*	*04/13/22 10:20*	*04/14/22 15:22*	*1*
Terphenyl-d14	*182*	*S1+*	*33 - 138*	*04/13/22 10:20*	*04/14/22 15:22*	*1*

Lab Sample ID: LCS 400-573677/2-A
Matrix: Water
Analysis Batch: 574053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	140		ug/L		116	41 - 120
Acenaphthylene	120	137		ug/L		114	44 - 120
Anthracene	120	147	*+	ug/L		123	49 - 120
Benzo[a]anthracene	120	134		ug/L		112	61 - 135
Benzo[a]pyrene	120	136		ug/L		113	52 - 120
Benzo[b]fluoranthene	120	113		ug/L		94	53 - 134
Benzo[g,h,i]perylene	120	120		ug/L		100	47 - 133
Benzo[k]fluoranthene	120	114		ug/L		95	57 - 134
Chrysene	120	143		ug/L		119	55 - 122
Dibenz(a,h)anthracene	120	103		ug/L		86	48 - 146
Fluoranthene	120	140		ug/L		117	54 - 128
Fluorene	120	158	*+	ug/L		132	45 - 125
Indeno[1,2,3-cd]pyrene	120	107		ug/L		90	43 - 142
1-Methylnaphthalene	120	103		ug/L		86	41 - 120
2-Methylnaphthalene	120	108		ug/L		90	32 - 124
Phenanthrene	120	138		ug/L		115	48 - 120
Pyrene	120	158		ug/L		131	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*100*		*15 - 122*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-573677/2-A
Matrix: Water
Analysis Batch: 574053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573677

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	63		19 - 130
Terphenyl-d14	127		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-573769/1-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573769

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/13/22 15:23	04/19/22 11:46	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/13/22 15:23	04/19/22 11:46	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		51 - 149	04/13/22 15:23	04/19/22 11:46	1

Lab Sample ID: LCS 400-573769/2-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573769

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.134		ug/L		133	60 - 140
1,2-Dibromoethane	0.101	0.121		ug/L		120	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	124		51 - 149

Lab Sample ID: LCSD 400-573769/3-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 573769

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.122		ug/L		121	60 - 140	9	30
1,2-Dibromoethane	0.101	0.113		ug/L		112	60 - 140	7	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	123		51 - 149

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

- ☐ ACCUTEST (_____)
- ☐ CALSCIENCE (_____)
- ☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
- ☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/7/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM

LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA

State: IL

AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.2.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions

PHONE NO.: 314-802-1207; 314-802-1122

E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com

AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger

SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols

LAB USE ONLY

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
0.0°C, 0.0°C, 1.7°C
0.0°C, 1.1°C, 0.0°C
FRV

Container PID Readings or Laboratory Notes:

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-040722-8260	4/7/2022	0000	Water	2					2	X			
	TB-ROX-040722-8011	4/7/2022	0000	Water	2					2		X		
	MW9-ROX-040722-EB	4/7/2022	0810	Water	6			2		8	X	X	X	X
	MW9-ROX-040722	4/7/2022	1050	Water	6			2		8	X	X	X	X
	MW11-ROX-040722	4/7/2022	1250	Water	6			2		8	X	X	X	X
	MW24-ROX-040722	4/7/2022	1425	Water	6			2		8	X	X	X	X

400-218239 COC

Relinquished by: (Signature) MARY MASSA	Received by: (Signature) FEDEX: 1482 3813 1580, 1482 3813 1590, 1482 3813 1605	Date: 4/7/2022	Time: 1630
Relinquished by: (Signature)	Received by: (Signature)	Date: 4/8/22	Time: 840
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 1913489, 1913488, 1913484, 1913485, 1913487, 1913486

Version: 1Apr22

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4/20/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218239-1

Login Number: 218239
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0, 0.0, 1.3, 0.0, 1.1, 0.0°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218239-1

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218241-1-Rev.1

Data Reviewer: Melissa Remiger

Peer Reviewer: Victoria Kirkpatrick

Date Reviewed: 6/13/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-040822-8260	TB-ROX-040822-8011
MW14-ROX-040822	MW27-ROX-040822
P54-ROX-040822	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated chlorobenzene was detected in trip blank TB-ROX-040822-8260, and diethyl phthalate and acenaphthylene were detected in the method blanks. Several SVOC/PAH LCS/LCSD recoveries were outside evaluation criteria. Several PAH surrogate recoveries were outside criteria in several investigative and quality control samples. Several VOC, PAH, and VOC by 8011 MS/MSD recoveries were outside evaluation criteria in sample MW14-ROX-040822. The continuing calibration verifications for aniline and hexachlorocyclopentadiene were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on April 26, 2022 to correct the result for pentachlorophenol in sample MW14-ROX-040822, which was identified as a false positive.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-040822-8260	VOCs	Chlorobenzene	0.54 µg/L
MB 400-573677/1-A	SVOCs	Diethyl phthalate	0.441 µg/L
MB 400-573677/1-A	PAHs	Acenaphthylene	0.102 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW14-ROX-040822	SVOCs	Diethyl phthalate	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-573677/3-A/4-A	SVOCs	Benzenethiol	**8/7**	NaN	10-120/30
LCS 400-573677/2-A	PAHs	Anthracene	**123**	NA	49-120
LCS 400-573677/2-A	PAHs	Fluorene	**132**	NA	45-125

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-040822	SVOCs	Benzenethiol	**UJ**
MW27-ROX-040822	SVOCs	Benzenethiol	**UJ**
P54-ROX-040822	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW27-ROX-040822	PAHs	Terphenyl-d_{14}	**154**	33-138
P54-ROX-040822	PAHs	Terphenyl-d_{14}	**144**	33-138
MB 400-573677/1-A	PAHs	2-Fluorobiphenyl	**138**	15-122

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MB 400-573677/1-A	PAHs	Nitrobenzene-d_5	**140**	19-130
MB 400-573677/1-A	PAHs	Terphenyl-d_{14}	**182**	33-138

Qualifications due to surrogate recoveries were not required if only one of three base/neutral PAH surrogate recoveries were outside evaluation criteria. Method blanks and equipment blanks are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, sample MW14-ROX-040822 was spiked and analyzed for VOCs, SVOCs, PAHs, and VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW14-ROX-040822	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW14-ROX-040822	PAHs	Acenaphthene	**124/122**	1	35-113/49
MW14-ROX-040822	PAHs	Acenaphthylene	**119**/117	1	41-118/48
MW14-ROX-040822	PAHs	Anthracene	**126/125**	1	45-122/56
MW14-ROX-040822	PAHs	Benzo[a]pyrene	**118/115**	3	50-108/59
MW14-ROX-040822	VOCs by 8011	1,2-Dibromo-3-chloropropane	**182/168**	16	10-150/20

Analytical data that required qualification based on MS/MSD data are included in the table below. Professional judgement was used to qualify; however, not reject the compound 2-chloroethyl vinyl ether due to acceptable LCS recoveries for this compound and to the acid reactive nature of 2-chloroethyl vinyl ether. Analytical data reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-040822	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW14-ROX-040822	PAHs	Anthracene	**J**
MW14-ROX-040822	PAHs	Benzo[a]pyrene	**J**

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for aniline and hexachlorocyclopentadiene were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-040822	SVOCs	Aniline	**UJ**
MW14-ROX-040822	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW27-ROX-040822	SVOCs	Aniline	**UJ**
MW27-ROX-040822	SVOCs	Hexachlorocyclopentadiene	**UJ**
P54-ROX-040822	SVOCs	Aniline	**UJ**
P54-ROX-040822	SVOCs	Hexachlorocyclopentadiene	**UJ**

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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
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Tel: (850)474-1001

Laboratory Job ID: 400-218241-1
Client Project/Site: ROXANA QUARTERLY GW
Revision: 1

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
4/26/2022 10:43:00 AM

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Reviewed 6/13/2022 MR

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

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

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

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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Job ID: 400-218241-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218241-1

Comments
Revised Report
Report revised to confirm PCP detection. Re-analysis indicated false positive for the original analysis.
Supersedes report dated 4-20-2022.

Receipt
The samples were received on 4/9/2022 8:40 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 6 coolers at receipt time were 0.0° C, 0.0° C, 0.0° C, 0.0° C, 1.1° C and 1.3° C.

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-573618 recovered above the upper control limit for 1,2-Dichloropropane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-040822-8260 (400-218241-1), MW14-ROX-040822 (400-218241-3), MW27-ROX-040822 (400-218241-4) and P54-ROX-040822 (400-218241-5). The requested target analyte list includes 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-573618 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260B: The RPD for the matrix spike / matrix spike duplicate (MS/MSD) for 2-Chloroethyl vinyl ether was not calculable for analytical batch 400-573618 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260B: The sample TB-ROX-040822-8260 (400-218241-1) contained Chlorobenzene above the method detection limit. This target analyte concentration was confirmed by re-analysis of a different container.

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

GC/MS Semi VOA
Method 8270D: The method blank for preparation batch 400-573677 and analytical batch 400-573896 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-573677 and analytical batch 400-573896 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-573896 recovered outside acceptance criteria, low biased, for Aniline and Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D LL: The method blank for preparation batch 400-573677 and analytical batch 400-573824 contained Acenaphthylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate

Job ID: 400-218241-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

compounds outside limits: MW27-ROX-040822 (400-218241-4) and P54-ROX-040822 (400-218241-5). These results have been reported and qualified.

Method 8270D LL: The laboratory control sample (LCS) for preparation batch 400-573677 and analytical batch 400-574053 recovered outside control limits for the following analytes: Anthracene and Fluorene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574373 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574373 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-573769 and analytical batch 400-574373 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218241-1	TB-ROX-040822-8260	Water	04/08/22 00:01	04/09/22 08:40
400-218241-2	TB-ROX-040822-8011	Water	04/08/22 00:01	04/09/22 08:40
400-218241-3	MW14-ROX-040822	Water	04/08/22 10:05	04/09/22 08:40
400-218241-4	MW27-ROX-040822	Water	04/08/22 12:00	04/09/22 08:40
400-218241-5	P54-ROX-040822	Water	04/08/22 13:50	04/09/22 08:40

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Client Sample ID: TB-ROX-040822-8260

Lab Sample ID: 400-218241-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.54	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-040822-8011

Lab Sample ID: 400-218241-2

No Detections.

Client Sample ID: MW14-ROX-040822

Lab Sample ID: 400-218241-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.088	J *+	0.19	0.031	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.13	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.14	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.12	J	0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.12	J	0.19	0.096	ug/L	1		8270D LL	Total/NA
Chrysene	0.12	J	0.19	0.071	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.10	J	0.19	0.048	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.15	J	0.19	0.065	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.17	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Pyrene	0.12	J	0.19	0.038	ug/L	1		8270D LL	Total/NA
Dibenz[a,h]acridine	2.5	J	9.6	0.96	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.54	J B	9.6	0.23	ug/L	1		8270D	Total/NA
Di-n-octyl phthalate	4.5	J	9.6	0.16	ug/L	1		8270D	Total/NA

Client Sample ID: MW27-ROX-040822

Lab Sample ID: 400-218241-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.11	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.092	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.097	J	0.19	0.095	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.099	J	0.19	0.064	ug/L	1		8270D LL	Total/NA
Pyrene	0.047	J	0.19	0.038	ug/L	1		8270D LL	Total/NA
Di-n-octyl phthalate	3.9	J	9.5	0.16	ug/L	1		8270D	Total/NA

Client Sample ID: P54-ROX-040822

Lab Sample ID: 400-218241-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.11	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.083	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.086	J	0.19	0.065	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Client Sample ID: TB-ROX-040822-8260

Date Collected: 04/08/22 00:01
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 17:23	1
Acrolein	ND		20	3.3	ug/L			04/13/22 17:23	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 17:23	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 17:23	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 17:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 17:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 17:23	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 17:23	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 17:23	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 17:23	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 17:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 17:23	1
Chlorobenzene	**0.54**	**J**	1.0	0.15	ug/L			04/13/22 17:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 17:23	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 17:23	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 17:23	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 17:23	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 17:23	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 17:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 17:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 17:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 17:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 17:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 17:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 17:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 17:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 17:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 17:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 17:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 17:23	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 17:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 17:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 17:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 17:23	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 17:23	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 17:23	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 17:23	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 17:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 17:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 17:23	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 17:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 17:23	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 17:23	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 17:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 17:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 17:23	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 17:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 17:23	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 17:23	1

Client Sample ID: TB-ROX-040822-8260
Date Collected: 04/08/22 00:01
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 17:23	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 17:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 17:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 17:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 17:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 17:23	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 17:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 17:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 17:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 17:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 17:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 17:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 17:23	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 17:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 17:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 17:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 17:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 17:23	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 17:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 17:23	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/13/22 17:23*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*04/13/22 17:23*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*04/13/22 17:23*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Client Sample ID: TB-ROX-040822-8011
Date Collected: 04/08/22 00:01
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.037	0.021	ug/L		04/13/22 15:23	04/19/22 15:51	1
1,2-Dibromoethane	ND		0.025	0.019	ug/L		04/13/22 15:23	04/19/22 15:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*123*		*51 - 149*	*04/13/22 15:23*	*04/19/22 15:51*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Client Sample ID: MW14-ROX-040822

Date Collected: 04/08/22 10:05
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 14:44	1
Acrolein	ND		20	3.3	ug/L			04/13/22 14:44	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 14:44	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 14:44	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 14:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 14:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 14:44	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 14:44	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 14:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 14:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 14:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 14:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 14:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 14:44	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 14:44	1
2-Chloroethyl vinyl ether	ND	F1 US	5.0	2.0	ug/L			04/13/22 14:44	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 14:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 14:44	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 14:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 14:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 14:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 14:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 14:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 14:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 14:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 14:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 14:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 14:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 14:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 14:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 14:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 14:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 14:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 14:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 14:44	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 14:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 14:44	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 14:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 14:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 14:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 14:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 14:44	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 14:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 14:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 14:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 14:44	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 14:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 14:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 14:44	1

Client Sample ID: MW14-ROX-040822
Date Collected: 04/08/22 10:05
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 14:44	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 14:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 14:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 14:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 14:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 14:44	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 14:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 14:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 14:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 14:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 14:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 14:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 14:44	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 14:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 14:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 14:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 14:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 14:44	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 14:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 14:44	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*04/13/22 14:44*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*04/13/22 14:44*	*1*
Toluene-d8 (Surr)	*93*		*64 - 132*		*04/13/22 14:44*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/13/22 10:20	04/14/22 16:24	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/13/22 10:20	04/14/22 16:24	1
Anthracene	**0.088**	**J *+** J	0.19	0.031	ug/L		04/13/22 10:20	04/14/22 16:24	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/13/22 10:20	04/14/22 16:24	1
Benzo[a]pyrene	**0.13**	**J** J	0.19	0.040	ug/L		04/13/22 10:20	04/14/22 16:24	1
Benzo[b]fluoranthene	**0.14**	**J**	0.19	0.033	ug/L		04/13/22 10:20	04/14/22 16:24	1
Benzo[g,h,i]perylene	**0.12**	**J**	0.19	0.12	ug/L		04/13/22 10:20	04/14/22 16:24	1
Benzo[k]fluoranthene	**0.12**	**J**	0.19	0.096	ug/L		04/13/22 10:20	04/14/22 16:24	1
Chrysene	**0.12**	**J**	0.19	0.071	ug/L		04/13/22 10:20	04/14/22 16:24	1
Dibenz(a,h)anthracene	**0.10**	**J**	0.19	0.048	ug/L		04/13/22 10:20	04/14/22 16:24	1
Fluoranthene	**0.15**	**J**	0.19	0.065	ug/L		04/13/22 10:20	04/14/22 16:24	1
Fluorene	ND	*+	0.19	0.11	ug/L		04/13/22 10:20	04/14/22 16:24	1
Indeno[1,2,3-cd]pyrene	**0.17**	**J**	0.19	0.041	ug/L		04/13/22 10:20	04/14/22 16:24	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/13/22 10:20	04/14/22 16:24	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/13/22 10:20	04/14/22 16:24	1
Phenanthrene	ND		0.19	0.034	ug/L		04/13/22 10:20	04/14/22 16:24	1
Pyrene	**0.12**	**J**	0.19	0.038	ug/L		04/13/22 10:20	04/14/22 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*15 - 122*	*04/13/22 10:20*	*04/14/22 16:24*	*1*
Nitrobenzene-d5	*96*		*19 - 130*	*04/13/22 10:20*	*04/14/22 16:24*	*1*

Client Sample ID: MW14-ROX-040822
Date Collected: 04/08/22 10:05
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	118		33 - 138	04/13/22 10:20	04/14/22 16:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.6	3.6	ug/L		04/13/22 10:20	04/14/22 20:51	1
Benzenethiol	ND	UJ	9.6	1.6	ug/L		04/13/22 10:20	04/14/22 20:51	1
Benzoic acid	ND		29	7.0	ug/L		04/13/22 10:20	04/14/22 20:51	1
Benzyl alcohol	ND		9.6	1.9	ug/L		04/13/22 10:20	04/14/22 20:51	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/13/22 10:20	04/14/22 20:51	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		04/13/22 10:20	04/14/22 20:51	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/13/22 10:20	04/14/22 20:51	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/13/22 10:20	04/14/22 20:51	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/13/22 10:20	04/14/22 20:51	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/13/22 10:20	04/14/22 20:51	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/13/22 10:20	04/14/22 20:51	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		04/13/22 10:20	04/14/22 20:51	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/13/22 10:20	04/14/22 20:51	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/13/22 10:20	04/14/22 20:51	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/13/22 10:20	04/14/22 20:51	1
Dibenz[a,h]acridine	2.5	J	9.6	0.96	ug/L		04/13/22 10:20	04/14/22 20:51	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 20:51	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		04/13/22 10:20	04/14/22 20:51	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/13/22 10:20	04/14/22 20:51	1
Diethyl phthalate	~~0.54~~	J B	9.6	0.23	ug/L		04/13/22 10:20	04/14/22 20:51	1
2,4-Dimethylphenol	ND		9.6	3.3	ug/L		04/13/22 10:20	04/14/22 20:51	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 20:51	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/13/22 10:20	04/14/22 20:51	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/13/22 10:20	04/14/22 20:51	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/13/22 10:20	04/14/22 20:51	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/13/22 10:20	04/14/22 20:51	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/13/22 10:20	04/14/22 20:51	1
Di-n-octyl phthalate	4.5	J	9.6	0.16	ug/L		04/13/22 10:20	04/14/22 20:51	1
1,4-Dioxane	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 20:51	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 20:51	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 20:51	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/13/22 10:20	04/14/22 20:51	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/13/22 10:20	04/14/22 20:51	1
Indene	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 20:51	1
Isophorone	ND		9.6	0.13	ug/L		04/13/22 10:20	04/14/22 20:51	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/13/22 10:20	04/14/22 20:51	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/13/22 10:20	04/14/22 20:51	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/13/22 10:20	04/14/22 20:51	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/13/22 10:20	04/14/22 20:51	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/13/22 10:20	04/14/22 20:51	1
Nitrobenzene	ND		9.6	0.12	ug/L		04/13/22 10:20	04/14/22 20:51	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/13/22 10:20	04/14/22 20:51	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/13/22 10:20	04/14/22 20:51	1
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L		04/13/22 10:20	04/14/22 20:51	1

Client Sample ID: MW14-ROX-040822
Date Collected: 04/08/22 10:05
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/13/22 10:20	04/14/22 20:51	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/13/22 10:20	04/14/22 20:51	1
Phenol	ND		9.6	2.5	ug/L		04/13/22 10:20	04/14/22 20:51	1
Pyridine	ND		9.6	3.1	ug/L		04/13/22 10:20	04/14/22 20:51	1
Quinoline	ND		9.6	4.3	ug/L		04/13/22 10:20	04/14/22 20:51	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		04/13/22 10:20	04/14/22 20:51	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		04/13/22 10:20	04/14/22 20:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*04/13/22 10:20*	*04/14/22 20:51*	*1*
2-Fluorophenol	*23*		*13 - 113*	*04/13/22 10:20*	*04/14/22 20:51*	*1*
Nitrobenzene-d5	*69*		*36 - 126*	*04/13/22 10:20*	*04/14/22 20:51*	*1*
Phenol-d5	*57*		*17 - 127*	*04/13/22 10:20*	*04/14/22 20:51*	*1*
Terphenyl-d14	*84*		*44 - 149*	*04/13/22 10:20*	*04/14/22 20:51*	*1*
2,4,6-Tribromophenol	*82*		*26 - 150*	*04/13/22 10:20*	*04/14/22 20:51*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		19	1.3	ug/L		04/13/22 10:20	04/25/22 17:42	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	F1	0.034	0.019	ug/L		04/13/22 15:23	04/19/22 17:13	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/13/22 15:23	04/19/22 17:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*136*		*51 - 149*	*04/13/22 15:23*	*04/19/22 17:13*	*1*

Client Sample ID: MW27-ROX-040822
Date Collected: 04/08/22 12:00
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 20:03	1
Acrolein	ND		20	3.3	ug/L			04/13/22 20:03	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 20:03	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 20:03	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 20:03	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 20:03	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 20:03	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 20:03	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 20:03	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 20:03	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 20:03	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 20:03	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 20:03	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 20:03	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 20:03	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 20:03	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 20:03	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 20:03	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 20:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 20:03	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 20:03	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 20:03	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 20:03	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 20:03	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 20:03	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 20:03	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 20:03	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 20:03	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:03	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:03	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:03	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 20:03	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 20:03	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 20:03	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 20:03	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 20:03	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 20:03	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 20:03	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 20:03	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 20:03	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 20:03	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 20:03	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 20:03	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 20:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 20:03	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 20:03	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 20:03	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 20:03	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 20:03	1

Client Sample ID: MW27-ROX-040822
Date Collected: 04/08/22 12:00
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 20:03	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 20:03	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 20:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 20:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 20:03	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 20:03	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 20:03	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 20:03	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 20:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 20:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 20:03	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 20:03	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 20:03	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 20:03	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 20:03	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 20:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 20:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 20:03	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 20:03	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 20:03	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/13/22 20:03*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*04/13/22 20:03*	*1*
Toluene-d8 (Surr)	*89*		*64 - 132*		*04/13/22 20:03*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		04/13/22 10:20	04/14/22 16:39	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/13/22 10:20	04/14/22 16:39	1
Anthracene	ND	*+	0.19	0.030	ug/L		04/13/22 10:20	04/14/22 16:39	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/13/22 10:20	04/14/22 16:39	1
Benzo[a]pyrene	**0.11**	**J**	0.19	0.040	ug/L		04/13/22 10:20	04/14/22 16:39	1
Benzo[b]fluoranthene	**0.092**	**J**	0.19	0.032	ug/L		04/13/22 10:20	04/14/22 16:39	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/13/22 10:20	04/14/22 16:39	1
Benzo[k]fluoranthene	**0.097**	**J**	0.19	0.095	ug/L		04/13/22 10:20	04/14/22 16:39	1
Chrysene	ND		0.19	0.070	ug/L		04/13/22 10:20	04/14/22 16:39	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		04/13/22 10:20	04/14/22 16:39	1
Fluoranthene	**0.099**	**J**	0.19	0.064	ug/L		04/13/22 10:20	04/14/22 16:39	1
Fluorene	ND	*+	0.19	0.10	ug/L		04/13/22 10:20	04/14/22 16:39	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/13/22 10:20	04/14/22 16:39	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		04/13/22 10:20	04/14/22 16:39	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/13/22 10:20	04/14/22 16:39	1
Phenanthrene	ND		0.19	0.034	ug/L		04/13/22 10:20	04/14/22 16:39	1
Pyrene	**0.047**	**J**	0.19	0.038	ug/L		04/13/22 10:20	04/14/22 16:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*118*		*15 - 122*	*04/13/22 10:20*	*04/14/22 16:39*	*1*
Nitrobenzene-d5	*115*		*19 - 130*	*04/13/22 10:20*	*04/14/22 16:39*	*1*

Client Sample ID: MW27-ROX-040822
Date Collected: 04/08/22 12:00
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	154	S1+	33 - 138	04/13/22 10:20	04/14/22 16:39	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/13/22 10:20	04/14/22 21:13	1
Benzenethiol	ND	*-	9.5	1.6	ug/L		04/13/22 10:20	04/14/22 21:13	1
Benzoic acid	ND		28	6.9	ug/L		04/13/22 10:20	04/14/22 21:13	1
Benzyl alcohol	ND		9.5	1.9	ug/L		04/13/22 10:20	04/14/22 21:13	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		04/13/22 10:20	04/14/22 21:13	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		04/13/22 10:20	04/14/22 21:13	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		04/13/22 10:20	04/14/22 21:13	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		04/13/22 10:20	04/14/22 21:13	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/13/22 10:20	04/14/22 21:13	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/13/22 10:20	04/14/22 21:13	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/13/22 10:20	04/14/22 21:13	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/13/22 10:20	04/14/22 21:13	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/13/22 10:20	04/14/22 21:13	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/13/22 10:20	04/14/22 21:13	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/13/22 10:20	04/14/22 21:13	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		04/13/22 10:20	04/14/22 21:13	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/13/22 10:20	04/14/22 21:13	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		04/13/22 10:20	04/14/22 21:13	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		04/13/22 10:20	04/14/22 21:13	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/13/22 10:20	04/14/22 21:13	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/13/22 10:20	04/14/22 21:13	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/13/22 10:20	04/14/22 21:13	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/13/22 10:20	04/14/22 21:13	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/13/22 10:20	04/14/22 21:13	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		04/13/22 10:20	04/14/22 21:13	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/13/22 10:20	04/14/22 21:13	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/13/22 10:20	04/14/22 21:13	1
Di-n-octyl phthalate	3.9	J	9.5	0.16	ug/L		04/13/22 10:20	04/14/22 21:13	1
1,4-Dioxane	ND		9.5	0.95	ug/L		04/13/22 10:20	04/14/22 21:13	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		04/13/22 10:20	04/14/22 21:13	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/13/22 10:20	04/14/22 21:13	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/13/22 10:20	04/14/22 21:13	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/13/22 10:20	04/14/22 21:13	1
Indene	ND		9.5	0.95	ug/L		04/13/22 10:20	04/14/22 21:13	1
Isophorone	ND		9.5	0.13	ug/L		04/13/22 10:20	04/14/22 21:13	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/13/22 10:20	04/14/22 21:13	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/13/22 10:20	04/14/22 21:13	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/13/22 10:20	04/14/22 21:13	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/13/22 10:20	04/14/22 21:13	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/13/22 10:20	04/14/22 21:13	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/13/22 10:20	04/14/22 21:13	1
2-Nitrophenol	ND		9.5	4.9	ug/L		04/13/22 10:20	04/14/22 21:13	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/13/22 10:20	04/14/22 21:13	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/13/22 10:20	04/14/22 21:13	1

Client Sample ID: MW27-ROX-040822

Date Collected: 04/08/22 12:00
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-4

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		04/13/22 10:20	04/14/22 21:13	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/13/22 10:20	04/14/22 21:13	1
Pentachlorophenol	ND		19	1.3	ug/L		04/13/22 10:20	04/14/22 21:13	1
Phenol	ND		9.5	2.5	ug/L		04/13/22 10:20	04/14/22 21:13	1
Pyridine	ND		9.5	3.0	ug/L		04/13/22 10:20	04/14/22 21:13	1
Quinoline	ND		9.5	4.3	ug/L		04/13/22 10:20	04/14/22 21:13	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/13/22 10:20	04/14/22 21:13	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/13/22 10:20	04/14/22 21:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*04/13/22 10:20*	*04/14/22 21:13*	*1*
2-Fluorophenol	*17*		*13 - 113*	*04/13/22 10:20*	*04/14/22 21:13*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*04/13/22 10:20*	*04/14/22 21:13*	*1*
Phenol-d5	*40*		*17 - 127*	*04/13/22 10:20*	*04/14/22 21:13*	*1*
Terphenyl-d14	*86*		*44 - 149*	*04/13/22 10:20*	*04/14/22 21:13*	*1*
2,4,6-Tribromophenol	*62*		*26 - 150*	*04/13/22 10:20*	*04/14/22 21:13*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.033	0.019	ug/L		04/13/22 15:23	04/19/22 16:11	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		04/13/22 15:23	04/19/22 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*124*		*51 - 149*	*04/13/22 15:23*	*04/19/22 16:11*	*1*

Client Sample ID: P54-ROX-040822
Date Collected: 04/08/22 13:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 20:29	1
Acrolein	ND		20	3.3	ug/L			04/13/22 20:29	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 20:29	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 20:29	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 20:29	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 20:29	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 20:29	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 20:29	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 20:29	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 20:29	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 20:29	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 20:29	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 20:29	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 20:29	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 20:29	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 20:29	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 20:29	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 20:29	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 20:29	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 20:29	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 20:29	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 20:29	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 20:29	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 20:29	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 20:29	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 20:29	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 20:29	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 20:29	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:29	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:29	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:29	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 20:29	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 20:29	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 20:29	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 20:29	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 20:29	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 20:29	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 20:29	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 20:29	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 20:29	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 20:29	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 20:29	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 20:29	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 20:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 20:29	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 20:29	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 20:29	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 20:29	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 20:29	1

Client Sample ID: P54-ROX-040822
Date Collected: 04/08/22 13:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 20:29	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 20:29	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 20:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 20:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 20:29	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 20:29	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 20:29	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 20:29	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 20:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 20:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 20:29	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 20:29	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 20:29	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 20:29	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 20:29	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 20:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 20:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 20:29	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 20:29	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 20:29	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 20:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/13/22 20:29*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*04/13/22 20:29*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*04/13/22 20:29*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/13/22 10:20	04/14/22 16:55	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/13/22 10:20	04/14/22 16:55	1
Anthracene	ND	*+	0.19	0.031	ug/L		04/13/22 10:20	04/14/22 16:55	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/13/22 10:20	04/14/22 16:55	1
Benzo[a]pyrene	**0.11**	**J**	0.19	0.040	ug/L		04/13/22 10:20	04/14/22 16:55	1
Benzo[b]fluoranthene	**0.083**	**J**	0.19	0.033	ug/L		04/13/22 10:20	04/14/22 16:55	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/13/22 10:20	04/14/22 16:55	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/13/22 10:20	04/14/22 16:55	1
Chrysene	ND		0.19	0.071	ug/L		04/13/22 10:20	04/14/22 16:55	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/13/22 10:20	04/14/22 16:55	1
Fluoranthene	**0.086**	**J**	0.19	0.065	ug/L		04/13/22 10:20	04/14/22 16:55	1
Fluorene	ND	*+	0.19	0.11	ug/L		04/13/22 10:20	04/14/22 16:55	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/13/22 10:20	04/14/22 16:55	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/13/22 10:20	04/14/22 16:55	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/13/22 10:20	04/14/22 16:55	1
Phenanthrene	ND		0.19	0.035	ug/L		04/13/22 10:20	04/14/22 16:55	1
Pyrene	ND		0.19	0.038	ug/L		04/13/22 10:20	04/14/22 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*114*		*15 - 122*	*04/13/22 10:20*	*04/14/22 16:55*	*1*
Nitrobenzene-d5	*118*		*19 - 130*	*04/13/22 10:20*	*04/14/22 16:55*	*1*

Client Sample ID: P54-ROX-040822
Date Collected: 04/08/22 13:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	144	S1+	33 - 138	04/13/22 10:20	04/14/22 16:55	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		04/13/22 10:20	04/14/22 21:34	1
Benzenethiol	ND		9.6	1.6	ug/L		04/13/22 10:20	04/14/22 21:34	1
Benzoic acid	ND		29	7.0	ug/L		04/13/22 10:20	04/14/22 21:34	1
Benzyl alcohol	ND		9.6	1.9	ug/L		04/13/22 10:20	04/14/22 21:34	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/13/22 10:20	04/14/22 21:34	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		04/13/22 10:20	04/14/22 21:34	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/13/22 10:20	04/14/22 21:34	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/13/22 10:20	04/14/22 21:34	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/13/22 10:20	04/14/22 21:34	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/13/22 10:20	04/14/22 21:34	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/13/22 10:20	04/14/22 21:34	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		04/13/22 10:20	04/14/22 21:34	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/13/22 10:20	04/14/22 21:34	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/13/22 10:20	04/14/22 21:34	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/13/22 10:20	04/14/22 21:34	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 21:34	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 21:34	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		04/13/22 10:20	04/14/22 21:34	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/13/22 10:20	04/14/22 21:34	1
Diethyl phthalate	ND		9.6	0.23	ug/L		04/13/22 10:20	04/14/22 21:34	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		04/13/22 10:20	04/14/22 21:34	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 21:34	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/13/22 10:20	04/14/22 21:34	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/13/22 10:20	04/14/22 21:34	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/13/22 10:20	04/14/22 21:34	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/13/22 10:20	04/14/22 21:34	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/13/22 10:20	04/14/22 21:34	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 21:34	1
1,4-Dioxane	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 21:34	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 21:34	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/13/22 10:20	04/14/22 21:34	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/13/22 10:20	04/14/22 21:34	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/13/22 10:20	04/14/22 21:34	1
Indene	ND		9.6	0.96	ug/L		04/13/22 10:20	04/14/22 21:34	1
Isophorone	ND		9.6	0.13	ug/L		04/13/22 10:20	04/14/22 21:34	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/13/22 10:20	04/14/22 21:34	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/13/22 10:20	04/14/22 21:34	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/13/22 10:20	04/14/22 21:34	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/13/22 10:20	04/14/22 21:34	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/13/22 10:20	04/14/22 21:34	1
Nitrobenzene	ND		9.6	0.12	ug/L		04/13/22 10:20	04/14/22 21:34	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/13/22 10:20	04/14/22 21:34	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/13/22 10:20	04/14/22 21:34	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		04/13/22 10:20	04/14/22 21:34	1

Client Sample ID: P54-ROX-040822

Date Collected: 04/08/22 13:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-5

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/13/22 10:20	04/14/22 21:34	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/13/22 10:20	04/14/22 21:34	1
Pentachlorophenol	ND		19	1.3	ug/L		04/13/22 10:20	04/14/22 21:34	1
Phenol	ND		9.6	2.5	ug/L		04/13/22 10:20	04/14/22 21:34	1
Pyridine	ND		9.6	3.1	ug/L		04/13/22 10:20	04/14/22 21:34	1
Quinoline	ND		9.6	4.3	ug/L		04/13/22 10:20	04/14/22 21:34	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		04/13/22 10:20	04/14/22 21:34	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		04/13/22 10:20	04/14/22 21:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*04/13/22 10:20*	*04/14/22 21:34*	*1*
2-Fluorophenol	*33*		*13 - 113*	*04/13/22 10:20*	*04/14/22 21:34*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*04/13/22 10:20*	*04/14/22 21:34*	*1*
Phenol-d5	*52*		*17 - 127*	*04/13/22 10:20*	*04/14/22 21:34*	*1*
Terphenyl-d14	*87*		*44 - 149*	*04/13/22 10:20*	*04/14/22 21:34*	*1*
2,4,6-Tribromophenol	*60*		*26 - 150*	*04/13/22 10:20*	*04/14/22 21:34*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.032	0.018	ug/L		04/13/22 15:23	04/19/22 16:32	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/13/22 15:23	04/19/22 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*122*		*51 - 149*	*04/13/22 15:23*	*04/19/22 16:32*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218241-1	TB-ROX-040822-8260	99	106	91
400-218241-3	MW14-ROX-040822	101	98	93
400-218241-3 MS	MW14-ROX-040822	98	100	91
400-218241-3 MSD	MW14-ROX-040822	101	99	93
400-218241-4	MW27-ROX-040822	99	111	89
400-218241-5	P54-ROX-040822	97	111	90
LCS 400-573618/1002	Lab Control Sample	100	99	92
MB 400-573618/5	Method Blank	100	107	90

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218241-3	MW14-ROX-040822	77	23	69	57	84	82
400-218241-3 MS	MW14-ROX-040822	77	49	78	72	88	97
400-218241-3 MSD	MW14-ROX-040822	79	35	80	69	87	102
400-218241-4	MW27-ROX-040822	74	17	68	40	86	62
400-218241-5	P54-ROX-040822	73	33	68	52	87	60
LCS 400-573677/2-A	Lab Control Sample	80	56	81	76	90	102
LCS 400-573677/3-A	Lab Control Sample	84	46	78	72	104	77
LCSD 400-573677/4-A	Lab Control Sample Dup	78	44	72	67	93	57
MB 400-573677/1-A	Method Blank	77	22	74	58	96	77

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218241-3	MW14-ROX-040822	91	96	118
400-218241-3 MS	MW14-ROX-040822	109	97	112
400-218241-3 MSD	MW14-ROX-040822	107	95	111
400-218241-4	MW27-ROX-040822	118	115	154 S1+
400-218241-5	P54-ROX-040822	114	118	144 S1+
LCS 400-573677/2-A	Lab Control Sample	100	63	127
MB 400-573677/1-A	Method Blank	138 S1+	140 S1+	182 S1+

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	**Client Sample ID**	**(51-149)**
400-218241-2	TB-ROX-040822-8011	123
400-218241-3	MW14-ROX-040822	136
400-218241-3 MS	MW14-ROX-040822	138
400-218241-3 MSD	MW14-ROX-040822	134
400-218241-4	MW27-ROX-040822	124
400-218241-5	P54-ROX-040822	122
LCS 400-573769/2-A	Lab Control Sample	124
LCSD 400-573769/3-A	Lab Control Sample Dup	123
MB 400-573769/1-A	Method Blank	105

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Client Sample ID: TB-ROX-040822-8260

Date Collected: 04/08/22 00:01
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 17:23	CAR	TAL PEN

Client Sample ID: TB-ROX-040822-8011

Date Collected: 04/08/22 00:01
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			28.3 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 15:51	DS	TAL PEN

Client Sample ID: MW14-ROX-040822

Date Collected: 04/08/22 10:05
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 14:44	CAR	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 20:51	VC1	TAL PEN
Total/NA	Prep	3520C	RA		261.4 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D	RA	1			575169	04/25/22 17:42	S1B	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			573824	04/14/22 16:24	KJA	TAL PEN
Total/NA	Prep	8011			31.2 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 17:13	DS	TAL PEN

Client Sample ID: MW27-ROX-040822

Date Collected: 04/08/22 12:00
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 20:03	CAR	TAL PEN
Total/NA	Prep	3520C			263.8 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 21:13	VC1	TAL PEN
Total/NA	Prep	3520C			263.8 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			573824	04/14/22 16:39	KJA	TAL PEN
Total/NA	Prep	8011			31.9 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 16:11	DS	TAL PEN

Client Sample ID: P54-ROX-040822

Date Collected: 04/08/22 13:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 20:29	CAR	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Client Sample ID: P54-ROX-040822

Date Collected: 04/08/22 13:50
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			260.6 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 21:34	VC1	TAL PEN
Total/NA	Prep	3520C			260.6 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			573824	04/14/22 16:55	KJA	TAL PEN
Total/NA	Prep	8011			33.2 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 16:32	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-573618/5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 14:17	CAR	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-573677/1-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 18:43	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			573824	04/14/22 15:22	KJA	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-573769/1-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 11:46	DS	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-573618/1002

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 12:47	CAR	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-573677/2-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 19:47	VC1	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-573677/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			574053	04/15/22 15:16	PP1	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-573677/3-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 19:04	VC1	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-573769/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 12:06	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-573677/4-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 19:26	VC1	TAL PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-573769/3-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 12:27	DS	TAL PEN

Client Sample ID: MW14-ROX-040822
Date Collected: 04/08/22 10:05
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-3 MS
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 15:10	CAR	TAL PEN
Total/NA	Prep	3520C			263.4 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 20:09	VC1	TAL PEN
Total/NA	Prep	3520C			263.4 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			573824	04/14/22 15:53	KJA	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Client Sample ID: MW14-ROX-040822

Date Collected: 04/08/22 10:05
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-3 MS

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			31.6 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 17:33	DS	TAL PEN

Client Sample ID: MW14-ROX-040822

Date Collected: 04/08/22 10:05
Date Received: 04/09/22 08:40

Lab Sample ID: 400-218241-3 MSD

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573618	04/13/22 15:37	CAR	TAL PEN
Total/NA	Prep	3520C			262.4 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D		1			573896	04/14/22 20:30	VC1	TAL PEN
Total/NA	Prep	3520C			262.4 mL	1 mL	573677	04/13/22 10:20	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			573824	04/14/22 16:08	KJA	TAL PEN
Total/NA	Prep	8011			30.5 mL	35 mL	573769	04/13/22 15:23	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 17:54	DS	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

GC/MS VOA

Analysis Batch: 573618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218241-1	TB-ROX-040822-8260	Total/NA	Water	8260B	
400-218241-3	MW14-ROX-040822	Total/NA	Water	8260B	
400-218241-4	MW27-ROX-040822	Total/NA	Water	8260B	
400-218241-5	P54-ROX-040822	Total/NA	Water	8260B	
MB 400-573618/5	Method Blank	Total/NA	Water	8260B	
LCS 400-573618/1002	Lab Control Sample	Total/NA	Water	8260B	
400-218241-3 MS	MW14-ROX-040822	Total/NA	Water	8260B	
400-218241-3 MSD	MW14-ROX-040822	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 573677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218241-3	MW14-ROX-040822	Total/NA	Water	3520C	
400-218241-3 - RA	MW14-ROX-040822	Total/NA	Water	3520C	
400-218241-4	MW27-ROX-040822	Total/NA	Water	3520C	
400-218241-5	P54-ROX-040822	Total/NA	Water	3520C	
MB 400-573677/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-573677/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-573677/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-573677/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-218241-3 MS	MW14-ROX-040822	Total/NA	Water	3520C	
400-218241-3 MSD	MW14-ROX-040822	Total/NA	Water	3520C	

Analysis Batch: 573824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218241-3	MW14-ROX-040822	Total/NA	Water	8270D LL	573677
400-218241-4	MW27-ROX-040822	Total/NA	Water	8270D LL	573677
400-218241-5	P54-ROX-040822	Total/NA	Water	8270D LL	573677
MB 400-573677/1-A	Method Blank	Total/NA	Water	8270D LL	573677
400-218241-3 MS	MW14-ROX-040822	Total/NA	Water	8270D LL	573677
400-218241-3 MSD	MW14-ROX-040822	Total/NA	Water	8270D LL	573677

Analysis Batch: 573896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218241-3	MW14-ROX-040822	Total/NA	Water	8270D	573677
400-218241-4	MW27-ROX-040822	Total/NA	Water	8270D	573677
400-218241-5	P54-ROX-040822	Total/NA	Water	8270D	573677
MB 400-573677/1-A	Method Blank	Total/NA	Water	8270D	573677
LCS 400-573677/2-A	Lab Control Sample	Total/NA	Water	8270D	573677
LCS 400-573677/3-A	Lab Control Sample	Total/NA	Water	8270D	573677
LCSD 400-573677/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	573677
400-218241-3 MS	MW14-ROX-040822	Total/NA	Water	8270D	573677
400-218241-3 MSD	MW14-ROX-040822	Total/NA	Water	8270D	573677

Analysis Batch: 574053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-573677/2-A	Lab Control Sample	Total/NA	Water	8270D LL	573677

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

GC/MS Semi VOA

Analysis Batch: 575169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218241-3 - RA	MW14-ROX-040822	Total/NA	Water	8270D	573677

GC Semi VOA

Prep Batch: 573769

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218241-2	TB-ROX-040822-8011	Total/NA	Water	8011	
400-218241-3	MW14-ROX-040822	Total/NA	Water	8011	
400-218241-4	MW27-ROX-040822	Total/NA	Water	8011	
400-218241-5	P54-ROX-040822	Total/NA	Water	8011	
MB 400-573769/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-573769/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-573769/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-218241-3 MS	MW14-ROX-040822	Total/NA	Water	8011	
400-218241-3 MSD	MW14-ROX-040822	Total/NA	Water	8011	

Analysis Batch: 574373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218241-2	TB-ROX-040822-8011	Total/NA	Water	8011	573769
400-218241-3	MW14-ROX-040822	Total/NA	Water	8011	573769
400-218241-4	MW27-ROX-040822	Total/NA	Water	8011	573769
400-218241-5	P54-ROX-040822	Total/NA	Water	8011	573769
MB 400-573769/1-A	Method Blank	Total/NA	Water	8011	573769
LCS 400-573769/2-A	Lab Control Sample	Total/NA	Water	8011	573769
LCSD 400-573769/3-A	Lab Control Sample Dup	Total/NA	Water	8011	573769
400-218241-3 MS	MW14-ROX-040822	Total/NA	Water	8011	573769
400-218241-3 MSD	MW14-ROX-040822	Total/NA	Water	8011	573769

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-573618/5
Matrix: Water
Analysis Batch: 573618

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 14:17	1
Acrolein	ND		20	3.3	ug/L			04/13/22 14:17	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 14:17	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 14:17	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 14:17	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 14:17	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 14:17	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 14:17	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 14:17	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 14:17	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 14:17	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 14:17	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 14:17	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 14:17	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 14:17	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 14:17	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 14:17	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 14:17	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 14:17	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 14:17	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 14:17	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 14:17	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 14:17	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 14:17	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 14:17	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 14:17	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 14:17	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 14:17	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 14:17	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 14:17	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 14:17	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 14:17	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 14:17	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 14:17	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 14:17	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 14:17	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 14:17	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 14:17	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 14:17	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 14:17	1

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

Lab Sample ID: MB 400-573618/5
Matrix: Water
Analysis Batch: 573618

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 14:17	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 14:17	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 14:17	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 14:17	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 14:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 14:17	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 14:17	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 14:17	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 14:17	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 14:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 14:17	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 14:17	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 14:17	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 14:17	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 14:17	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 14:17	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 14:17	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 14:17	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 14:17	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 14:17	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 14:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*04/13/22 14:17*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*04/13/22 14:17*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*04/13/22 14:17*	*1*

Lab Sample ID: LCS 400-573618/1002
Matrix: Water
Analysis Batch: 573618

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	242		ug/L		121	43 - 160
Acrolein	500	548		ug/L		110	38 - 160
Acrylonitrile	500	677		ug/L		135	64 - 142
Benzene	50.0	60.6		ug/L		121	70 - 130
Bromobenzene	50.0	47.0		ug/L		94	70 - 132
Bromochloromethane	50.0	56.1		ug/L		112	70 - 130
Bromodichloromethane	50.0	55.8		ug/L		112	67 - 133
Bromoform	50.0	44.1		ug/L		88	57 - 140
Bromomethane	50.0	60.5		ug/L		121	10 - 160
2-Butanone (MEK)	200	241		ug/L		120	61 - 145
Carbon disulfide	50.0	55.7		ug/L		111	61 - 137
Carbon tetrachloride	50.0	52.5		ug/L		105	61 - 137
Chlorobenzene	50.0	50.6		ug/L		101	70 - 130
Dibromochloromethane	50.0	46.8		ug/L		94	67 - 135
Chloroethane	50.0	51.4		ug/L		103	55 - 141

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

Lab Sample ID: LCS 400-573618/1002
Matrix: Water
Analysis Batch: 573618

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	63.0		ug/L		126	10 - 160
Chloroform	50.0	56.8		ug/L		114	69 - 130
1-Chlorohexane	50.0	57.4		ug/L		115	69 - 130
Chloromethane	50.0	56.0		ug/L		112	58 - 137
cis-1,2-Dichloroethene	50.0	60.0		ug/L		120	68 - 130
cis-1,3-Dichloropropene	50.0	57.7		ug/L		115	69 - 132
1,2-Dichlorobenzene	50.0	48.0		ug/L		96	67 - 130
1,3-Dichlorobenzene	50.0	48.8		ug/L		98	70 - 130
1,4-Dichlorobenzene	50.0	48.8		ug/L		98	70 - 130
Dichlorodifluoromethane	50.0	35.8		ug/L		72	41 - 146
1,1-Dichloroethane	50.0	61.5		ug/L		123	70 - 130
1,2-Dichloroethane	50.0	57.0		ug/L		114	69 - 130
1,1-Dichloroethene	50.0	50.0		ug/L		100	63 - 134
1,2-Dichloropropane	50.0	63.3		ug/L		127	70 - 130
1,3-Dichloropropane	50.0	53.4		ug/L		107	70 - 130
2,2-Dichloropropane	50.0	51.5		ug/L		103	52 - 135
1,1-Dichloropropene	50.0	58.9		ug/L		118	70 - 130
Ethylbenzene	50.0	50.8		ug/L		102	70 - 130
Ethyl methacrylate	50.0	50.1		ug/L		100	68 - 130
Hexachlorobutadiene	50.0	49.5		ug/L		99	53 - 140
2-Hexanone	200	218		ug/L		109	65 - 137
Isopropylbenzene	50.0	49.2		ug/L		98	70 - 130
Methylene bromide	50.0	57.8		ug/L		116	70 - 130
Methylene Chloride	50.0	53.2		ug/L		106	66 - 135
4-Methyl-2-pentanone (MIBK)	200	255		ug/L		127	69 - 138
Methyl tert-butyl ether	50.0	54.6		ug/L		109	66 - 130
m-Xylene & p-Xylene	50.0	48.8		ug/L		98	70 - 130
Naphthalene	50.0	43.7		ug/L		87	47 - 149
n-Butylbenzene	50.0	51.4		ug/L		103	67 - 130
N-Propylbenzene	50.0	50.6		ug/L		101	70 - 130
o-Chlorotoluene	50.0	50.0		ug/L		100	70 - 130
o-Xylene	50.0	49.8		ug/L		100	70 - 130
p-Chlorotoluene	50.0	50.0		ug/L		100	70 - 130
p-Isopropyltoluene	50.0	48.7		ug/L		97	65 - 130
sec-Butylbenzene	50.0	50.0		ug/L		100	66 - 130
Styrene	50.0	49.7		ug/L		99	70 - 130
tert-Butylbenzene	50.0	48.8		ug/L		98	64 - 139
1,1,1,2-Tetrachloroethane	50.0	47.4		ug/L		95	67 - 131
1,1,2,2-Tetrachloroethane	50.0	51.3		ug/L		103	70 - 131
Tetrachloroethene	50.0	46.9		ug/L		94	65 - 130
Toluene	50.0	49.2		ug/L		98	70 - 130
trans-1,2-Dichloroethene	50.0	56.1		ug/L		112	70 - 130
trans-1,3-Dichloropropene	50.0	49.8		ug/L		100	63 - 130
1,2,3-Trichlorobenzene	50.0	46.3		ug/L		93	60 - 138
1,2,4-Trichlorobenzene	50.0	46.2		ug/L		92	60 - 140
1,1,1-Trichloroethane	50.0	53.3		ug/L		107	68 - 130
1,1,2-Trichloroethane	50.0	51.8		ug/L		104	70 - 130
Trichloroethene	50.0	55.6		ug/L		111	70 - 130
Trichlorofluoromethane	50.0	45.0		ug/L		90	65 - 138

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

Lab Sample ID: LCS 400-573618/1002
Matrix: Water
Analysis Batch: 573618

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	47.9		ug/L		96	70 - 130
1,2,4-Trimethylbenzene	50.0	50.6		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	50.0	49.4		ug/L		99	69 - 130
Vinyl acetate	100	99.0		ug/L		99	26 - 160
Vinyl chloride	50.0	50.8		ug/L		102	59 - 136
Xylenes, Total	100	98.6		ug/L		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*92*		*64 - 132*

Lab Sample ID: 400-218241-3 MS
Matrix: Water
Analysis Batch: 573618

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	231		ug/L		115	43 - 150
Acrolein	ND		500	592		ug/L		118	38 - 150
Acrylonitrile	ND		500	719		ug/L		139	62 - 149
Benzene	ND		50.0	56.5		ug/L		113	56 - 142
Bromobenzene	ND		50.0	38.9		ug/L		78	59 - 136
Bromochloromethane	ND		50.0	53.8		ug/L		108	64 - 140
Bromodichloromethane	ND		50.0	52.5		ug/L		105	59 - 143
Bromoform	ND		50.0	41.3		ug/L		83	50 - 140
Bromomethane	ND		50.0	50.9		ug/L		102	10 - 150
2-Butanone (MEK)	ND		200	246		ug/L		123	55 - 150
Carbon disulfide	ND		50.0	50.4		ug/L		101	48 - 150
Carbon tetrachloride	ND		50.0	49.1		ug/L		98	55 - 145
Chlorobenzene	ND		50.0	43.8		ug/L		88	64 - 130
Dibromochloromethane	ND		50.0	45.1		ug/L		90	56 - 143
Chloroethane	ND		50.0	53.5		ug/L		107	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	53.4		ug/L		107	60 - 141
1-Chlorohexane	ND		50.0	45.0		ug/L		90	56 - 136
Chloromethane	ND		50.0	60.2		ug/L		120	49 - 148
cis-1,2-Dichloroethene	ND		50.0	56.5		ug/L		113	59 - 143
cis-1,3-Dichloropropene	ND		50.0	53.6		ug/L		107	57 - 140
1,2-Dichlorobenzene	ND		50.0	38.6		ug/L		77	52 - 137
1,3-Dichlorobenzene	ND		50.0	36.7		ug/L		73	54 - 135
1,4-Dichlorobenzene	ND		50.0	37.4		ug/L		75	53 - 135
Dichlorodifluoromethane	ND		50.0	36.0		ug/L		72	16 - 150
1,1-Dichloroethane	ND		50.0	58.1		ug/L		116	61 - 144
1,2-Dichloroethane	ND		50.0	55.5		ug/L		111	60 - 141
1,1-Dichloroethene	ND		50.0	45.3		ug/L		91	54 - 147
1,2-Dichloropropane	ND		50.0	61.4		ug/L		123	66 - 137
1,3-Dichloropropane	ND		50.0	52.5		ug/L		105	66 - 133
2,2-Dichloropropane	ND		50.0	47.6		ug/L		95	42 - 144

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

Lab Sample ID: 400-218241-3 MS
Matrix: Water
Analysis Batch: 573618

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	ND		50.0	53.9		ug/L		108	65 - 136
Ethylbenzene	ND		50.0	41.8		ug/L		84	58 - 131
Ethyl methacrylate	ND		50.0	49.1		ug/L		98	64 - 130
Hexachlorobutadiene	ND		50.0	31.2		ug/L		62	31 - 149
2-Hexanone	ND		200	222		ug/L		111	65 - 140
Isopropylbenzene	ND		50.0	39.8		ug/L		80	56 - 133
Methylene bromide	ND		50.0	56.1		ug/L		112	63 - 138
Methylene Chloride	ND		50.0	55.6		ug/L		111	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	266		ug/L		133	63 - 146
Methyl tert-butyl ether	ND		50.0	54.3		ug/L		109	59 - 137
m-Xylene & p-Xylene	ND		50.0	39.7		ug/L		79	57 - 130
Naphthalene	ND		50.0	40.2		ug/L		80	25 - 150
n-Butylbenzene	ND		50.0	35.0		ug/L		70	41 - 142
N-Propylbenzene	ND		50.0	37.3		ug/L		75	51 - 138
o-Chlorotoluene	ND		50.0	38.7		ug/L		77	53 - 134
o-Xylene	ND		50.0	41.0		ug/L		82	61 - 130
p-Chlorotoluene	ND		50.0	37.4		ug/L		75	54 - 133
p-Isopropyltoluene	ND		50.0	33.3		ug/L		67	48 - 139
sec-Butylbenzene	ND		50.0	36.6		ug/L		73	50 - 138
Styrene	ND		50.0	41.7		ug/L		83	58 - 131
tert-Butylbenzene	ND		50.0	36.8		ug/L		74	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	43.0		ug/L		86	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	49.3		ug/L		99	66 - 135
Tetrachloroethene	ND		50.0	39.0		ug/L		78	52 - 133
Toluene	ND		50.0	42.9		ug/L		86	65 - 130
trans-1,2-Dichloroethene	ND		50.0	51.6		ug/L		103	61 - 143
trans-1,3-Dichloropropene	ND		50.0	46.4		ug/L		93	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	37.3		ug/L		75	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	34.9		ug/L		70	39 - 148
1,1,1-Trichloroethane	ND		50.0	49.5		ug/L		99	57 - 142
1,1,2-Trichloroethane	ND		50.0	51.0		ug/L		102	66 - 131
Trichloroethene	ND		50.0	49.7		ug/L		99	64 - 136
Trichlorofluoromethane	ND		50.0	44.2		ug/L		88	54 - 150
1,2,3-Trichloropropane	ND		50.0	45.9		ug/L		92	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	37.6		ug/L		75	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	36.7		ug/L		73	52 - 135
Vinyl acetate	ND		100	108		ug/L		108	26 - 150
Vinyl chloride	ND		50.0	50.5		ug/L		101	46 - 150
Xylenes, Total	ND		100	80.7		ug/L		81	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 119*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*91*		*64 - 132*

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

Lab Sample ID: 400-218241-3 MSD
Matrix: Water
Analysis Batch: 573618

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	ND		200	191		ug/L		95	43 - 150	19	30
Acrolein	ND		500	544		ug/L		109	38 - 150	8	31
Acrylonitrile	ND		500	585		ug/L		112	62 - 149	21	30
Benzene	ND		50.0	48.7		ug/L		97	56 - 142	15	30
Bromobenzene	ND		50.0	34.5		ug/L		69	59 - 136	12	30
Bromochloromethane	ND		50.0	45.7		ug/L		91	64 - 140	16	30
Bromodichloromethane	ND		50.0	45.0		ug/L		90	59 - 143	15	30
Bromoform	ND		50.0	33.0		ug/L		66	50 - 140	22	30
Bromomethane	ND		50.0	70.9		ug/L		142	10 - 150	33	50
2-Butanone (MEK)	ND		200	191		ug/L		95	55 - 150	25	30
Carbon disulfide	ND		50.0	44.6		ug/L		89	48 - 150	12	30
Carbon tetrachloride	ND		50.0	42.0		ug/L		84	55 - 145	15	30
Chlorobenzene	ND		50.0	38.4		ug/L		77	64 - 130	13	30
Dibromochloromethane	ND		50.0	37.2		ug/L		74	56 - 143	19	30
Chloroethane	ND		50.0	54.5		ug/L		109	50 - 150	2	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	45.8		ug/L		92	60 - 141	15	30
1-Chlorohexane	ND		50.0	39.7		ug/L		79	56 - 136	13	30
Chloromethane	ND		50.0	63.1		ug/L		126	49 - 148	5	31
cis-1,2-Dichloroethene	ND		50.0	48.6		ug/L		97	59 - 143	15	30
cis-1,3-Dichloropropene	ND		50.0	44.8		ug/L		90	57 - 140	18	30
1,2-Dichlorobenzene	ND		50.0	34.5		ug/L		69	52 - 137	11	30
1,3-Dichlorobenzene	ND		50.0	33.8		ug/L		68	54 - 135	8	30
1,4-Dichlorobenzene	ND		50.0	33.7		ug/L		67	53 - 135	10	30
Dichlorodifluoromethane	ND		50.0	38.1		ug/L		76	16 - 150	6	31
1,1-Dichloroethane	ND		50.0	50.3		ug/L		101	61 - 144	14	30
1,2-Dichloroethane	ND		50.0	45.8		ug/L		92	60 - 141	19	30
1,1-Dichloroethene	ND		50.0	41.1		ug/L		82	54 - 147	10	30
1,2-Dichloropropane	ND		50.0	52.4		ug/L		105	66 - 137	16	30
1,3-Dichloropropane	ND		50.0	42.3		ug/L		85	66 - 133	21	30
2,2-Dichloropropane	ND		50.0	41.2		ug/L		82	42 - 144	14	31
1,1-Dichloropropene	ND		50.0	46.6		ug/L		93	65 - 136	15	30
Ethylbenzene	ND		50.0	36.7		ug/L		73	58 - 131	13	30
Ethyl methacrylate	ND		50.0	39.8		ug/L		80	64 - 130	21	30
Hexachlorobutadiene	ND		50.0	30.1		ug/L		60	31 - 149	4	36
2-Hexanone	ND		200	173		ug/L		86	65 - 140	25	30
Isopropylbenzene	ND		50.0	35.1		ug/L		70	56 - 133	13	30
Methylene bromide	ND		50.0	46.1		ug/L		92	63 - 138	20	30
Methylene Chloride	ND		50.0	48.4		ug/L		97	60 - 146	14	32
4-Methyl-2-pentanone (MIBK)	ND		200	205		ug/L		103	63 - 146	26	30
Methyl tert-butyl ether	ND		50.0	45.6		ug/L		91	59 - 137	17	30
m-Xylene & p-Xylene	ND		50.0	35.4		ug/L		71	57 - 130	12	30
Naphthalene	ND		50.0	34.5		ug/L		69	25 - 150	15	30
n-Butylbenzene	ND		50.0	31.6		ug/L		63	41 - 142	10	31
N-Propylbenzene	ND		50.0	33.5		ug/L		67	51 - 138	11	30
o-Chlorotoluene	ND		50.0	34.2		ug/L		68	53 - 134	12	30
o-Xylene	ND		50.0	36.3		ug/L		73	61 - 130	12	30
p-Chlorotoluene	ND		50.0	34.1		ug/L		68	54 - 133	9	30

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

Lab Sample ID: 400-218241-3 MSD
Matrix: Water
Analysis Batch: 573618

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
p-Isopropyltoluene	ND		50.0	31.2		ug/L		62	48 - 139	6	30
sec-Butylbenzene	ND		50.0	33.1		ug/L		66	50 - 138	10	30
Styrene	ND		50.0	36.5		ug/L		73	58 - 131	13	30
tert-Butylbenzene	ND		50.0	32.7		ug/L		65	54 - 146	12	30
1,1,1,2-Tetrachloroethane	ND		50.0	37.3		ug/L		75	59 - 137	14	30
1,1,2,2-Tetrachloroethane	ND		50.0	40.7		ug/L		81	66 - 135	19	30
Tetrachloroethene	ND		50.0	33.8		ug/L		68	52 - 133	14	30
Toluene	ND		50.0	37.4		ug/L		75	65 - 130	14	30
trans-1,2-Dichloroethene	ND		50.0	45.8		ug/L		92	61 - 143	12	30
trans-1,3-Dichloropropene	ND		50.0	38.6		ug/L		77	53 - 133	18	30
1,2,3-Trichlorobenzene	ND		50.0	33.8		ug/L		68	43 - 145	10	30
1,2,4-Trichlorobenzene	ND		50.0	32.4		ug/L		65	39 - 148	8	30
1,1,1-Trichloroethane	ND		50.0	43.0		ug/L		86	57 - 142	14	30
1,1,2-Trichloroethane	ND		50.0	42.5		ug/L		85	66 - 131	18	30
Trichloroethene	ND		50.0	43.3		ug/L		87	64 - 136	14	30
Trichlorofluoromethane	ND		50.0	48.2		ug/L		96	54 - 150	9	30
1,2,3-Trichloropropane	ND		50.0	37.4		ug/L		75	65 - 133	20	30
1,2,4-Trimethylbenzene	ND		50.0	34.4		ug/L		69	50 - 139	9	30
1,3,5-Trimethylbenzene	ND		50.0	33.2		ug/L		66	52 - 135	10	30
Vinyl acetate	ND		100	99.9		ug/L		100	26 - 150	8	33
Vinyl chloride	ND		50.0	53.8		ug/L		108	46 - 150	6	30
Xylenes, Total	ND		100	71.7		ug/L		72	59 - 130	12	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*93*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-573677/1-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/13/22 10:20	04/14/22 18:43	1
Benzenethiol	ND		10	1.7	ug/L		04/13/22 10:20	04/14/22 18:43	1
Benzoic acid	ND		30	7.3	ug/L		04/13/22 10:20	04/14/22 18:43	1
Benzyl alcohol	ND		10	2.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/13/22 10:20	04/14/22 18:43	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/13/22 10:20	04/14/22 18:43	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/13/22 10:20	04/14/22 18:43	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/13/22 10:20	04/14/22 18:43	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/13/22 10:20	04/14/22 18:43	1
4-Chloroaniline	ND		10	3.4	ug/L		04/13/22 10:20	04/14/22 18:43	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/13/22 10:20	04/14/22 18:43	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/13/22 10:20	04/14/22 18:43	1
2-Chlorophenol	ND		10	2.2	ug/L		04/13/22 10:20	04/14/22 18:43	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-573677/1-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Dibenzofuran	ND		10	0.17	ug/L		04/13/22 10:20	04/14/22 18:43	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Diethyl phthalate	0.441	J	10	0.24	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/13/22 10:20	04/14/22 18:43	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/13/22 10:20	04/14/22 18:43	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/13/22 10:20	04/14/22 18:43	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/13/22 10:20	04/14/22 18:43	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/13/22 10:20	04/14/22 18:43	1
1,4-Dioxane	ND		10	1.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/13/22 10:20	04/14/22 18:43	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/13/22 10:20	04/14/22 18:43	1
Hexachloroethane	ND		10	4.2	ug/L		04/13/22 10:20	04/14/22 18:43	1
Indene	ND		10	1.0	ug/L		04/13/22 10:20	04/14/22 18:43	1
Isophorone	ND		10	0.14	ug/L		04/13/22 10:20	04/14/22 18:43	1
2-Methylphenol	ND		10	1.8	ug/L		04/13/22 10:20	04/14/22 18:43	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/13/22 10:20	04/14/22 18:43	1
2-Nitroaniline	ND		10	2.2	ug/L		04/13/22 10:20	04/14/22 18:43	1
3-Nitroaniline	ND		10	1.8	ug/L		04/13/22 10:20	04/14/22 18:43	1
4-Nitroaniline	ND		10	1.5	ug/L		04/13/22 10:20	04/14/22 18:43	1
Nitrobenzene	ND		10	0.13	ug/L		04/13/22 10:20	04/14/22 18:43	1
2-Nitrophenol	ND		10	5.2	ug/L		04/13/22 10:20	04/14/22 18:43	1
4-Nitrophenol	ND		10	2.1	ug/L		04/13/22 10:20	04/14/22 18:43	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/13/22 10:20	04/14/22 18:43	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/13/22 10:20	04/14/22 18:43	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/13/22 10:20	04/14/22 18:43	1
Pentachlorophenol	ND		20	1.4	ug/L		04/13/22 10:20	04/14/22 18:43	1
Phenol	ND		10	2.6	ug/L		04/13/22 10:20	04/14/22 18:43	1
Pyridine	ND		10	3.2	ug/L		04/13/22 10:20	04/14/22 18:43	1
Quinoline	ND		10	4.5	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/13/22 10:20	04/14/22 18:43	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/13/22 10:20	04/14/22 18:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*04/13/22 10:20*	*04/14/22 18:43*	*1*
2-Fluorophenol	*22*		*13 - 113*	*04/13/22 10:20*	*04/14/22 18:43*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*04/13/22 10:20*	*04/14/22 18:43*	*1*
Phenol-d5	*58*		*17 - 127*	*04/13/22 10:20*	*04/14/22 18:43*	*1*
Terphenyl-d14	*96*		*44 - 149*	*04/13/22 10:20*	*04/14/22 18:43*	*1*
2,4,6-Tribromophenol	*77*		*26 - 150*	*04/13/22 10:20*	*04/14/22 18:43*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-573677/2-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	76.3		ug/L		64	21 - 120
Benzoic acid	498	339		ug/L		68	10 - 144
Benzyl alcohol	120	105		ug/L		87	28 - 120
Bis(2-chloroethoxy)methane	120	89.9		ug/L		75	47 - 120
Bis(2-chloroethyl)ether	120	99.1		ug/L		83	44 - 120
bis (2-chloroisopropyl) ether	120	91.8		ug/L		76	33 - 121
Bis(2-ethylhexyl) phthalate	120	113		ug/L		94	52 - 147
4-Bromophenyl phenyl ether	120	102		ug/L		85	54 - 122
Butyl benzyl phthalate	120	112		ug/L		94	54 - 133
4-Chloroaniline	120	77.8		ug/L		65	26 - 120
4-Chloro-3-methylphenol	120	103		ug/L		86	48 - 131
2-Chloronaphthalene	120	101		ug/L		84	52 - 121
2-Chlorophenol	120	91.7		ug/L		76	40 - 120
4-Chlorophenyl phenyl ether	120	106		ug/L		89	56 - 125
Dibenz[a,h]acridine	120	123		ug/L		103	31 - 150
Dibenzofuran	120	105		ug/L		87	56 - 122
3,3'-Dichlorobenzidine	160	202		ug/L		126	36 - 132
2,4-Dichlorophenol	120	98.1		ug/L		82	49 - 120
Diethyl phthalate	120	112		ug/L		93	50 - 137
2,4-Dimethylphenol	120	100		ug/L		84	48 - 120
Dimethyl phthalate	120	104		ug/L		87	57 - 124
Di-n-butyl phthalate	120	119		ug/L		99	58 - 126
4,6-Dinitro-ortho-cresol	240	260		ug/L		108	23 - 148
2,4-Dinitrophenol	240	246		ug/L		102	10 - 150
2,4-Dinitrotoluene	120	110		ug/L		91	54 - 142
2,6-Dinitrotoluene	120	102		ug/L		85	55 - 130
Di-n-octyl phthalate	120	118		ug/L		99	57 - 138
1,4-Dioxane	120	76.0		ug/L		63	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	96.1		ug/L		80	45 - 124
Hexachlorobenzene	120	112		ug/L		93	52 - 129
Hexachlorocyclopentadiene	120	65.9		ug/L		55	10 - 134
Hexachloroethane	120	96.6		ug/L		80	20 - 120
Indene	120	94.0		ug/L		78	49 - 120
Isophorone	120	93.5		ug/L		78	48 - 120
2-Methylphenol	120	102		ug/L		85	46 - 124
3 & 4 Methylphenol	120	103		ug/L		86	45 - 120
2-Nitroaniline	120	95.4		ug/L		79	51 - 145
3-Nitroaniline	120	92.6		ug/L		77	37 - 127
4-Nitroaniline	120	122		ug/L		102	36 - 137
Nitrobenzene	120	88.1		ug/L		73	45 - 120
2-Nitrophenol	120	103		ug/L		86	40 - 124
4-Nitrophenol	240	206		ug/L		86	23 - 146
N-Nitrosodimethylamine	120	103		ug/L		86	29 - 137
N-Nitrosodi-n-propylamine	120	100		ug/L		83	45 - 120
N-Nitrosodiphenylamine	119	96.9		ug/L		81	54 - 120
Pentachlorophenol	240	221		ug/L		92	31 - 130
Phenol	120	100		ug/L		84	11 - 120
Pyridine	240	143		ug/L		59	16 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-573677/2-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Quinoline	120	112		ug/L		93	49 - 130
2,4,5-Trichlorophenol	120	104		ug/L		87	51 - 136
2,4,6-Trichlorophenol	120	103		ug/L		86	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*56*		*13 - 113*
Nitrobenzene-d5	*81*		*36 - 126*
Phenol-d5	*76*		*17 - 127*
Terphenyl-d14	*90*		*44 - 149*
2,4,6-Tribromophenol	*102*		*26 - 150*

Lab Sample ID: LCS 400-573677/3-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	9.42	J *-	ug/L		8	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*46*		*13 - 113*
Nitrobenzene-d5	*78*		*36 - 126*
Phenol-d5	*72*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*77*		*26 - 150*

Lab Sample ID: LCSD 400-573677/4-A
Matrix: Water
Analysis Batch: 573896

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	8.36	J *-	ug/L		7	10 - 120	NaN	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*78*		*46 - 124*
2-Fluorophenol	*44*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*67*		*17 - 127*
Terphenyl-d14	*93*		*44 - 149*
2,4,6-Tribromophenol	*57*		*26 - 150*

Lab Sample ID: 400-218241-3 MS
Matrix: Water
Analysis Batch: 573896

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		114	58.7		ug/L		52	10 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-218241-3 MS
Matrix: Water
Analysis Batch: 573896

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzoic acid	ND		472	336		ug/L		71	10 - 149
Benzyl alcohol	ND		114	95.5		ug/L		84	33 - 120
Bis(2-chloroethoxy)methane	ND		114	80.4		ug/L		71	26 - 120
Bis(2-chloroethyl)ether	ND		114	106		ug/L		93	42 - 120
bis (2-chloroisopropyl) ether	ND		114	85.8		ug/L		75	28 - 120
Bis(2-ethylhexyl) phthalate	ND		114	108		ug/L		95	39 - 120
4-Bromophenyl phenyl ether	ND		114	94.5		ug/L		83	40 - 120
Butyl benzyl phthalate	ND		114	106		ug/L		93	45 - 120
4-Chloroaniline	ND		114	75.2		ug/L		66	10 - 120
4-Chloro-3-methylphenol	ND		114	91.1		ug/L		80	34 - 120
2-Chloronaphthalene	ND		114	92.4		ug/L		81	39 - 120
2-Chlorophenol	ND		114	81.3		ug/L		71	25 - 120
4-Chlorophenyl phenyl ether	ND		114	95.8		ug/L		84	44 - 120
Dibenz[a,h]acridine	2.5	J	114	124		ug/L		107	50 - 150
Dibenzofuran	ND		114	94.7		ug/L		83	25 - 130
3,3'-Dichlorobenzidine	ND		152	182		ug/L		120	10 - 120
2,4-Dichlorophenol	ND		114	86.7		ug/L		76	31 - 120
Diethyl phthalate	0.54	J B	114	102		ug/L		89	46 - 120
2,4-Dimethylphenol	ND		114	90.6		ug/L		80	21 - 120
Dimethyl phthalate	ND		114	95.8		ug/L		84	38 - 120
Di-n-butyl phthalate	ND		114	109		ug/L		96	49 - 120
4,6-Dinitro-ortho-cresol	ND		228	250		ug/L		110	25 - 120
2,4-Dinitrophenol	ND		228	236		ug/L		104	15 - 140
2,4-Dinitrotoluene	ND		114	98.9		ug/L		87	53 - 120
2,6-Dinitrotoluene	ND		114	91.4		ug/L		80	43 - 120
Di-n-octyl phthalate	4.5	J	114	113		ug/L		96	35 - 121
1,4-Dioxane	ND		114	62.6		ug/L		55	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		114	90.1		ug/L		79	50 - 150
Hexachlorobenzene	ND		114	102		ug/L		89	38 - 122
Hexachlorocyclopentadiene	ND		114	60.9		ug/L		53	10 - 120
Hexachloroethane	ND		114	92.3		ug/L		81	10 - 150
Indene	ND		114	87.0		ug/L		76	50 - 150
Isophorone	ND		114	85.1		ug/L		75	42 - 120
2-Methylphenol	ND		114	93.7		ug/L		82	28 - 120
3 & 4 Methylphenol	ND		114	95.4		ug/L		84	31 - 120
2-Nitroaniline	ND		114	85.6		ug/L		75	45 - 120
3-Nitroaniline	ND		114	85.2		ug/L		75	10 - 130
4-Nitroaniline	ND		114	111		ug/L		97	10 - 132
Nitrobenzene	ND		114	81.4		ug/L		71	39 - 120
2-Nitrophenol	ND		114	93.6		ug/L		82	33 - 120
4-Nitrophenol	ND		228	184		ug/L		81	10 - 120
N-Nitrosodimethylamine	ND		114	95.9		ug/L		84	10 - 139
N-Nitrosodi-n-propylamine	ND		114	91.1		ug/L		80	37 - 124
N-Nitrosodiphenylamine	ND		113	89.8		ug/L		79	10 - 150
Pentachlorophenol	8.5	J	228	211		ug/L		89	29 - 130
Phenol	ND		114	91.6		ug/L		80	10 - 150
Pyridine	ND		228	143		ug/L		63	10 - 120
Quinoline	ND		114	104		ug/L		92	51 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-218241-3 MS
Matrix: Water
Analysis Batch: 573896

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	ND		114	92.7		ug/L		81	34 - 120
2,4,6-Trichlorophenol	ND		114	92.6		ug/L		81	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*77*		*46 - 124*
2-Fluorophenol	*49*		*13 - 113*
Nitrobenzene-d5	*78*		*36 - 126*
Phenol-d5	*72*		*17 - 127*
Terphenyl-d14	*88*		*44 - 149*
2,4,6-Tribromophenol	*97*		*26 - 150*

Lab Sample ID: 400-218241-3 MSD
Matrix: Water
Analysis Batch: 573896

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		114	54.6		ug/L		48	10 - 120	7	63
Benzoic acid	ND		474	324		ug/L		68	10 - 149	4	49
Benzyl alcohol	ND		114	93.7		ug/L		82	33 - 120	2	37
Bis(2-chloroethoxy)methane	ND		114	81.3		ug/L		71	26 - 120	1	70
Bis(2-chloroethyl)ether	ND		114	107		ug/L		93	42 - 120	1	42
bis (2-chloroisopropyl) ether	ND		114	86.1		ug/L		75	28 - 120	0	41
Bis(2-ethylhexyl) phthalate	ND		114	104		ug/L		91	39 - 120	4	35
4-Bromophenyl phenyl ether	ND		114	95.2		ug/L		83	40 - 120	1	30
Butyl benzyl phthalate	ND		114	102		ug/L		90	45 - 120	4	32
4-Chloroaniline	ND		114	75.5		ug/L		66	10 - 120	0	94
4-Chloro-3-methylphenol	ND		114	91.3		ug/L		80	34 - 120	0	40
2-Chloronaphthalene	ND		114	92.1		ug/L		81	39 - 120	0	29
2-Chlorophenol	ND		114	71.0		ug/L		62	25 - 120	13	42
4-Chlorophenyl phenyl ether	ND		114	95.9		ug/L		84	44 - 120	0	27
Dibenz[a,h]acridine	2.5	J	114	128		ug/L		110	50 - 150	3	40
Dibenzofuran	ND		114	94.4		ug/L		83	25 - 130	0	29
3,3'-Dichlorobenzidine	ND		152	182		ug/L		119	10 - 120	0	58
2,4-Dichlorophenol	ND		114	85.1		ug/L		74	31 - 120	2	43
Diethyl phthalate	0.54	J B	114	102		ug/L		89	46 - 120	0	40
2,4-Dimethylphenol	ND		114	89.4		ug/L		78	21 - 120	1	47
Dimethyl phthalate	ND		114	95.2		ug/L		83	38 - 120	1	36
Di-n-butyl phthalate	ND		114	110		ug/L		96	49 - 120	1	32
4,6-Dinitro-ortho-cresol	ND		229	255		ug/L		112	25 - 120	2	42
2,4-Dinitrophenol	ND		229	242		ug/L		106	15 - 140	2	36
2,4-Dinitrotoluene	ND		114	99.0		ug/L		87	53 - 120	0	28
2,6-Dinitrotoluene	ND		114	91.5		ug/L		80	43 - 120	0	28
Di-n-octyl phthalate	4.5	J	114	111		ug/L		93	35 - 121	2	35
1,4-Dioxane	ND		114	70.7		ug/L		62	50 - 150	12	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		114	89.6		ug/L		78	50 - 150	1	40
Hexachlorobenzene	ND		114	103		ug/L		90	38 - 122	1	33
Hexachlorocyclopentadiene	ND		114	63.2		ug/L		55	10 - 120	4	50
Hexachloroethane	ND		114	90.6		ug/L		79	10 - 150	2	41

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-218241-3 MSD
Matrix: Water
Analysis Batch: 573896

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indene	ND		114	85.9		ug/L		75	50 - 150	1	40
Isophorone	ND		114	84.2		ug/L		74	42 - 120	1	33
2-Methylphenol	ND		114	93.1		ug/L		81	28 - 120	1	47
3 & 4 Methylphenol	ND		114	92.5		ug/L		81	31 - 120	3	47
2-Nitroaniline	ND		114	85.7		ug/L		75	45 - 120	0	33
3-Nitroaniline	ND		114	85.5		ug/L		75	10 - 130	0	39
4-Nitroaniline	ND		114	114		ug/L		100	10 - 132	3	50
Nitrobenzene	ND		114	80.3		ug/L		70	39 - 120	1	35
2-Nitrophenol	ND		114	91.2		ug/L		80	33 - 120	3	43
4-Nitrophenol	ND		229	189		ug/L		83	10 - 120	2	82
N-Nitrosodimethylamine	ND		114	82.3		ug/L		72	10 - 139	15	62
N-Nitrosodi-n-propylamine	ND		114	90.2		ug/L		79	37 - 124	1	36
N-Nitrosodiphenylamine	ND		113	89.4		ug/L		79	10 - 150	0	34
Pentachlorophenol	8.5	J	229	217		ug/L		91	29 - 130	3	42
Phenol	ND		114	85.0		ug/L		74	10 - 150	7	52
Pyridine	ND		229	141		ug/L		62	10 - 120	1	55
Quinoline	ND		114	103		ug/L		91	51 - 120	1	40
2,4,5-Trichlorophenol	ND		114	92.0		ug/L		80	34 - 120	1	42
2,4,6-Trichlorophenol	ND		114	91.0		ug/L		80	33 - 120	2	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*35*		*13 - 113*
Nitrobenzene-d5	*80*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*102*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-573677/1-A
Matrix: Water
Analysis Batch: 573824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/13/22 10:20	04/14/22 15:22	1
Acenaphthylene	0.102	J	0.20	0.045	ug/L		04/13/22 10:20	04/14/22 15:22	1
Anthracene	ND		0.20	0.032	ug/L		04/13/22 10:20	04/14/22 15:22	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/13/22 10:20	04/14/22 15:22	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/13/22 10:20	04/14/22 15:22	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/13/22 10:20	04/14/22 15:22	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/13/22 10:20	04/14/22 15:22	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/13/22 10:20	04/14/22 15:22	1
Chrysene	ND		0.20	0.074	ug/L		04/13/22 10:20	04/14/22 15:22	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/13/22 10:20	04/14/22 15:22	1
Fluoranthene	ND		0.20	0.068	ug/L		04/13/22 10:20	04/14/22 15:22	1
Fluorene	ND		0.20	0.11	ug/L		04/13/22 10:20	04/14/22 15:22	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/13/22 10:20	04/14/22 15:22	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/13/22 10:20	04/14/22 15:22	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-573677/1-A
Matrix: Water
Analysis Batch: 573824

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/13/22 10:20	04/14/22 15:22	1
Phenanthrene	ND		0.20	0.036	ug/L		04/13/22 10:20	04/14/22 15:22	1
Pyrene	ND		0.20	0.040	ug/L		04/13/22 10:20	04/14/22 15:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*138*	*S1+*	*15 - 122*	*04/13/22 10:20*	*04/14/22 15:22*	*1*
Nitrobenzene-d5	*140*	*S1+*	*19 - 130*	*04/13/22 10:20*	*04/14/22 15:22*	*1*
Terphenyl-d14	*182*	*S1+*	*33 - 138*	*04/13/22 10:20*	*04/14/22 15:22*	*1*

Lab Sample ID: LCS 400-573677/2-A
Matrix: Water
Analysis Batch: 574053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	140		ug/L		116	41 - 120
Acenaphthylene	120	137		ug/L		114	44 - 120
Anthracene	120	147	*+	ug/L		123	49 - 120
Benzo[a]anthracene	120	134		ug/L		112	61 - 135
Benzo[a]pyrene	120	136		ug/L		113	52 - 120
Benzo[b]fluoranthene	120	113		ug/L		94	53 - 134
Benzo[g,h,i]perylene	120	120		ug/L		100	47 - 133
Benzo[k]fluoranthene	120	114		ug/L		95	57 - 134
Chrysene	120	143		ug/L		119	55 - 122
Dibenz(a,h)anthracene	120	103		ug/L		86	48 - 146
Fluoranthene	120	140		ug/L		117	54 - 128
Fluorene	120	158	*+	ug/L		132	45 - 125
Indeno[1,2,3-cd]pyrene	120	107		ug/L		90	43 - 142
1-Methylnaphthalene	120	103		ug/L		86	41 - 120
2-Methylnaphthalene	120	108		ug/L		90	32 - 124
Phenanthrene	120	138		ug/L		115	48 - 120
Pyrene	120	158		ug/L		131	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*100*		*15 - 122*
Nitrobenzene-d5	*63*		*19 - 130*
Terphenyl-d14	*127*		*33 - 138*

Lab Sample ID: 400-218241-3 MS
Matrix: Water
Analysis Batch: 573824

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		114	141	F1	ug/L		124	35 - 113
Acenaphthylene	ND		114	136	F1	ug/L		119	41 - 118
Anthracene	0.088	J *+	114	144	F1	ug/L		126	45 - 122
Benzo[a]anthracene	ND		114	133		ug/L		116	55 - 133
Benzo[a]pyrene	0.13	J	114	135	F1	ug/L		118	50 - 108
Benzo[b]fluoranthene	0.14	J	114	131		ug/L		115	50 - 128

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 400-218241-3 MS
Matrix: Water
Analysis Batch: 573824

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[g,h,i]perylene	0.12	J	114	129		ug/L		113	46 - 133
Benzo[k]fluoranthene	0.12	J	114	132		ug/L		116	52 - 128
Chrysene	0.12	J	114	129		ug/L		113	52 - 116
Dibenz(a,h)anthracene	0.10	J	114	133		ug/L		117	52 - 143
Fluoranthene	0.15	J	114	141		ug/L		124	32 - 150
Fluorene	ND	*+	114	160		ug/L		140	15 - 150
Indeno[1,2,3-cd]pyrene	0.17	J	114	138		ug/L		121	41 - 141
1-Methylnaphthalene	ND		114	101		ug/L		88	10 - 150
2-Methylnaphthalene	ND		114	105		ug/L		92	10 - 150
Phenanthrene	ND		114	137		ug/L		120	36 - 125
Pyrene	0.12	J	114	143		ug/L		126	41 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*109*		*15 - 122*
Nitrobenzene-d5	*97*		*19 - 130*
Terphenyl-d14	*112*		*33 - 138*

Lab Sample ID: 400-218241-3 MSD
Matrix: Water
Analysis Batch: 573824

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573677

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		114	140	F1	ug/L		122	35 - 113	1	49
Acenaphthylene	ND		114	134		ug/L		117	41 - 118	1	48
Anthracene	0.088	J *+	114	143	F1	ug/L		125	45 - 122	1	56
Benzo[a]anthracene	ND		114	130		ug/L		114	55 - 133	2	57
Benzo[a]pyrene	0.13	J	114	131	F1	ug/L		115	50 - 108	3	59
Benzo[b]fluoranthene	0.14	J	114	127		ug/L		111	50 - 128	3	62
Benzo[g,h,i]perylene	0.12	J	114	128		ug/L		111	46 - 133	1	58
Benzo[k]fluoranthene	0.12	J	114	129		ug/L		113	52 - 128	2	58
Chrysene	0.12	J	114	128		ug/L		112	52 - 116	1	59
Dibenz(a,h)anthracene	0.10	J	114	131		ug/L		114	52 - 143	1	60
Fluoranthene	0.15	J	114	141		ug/L		123	32 - 150	1	59
Fluorene	ND	*+	114	158		ug/L		138	15 - 150	1	49
Indeno[1,2,3-cd]pyrene	0.17	J	114	135		ug/L		118	41 - 141	2	58
1-Methylnaphthalene	ND		114	98.4		ug/L		86	10 - 150	2	66
2-Methylnaphthalene	ND		114	104		ug/L		91	10 - 150	1	66
Phenanthrene	ND		114	136		ug/L		119	36 - 125	1	69
Pyrene	0.12	J	114	141		ug/L		123	41 - 127	2	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*107*		*15 - 122*
Nitrobenzene-d5	*95*		*19 - 130*
Terphenyl-d14	*111*		*33 - 138*

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-573769/1-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573769

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/13/22 15:23	04/19/22 11:46	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/13/22 15:23	04/19/22 11:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*51 - 149*	*04/13/22 15:23*	*04/19/22 11:46*	*1*

Lab Sample ID: LCS 400-573769/2-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573769

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.134		ug/L		133	60 - 140
1,2-Dibromoethane	0.101	0.121		ug/L		120	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*124*		*51 - 149*

Lab Sample ID: LCSD 400-573769/3-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 573769

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.122		ug/L		121	60 - 140	9	30
1,2-Dibromoethane	0.101	0.113		ug/L		112	60 - 140	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*123*		*51 - 149*

Lab Sample ID: 400-218241-3 MS
Matrix: Water
Analysis Batch: 574373

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573769

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	ND	F1	0.111	0.202	F1	ug/L		182	10 - 150
1,2-Dibromoethane	ND		0.112	0.155		ug/L		139	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*138*		*51 - 149*

Lab Sample ID: 400-218241-3 MSD
Matrix: Water
Analysis Batch: 574373

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573769

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND	*+ F1	0.115	0.194	F1	ug/L		168	10 - 150	16	20
1,2-Dibromoethane	ND		0.116	0.153		ug/L		132	39 - 150	9	20

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-218241-3 MSD
Matrix: Water
Analysis Batch: 574373

Client Sample ID: MW14-ROX-040822
Prep Type: Total/NA
Prep Batch: 573769

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	134		51 - 149

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

- ☐ ACCUTEST (_____)
- ☐ CALSCIENCE (_____)
- ☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
- ☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/8/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM

LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA

State: IL

AECOM Project/ Task Number: Roxana Quarterly GW 60674381 – 3.2.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions

PHONE NO.: 314-802-1207; 314-802-1122

E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com

AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger

SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols

LAB USE ONLY

TELEPHONE: 314-429-0100

FAX: 314-429-0462

Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 2.0°C, 0.0°C, 1.3°C 0.0°C 1.1°C 0.0°C IR#

Container PID Readings or Laboratory Notes:

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-040822-8260	4/8/2022	0000	Water	2					2	X			
	TB-ROX-040822-8011	4/8/2022	0000	Water	2					2		X		
	MW14-ROX-040822	4/8/2022	1005	Water	6			2		8	X	X	X	X
	MW14-ROX-040822-MS	4/8/2022	1005	Water	6			2		8	X	X	X	X
	MW14-ROX-040822-MSD	4/8/2022	1005	Water	6			2		8	X	X	X	X
	MW27-ROX-040822	4/8/2022	1200	Water	6			2		8	X	X	X	X
	P54-ROX-040822	4/8/2022	1350	Water	6			2		8	X	X	X	X

400-218241 COC

Relinquished by: (Signature) MARY MASSA	Received by: (Signature) FEDEX: 1482 3813 1616, 1482 3813 1627, 1482 3813 1638	Date: 4/8/2022	Time: 1630
Relinquished by: (Signature)	Received by: (Signature)	Date: 4/9/22	Time: 840
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 1913479, 1913478, 1913483, 1913482, 1913481, 1913480

Version 1Apr22

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4/26/2022 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218241-1

Login Number: 218241
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0, 0.0, 1.3, 0.0, 1.1, 0.0°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218241-1

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218288-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Victoria Kirkpatrick

Date Reviewed: 6/13/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041122-8260	TB-ROX-041122-8011
MW6D-ROX-041122	MW6A-ROX-041122
MW6B-ROX-041122	MW6C-ROX-041122
MW26-ROX-041122	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated chlorobenzene was detected in trip blank TB-ROX-041122-8260, and several SVOCs/PAHs were detected in the method blanks. Several SVOC, PAH, and VOC by 8011 LCS/LCSD recoveries were outside evaluation criteria. Several SVOC/PAH surrogate recoveries were outside criteria in several investigative and quality control samples. Several VOC, SVOC, and VOC by 8011 MS/MSD recoveries were outside evaluation criteria in sample MW6A-ROX-041122. The continuing calibration verification for benzo[g,h,i]perylene was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-041122-8260	VOCs	Chlorobenzene	0.47 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-573863/1-A	SVOCs	Diethyl phthalate	0.413 µg/L
MB 400-573863/1-A	PAHs	Acenaphthylene	0.0863 µg/L
MB 400-573863/1-A	PAHs	Benzo[a]anthracene	0.0693 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW6D-ROX-041122	PAHs	Benzo[a]anthracene	-	**U**
MW6A-ROX-041122	PAHs	Acenaphthylene	0.42 µg/L	**U**
MW6A-ROX-041122	PAHs	Benzo[a]anthracene	-	**U**
MW6C-ROX-041122	PAHs	Benzo[a]anthracene	-	**U**
MW6C-ROX-041122	SVOCs	Diethyl phthalate	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS 400-573863/2-A	SVOCs	3,3'-Dichlorobenzidine	**142**	NA	36-132
LCS/LCSD 400-573863/5-A/6-A	SVOCs	Benzenethiol	**7/5**	**34**	10-120/30
LCS 400-573863/2-A	PAHs	Acenaphthene	**121**	NA	41-120
LCS 400-573863/2-A	PAHs	Anthracene	**129**	NA	49-120
LCS 400-573863/2-A	PAHs	Benzo[a]pyrene	**126**	NA	52-120
LCS 400-573863/2-A	PAHs	Fluorene	**132**	NA	45-125
LCS/LCSD 400-574249/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**148/150**	1	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW6D-ROX-041122	PAHs	Benzo[a]pyrene	**J**
MW6D-ROX-041122	SVOCs	Benzenethiol	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW6A-ROX-041122	PAHs	Benzo[a]pyrene	**J**
MW6A-ROX-041122	SVOCs	Benzenethiol	**UJ**
MW6B-ROX-041122	PAHs	Benzo[a]pyrene	**J**
MW6B-ROX-041122	SVOCs	Benzenethiol	**UJ**
MW6C-ROX-041122	PAHs	Benzo[a]pyrene	**J**
MW6C-ROX-041122	SVOCs	Benzenethiol	**UJ**
MW26-ROX-041122	PAHs	Benzo[a]pyrene	**J**
MW26-ROX-041122	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW6D-ROX-041122	PAHs	Terphenyl-d_{14}	**154**	33-138
MW6C-ROX-041122	PAHs	2-Fluorobiphenyl	**133**	15-122
MW6C-ROX-041122	PAHs	Terphenyl-d_{14}	**144**	33-138
MB 400-573863/1-A	SVOCs	2-Fluorophenol	**5**	13-113

Analytical data that required qualification based on surrogate data are included in the table below. Qualifications due to surrogate recoveries were not required if only one of three base/neutral PAH surrogate recoveries were outside evaluation criteria. Benzo[a]pyrene in sample MW6C-ROX-041122 was previously qualified in Section 5.0 of this data review due to LCS recovery outside evaluation criteria. Method blanks are quality control samples and do not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW6C-ROX-041122	PAHs	Benzo[b]fluoranthene	**J**
MW6C-ROX-041122	PAHs	Dibenz(a,h)anthracene	**J**
MW6C-ROX-041122	PAHs	Indeno[1,2,3-cd]pyrene	**J**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, sample MW6A-ROX-041122 was spiked and analyzed for VOCs, SVOCs, PAHs, and VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW6A-ROX-041122	VOCs	2-Chloroethyl vinyl ether	17/**9**	**65**	10-150/50
MW6A-ROX-041122	SVOCs	4,6-Dinitro-ortho-cresol	**124/123**	6	25-120/42

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW6A-ROX-041122	VOCs by 8011	1,2-Dibromo-3-chloropropane	**175/157**	3	10-150/20

Analytical data that required qualification based on MS/MSD data are included in the table below. Professional judgement was used to qualify; however, not reject the compound 2-chloroethyl vinyl ether due to acceptable LCS recoveries for this compound and to the acid reactive nature of 2-chloroethyl vinyl ether. Analytical data reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW6A-ROX-041122	VOCs	2-Chloroethyl vinyl ether	**UJ**

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification for benzo[g,h,i]perylene was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW6D-ROX-041122	PAHs	Benzo[g,h,i]perylene	**UJ**
MW6A-ROX-041122	PAHs	Benzo[g,h,i]perylene	**UJ**
MW6B-ROX-041122	PAHs	Benzo[g,h,i]perylene	**UJ**
MW6C-ROX-041122	PAHs	Benzo[g,h,i]perylene	**UJ**



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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218288-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
4/20/2022 1:37:27 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

LINKS

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Reviewed 6/13/2022 MR

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

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

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

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Job ID: 400-218288-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218288-1

Comments
No additional comments.

Receipt
The samples were received on 4/12/2022 9:31 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.0° C, 1.4° C and 4.9° C.

GC/MS VOA
Method 8260B: The Trip Blank TB-ROX-041122-8260 (400-218288-1) contains Chlorobenzene above the method detection limit. The sample was reanalyzed with corroborating results, therefore, the data have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-573980 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) precision for analytical batch 400-573980 was outside control limits. The MS/MSD recoveries for 2-Chloroethyl vinyl ether were below the reporting limit due to the acidic nature of the parent sample.

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

GC/MS Semi VOA
Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574036 recovered above the upper control limit for Dibenz[a,h]acridine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-573863 and analytical batch 400-574036 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-573863 and analytical batch 400-574036 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-573863 and analytical batch 400-574036 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-573863 and analytical batch 400-574036 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574036 recovered above the upper control limit for 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The method blank for preparation batch 400-573863 and analytical batch 400-574049 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 400-573863/1-A). These results have been reported and qualified.

Job ID: 400-218288-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574049 recovered above the upper control limit for Hexachlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574049 recovered outside acceptance criteria, low biased, for Nitrobenzene, bis (2-chloroisopropyl) ether, Bis(2-chloroethoxy)methane, 1,4-Dioxane, Isophorone, N-Nitrosodi-n-propylamine, 1,2-Diphenylhydrazine (as Azobenzene), Hexachlorocyclopentadiene, Phenol, Bis(2-chloroethyl)ether, Pyridine and Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-574053 recovered outside acceptance criteria, low biased, for Benzo[g,h,i]perylene . A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW6D-ROX-041122 (400-218288-3). These results have been reported and qualified.

Method 8270D LL: The method blank for preparation batch 400-573863 and analytical batch 400-574053 contained Acenaphthylene and Benzo[a]anthracene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: The laboratory control sample (LCS) for preparation batch 400-573863 and analytical batch 400-574053 recovered outside control limits for the following analytes: Anthracene, Acenaphthene, Benzo[a]pyrene and Fluorene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D LL: Surrogate recovery for the following sample was outside the upper control limit: MW6C-ROX-041122 (400-218288-6). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574373 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-574249 and analytical batch 400-574373 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218288-1	TB-ROX-041122-8260	Water	04/11/22 00:01	04/12/22 09:31
400-218288-2	TB-ROX-041122-8011	Water	04/11/22 00:01	04/12/22 09:31
400-218288-3	MW6D-ROX-041122	Water	04/11/22 10:00	04/12/22 09:31
400-218288-4	MW6A-ROX-041122	Water	04/11/22 11:05	04/12/22 09:31
400-218288-5	MW6B-ROX-041122	Water	04/11/22 11:55	04/12/22 09:31
400-218288-6	MW6C-ROX-041122	Water	04/11/22 12:35	04/12/22 09:31
400-218288-7	MW26-ROX-041122	Water	04/11/22 14:10	04/12/22 09:31

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Client Sample ID: TB-ROX-041122-8260

Lab Sample ID: 400-218288-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.47	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-041122-8011

Lab Sample ID: 400-218288-2

No Detections.

Client Sample ID: MW6D-ROX-041122

Lab Sample ID: 400-218288-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.091	J B	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.11	J *+	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.076	J	0.19	0.032	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW6A-ROX-041122

Lab Sample ID: 400-218288-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.41	J	1.0	0.22	ug/L	1		8260B	Total/NA
Acenaphthylene	0.42	B	0.19	0.042	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.19	B	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.16	J *+	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.14	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.14	J	0.19	0.094	ug/L	1		8270D LL	Total/NA
Chrysene	0.10	J	0.19	0.070	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.11	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.10	J	0.19	0.064	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.15	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Pyrene	0.071	J	0.19	0.038	ug/L	1		8270D LL	Total/NA
Benzoic acid	27	J	28	6.9	ug/L	1		8270D	Total/NA

Client Sample ID: MW6B-ROX-041122

Lab Sample ID: 400-218288-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.35	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]pyrene	0.10	J *+	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.060	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Di-n-octyl phthalate	4.0	J	9.5	0.16	ug/L	1		8270D	Total/NA

Client Sample ID: MW6C-ROX-041122

Lab Sample ID: 400-218288-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.36	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.067	J B	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.12	J *+	0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.055	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.078	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.13	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.49	J B	9.3	0.22	ug/L	1		8270D	Total/NA

Client Sample ID: MW26-ROX-041122

Lab Sample ID: 400-218288-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.36	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]pyrene	0.15	J *+	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.13	J	0.19	0.032	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW26-ROX-041122 (Continued)

Lab Sample ID: 400-218288-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.25		0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.11	J	0.19	0.094	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.23		0.19	0.047	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.25		0.19	0.041	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Client Sample ID: TB-ROX-041122-8260
Date Collected: 04/11/22 00:01
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 19:04	1
Acrolein	ND		20	3.3	ug/L			04/13/22 19:04	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 19:04	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 19:04	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 19:04	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 19:04	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 19:04	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 19:04	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 19:04	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 19:04	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 19:04	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 19:04	1
Chlorobenzene	0.47	J	1.0	0.15	ug/L			04/13/22 19:04	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 19:04	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 19:04	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 19:04	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 19:04	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 19:04	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 19:04	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 19:04	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 19:04	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 19:04	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 19:04	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 19:04	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 19:04	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 19:04	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 19:04	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 19:04	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:04	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:04	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:04	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 19:04	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 19:04	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 19:04	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 19:04	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 19:04	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 19:04	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 19:04	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 19:04	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 19:04	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 19:04	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 19:04	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 19:04	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 19:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 19:04	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 19:04	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 19:04	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 19:04	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 19:04	1

Client Sample ID: TB-ROX-041122-8260
Date Collected: 04/11/22 00:01
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 19:04	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 19:04	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 19:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 19:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 19:04	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 19:04	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 19:04	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 19:04	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 19:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 19:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 19:04	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 19:04	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 19:04	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 19:04	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 19:04	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 19:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 19:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 19:04	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 19:04	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 19:04	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/13/22 19:04*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/13/22 19:04*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/13/22 19:04*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Client Sample ID: TB-ROX-041122-8011
Date Collected: 04/11/22 00:01
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		04/18/22 11:58	04/19/22 21:39	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/18/22 11:58	04/19/22 21:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*127*		*51 - 149*	*04/18/22 11:58*	*04/19/22 21:39*	*1*

Client Sample ID: MW6D-ROX-041122
Date Collected: 04/11/22 10:00
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 19:30	1
Acrolein	ND		20	3.3	ug/L			04/13/22 19:30	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 19:30	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 19:30	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 19:30	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 19:30	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 19:30	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 19:30	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 19:30	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 19:30	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 19:30	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 19:30	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 19:30	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 19:30	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 19:30	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 19:30	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 19:30	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 19:30	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 19:30	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 19:30	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 19:30	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 19:30	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 19:30	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 19:30	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 19:30	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 19:30	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 19:30	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 19:30	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:30	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:30	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:30	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 19:30	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 19:30	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 19:30	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 19:30	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 19:30	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 19:30	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 19:30	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 19:30	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 19:30	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 19:30	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 19:30	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 19:30	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 19:30	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 19:30	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 19:30	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 19:30	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 19:30	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 19:30	1

Client Sample ID: MW6D-ROX-041122

Date Collected: 04/11/22 10:00
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 19:30	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 19:30	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 19:30	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 19:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 19:30	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 19:30	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 19:30	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 19:30	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 19:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 19:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 19:30	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 19:30	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 19:30	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 19:30	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 19:30	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 19:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 19:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 19:30	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 19:30	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 19:30	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 19:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/13/22 19:30*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/13/22 19:30*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*04/13/22 19:30*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	*+	0.19	0.030	ug/L		04/14/22 10:42	04/15/22 18:52	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/14/22 10:42	04/15/22 18:52	1
Anthracene	ND	*+	0.19	0.030	ug/L		04/14/22 10:42	04/15/22 18:52	1
Benzo[a]anthracene	~~0.091~~	J B	0.19	0.043	ug/L		04/14/22 10:42	04/15/22 18:52	1
Benzo[a]pyrene	**0.11**	J *+	0.19	0.040	ug/L		04/14/22 10:42	04/15/22 18:52	1
Benzo[b]fluoranthene	**0.076**	J	0.19	0.032	ug/L		04/14/22 10:42	04/15/22 18:52	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/14/22 10:42	04/15/22 18:52	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/14/22 10:42	04/15/22 18:52	1
Chrysene	ND		0.19	0.070	ug/L		04/14/22 10:42	04/15/22 18:52	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		04/14/22 10:42	04/15/22 18:52	1
Fluoranthene	ND		0.19	0.064	ug/L		04/14/22 10:42	04/15/22 18:52	1
Fluorene	ND	*+	0.19	0.10	ug/L		04/14/22 10:42	04/15/22 18:52	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/14/22 10:42	04/15/22 18:52	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		04/14/22 10:42	04/15/22 18:52	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/14/22 10:42	04/15/22 18:52	1
Phenanthrene	ND		0.19	0.034	ug/L		04/14/22 10:42	04/15/22 18:52	1
Pyrene	ND		0.19	0.038	ug/L		04/14/22 10:42	04/15/22 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*121*		*15 - 122*	*04/14/22 10:42*	*04/15/22 18:52*	*1*
Nitrobenzene-d5	*107*		*19 - 130*	*04/14/22 10:42*	*04/15/22 18:52*	*1*

Client Sample ID: MW6D-ROX-041122

Date Collected: 04/11/22 10:00
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-3

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	154	S1+	33 - 138	04/14/22 10:42	04/15/22 18:52	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/14/22 10:42	04/15/22 21:54	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		04/14/22 10:42	04/15/22 21:54	1
Benzoic acid	ND		28	6.9	ug/L		04/14/22 10:42	04/15/22 21:54	1
Benzyl alcohol	ND		9.5	1.9	ug/L		04/14/22 10:42	04/15/22 21:54	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		04/14/22 10:42	04/15/22 21:54	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		04/14/22 10:42	04/15/22 21:54	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		04/14/22 10:42	04/15/22 21:54	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		04/14/22 10:42	04/15/22 21:54	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/14/22 10:42	04/15/22 21:54	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/14/22 10:42	04/15/22 21:54	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/14/22 10:42	04/15/22 21:54	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/14/22 10:42	04/15/22 21:54	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/14/22 10:42	04/15/22 21:54	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/14/22 10:42	04/15/22 21:54	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/14/22 10:42	04/15/22 21:54	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		04/14/22 10:42	04/15/22 21:54	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/14/22 10:42	04/15/22 21:54	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		04/14/22 10:42	04/15/22 21:54	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		04/14/22 10:42	04/15/22 21:54	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/14/22 10:42	04/15/22 21:54	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/14/22 10:42	04/15/22 21:54	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/14/22 10:42	04/15/22 21:54	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/14/22 10:42	04/15/22 21:54	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/14/22 10:42	04/15/22 21:54	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		04/14/22 10:42	04/15/22 21:54	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/14/22 10:42	04/15/22 21:54	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/14/22 10:42	04/15/22 21:54	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/14/22 10:42	04/15/22 21:54	1
1,4-Dioxane	ND		9.5	0.95	ug/L		04/14/22 10:42	04/15/22 21:54	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		04/14/22 10:42	04/15/22 21:54	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/14/22 10:42	04/15/22 21:54	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/14/22 10:42	04/15/22 21:54	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/14/22 10:42	04/15/22 21:54	1
Indene	ND		9.5	0.95	ug/L		04/14/22 10:42	04/15/22 21:54	1
Isophorone	ND		9.5	0.13	ug/L		04/14/22 10:42	04/15/22 21:54	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/14/22 10:42	04/15/22 21:54	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/14/22 10:42	04/15/22 21:54	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/14/22 10:42	04/15/22 21:54	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/14/22 10:42	04/15/22 21:54	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/14/22 10:42	04/15/22 21:54	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/14/22 10:42	04/15/22 21:54	1
2-Nitrophenol	ND		9.5	4.9	ug/L		04/14/22 10:42	04/15/22 21:54	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/14/22 10:42	04/15/22 21:54	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/14/22 10:42	04/15/22 21:54	1

Client Sample ID: MW6D-ROX-041122
Date Collected: 04/11/22 10:00
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		04/14/22 10:42	04/15/22 21:54	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/14/22 10:42	04/15/22 21:54	1
Pentachlorophenol	ND		19	1.3	ug/L		04/14/22 10:42	04/15/22 21:54	1
Phenol	ND		9.5	2.5	ug/L		04/14/22 10:42	04/15/22 21:54	1
Pyridine	ND		9.5	3.0	ug/L		04/14/22 10:42	04/15/22 21:54	1
Quinoline	ND		9.5	4.3	ug/L		04/14/22 10:42	04/15/22 21:54	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/14/22 10:42	04/15/22 21:54	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/14/22 10:42	04/15/22 21:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*04/14/22 10:42*	*04/15/22 21:54*	*1*
2-Fluorophenol	*18*		*13 - 113*	*04/14/22 10:42*	*04/15/22 21:54*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*04/14/22 10:42*	*04/15/22 21:54*	*1*
Phenol-d5	*53*		*17 - 127*	*04/14/22 10:42*	*04/15/22 21:54*	*1*
Terphenyl-d14	*86*		*44 - 149*	*04/14/22 10:42*	*04/15/22 21:54*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*04/14/22 10:42*	*04/15/22 21:54*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.034	0.020	ug/L		04/18/22 11:58	04/19/22 21:59	1
1,2-Dibromoethane	ND		0.023	0.017	ug/L		04/18/22 11:58	04/19/22 21:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*135*		*51 - 149*	*04/18/22 11:58*	*04/19/22 21:59*	*1*

Client Sample ID: MW6A-ROX-041122
Date Collected: 04/11/22 11:05
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/15/22 09:25	1
Acrolein	ND		20	3.3	ug/L			04/15/22 09:25	1
Acrylonitrile	ND		10	2.8	ug/L			04/15/22 09:25	1
Benzene	ND		1.0	0.13	ug/L			04/15/22 09:25	1
Bromobenzene	ND		1.0	0.54	ug/L			04/15/22 09:25	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/15/22 09:25	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/15/22 09:25	1
Bromoform	ND		5.0	0.25	ug/L			04/15/22 09:25	1
Bromomethane	ND		1.0	0.98	ug/L			04/15/22 09:25	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/15/22 09:25	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/15/22 09:25	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/15/22 09:25	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/15/22 09:25	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/15/22 09:25	1
Chloroethane	ND		1.0	0.76	ug/L			04/15/22 09:25	1
2-Chloroethyl vinyl ether	ND	F2 F1 UJ	5.0	2.0	ug/L			04/15/22 09:25	1
Chloroform	ND		1.0	1.0	ug/L			04/15/22 09:25	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/15/22 09:25	1
Chloromethane	ND		1.0	0.32	ug/L			04/15/22 09:25	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/15/22 09:25	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/15/22 09:25	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/15/22 09:25	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/15/22 09:25	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/15/22 09:25	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/15/22 09:25	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/15/22 09:25	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/15/22 09:25	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/15/22 09:25	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/15/22 09:25	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/15/22 09:25	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/15/22 09:25	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/15/22 09:25	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/15/22 09:25	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/15/22 09:25	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/15/22 09:25	1
2-Hexanone	ND		25	1.4	ug/L			04/15/22 09:25	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/15/22 09:25	1
Methylene bromide	ND		5.0	0.22	ug/L			04/15/22 09:25	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/15/22 09:25	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/15/22 09:25	1
Methyl tert-butyl ether	**0.41**	**J**	1.0	0.22	ug/L			04/15/22 09:25	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/15/22 09:25	1
Naphthalene	ND		1.0	1.0	ug/L			04/15/22 09:25	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/15/22 09:25	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/15/22 09:25	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/15/22 09:25	1
o-Xylene	ND		5.0	0.60	ug/L			04/15/22 09:25	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/15/22 09:25	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/15/22 09:25	1

Client Sample ID: MW6A-ROX-041122
Date Collected: 04/11/22 11:05
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/15/22 09:25	1
Styrene	ND		1.0	1.0	ug/L			04/15/22 09:25	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/15/22 09:25	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/15/22 09:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/15/22 09:25	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/15/22 09:25	1
Toluene	ND		1.0	0.41	ug/L			04/15/22 09:25	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/15/22 09:25	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/15/22 09:25	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/15/22 09:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/15/22 09:25	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/15/22 09:25	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/15/22 09:25	1
Trichloroethene	ND		1.0	0.15	ug/L			04/15/22 09:25	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/15/22 09:25	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/15/22 09:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/15/22 09:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/15/22 09:25	1
Vinyl acetate	ND		25	0.93	ug/L			04/15/22 09:25	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/15/22 09:25	1
Xylenes, Total	ND		10	1.6	ug/L			04/15/22 09:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*04/15/22 09:25*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/15/22 09:25*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*04/15/22 09:25*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	*+	0.19	0.030	ug/L		04/14/22 10:42	04/15/22 18:21	1
Acenaphthylene	~~0.42~~	B U	~~0.19~~ 0.42	0.042	ug/L		04/14/22 10:42	04/15/22 18:21	1
Anthracene	ND	*+	0.19	0.030	ug/L		04/14/22 10:42	04/15/22 18:21	1
Benzo[a]anthracene	~~0.19~~	B U	0.19	0.043	ug/L		04/14/22 10:42	04/15/22 18:21	1
Benzo[a]pyrene	0.16	J *+ J	0.19	0.040	ug/L		04/14/22 10:42	04/15/22 18:21	1
Benzo[b]fluoranthene	0.14	J	0.19	0.032	ug/L		04/14/22 10:42	04/15/22 18:21	1
Benzo[g,h,i]perylene	ND	UJ	0.19	0.12	ug/L		04/14/22 10:42	04/15/22 18:21	1
Benzo[k]fluoranthene	0.14	J	0.19	0.094	ug/L		04/14/22 10:42	04/15/22 18:21	1
Chrysene	0.10	J	0.19	0.070	ug/L		04/14/22 10:42	04/15/22 18:21	1
Dibenz(a,h)anthracene	0.11	J	0.19	0.047	ug/L		04/14/22 10:42	04/15/22 18:21	1
Fluoranthene	0.10	J	0.19	0.064	ug/L		04/14/22 10:42	04/15/22 18:21	1
Fluorene	ND	*+	0.19	0.10	ug/L		04/14/22 10:42	04/15/22 18:21	1
Indeno[1,2,3-cd]pyrene	0.15	J	0.19	0.041	ug/L		04/14/22 10:42	04/15/22 18:21	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		04/14/22 10:42	04/15/22 18:21	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/14/22 10:42	04/15/22 18:21	1
Phenanthrene	ND		0.19	0.034	ug/L		04/14/22 10:42	04/15/22 18:21	1
Pyrene	0.071	J	0.19	0.038	ug/L		04/14/22 10:42	04/15/22 18:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*113*		*15 - 122*	*04/14/22 10:42*	*04/15/22 18:21*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*04/14/22 10:42*	*04/15/22 18:21*	*1*

Client Sample ID: MW6A-ROX-041122
Date Collected: 04/11/22 11:05
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	84		33 - 138	04/14/22 10:42	04/15/22 18:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		04/14/22 10:42	04/15/22 22:15	1
Benzenethiol	ND	*- *1	9.4	1.6	ug/L		04/14/22 10:42	04/15/22 22:15	1
Benzoic acid	27	J	28	6.9	ug/L		04/14/22 10:42	04/15/22 22:15	1
Benzyl alcohol	ND		9.4	1.9	ug/L		04/14/22 10:42	04/15/22 22:15	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		04/14/22 10:42	04/15/22 22:15	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		04/14/22 10:42	04/15/22 22:15	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		04/14/22 10:42	04/15/22 22:15	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		04/14/22 10:42	04/15/22 22:15	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		04/14/22 10:42	04/15/22 22:15	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		04/14/22 10:42	04/15/22 22:15	1
4-Chloroaniline	ND		9.4	3.2	ug/L		04/14/22 10:42	04/15/22 22:15	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		04/14/22 10:42	04/15/22 22:15	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		04/14/22 10:42	04/15/22 22:15	1
2-Chlorophenol	ND		9.4	2.1	ug/L		04/14/22 10:42	04/15/22 22:15	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		04/14/22 10:42	04/15/22 22:15	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		04/14/22 10:42	04/15/22 22:15	1
Dibenzofuran	ND		9.4	0.16	ug/L		04/14/22 10:42	04/15/22 22:15	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.5	ug/L		04/14/22 10:42	04/15/22 22:15	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		04/14/22 10:42	04/15/22 22:15	1
Diethyl phthalate	ND		9.4	0.23	ug/L		04/14/22 10:42	04/15/22 22:15	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		04/14/22 10:42	04/15/22 22:15	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		04/14/22 10:42	04/15/22 22:15	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		04/14/22 10:42	04/15/22 22:15	1
4,6-Dinitro-ortho-cresol	ND	F1	9.4	1.5	ug/L		04/14/22 10:42	04/15/22 22:15	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		04/14/22 10:42	04/15/22 22:15	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		04/14/22 10:42	04/15/22 22:15	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		04/14/22 10:42	04/15/22 22:15	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		04/14/22 10:42	04/15/22 22:15	1
1,4-Dioxane	ND		9.4	0.94	ug/L		04/14/22 10:42	04/15/22 22:15	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		04/14/22 10:42	04/15/22 22:15	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		04/14/22 10:42	04/15/22 22:15	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/14/22 10:42	04/15/22 22:15	1
Hexachloroethane	ND		9.4	4.0	ug/L		04/14/22 10:42	04/15/22 22:15	1
Indene	ND		9.4	0.94	ug/L		04/14/22 10:42	04/15/22 22:15	1
Isophorone	ND		9.4	0.13	ug/L		04/14/22 10:42	04/15/22 22:15	1
2-Methylphenol	ND		9.4	1.7	ug/L		04/14/22 10:42	04/15/22 22:15	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/14/22 10:42	04/15/22 22:15	1
2-Nitroaniline	ND		9.4	2.1	ug/L		04/14/22 10:42	04/15/22 22:15	1
3-Nitroaniline	ND		9.4	1.7	ug/L		04/14/22 10:42	04/15/22 22:15	1
4-Nitroaniline	ND		9.4	1.4	ug/L		04/14/22 10:42	04/15/22 22:15	1
Nitrobenzene	ND		9.4	0.12	ug/L		04/14/22 10:42	04/15/22 22:15	1
2-Nitrophenol	ND		9.4	4.9	ug/L		04/14/22 10:42	04/15/22 22:15	1
4-Nitrophenol	ND		9.4	2.0	ug/L		04/14/22 10:42	04/15/22 22:15	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		04/14/22 10:42	04/15/22 22:15	1

Client Sample ID: MW6A-ROX-041122
Date Collected: 04/11/22 11:05
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		04/14/22 10:42	04/15/22 22:15	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		04/14/22 10:42	04/15/22 22:15	1
Pentachlorophenol	ND		19	1.3	ug/L		04/14/22 10:42	04/15/22 22:15	1
Phenol	ND		9.4	2.5	ug/L		04/14/22 10:42	04/15/22 22:15	1
Pyridine	ND		9.4	3.0	ug/L		04/14/22 10:42	04/15/22 22:15	1
Quinoline	ND		9.4	4.2	ug/L		04/14/22 10:42	04/15/22 22:15	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		04/14/22 10:42	04/15/22 22:15	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		04/14/22 10:42	04/15/22 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*04/14/22 10:42*	*04/15/22 22:15*	*1*
2-Fluorophenol	*35*		*13 - 113*	*04/14/22 10:42*	*04/15/22 22:15*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*04/14/22 10:42*	*04/15/22 22:15*	*1*
Phenol-d5	*60*		*17 - 127*	*04/14/22 10:42*	*04/15/22 22:15*	*1*
Terphenyl-d14	*54*		*44 - 149*	*04/14/22 10:42*	*04/15/22 22:15*	*1*
2,4,6-Tribromophenol	*89*		*26 - 150*	*04/14/22 10:42*	*04/15/22 22:15*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ F1	0.033	0.019	ug/L		04/18/22 11:58	04/19/22 22:19	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/18/22 11:58	04/19/22 22:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*136*		*51 - 149*	*04/18/22 11:58*	*04/19/22 22:19*	*1*

Client Sample ID: MW6B-ROX-041122
Date Collected: 04/11/22 11:55
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 19:56	1
Acrolein	ND		20	3.3	ug/L			04/13/22 19:56	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 19:56	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 19:56	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 19:56	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 19:56	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 19:56	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 19:56	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 19:56	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 19:56	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 19:56	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 19:56	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 19:56	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 19:56	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 19:56	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 19:56	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 19:56	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 19:56	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 19:56	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 19:56	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 19:56	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 19:56	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 19:56	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 19:56	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 19:56	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 19:56	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 19:56	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 19:56	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:56	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:56	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 19:56	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 19:56	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 19:56	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 19:56	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 19:56	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 19:56	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 19:56	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 19:56	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 19:56	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 19:56	1
Methyl tert-butyl ether	**0.35**	**J**	1.0	0.22	ug/L			04/13/22 19:56	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 19:56	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 19:56	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 19:56	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 19:56	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 19:56	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 19:56	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 19:56	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 19:56	1

Client Sample ID: MW6B-ROX-041122 **Lab Sample ID: 400-218288-5**
Date Collected: 04/11/22 11:55 **Matrix: Water**
Date Received: 04/12/22 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 19:56	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 19:56	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 19:56	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 19:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 19:56	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 19:56	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 19:56	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 19:56	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 19:56	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 19:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 19:56	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 19:56	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 19:56	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 19:56	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 19:56	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 19:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 19:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 19:56	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 19:56	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 19:56	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*04/13/22 19:56*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/13/22 19:56*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*04/13/22 19:56*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	*+	0.19	0.030	ug/L		04/14/22 10:42	04/15/22 19:07	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/14/22 10:42	04/15/22 19:07	1
Anthracene	ND	*+	0.19	0.030	ug/L		04/14/22 10:42	04/15/22 19:07	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/14/22 10:42	04/15/22 19:07	1
Benzo[a]pyrene	**0.10**	**J *+** J	0.19	0.040	ug/L		04/14/22 10:42	04/15/22 19:07	1
Benzo[b]fluoranthene	**0.060**	**J**	0.19	0.032	ug/L		04/14/22 10:42	04/15/22 19:07	1
Benzo[g,h,i]perylene	ND	UJ	0.19	0.12	ug/L		04/14/22 10:42	04/15/22 19:07	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/14/22 10:42	04/15/22 19:07	1
Chrysene	ND		0.19	0.070	ug/L		04/14/22 10:42	04/15/22 19:07	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		04/14/22 10:42	04/15/22 19:07	1
Fluoranthene	ND		0.19	0.064	ug/L		04/14/22 10:42	04/15/22 19:07	1
Fluorene	ND	*+	0.19	0.10	ug/L		04/14/22 10:42	04/15/22 19:07	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/14/22 10:42	04/15/22 19:07	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		04/14/22 10:42	04/15/22 19:07	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/14/22 10:42	04/15/22 19:07	1
Phenanthrene	ND		0.19	0.034	ug/L		04/14/22 10:42	04/15/22 19:07	1
Pyrene	ND		0.19	0.038	ug/L		04/14/22 10:42	04/15/22 19:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*111*		*15 - 122*	*04/14/22 10:42*	*04/15/22 19:07*	*1*
Nitrobenzene-d5	*105*		*19 - 130*	*04/14/22 10:42*	*04/15/22 19:07*	*1*

Client Sample ID: MW6B-ROX-041122
Date Collected: 04/11/22 11:55
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	127		33 - 138	04/14/22 10:42	04/15/22 19:07	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/14/22 10:42	04/15/22 23:20	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		04/14/22 10:42	04/15/22 23:20	1
Benzoic acid	ND		28	6.9	ug/L		04/14/22 10:42	04/15/22 23:20	1
Benzyl alcohol	ND		9.5	1.9	ug/L		04/14/22 10:42	04/15/22 23:20	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		04/14/22 10:42	04/15/22 23:20	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		04/14/22 10:42	04/15/22 23:20	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		04/14/22 10:42	04/15/22 23:20	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		04/14/22 10:42	04/15/22 23:20	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/14/22 10:42	04/15/22 23:20	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/14/22 10:42	04/15/22 23:20	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/14/22 10:42	04/15/22 23:20	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/14/22 10:42	04/15/22 23:20	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/14/22 10:42	04/15/22 23:20	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/14/22 10:42	04/15/22 23:20	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/14/22 10:42	04/15/22 23:20	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		04/14/22 10:42	04/15/22 23:20	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/14/22 10:42	04/15/22 23:20	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		04/14/22 10:42	04/15/22 23:20	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		04/14/22 10:42	04/15/22 23:20	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/14/22 10:42	04/15/22 23:20	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/14/22 10:42	04/15/22 23:20	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/14/22 10:42	04/15/22 23:20	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/14/22 10:42	04/15/22 23:20	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/14/22 10:42	04/15/22 23:20	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		04/14/22 10:42	04/15/22 23:20	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/14/22 10:42	04/15/22 23:20	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/14/22 10:42	04/15/22 23:20	1
Di-n-octyl phthalate	4.0	J	9.5	0.16	ug/L		04/14/22 10:42	04/15/22 23:20	1
1,4-Dioxane	ND		9.5	0.95	ug/L		04/14/22 10:42	04/15/22 23:20	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		04/14/22 10:42	04/15/22 23:20	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/14/22 10:42	04/15/22 23:20	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/14/22 10:42	04/15/22 23:20	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/14/22 10:42	04/15/22 23:20	1
Indene	ND		9.5	0.95	ug/L		04/14/22 10:42	04/15/22 23:20	1
Isophorone	ND		9.5	0.13	ug/L		04/14/22 10:42	04/15/22 23:20	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/14/22 10:42	04/15/22 23:20	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/14/22 10:42	04/15/22 23:20	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/14/22 10:42	04/15/22 23:20	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/14/22 10:42	04/15/22 23:20	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/14/22 10:42	04/15/22 23:20	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/14/22 10:42	04/15/22 23:20	1
2-Nitrophenol	ND		9.5	4.9	ug/L		04/14/22 10:42	04/15/22 23:20	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/14/22 10:42	04/15/22 23:20	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/14/22 10:42	04/15/22 23:20	1

Client Sample ID: MW6B-ROX-041122
Date Collected: 04/11/22 11:55
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		04/14/22 10:42	04/15/22 23:20	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/14/22 10:42	04/15/22 23:20	1
Pentachlorophenol	ND		19	1.3	ug/L		04/14/22 10:42	04/15/22 23:20	1
Phenol	ND		9.5	2.5	ug/L		04/14/22 10:42	04/15/22 23:20	1
Pyridine	ND		9.5	3.0	ug/L		04/14/22 10:42	04/15/22 23:20	1
Quinoline	ND		9.5	4.3	ug/L		04/14/22 10:42	04/15/22 23:20	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/14/22 10:42	04/15/22 23:20	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/14/22 10:42	04/15/22 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*04/14/22 10:42*	*04/15/22 23:20*	*1*
2-Fluorophenol	*26*		*13 - 113*	*04/14/22 10:42*	*04/15/22 23:20*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*04/14/22 10:42*	*04/15/22 23:20*	*1*
Phenol-d5	*61*		*17 - 127*	*04/14/22 10:42*	*04/15/22 23:20*	*1*
Terphenyl-d14	*87*		*44 - 149*	*04/14/22 10:42*	*04/15/22 23:20*	*1*
2,4,6-Tribromophenol	*99*		*26 - 150*	*04/14/22 10:42*	*04/15/22 23:20*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.036	0.020	ug/L		04/18/22 11:58	04/19/22 23:21	1
1,2-Dibromoethane	ND		0.024	0.018	ug/L		04/18/22 11:58	04/19/22 23:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*121*		*51 - 149*	*04/18/22 11:58*	*04/19/22 23:21*	*1*

Client Sample ID: MW6C-ROX-041122
Date Collected: 04/11/22 12:35
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 20:22	1
Acrolein	ND		20	3.3	ug/L			04/13/22 20:22	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 20:22	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 20:22	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 20:22	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 20:22	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 20:22	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 20:22	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 20:22	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 20:22	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 20:22	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 20:22	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 20:22	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 20:22	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 20:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 20:22	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 20:22	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 20:22	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 20:22	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 20:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 20:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 20:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 20:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 20:22	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 20:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 20:22	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 20:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 20:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 20:22	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 20:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 20:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 20:22	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 20:22	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 20:22	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 20:22	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 20:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 20:22	1
Methyl tert-butyl ether	0.36	J	1.0	0.22	ug/L			04/13/22 20:22	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 20:22	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 20:22	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 20:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 20:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 20:22	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 20:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 20:22	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 20:22	1

Client Sample ID: MW6C-ROX-041122
Date Collected: 04/11/22 12:35
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 20:22	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 20:22	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 20:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 20:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 20:22	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 20:22	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 20:22	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 20:22	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 20:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 20:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 20:22	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 20:22	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 20:22	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 20:22	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 20:22	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 20:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 20:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 20:22	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 20:22	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 20:22	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*04/13/22 20:22*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*04/13/22 20:22*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*04/13/22 20:22*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	*+	0.19	0.030	ug/L		04/14/22 10:42	04/15/22 19:23	1
Acenaphthylene	ND		0.19	0.042	ug/L		04/14/22 10:42	04/15/22 19:23	1
Anthracene	ND	*+	0.19	0.030	ug/L		04/14/22 10:42	04/15/22 19:23	1
Benzo[a]anthracene	~~0.067~~	J B	0.19	0.043	ug/L		04/14/22 10:42	04/15/22 19:23	1
Benzo[a]pyrene	0.12	J *+	0.19	0.039	ug/L		04/14/22 10:42	04/15/22 19:23	1
Benzo[b]fluoranthene	0.055	J	0.19	0.032	ug/L		04/14/22 10:42	04/15/22 19:23	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/14/22 10:42	04/15/22 19:23	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		04/14/22 10:42	04/15/22 19:23	1
Chrysene	ND		0.19	0.069	ug/L		04/14/22 10:42	04/15/22 19:23	1
Dibenz(a,h)anthracene	0.078	J	0.19	0.047	ug/L		04/14/22 10:42	04/15/22 19:23	1
Fluoranthene	ND		0.19	0.064	ug/L		04/14/22 10:42	04/15/22 19:23	1
Fluorene	ND	*+	0.19	0.10	ug/L		04/14/22 10:42	04/15/22 19:23	1
Indeno[1,2,3-cd]pyrene	0.13	J	0.19	0.040	ug/L		04/14/22 10:42	04/15/22 19:23	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		04/14/22 10:42	04/15/22 19:23	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		04/14/22 10:42	04/15/22 19:23	1
Phenanthrene	ND		0.19	0.034	ug/L		04/14/22 10:42	04/15/22 19:23	1
Pyrene	ND		0.19	0.037	ug/L		04/14/22 10:42	04/15/22 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*133*	*S1+*	*15 - 122*	*04/14/22 10:42*	*04/15/22 19:23*	*1*
Nitrobenzene-d5	*81*		*19 - 130*	*04/14/22 10:42*	*04/15/22 19:23*	*1*

Client Sample ID: MW6C-ROX-041122
Date Collected: 04/11/22 12:35
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	144	S1+	33 - 138	04/14/22 10:42	04/15/22 19:23	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.3	3.6	ug/L		04/14/22 10:42	04/15/22 23:41	1
Benzenethiol	ND	*- *1 UJ	9.3	1.6	ug/L		04/14/22 10:42	04/15/22 23:41	1
Benzoic acid	ND		28	6.8	ug/L		04/14/22 10:42	04/15/22 23:41	1
Benzyl alcohol	ND		9.3	1.9	ug/L		04/14/22 10:42	04/15/22 23:41	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		04/14/22 10:42	04/15/22 23:41	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		04/14/22 10:42	04/15/22 23:41	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		04/14/22 10:42	04/15/22 23:41	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.7	ug/L		04/14/22 10:42	04/15/22 23:41	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		04/14/22 10:42	04/15/22 23:41	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		04/14/22 10:42	04/15/22 23:41	1
4-Chloroaniline	ND		9.3	3.2	ug/L		04/14/22 10:42	04/15/22 23:41	1
4-Chloro-3-methylphenol	ND		9.3	3.6	ug/L		04/14/22 10:42	04/15/22 23:41	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		04/14/22 10:42	04/15/22 23:41	1
2-Chlorophenol	ND		9.3	2.1	ug/L		04/14/22 10:42	04/15/22 23:41	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		04/14/22 10:42	04/15/22 23:41	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		04/14/22 10:42	04/15/22 23:41	1
Dibenzofuran	ND		9.3	0.16	ug/L		04/14/22 10:42	04/15/22 23:41	1
3,3'-Dichlorobenzidine	ND	*+	9.3	2.4	ug/L		04/14/22 10:42	04/15/22 23:41	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		04/14/22 10:42	04/15/22 23:41	1
Diethyl phthalate	~~0.49~~ J B		9.3	0.22	ug/L		04/14/22 10:42	04/15/22 23:41	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		04/14/22 10:42	04/15/22 23:41	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		04/14/22 10:42	04/15/22 23:41	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		04/14/22 10:42	04/15/22 23:41	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		04/14/22 10:42	04/15/22 23:41	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		04/14/22 10:42	04/15/22 23:41	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		04/14/22 10:42	04/15/22 23:41	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		04/14/22 10:42	04/15/22 23:41	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		04/14/22 10:42	04/15/22 23:41	1
1,4-Dioxane	ND		9.3	0.93	ug/L		04/14/22 10:42	04/15/22 23:41	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		04/14/22 10:42	04/15/22 23:41	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		04/14/22 10:42	04/15/22 23:41	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		04/14/22 10:42	04/15/22 23:41	1
Hexachloroethane	ND		9.3	3.9	ug/L		04/14/22 10:42	04/15/22 23:41	1
Indene	ND		9.3	0.93	ug/L		04/14/22 10:42	04/15/22 23:41	1
Isophorone	ND		9.3	0.13	ug/L		04/14/22 10:42	04/15/22 23:41	1
2-Methylphenol	ND		9.3	1.7	ug/L		04/14/22 10:42	04/15/22 23:41	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		04/14/22 10:42	04/15/22 23:41	1
2-Nitroaniline	ND		9.3	2.1	ug/L		04/14/22 10:42	04/15/22 23:41	1
3-Nitroaniline	ND		9.3	1.7	ug/L		04/14/22 10:42	04/15/22 23:41	1
4-Nitroaniline	ND		9.3	1.4	ug/L		04/14/22 10:42	04/15/22 23:41	1
Nitrobenzene	ND		9.3	0.12	ug/L		04/14/22 10:42	04/15/22 23:41	1
2-Nitrophenol	ND		9.3	4.9	ug/L		04/14/22 10:42	04/15/22 23:41	1
4-Nitrophenol	ND		9.3	2.0	ug/L		04/14/22 10:42	04/15/22 23:41	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		04/14/22 10:42	04/15/22 23:41	1

Client Sample ID: MW6C-ROX-041122
Date Collected: 04/11/22 12:35
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		04/14/22 10:42	04/15/22 23:41	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		04/14/22 10:42	04/15/22 23:41	1
Pentachlorophenol	ND		19	1.3	ug/L		04/14/22 10:42	04/15/22 23:41	1
Phenol	ND		9.3	2.4	ug/L		04/14/22 10:42	04/15/22 23:41	1
Pyridine	ND		9.3	3.0	ug/L		04/14/22 10:42	04/15/22 23:41	1
Quinoline	ND		9.3	4.2	ug/L		04/14/22 10:42	04/15/22 23:41	1
2,4,5-Trichlorophenol	ND		9.3	3.5	ug/L		04/14/22 10:42	04/15/22 23:41	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		04/14/22 10:42	04/15/22 23:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*04/14/22 10:42*	*04/15/22 23:41*	*1*
2-Fluorophenol	*44*		*13 - 113*	*04/14/22 10:42*	*04/15/22 23:41*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*04/14/22 10:42*	*04/15/22 23:41*	*1*
Phenol-d5	*66*		*17 - 127*	*04/14/22 10:42*	*04/15/22 23:41*	*1*
Terphenyl-d14	*80*		*44 - 149*	*04/14/22 10:42*	*04/15/22 23:41*	*1*
2,4,6-Tribromophenol	*92*		*26 - 150*	*04/14/22 10:42*	*04/15/22 23:41*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		04/18/22 11:58	04/19/22 23:41	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/18/22 11:58	04/19/22 23:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*135*		*51 - 149*	*04/18/22 11:58*	*04/19/22 23:41*	*1*

Client Sample ID: MW26-ROX-041122

Date Collected: 04/11/22 14:10
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-7

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 20:49	1
Acrolein	ND		20	3.3	ug/L			04/13/22 20:49	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 20:49	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 20:49	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 20:49	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 20:49	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 20:49	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 20:49	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 20:49	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 20:49	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 20:49	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 20:49	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 20:49	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 20:49	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 20:49	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 20:49	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 20:49	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 20:49	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 20:49	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 20:49	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 20:49	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 20:49	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 20:49	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 20:49	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 20:49	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 20:49	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 20:49	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 20:49	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:49	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:49	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 20:49	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 20:49	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 20:49	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 20:49	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 20:49	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 20:49	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 20:49	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 20:49	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 20:49	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 20:49	1
Methyl tert-butyl ether	0.36	J	1.0	0.22	ug/L			04/13/22 20:49	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 20:49	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 20:49	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 20:49	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 20:49	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 20:49	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 20:49	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 20:49	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 20:49	1

Client Sample ID: MW26-ROX-041122
Date Collected: 04/11/22 14:10
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 20:49	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 20:49	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 20:49	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 20:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 20:49	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 20:49	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 20:49	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 20:49	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 20:49	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 20:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 20:49	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 20:49	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 20:49	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 20:49	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 20:49	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 20:49	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 20:49	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 20:49	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 20:49	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 20:49	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 20:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/13/22 20:49*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/13/22 20:49*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*04/13/22 20:49*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	*+	0.19	0.030	ug/L		04/14/22 10:42	04/15/22 19:38	1
Acenaphthylene	ND		0.19	0.042	ug/L		04/14/22 10:42	04/15/22 19:38	1
Anthracene	ND	*+	0.19	0.030	ug/L		04/14/22 10:42	04/15/22 19:38	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		04/14/22 10:42	04/15/22 19:38	1
Benzo[a]pyrene	**0.15**	J *+ J	0.19	0.040	ug/L		04/14/22 10:42	04/18/22 15:22	1
Benzo[b]fluoranthene	**0.13**	J	0.19	0.032	ug/L		04/14/22 10:42	04/18/22 15:22	1
Benzo[g,h,i]perylene	**0.25**		0.19	0.12	ug/L		04/14/22 10:42	04/18/22 15:22	1
Benzo[k]fluoranthene	**0.11**	J	0.19	0.094	ug/L		04/14/22 10:42	04/18/22 15:22	1
Chrysene	ND		0.19	0.070	ug/L		04/14/22 10:42	04/15/22 19:38	1
Dibenz(a,h)anthracene	**0.23**		0.19	0.047	ug/L		04/14/22 10:42	04/18/22 15:22	1
Fluoranthene	ND		0.19	0.064	ug/L		04/14/22 10:42	04/15/22 19:38	1
Fluorene	ND	*+	0.19	0.10	ug/L		04/14/22 10:42	04/15/22 19:38	1
Indeno[1,2,3-cd]pyrene	**0.25**		0.19	0.041	ug/L		04/14/22 10:42	04/18/22 15:22	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		04/14/22 10:42	04/15/22 19:38	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/14/22 10:42	04/15/22 19:38	1
Phenanthrene	ND		0.19	0.034	ug/L		04/14/22 10:42	04/15/22 19:38	1
Pyrene	ND		0.19	0.038	ug/L		04/14/22 10:42	04/15/22 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*115*		*15 - 122*	*04/14/22 10:42*	*04/15/22 19:38*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*04/14/22 10:42*	*04/15/22 19:38*	*1*

Client Sample ID: MW26-ROX-041122
Date Collected: 04/11/22 14:10
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-7
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	114		33 - 138	04/14/22 10:42	04/18/22 15:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		04/14/22 10:42	04/16/22 00:02	1
Benzenethiol	ND	*- *1 UCJ	9.4	1.6	ug/L		04/14/22 10:42	04/16/22 00:02	1
Benzoic acid	ND		28	6.9	ug/L		04/14/22 10:42	04/16/22 00:02	1
Benzyl alcohol	ND		9.4	1.9	ug/L		04/14/22 10:42	04/16/22 00:02	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		04/14/22 10:42	04/16/22 00:02	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		04/14/22 10:42	04/16/22 00:02	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		04/14/22 10:42	04/16/22 00:02	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		04/14/22 10:42	04/16/22 00:02	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		04/14/22 10:42	04/16/22 00:02	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		04/14/22 10:42	04/16/22 00:02	1
4-Chloroaniline	ND		9.4	3.2	ug/L		04/14/22 10:42	04/16/22 00:02	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		04/14/22 10:42	04/16/22 00:02	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		04/14/22 10:42	04/16/22 00:02	1
2-Chlorophenol	ND		9.4	2.1	ug/L		04/14/22 10:42	04/16/22 00:02	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		04/14/22 10:42	04/16/22 00:02	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		04/14/22 10:42	04/16/22 00:02	1
Dibenzofuran	ND		9.4	0.16	ug/L		04/14/22 10:42	04/16/22 00:02	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.5	ug/L		04/14/22 10:42	04/16/22 00:02	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		04/14/22 10:42	04/16/22 00:02	1
Diethyl phthalate	ND		9.4	0.23	ug/L		04/14/22 10:42	04/16/22 00:02	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		04/14/22 10:42	04/16/22 00:02	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		04/14/22 10:42	04/16/22 00:02	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		04/14/22 10:42	04/16/22 00:02	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		04/14/22 10:42	04/16/22 00:02	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		04/14/22 10:42	04/16/22 00:02	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		04/14/22 10:42	04/16/22 00:02	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		04/14/22 10:42	04/16/22 00:02	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		04/14/22 10:42	04/16/22 00:02	1
1,4-Dioxane	ND		9.4	0.94	ug/L		04/14/22 10:42	04/16/22 00:02	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		04/14/22 10:42	04/16/22 00:02	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		04/14/22 10:42	04/16/22 00:02	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/14/22 10:42	04/16/22 00:02	1
Hexachloroethane	ND		9.4	4.0	ug/L		04/14/22 10:42	04/16/22 00:02	1
Indene	ND		9.4	0.94	ug/L		04/14/22 10:42	04/16/22 00:02	1
Isophorone	ND		9.4	0.13	ug/L		04/14/22 10:42	04/16/22 00:02	1
2-Methylphenol	ND		9.4	1.7	ug/L		04/14/22 10:42	04/16/22 00:02	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/14/22 10:42	04/16/22 00:02	1
2-Nitroaniline	ND		9.4	2.1	ug/L		04/14/22 10:42	04/16/22 00:02	1
3-Nitroaniline	ND		9.4	1.7	ug/L		04/14/22 10:42	04/16/22 00:02	1
4-Nitroaniline	ND		9.4	1.4	ug/L		04/14/22 10:42	04/16/22 00:02	1
Nitrobenzene	ND		9.4	0.12	ug/L		04/14/22 10:42	04/16/22 00:02	1
2-Nitrophenol	ND		9.4	4.9	ug/L		04/14/22 10:42	04/16/22 00:02	1
4-Nitrophenol	ND		9.4	2.0	ug/L		04/14/22 10:42	04/16/22 00:02	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		04/14/22 10:42	04/16/22 00:02	1

Client Sample ID: MW26-ROX-041122
Date Collected: 04/11/22 14:10
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		04/14/22 10:42	04/16/22 00:02	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		04/14/22 10:42	04/16/22 00:02	1
Pentachlorophenol	ND		19	1.3	ug/L		04/14/22 10:42	04/16/22 00:02	1
Phenol	ND		9.4	2.5	ug/L		04/14/22 10:42	04/16/22 00:02	1
Pyridine	ND		9.4	3.0	ug/L		04/14/22 10:42	04/16/22 00:02	1
Quinoline	ND		9.4	4.2	ug/L		04/14/22 10:42	04/16/22 00:02	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		04/14/22 10:42	04/16/22 00:02	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		04/14/22 10:42	04/16/22 00:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*04/14/22 10:42*	*04/16/22 00:02*	*1*
2-Fluorophenol	*13*		*13 - 113*	*04/14/22 10:42*	*04/16/22 00:02*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*04/14/22 10:42*	*04/16/22 00:02*	*1*
Phenol-d5	*32*		*17 - 127*	*04/14/22 10:42*	*04/16/22 00:02*	*1*
Terphenyl-d14	*75*		*44 - 149*	*04/14/22 10:42*	*04/16/22 00:02*	*1*
2,4,6-Tribromophenol	*52*		*26 - 150*	*04/14/22 10:42*	*04/16/22 00:02*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.033	0.019	ug/L		04/18/22 11:58	04/20/22 00:22	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/18/22 11:58	04/20/22 00:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*122*		*51 - 149*	*04/18/22 11:58*	*04/20/22 00:22*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218288-1	TB-ROX-041122-8260	99	100	97
400-218288-3	MW6D-ROX-041122	98	101	99
400-218288-4	MW6A-ROX-041122	100	102	98
400-218288-4 MS	MW6A-ROX-041122	101	101	98
400-218288-4 MSD	MW6A-ROX-041122	100	101	97
400-218288-5	MW6B-ROX-041122	101	102	99
400-218288-6	MW6C-ROX-041122	96	105	98
400-218288-7	MW26-ROX-041122	99	101	98
LCS 400-573721/1023	Lab Control Sample	101	101	97
LCS 400-573980/1002	Lab Control Sample	97	104	95
MB 400-573721/25	Method Blank	99	99	99
MB 400-573980/4	Method Blank	97	102	97

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218288-3	MW6D-ROX-041122	80	18	71	53	86	79
400-218288-4	MW6A-ROX-041122	74	35	68	60	54	89
400-218288-4 MS	MW6A-ROX-041122	74	53	77	71	64	100
400-218288-4 MSD	MW6A-ROX-041122	73	36	75	65	58	102
400-218288-5	MW6B-ROX-041122	81	26	76	61	87	99
400-218288-6	MW6C-ROX-041122	79	44	74	66	80	92
400-218288-7	MW26-ROX-041122	72	13	67	32	75	52
LCS 400-573863/2-A	Lab Control Sample	83	52	83	76	89	112
LCS 400-573863/5-A	Lab Control Sample	82	55	76	75	90	76
LCSD 400-573863/6-A	Lab Control Sample Dup	79	37	73	64	81	62
MB 400-573863/1-A	Method Blank	78	5 S1-	58	19	91	73

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218288-3	MW6D-ROX-041122	121	107	154 S1+

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-218288-1
Project/Site: ROXANA QUARTERLY GW

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218288-4	MW6A-ROX-041122	113	108	84
400-218288-4 MS	MW6A-ROX-041122	107	50	85
400-218288-4 MSD	MW6A-ROX-041122	104	68	84
400-218288-5	MW6B-ROX-041122	111	105	127
400-218288-6	MW6C-ROX-041122	133 S1+	81	144 S1+
400-218288-7	MW26-ROX-041122	115	108	
400-218288-7	MW26-ROX-041122			114
LCS 400-573863/2-A	Lab Control Sample	112	55	112
MB 400-573863/1-A	Method Blank	106	99	130

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-218288-2	TB-ROX-041122-8011	127
400-218288-3	MW6D-ROX-041122	135
400-218288-4	MW6A-ROX-041122	136
400-218288-4 MS	MW6A-ROX-041122	138
400-218288-4 MSD	MW6A-ROX-041122	117
400-218288-5	MW6B-ROX-041122	121
400-218288-6	MW6C-ROX-041122	135
400-218288-7	MW26-ROX-041122	122
LCS 400-574249/2-A	Lab Control Sample	128
LCSD 400-574249/3-A	Lab Control Sample Dup	132
MB 400-574249/1-A	Method Blank	135

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Client Sample ID: TB-ROX-041122-8260

Lab Sample ID: 400-218288-1
Matrix: Water

Date Collected: 04/11/22 00:01
Date Received: 04/12/22 09:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573721	04/13/22 19:04	CAR	TAL PEN

Client Sample ID: TB-ROX-041122-8011

Lab Sample ID: 400-218288-2
Matrix: Water

Date Collected: 04/11/22 00:01
Date Received: 04/12/22 09:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			32.8 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 21:39	DS	TAL PEN

Client Sample ID: MW6D-ROX-041122

Lab Sample ID: 400-218288-3
Matrix: Water

Date Collected: 04/11/22 10:00
Date Received: 04/12/22 09:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573721	04/13/22 19:30	CAR	TAL PEN
Total/NA	Prep	3520C			264.4 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574036	04/15/22 21:54	S1B	TAL PEN
Total/NA	Prep	3520C			264.4 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574053	04/15/22 18:52	PP1	TAL PEN
Total/NA	Prep	8011			30.5 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 21:59	DS	TAL PEN

Client Sample ID: MW6A-ROX-041122

Lab Sample ID: 400-218288-4
Matrix: Water

Date Collected: 04/11/22 11:05
Date Received: 04/12/22 09:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573980	04/15/22 09:25	WPD	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574036	04/15/22 22:15	S1B	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574053	04/15/22 18:21	PP1	TAL PEN
Total/NA	Prep	8011			31.8 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 22:19	DS	TAL PEN

Client Sample ID: MW6B-ROX-041122

Lab Sample ID: 400-218288-5
Matrix: Water

Date Collected: 04/11/22 11:55
Date Received: 04/12/22 09:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573721	04/13/22 19:56	CAR	TAL PEN
Total/NA	Prep	3520C			263.6 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574036	04/15/22 23:20	S1B	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Client Sample ID: MW6B-ROX-041122

Lab Sample ID: 400-218288-5

Date Collected: 04/11/22 11:55
Matrix: Water
Date Received: 04/12/22 09:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			263.6 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574053	04/15/22 19:07	PP1	TAL PEN
Total/NA	Prep	8011			29.2 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 23:21	DS	TAL PEN

Client Sample ID: MW6C-ROX-041122

Lab Sample ID: 400-218288-6

Date Collected: 04/11/22 12:35
Matrix: Water
Date Received: 04/12/22 09:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573721	04/13/22 20:22	CAR	TAL PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574036	04/15/22 23:41	S1B	TAL PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574053	04/15/22 19:23	PP1	TAL PEN
Total/NA	Prep	8011			32.9 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 23:41	DS	TAL PEN

Client Sample ID: MW26-ROX-041122

Lab Sample ID: 400-218288-7

Date Collected: 04/11/22 14:10
Matrix: Water
Date Received: 04/12/22 09:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573721	04/13/22 20:49	CAR	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574036	04/16/22 00:02	S1B	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574053	04/15/22 19:38	PP1	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574283	04/18/22 15:22	PP1	TAL PEN
Total/NA	Prep	8011			31.8 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/20/22 00:22	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-573721/25

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573721	04/13/22 16:00	CAR	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-573863/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574049	04/16/22 01:36	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574053	04/15/22 17:19	PP1	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-573980/4
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573980	04/15/22 08:08	WPD	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-574249/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 20:37	DS	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-573721/1023
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573721	04/13/22 14:58	CAR	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-573863/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574036	04/15/22 20:49	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			574053	04/15/22 17:35	PP1	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-573863/5-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574036	04/15/22 21:11	S1B	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-573980/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573980	04/15/22 07:12	WPD	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574249/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 20:58	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-573863/6-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574036	04/15/22 21:32	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-574249/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 21:18	DS	TAL PEN

Client Sample ID: MW6A-ROX-041122
Lab Sample ID: 400-218288-4 MS
Date Collected: 04/11/22 11:05
Matrix: Water
Date Received: 04/12/22 09:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573980	04/15/22 11:31	WPD	TAL PEN
Total/NA	Prep	3520C			258.8 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574036	04/15/22 22:37	S1B	TAL PEN
Total/NA	Prep	3520C			258.8 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			574053	04/15/22 17:50	PP1	TAL PEN
Total/NA	Prep	8011			31.8 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 22:40	DS	TAL PEN

Client Sample ID: MW6A-ROX-041122
Lab Sample ID: 400-218288-4 MSD
Date Collected: 04/11/22 11:05
Matrix: Water
Date Received: 04/12/22 09:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	573980	04/15/22 11:56	WPD	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Client Sample ID: MW6A-ROX-041122

Date Collected: 04/11/22 11:05
Date Received: 04/12/22 09:31

Lab Sample ID: 400-218288-4 MSD

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			273.2 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574036	04/15/22 22:58	S1B	TAL PEN
Total/NA	Prep	3520C			273.2 mL	1 mL	573863	04/14/22 10:42	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			574053	04/15/22 18:05	PP1	TAL PEN
Total/NA	Prep	8011			30.5 mL	35 mL	574249	04/18/22 11:58	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/19/22 23:00	DS	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

GC/MS VOA

Analysis Batch: 573721

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218288-1	TB-ROX-041122-8260	Total/NA	Water	8260B	
400-218288-3	MW6D-ROX-041122	Total/NA	Water	8260B	
400-218288-5	MW6B-ROX-041122	Total/NA	Water	8260B	
400-218288-6	MW6C-ROX-041122	Total/NA	Water	8260B	
400-218288-7	MW26-ROX-041122	Total/NA	Water	8260B	
MB 400-573721/25	Method Blank	Total/NA	Water	8260B	
LCS 400-573721/1023	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 573980

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218288-4	MW6A-ROX-041122	Total/NA	Water	8260B	
MB 400-573980/4	Method Blank	Total/NA	Water	8260B	
LCS 400-573980/1002	Lab Control Sample	Total/NA	Water	8260B	
400-218288-4 MS	MW6A-ROX-041122	Total/NA	Water	8260B	
400-218288-4 MSD	MW6A-ROX-041122	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 573863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218288-3	MW6D-ROX-041122	Total/NA	Water	3520C	
400-218288-4	MW6A-ROX-041122	Total/NA	Water	3520C	
400-218288-5	MW6B-ROX-041122	Total/NA	Water	3520C	
400-218288-6	MW6C-ROX-041122	Total/NA	Water	3520C	
400-218288-7	MW26-ROX-041122	Total/NA	Water	3520C	
MB 400-573863/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-573863/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-573863/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-573863/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-218288-4 MS	MW6A-ROX-041122	Total/NA	Water	3520C	
400-218288-4 MSD	MW6A-ROX-041122	Total/NA	Water	3520C	

Analysis Batch: 574036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218288-3	MW6D-ROX-041122	Total/NA	Water	8270D	573863
400-218288-4	MW6A-ROX-041122	Total/NA	Water	8270D	573863
400-218288-5	MW6B-ROX-041122	Total/NA	Water	8270D	573863
400-218288-6	MW6C-ROX-041122	Total/NA	Water	8270D	573863
400-218288-7	MW26-ROX-041122	Total/NA	Water	8270D	573863
LCS 400-573863/2-A	Lab Control Sample	Total/NA	Water	8270D	573863
LCS 400-573863/5-A	Lab Control Sample	Total/NA	Water	8270D	573863
LCSD 400-573863/6-A	Lab Control Sample Dup	Total/NA	Water	8270D	573863
400-218288-4 MS	MW6A-ROX-041122	Total/NA	Water	8270D	573863
400-218288-4 MSD	MW6A-ROX-041122	Total/NA	Water	8270D	573863

Analysis Batch: 574049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-573863/1-A	Method Blank	Total/NA	Water	8270D	573863

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

GC/MS Semi VOA

Analysis Batch: 574053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218288-3	MW6D-ROX-041122	Total/NA	Water	8270D LL	573863
400-218288-4	MW6A-ROX-041122	Total/NA	Water	8270D LL	573863
400-218288-5	MW6B-ROX-041122	Total/NA	Water	8270D LL	573863
400-218288-6	MW6C-ROX-041122	Total/NA	Water	8270D LL	573863
400-218288-7	MW26-ROX-041122	Total/NA	Water	8270D LL	573863
MB 400-573863/1-A	Method Blank	Total/NA	Water	8270D LL	573863
LCS 400-573863/2-A	Lab Control Sample	Total/NA	Water	8270D LL	573863
400-218288-4 MS	MW6A-ROX-041122	Total/NA	Water	8270D LL	573863
400-218288-4 MSD	MW6A-ROX-041122	Total/NA	Water	8270D LL	573863

Analysis Batch: 574283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218288-7	MW26-ROX-041122	Total/NA	Water	8270D LL	573863

GC Semi VOA

Prep Batch: 574249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218288-2	TB-ROX-041122-8011	Total/NA	Water	8011	
400-218288-3	MW6D-ROX-041122	Total/NA	Water	8011	
400-218288-4	MW6A-ROX-041122	Total/NA	Water	8011	
400-218288-5	MW6B-ROX-041122	Total/NA	Water	8011	
400-218288-6	MW6C-ROX-041122	Total/NA	Water	8011	
400-218288-7	MW26-ROX-041122	Total/NA	Water	8011	
MB 400-574249/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-574249/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-574249/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-218288-4 MS	MW6A-ROX-041122	Total/NA	Water	8011	
400-218288-4 MSD	MW6A-ROX-041122	Total/NA	Water	8011	

Analysis Batch: 574373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218288-2	TB-ROX-041122-8011	Total/NA	Water	8011	574249
400-218288-3	MW6D-ROX-041122	Total/NA	Water	8011	574249
400-218288-4	MW6A-ROX-041122	Total/NA	Water	8011	574249
400-218288-5	MW6B-ROX-041122	Total/NA	Water	8011	574249
400-218288-6	MW6C-ROX-041122	Total/NA	Water	8011	574249
400-218288-7	MW26-ROX-041122	Total/NA	Water	8011	574249
MB 400-574249/1-A	Method Blank	Total/NA	Water	8011	574249
LCS 400-574249/2-A	Lab Control Sample	Total/NA	Water	8011	574249
LCSD 400-574249/3-A	Lab Control Sample Dup	Total/NA	Water	8011	574249
400-218288-4 MS	MW6A-ROX-041122	Total/NA	Water	8011	574249
400-218288-4 MSD	MW6A-ROX-041122	Total/NA	Water	8011	574249

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-573721/25
Matrix: Water
Analysis Batch: 573721

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/13/22 16:00	1
Acrolein	ND		20	3.3	ug/L			04/13/22 16:00	1
Acrylonitrile	ND		10	2.8	ug/L			04/13/22 16:00	1
Benzene	ND		1.0	0.13	ug/L			04/13/22 16:00	1
Bromobenzene	ND		1.0	0.54	ug/L			04/13/22 16:00	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/13/22 16:00	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/13/22 16:00	1
Bromoform	ND		5.0	0.25	ug/L			04/13/22 16:00	1
Bromomethane	ND		1.0	0.98	ug/L			04/13/22 16:00	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/13/22 16:00	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/13/22 16:00	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/13/22 16:00	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/13/22 16:00	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/13/22 16:00	1
Chloroethane	ND		1.0	0.76	ug/L			04/13/22 16:00	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/13/22 16:00	1
Chloroform	ND		1.0	1.0	ug/L			04/13/22 16:00	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/13/22 16:00	1
Chloromethane	ND		1.0	0.32	ug/L			04/13/22 16:00	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/13/22 16:00	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/13/22 16:00	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/13/22 16:00	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/13/22 16:00	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/13/22 16:00	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/13/22 16:00	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/13/22 16:00	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/13/22 16:00	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 16:00	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 16:00	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 16:00	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/13/22 16:00	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/13/22 16:00	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/13/22 16:00	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/13/22 16:00	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/13/22 16:00	1
2-Hexanone	ND		25	1.4	ug/L			04/13/22 16:00	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/13/22 16:00	1
Methylene bromide	ND		5.0	0.22	ug/L			04/13/22 16:00	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/13/22 16:00	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/13/22 16:00	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/13/22 16:00	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/13/22 16:00	1
Naphthalene	ND		1.0	1.0	ug/L			04/13/22 16:00	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/13/22 16:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/13/22 16:00	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/13/22 16:00	1
o-Xylene	ND		5.0	0.60	ug/L			04/13/22 16:00	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/13/22 16:00	1

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

Lab Sample ID: MB 400-573721/25
Matrix: Water
Analysis Batch: 573721

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/13/22 16:00	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/13/22 16:00	1
Styrene	ND		1.0	1.0	ug/L			04/13/22 16:00	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/13/22 16:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/13/22 16:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/13/22 16:00	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/13/22 16:00	1
Toluene	ND		1.0	0.41	ug/L			04/13/22 16:00	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/13/22 16:00	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/13/22 16:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/13/22 16:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/13/22 16:00	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/13/22 16:00	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/13/22 16:00	1
Trichloroethene	ND		1.0	0.15	ug/L			04/13/22 16:00	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/13/22 16:00	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/13/22 16:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/13/22 16:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/13/22 16:00	1
Vinyl acetate	ND		25	0.93	ug/L			04/13/22 16:00	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/13/22 16:00	1
Xylenes, Total	ND		10	1.6	ug/L			04/13/22 16:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/13/22 16:00*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/13/22 16:00*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*04/13/22 16:00*	*1*

Lab Sample ID: LCS 400-573721/1023
Matrix: Water
Analysis Batch: 573721

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	189		ug/L		94	43 - 160
Acrolein	250	242		ug/L		97	38 - 160
Acrylonitrile	500	512		ug/L		102	64 - 142
Benzene	50.0	49.2		ug/L		98	70 - 130
Bromobenzene	50.0	47.9		ug/L		96	70 - 132
Bromochloromethane	50.0	48.7		ug/L		97	70 - 130
Bromodichloromethane	50.0	50.1		ug/L		100	67 - 133
Bromoform	50.0	53.7		ug/L		107	57 - 140
Bromomethane	25.0	26.9		ug/L		107	10 - 160
2-Butanone (MEK)	200	212		ug/L		106	61 - 145
Carbon disulfide	50.0	49.6		ug/L		99	61 - 137
Carbon tetrachloride	50.0	53.3		ug/L		107	61 - 137
Chlorobenzene	50.0	48.0		ug/L		96	70 - 130
Dibromochloromethane	50.0	51.1		ug/L		102	67 - 135
Chloroethane	25.0	24.1		ug/L		97	55 - 141

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

Lab Sample ID: LCS 400-573721/1023
Matrix: Water
Analysis Batch: 573721

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	25.0	21.4		ug/L		86	10 - 160
Chloroform	50.0	48.3		ug/L		97	69 - 130
1-Chlorohexane	50.0	48.4		ug/L		97	69 - 130
Chloromethane	25.0	25.2		ug/L		101	58 - 137
cis-1,2-Dichloroethene	50.0	49.7		ug/L		99	68 - 130
cis-1,3-Dichloropropene	50.0	52.3		ug/L		105	69 - 132
1,2-Dichlorobenzene	50.0	48.1		ug/L		96	67 - 130
1,3-Dichlorobenzene	50.0	49.2		ug/L		98	70 - 130
1,4-Dichlorobenzene	50.0	48.2		ug/L		96	70 - 130
Dichlorodifluoromethane	25.0	25.3		ug/L		101	41 - 146
1,1-Dichloroethane	50.0	48.7		ug/L		97	70 - 130
1,2-Dichloroethane	50.0	47.7		ug/L		95	69 - 130
1,1-Dichloroethene	50.0	47.4		ug/L		95	63 - 134
1,2-Dichloropropane	50.0	47.9		ug/L		96	70 - 130
1,3-Dichloropropane	50.0	48.3		ug/L		97	70 - 130
2,2-Dichloropropane	50.0	51.6		ug/L		103	52 - 135
1,1-Dichloropropene	50.0	49.3		ug/L		99	70 - 130
Ethylbenzene	50.0	49.4		ug/L		99	70 - 130
Ethyl methacrylate	50.0	51.1		ug/L		102	68 - 130
Hexachlorobutadiene	50.0	49.9		ug/L		100	53 - 140
2-Hexanone	200	201		ug/L		101	65 - 137
Isopropylbenzene	50.0	50.4		ug/L		101	70 - 130
Methylene bromide	50.0	48.0		ug/L		96	70 - 130
Methylene Chloride	50.0	49.1		ug/L		98	66 - 135
4-Methyl-2-pentanone (MIBK)	200	210		ug/L		105	69 - 138
Methyl tert-butyl ether	50.0	51.6		ug/L		103	66 - 130
m-Xylene & p-Xylene	50.0	50.2		ug/L		100	70 - 130
Naphthalene	50.0	48.1		ug/L		96	47 - 149
n-Butylbenzene	50.0	52.0		ug/L		104	67 - 130
N-Propylbenzene	50.0	50.2		ug/L		100	70 - 130
o-Chlorotoluene	50.0	50.1		ug/L		100	70 - 130
o-Xylene	50.0	49.3		ug/L		99	70 - 130
p-Chlorotoluene	50.0	49.6		ug/L		99	70 - 130
p-Isopropyltoluene	50.0	50.9		ug/L		102	65 - 130
sec-Butylbenzene	50.0	50.7		ug/L		101	66 - 130
Styrene	50.0	50.3		ug/L		101	70 - 130
tert-Butylbenzene	50.0	49.1		ug/L		98	64 - 139
1,1,1,2-Tetrachloroethane	50.0	51.0		ug/L		102	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.7		ug/L		97	70 - 131
Tetrachloroethene	50.0	46.8		ug/L		94	65 - 130
Toluene	50.0	49.3		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	47.7		ug/L		95	70 - 130
trans-1,3-Dichloropropene	50.0	52.1		ug/L		104	63 - 130
1,2,3-Trichlorobenzene	50.0	46.6		ug/L		93	60 - 138
1,2,4-Trichlorobenzene	50.0	49.6		ug/L		99	60 - 140
1,1,1-Trichloroethane	50.0	51.9		ug/L		104	68 - 130
1,1,2-Trichloroethane	50.0	47.8		ug/L		96	70 - 130
Trichloroethene	50.0	49.9		ug/L		100	70 - 130
Trichlorofluoromethane	25.0	25.5		ug/L		102	65 - 138

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

Lab Sample ID: LCS 400-573721/1023
Matrix: Water
Analysis Batch: 573721

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	46.4		ug/L		93	70 - 130
1,2,4-Trimethylbenzene	50.0	50.6		ug/L		101	70 - 130
1,3,5-Trimethylbenzene	50.0	50.1		ug/L		100	69 - 130
Vinyl acetate	50.0	53.0		ug/L		106	26 - 160
Vinyl chloride	25.0	24.6		ug/L		98	59 - 136
Xylenes, Total	100	99.5		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Lab Sample ID: MB 400-573980/4
Matrix: Water
Analysis Batch: 573980

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/15/22 08:08	1
Acrolein	ND		20	3.3	ug/L			04/15/22 08:08	1
Acrylonitrile	ND		10	2.8	ug/L			04/15/22 08:08	1
Benzene	ND		1.0	0.13	ug/L			04/15/22 08:08	1
Bromobenzene	ND		1.0	0.54	ug/L			04/15/22 08:08	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/15/22 08:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/15/22 08:08	1
Bromoform	ND		5.0	0.25	ug/L			04/15/22 08:08	1
Bromomethane	ND		1.0	0.98	ug/L			04/15/22 08:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/15/22 08:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/15/22 08:08	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/15/22 08:08	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/15/22 08:08	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/15/22 08:08	1
Chloroethane	ND		1.0	0.76	ug/L			04/15/22 08:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/15/22 08:08	1
Chloroform	ND		1.0	1.0	ug/L			04/15/22 08:08	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/15/22 08:08	1
Chloromethane	ND		1.0	0.32	ug/L			04/15/22 08:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/15/22 08:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/15/22 08:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/15/22 08:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/15/22 08:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/15/22 08:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/15/22 08:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/15/22 08:08	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/15/22 08:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/15/22 08:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/15/22 08:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/15/22 08:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/15/22 08:08	1

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

Lab Sample ID: MB 400-573980/4
Matrix: Water
Analysis Batch: 573980

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/15/22 08:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/15/22 08:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/15/22 08:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/15/22 08:08	1
2-Hexanone	ND		25	1.4	ug/L			04/15/22 08:08	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/15/22 08:08	1
Methylene bromide	ND		5.0	0.22	ug/L			04/15/22 08:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/15/22 08:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/15/22 08:08	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/15/22 08:08	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/15/22 08:08	1
Naphthalene	ND		1.0	1.0	ug/L			04/15/22 08:08	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/15/22 08:08	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/15/22 08:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/15/22 08:08	1
o-Xylene	ND		5.0	0.60	ug/L			04/15/22 08:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/15/22 08:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/15/22 08:08	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/15/22 08:08	1
Styrene	ND		1.0	1.0	ug/L			04/15/22 08:08	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/15/22 08:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/15/22 08:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/15/22 08:08	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/15/22 08:08	1
Toluene	ND		1.0	0.41	ug/L			04/15/22 08:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/15/22 08:08	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/15/22 08:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/15/22 08:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/15/22 08:08	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/15/22 08:08	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/15/22 08:08	1
Trichloroethene	ND		1.0	0.15	ug/L			04/15/22 08:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/15/22 08:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/15/22 08:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/15/22 08:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/15/22 08:08	1
Vinyl acetate	ND		25	0.93	ug/L			04/15/22 08:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/15/22 08:08	1
Xylenes, Total	ND		10	1.6	ug/L			04/15/22 08:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/15/22 08:08*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/15/22 08:08*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/15/22 08:08*	*1*

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

Lab Sample ID: LCS 400-573980/1002
Matrix: Water
Analysis Batch: 573980

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	188		ug/L		94	43 - 160
Acrolein	250	280		ug/L		112	38 - 160
Acrylonitrile	500	521		ug/L		104	64 - 142
Benzene	50.0	45.8		ug/L		92	70 - 130
Bromobenzene	50.0	43.2		ug/L		86	70 - 132
Bromochloromethane	50.0	47.2		ug/L		94	70 - 130
Bromodichloromethane	50.0	46.1		ug/L		92	67 - 133
Bromoform	50.0	49.5		ug/L		99	57 - 140
Bromomethane	25.0	28.7		ug/L		115	10 - 160
2-Butanone (MEK)	200	207		ug/L		103	61 - 145
Carbon disulfide	50.0	44.8		ug/L		90	61 - 137
Carbon tetrachloride	50.0	46.9		ug/L		94	61 - 137
Chlorobenzene	50.0	44.2		ug/L		88	70 - 130
Dibromochloromethane	50.0	47.3		ug/L		95	67 - 135
Chloroethane	25.0	27.0		ug/L		108	55 - 141
2-Chloroethyl vinyl ether	25.0	33.0		ug/L		132	10 - 160
Chloroform	50.0	44.6		ug/L		89	69 - 130
1-Chlorohexane	50.0	43.8		ug/L		88	69 - 130
Chloromethane	25.0	25.3		ug/L		101	58 - 137
cis-1,2-Dichloroethene	50.0	45.8		ug/L		92	68 - 130
cis-1,3-Dichloropropene	50.0	48.1		ug/L		96	69 - 132
1,2-Dichlorobenzene	50.0	44.7		ug/L		89	67 - 130
1,3-Dichlorobenzene	50.0	44.4		ug/L		89	70 - 130
1,4-Dichlorobenzene	50.0	44.1		ug/L		88	70 - 130
Dichlorodifluoromethane	25.0	25.6		ug/L		102	41 - 146
1,1-Dichloroethane	50.0	44.6		ug/L		89	70 - 130
1,2-Dichloroethane	50.0	46.9		ug/L		94	69 - 130
1,1-Dichloroethene	50.0	46.0		ug/L		92	63 - 134
1,2-Dichloropropane	50.0	46.4		ug/L		93	70 - 130
1,3-Dichloropropane	50.0	46.0		ug/L		92	70 - 130
2,2-Dichloropropane	50.0	45.6		ug/L		91	52 - 135
1,1-Dichloropropene	50.0	45.7		ug/L		91	70 - 130
Ethylbenzene	50.0	44.8		ug/L		90	70 - 130
Ethyl methacrylate	50.0	49.0		ug/L		98	68 - 130
Hexachlorobutadiene	50.0	44.3		ug/L		89	53 - 140
2-Hexanone	200	200		ug/L		100	65 - 137
Isopropylbenzene	50.0	46.0		ug/L		92	70 - 130
Methylene bromide	50.0	47.8		ug/L		96	70 - 130
Methylene Chloride	50.0	45.5		ug/L		91	66 - 135
4-Methyl-2-pentanone (MIBK)	200	214		ug/L		107	69 - 138
Methyl tert-butyl ether	50.0	48.7		ug/L		97	66 - 130
m-Xylene & p-Xylene	50.0	44.6		ug/L		89	70 - 130
Naphthalene	50.0	48.2		ug/L		96	47 - 149
n-Butylbenzene	50.0	47.0		ug/L		94	67 - 130
N-Propylbenzene	50.0	44.0		ug/L		88	70 - 130
o-Chlorotoluene	50.0	44.7		ug/L		89	70 - 130
o-Xylene	50.0	45.3		ug/L		91	70 - 130
p-Chlorotoluene	50.0	44.1		ug/L		88	70 - 130

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

Lab Sample ID: LCS 400-573980/1002
Matrix: Water
Analysis Batch: 573980

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
p-Isopropyltoluene	50.0	45.5		ug/L		91	65 - 130
sec-Butylbenzene	50.0	44.8		ug/L		90	66 - 130
Styrene	50.0	46.5		ug/L		93	70 - 130
tert-Butylbenzene	50.0	43.2		ug/L		86	64 - 139
1,1,1,2-Tetrachloroethane	50.0	45.0		ug/L		90	67 - 131
1,1,2,2-Tetrachloroethane	50.0	47.9		ug/L		96	70 - 131
Tetrachloroethene	50.0	42.0		ug/L		84	65 - 130
Toluene	50.0	44.1		ug/L		88	70 - 130
trans-1,2-Dichloroethene	50.0	45.0		ug/L		90	70 - 130
trans-1,3-Dichloropropene	50.0	46.5		ug/L		93	63 - 130
1,2,3-Trichlorobenzene	50.0	45.5		ug/L		91	60 - 138
1,2,4-Trichlorobenzene	50.0	46.2		ug/L		92	60 - 140
1,1,1-Trichloroethane	50.0	46.5		ug/L		93	68 - 130
1,1,2-Trichloroethane	50.0	46.0		ug/L		92	70 - 130
Trichloroethene	50.0	46.1		ug/L		92	70 - 130
Trichlorofluoromethane	25.0	27.2		ug/L		109	65 - 138
1,2,3-Trichloropropane	50.0	47.3		ug/L		95	70 - 130
1,2,4-Trimethylbenzene	50.0	45.3		ug/L		91	70 - 130
1,3,5-Trimethylbenzene	50.0	44.6		ug/L		89	69 - 130
Vinyl acetate	50.0	57.2		ug/L		114	26 - 160
Vinyl chloride	25.0	25.3		ug/L		101	59 - 136
Xylenes, Total	100	89.9		ug/L		90	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 119*
Dibromofluoromethane	*104*		*75 - 126*
Toluene-d8 (Surr)	*95*		*64 - 132*

Lab Sample ID: 400-218288-4 MS
Matrix: Water
Analysis Batch: 573980

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	192		ug/L		96	43 - 150
Acrolein	ND		250	316		ug/L		127	38 - 150
Acrylonitrile	ND		500	542		ug/L		108	62 - 149
Benzene	ND		50.0	47.6		ug/L		95	56 - 142
Bromobenzene	ND		50.0	43.4		ug/L		87	59 - 136
Bromochloromethane	ND		50.0	46.8		ug/L		94	64 - 140
Bromodichloromethane	ND		50.0	44.3		ug/L		89	59 - 143
Bromoform	ND		50.0	44.3		ug/L		89	50 - 140
Bromomethane	ND		25.0	28.9		ug/L		116	10 - 150
2-Butanone (MEK)	ND		200	229		ug/L		114	55 - 150
Carbon disulfide	ND		50.0	47.1		ug/L		94	48 - 150
Carbon tetrachloride	ND		50.0	47.3		ug/L		95	55 - 145
Chlorobenzene	ND		50.0	44.9		ug/L		90	64 - 130
Dibromochloromethane	ND		50.0	43.1		ug/L		86	56 - 143
Chloroethane	ND		25.0	28.7		ug/L		115	50 - 150

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

Lab Sample ID: 400-218288-4 MS
Matrix: Water
Analysis Batch: 573980

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	ND	F2 F1	25.0	4.31	J	ug/L		17	10 - 150
Chloroform	ND		50.0	45.2		ug/L		90	60 - 141
1-Chlorohexane	ND		50.0	45.0		ug/L		90	56 - 136
Chloromethane	ND		25.0	26.7		ug/L		107	49 - 148
cis-1,2-Dichloroethene	ND		50.0	47.3		ug/L		95	59 - 143
cis-1,3-Dichloropropene	ND		50.0	46.9		ug/L		94	57 - 140
1,2-Dichlorobenzene	ND		50.0	43.6		ug/L		87	52 - 137
1,3-Dichlorobenzene	ND		50.0	42.9		ug/L		86	54 - 135
1,4-Dichlorobenzene	ND		50.0	42.4		ug/L		85	53 - 135
Dichlorodifluoromethane	ND		25.0	27.7		ug/L		111	16 - 150
1,1-Dichloroethane	ND		50.0	46.1		ug/L		92	61 - 144
1,2-Dichloroethane	ND		50.0	45.3		ug/L		91	60 - 141
1,1-Dichloroethene	ND		50.0	49.1		ug/L		98	54 - 147
1,2-Dichloropropane	ND		50.0	47.0		ug/L		94	66 - 137
1,3-Dichloropropane	ND		50.0	45.6		ug/L		91	66 - 133
2,2-Dichloropropane	ND		50.0	47.7		ug/L		95	42 - 144
1,1-Dichloropropene	ND		50.0	48.5		ug/L		97	65 - 136
Ethylbenzene	ND		50.0	46.1		ug/L		92	58 - 131
Ethyl methacrylate	ND		50.0	48.3		ug/L		97	64 - 130
Hexachlorobutadiene	ND		50.0	42.6		ug/L		85	31 - 149
2-Hexanone	ND		200	209		ug/L		105	65 - 140
Isopropylbenzene	ND		50.0	46.6		ug/L		93	56 - 133
Methylene bromide	ND		50.0	46.3		ug/L		93	63 - 138
Methylene Chloride	ND		50.0	46.3		ug/L		93	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	220		ug/L		110	63 - 146
Methyl tert-butyl ether	0.41	J	50.0	48.7		ug/L		97	59 - 137
m-Xylene & p-Xylene	ND		50.0	45.9		ug/L		92	57 - 130
Naphthalene	ND		50.0	49.4		ug/L		99	25 - 150
n-Butylbenzene	ND		50.0	45.0		ug/L		90	41 - 142
N-Propylbenzene	ND		50.0	44.9		ug/L		90	51 - 138
o-Chlorotoluene	ND		50.0	43.1		ug/L		86	53 - 134
o-Xylene	ND		50.0	45.7		ug/L		91	61 - 130
p-Chlorotoluene	ND		50.0	43.7		ug/L		87	54 - 133
p-Isopropyltoluene	ND		50.0	45.3		ug/L		91	48 - 139
sec-Butylbenzene	ND		50.0	45.5		ug/L		91	50 - 138
Styrene	ND		50.0	45.3		ug/L		91	58 - 131
tert-Butylbenzene	ND		50.0	45.0		ug/L		90	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	43.8		ug/L		88	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	48.9		ug/L		98	66 - 135
Tetrachloroethene	ND		50.0	45.0		ug/L		90	52 - 133
Toluene	ND		50.0	45.7		ug/L		91	65 - 130
trans-1,2-Dichloroethene	ND		50.0	46.3		ug/L		93	61 - 143
trans-1,3-Dichloropropene	ND		50.0	44.3		ug/L		89	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	43.7		ug/L		87	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	43.3		ug/L		87	39 - 148
1,1,1-Trichloroethane	ND		50.0	48.4		ug/L		97	57 - 142
1,1,2-Trichloroethane	ND		50.0	44.9		ug/L		90	66 - 131
Trichloroethene	ND		50.0	48.8		ug/L		98	64 - 136
Trichlorofluoromethane	ND		25.0	31.4		ug/L		126	54 - 150

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

Lab Sample ID: 400-218288-4 MS
Matrix: Water
Analysis Batch: 573980

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	ND		50.0	46.7		ug/L		93	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	45.6		ug/L		91	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	45.0		ug/L		90	52 - 135
Vinyl acetate	ND		50.0	58.7		ug/L		117	26 - 150
Vinyl chloride	ND		25.0	27.9		ug/L		112	46 - 150
Xylenes, Total	ND		100	91.7		ug/L		92	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: 400-218288-4 MSD
Matrix: Water
Analysis Batch: 573980

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	ND		200	159		ug/L		79	43 - 150	19	30
Acrolein	ND		250	263		ug/L		105	38 - 150	19	31
Acrylonitrile	ND		500	511		ug/L		102	62 - 149	6	30
Benzene	ND		50.0	48.7		ug/L		97	56 - 142	2	30
Bromobenzene	ND		50.0	46.1		ug/L		92	59 - 136	6	30
Bromochloromethane	ND		50.0	49.6		ug/L		99	64 - 140	6	30
Bromodichloromethane	ND		50.0	47.0		ug/L		94	59 - 143	6	30
Bromoform	ND		50.0	47.9		ug/L		96	50 - 140	8	30
Bromomethane	ND		25.0	28.7		ug/L		115	10 - 150	1	50
2-Butanone (MEK)	ND		200	206		ug/L		103	55 - 150	10	30
Carbon disulfide	ND		50.0	47.3		ug/L		95	48 - 150	0	30
Carbon tetrachloride	ND		50.0	49.1		ug/L		98	55 - 145	4	30
Chlorobenzene	ND		50.0	47.1		ug/L		94	64 - 130	5	30
Dibromochloromethane	ND		50.0	48.1		ug/L		96	56 - 143	11	30
Chloroethane	ND		25.0	25.4		ug/L		102	50 - 150	12	30
2-Chloroethyl vinyl ether	ND	F2 F1	25.0	2.18	J F1 F2	ug/L		9	10 - 150	65	50
Chloroform	ND		50.0	46.8		ug/L		94	60 - 141	4	30
1-Chlorohexane	ND		50.0	46.1		ug/L		92	56 - 136	2	30
Chloromethane	ND		25.0	24.1		ug/L		96	49 - 148	10	31
cis-1,2-Dichloroethene	ND		50.0	49.1		ug/L		98	59 - 143	4	30
cis-1,3-Dichloropropene	ND		50.0	50.5		ug/L		101	57 - 140	7	30
1,2-Dichlorobenzene	ND		50.0	46.5		ug/L		93	52 - 137	6	30
1,3-Dichlorobenzene	ND		50.0	46.7		ug/L		93	54 - 135	9	30
1,4-Dichlorobenzene	ND		50.0	46.1		ug/L		92	53 - 135	9	30
Dichlorodifluoromethane	ND		25.0	23.9		ug/L		96	16 - 150	15	31
1,1-Dichloroethane	ND		50.0	47.4		ug/L		95	61 - 144	3	30
1,2-Dichloroethane	ND		50.0	47.4		ug/L		95	60 - 141	5	30
1,1-Dichloroethene	ND		50.0	48.0		ug/L		96	54 - 147	2	30
1,2-Dichloropropane	ND		50.0	49.6		ug/L		99	66 - 137	5	30
1,3-Dichloropropane	ND		50.0	47.1		ug/L		94	66 - 133	3	30
2,2-Dichloropropane	ND		50.0	49.6		ug/L		99	42 - 144	4	31

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

Lab Sample ID: 400-218288-4 MSD
Matrix: Water
Analysis Batch: 573980

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloropropene	ND		50.0	48.3		ug/L		97	65 - 136	0	30
Ethylbenzene	ND		50.0	47.5		ug/L		95	58 - 131	3	30
Ethyl methacrylate	ND		50.0	50.0		ug/L		100	64 - 130	3	30
Hexachlorobutadiene	ND		50.0	46.1		ug/L		92	31 - 149	8	36
2-Hexanone	ND		200	198		ug/L		99	65 - 140	5	30
Isopropylbenzene	ND		50.0	48.5		ug/L		97	56 - 133	4	30
Methylene bromide	ND		50.0	48.9		ug/L		98	63 - 138	5	30
Methylene Chloride	ND		50.0	48.2		ug/L		96	60 - 146	4	32
4-Methyl-2-pentanone (MIBK)	ND		200	211		ug/L		106	63 - 146	4	30
Methyl tert-butyl ether	0.41	J	50.0	50.5		ug/L		100	59 - 137	4	30
m-Xylene & p-Xylene	ND		50.0	47.4		ug/L		95	57 - 130	3	30
Naphthalene	ND		50.0	49.9		ug/L		100	25 - 150	1	30
n-Butylbenzene	ND		50.0	48.5		ug/L		97	41 - 142	7	31
N-Propylbenzene	ND		50.0	47.3		ug/L		95	51 - 138	5	30
o-Chlorotoluene	ND		50.0	47.6		ug/L		95	53 - 134	10	30
o-Xylene	ND		50.0	47.7		ug/L		95	61 - 130	4	30
p-Chlorotoluene	ND		50.0	47.0		ug/L		94	54 - 133	7	30
p-Isopropyltoluene	ND		50.0	47.8		ug/L		96	48 - 139	5	30
sec-Butylbenzene	ND		50.0	48.4		ug/L		97	50 - 138	6	30
Styrene	ND		50.0	48.7		ug/L		97	58 - 131	7	30
tert-Butylbenzene	ND		50.0	46.6		ug/L		93	54 - 146	3	30
1,1,1,2-Tetrachloroethane	ND		50.0	47.1		ug/L		94	59 - 137	7	30
1,1,2,2-Tetrachloroethane	ND		50.0	49.1		ug/L		98	66 - 135	0	30
Tetrachloroethene	ND		50.0	45.0		ug/L		90	52 - 133	0	30
Toluene	ND		50.0	46.6		ug/L		93	65 - 130	2	30
trans-1,2-Dichloroethene	ND		50.0	48.0		ug/L		96	61 - 143	4	30
trans-1,3-Dichloropropene	ND		50.0	47.4		ug/L		95	53 - 133	7	30
1,2,3-Trichlorobenzene	ND		50.0	47.4		ug/L		95	43 - 145	8	30
1,2,4-Trichlorobenzene	ND		50.0	46.8		ug/L		94	39 - 148	8	30
1,1,1-Trichloroethane	ND		50.0	49.6		ug/L		99	57 - 142	2	30
1,1,2-Trichloroethane	ND		50.0	47.0		ug/L		94	66 - 131	4	30
Trichloroethene	ND		50.0	48.9		ug/L		98	64 - 136	0	30
Trichlorofluoromethane	ND		25.0	26.8		ug/L		107	54 - 150	16	30
1,2,3-Trichloropropane	ND		50.0	46.2		ug/L		92	65 - 133	1	30
1,2,4-Trimethylbenzene	ND		50.0	48.1		ug/L		96	50 - 139	5	30
1,3,5-Trimethylbenzene	ND		50.0	47.8		ug/L		96	52 - 135	6	30
Vinyl acetate	ND		50.0	55.4		ug/L		111	26 - 150	6	33
Vinyl chloride	ND		25.0	24.3		ug/L		97	46 - 150	14	30
Xylenes, Total	ND		100	95.1		ug/L		95	59 - 130	4	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*100*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-573863/1-A
Matrix: Water
Analysis Batch: 574049

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/14/22 10:42	04/16/22 01:36	1
Benzenethiol	ND		10	1.7	ug/L		04/14/22 10:42	04/16/22 01:36	1
Benzoic acid	ND		30	7.3	ug/L		04/14/22 10:42	04/16/22 01:36	1
Benzyl alcohol	ND		10	2.0	ug/L		04/14/22 10:42	04/16/22 01:36	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/14/22 10:42	04/16/22 01:36	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/14/22 10:42	04/16/22 01:36	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/14/22 10:42	04/16/22 01:36	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/14/22 10:42	04/16/22 01:36	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/14/22 10:42	04/16/22 01:36	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/14/22 10:42	04/16/22 01:36	1
4-Chloroaniline	ND		10	3.4	ug/L		04/14/22 10:42	04/16/22 01:36	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/14/22 10:42	04/16/22 01:36	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/14/22 10:42	04/16/22 01:36	1
2-Chlorophenol	ND		10	2.2	ug/L		04/14/22 10:42	04/16/22 01:36	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/14/22 10:42	04/16/22 01:36	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/14/22 10:42	04/16/22 01:36	1
Dibenzofuran	ND		10	0.17	ug/L		04/14/22 10:42	04/16/22 01:36	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/14/22 10:42	04/16/22 01:36	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/14/22 10:42	04/16/22 01:36	1
Diethyl phthalate	0.413	J	10	0.24	ug/L		04/14/22 10:42	04/16/22 01:36	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/14/22 10:42	04/16/22 01:36	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/14/22 10:42	04/16/22 01:36	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/14/22 10:42	04/16/22 01:36	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/14/22 10:42	04/16/22 01:36	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/14/22 10:42	04/16/22 01:36	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/14/22 10:42	04/16/22 01:36	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/14/22 10:42	04/16/22 01:36	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/14/22 10:42	04/16/22 01:36	1
1,4-Dioxane	ND		10	1.0	ug/L		04/14/22 10:42	04/16/22 01:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/14/22 10:42	04/16/22 01:36	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/14/22 10:42	04/16/22 01:36	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/14/22 10:42	04/16/22 01:36	1
Hexachloroethane	ND		10	4.2	ug/L		04/14/22 10:42	04/16/22 01:36	1
Indene	ND		10	1.0	ug/L		04/14/22 10:42	04/16/22 01:36	1
Isophorone	ND		10	0.14	ug/L		04/14/22 10:42	04/16/22 01:36	1
2-Methylphenol	ND		10	1.8	ug/L		04/14/22 10:42	04/16/22 01:36	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/14/22 10:42	04/16/22 01:36	1
2-Nitroaniline	ND		10	2.2	ug/L		04/14/22 10:42	04/16/22 01:36	1
3-Nitroaniline	ND		10	1.8	ug/L		04/14/22 10:42	04/16/22 01:36	1
4-Nitroaniline	ND		10	1.5	ug/L		04/14/22 10:42	04/16/22 01:36	1
Nitrobenzene	ND		10	0.13	ug/L		04/14/22 10:42	04/16/22 01:36	1
2-Nitrophenol	ND		10	5.2	ug/L		04/14/22 10:42	04/16/22 01:36	1
4-Nitrophenol	ND		10	2.1	ug/L		04/14/22 10:42	04/16/22 01:36	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/14/22 10:42	04/16/22 01:36	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/14/22 10:42	04/16/22 01:36	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/14/22 10:42	04/16/22 01:36	1
Pentachlorophenol	ND		20	1.4	ug/L		04/14/22 10:42	04/16/22 01:36	1
Phenol	ND		10	2.6	ug/L		04/14/22 10:42	04/16/22 01:36	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-573863/1-A
Matrix: Water
Analysis Batch: 574049

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		04/14/22 10:42	04/16/22 01:36	1
Quinoline	ND		10	4.5	ug/L		04/14/22 10:42	04/16/22 01:36	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/14/22 10:42	04/16/22 01:36	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/14/22 10:42	04/16/22 01:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*04/14/22 10:42*	*04/16/22 01:36*	*1*
2-Fluorophenol	*5*	*S1-*	*13 - 113*	*04/14/22 10:42*	*04/16/22 01:36*	*1*
Nitrobenzene-d5	*58*		*36 - 126*	*04/14/22 10:42*	*04/16/22 01:36*	*1*
Phenol-d5	*19*		*17 - 127*	*04/14/22 10:42*	*04/16/22 01:36*	*1*
Terphenyl-d14	*91*		*44 - 149*	*04/14/22 10:42*	*04/16/22 01:36*	*1*
2,4,6-Tribromophenol	*73*		*26 - 150*	*04/14/22 10:42*	*04/16/22 01:36*	*1*

Lab Sample ID: LCS 400-573863/2-A
Matrix: Water
Analysis Batch: 574036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	76.4		ug/L		64	21 - 120
Benzoic acid	498	369		ug/L		74	10 - 144
Benzyl alcohol	120	102		ug/L		85	28 - 120
Bis(2-chloroethoxy)methane	120	90.4		ug/L		75	47 - 120
Bis(2-chloroethyl)ether	120	97.2		ug/L		81	44 - 120
bis (2-chloroisopropyl) ether	120	92.0		ug/L		77	33 - 121
Bis(2-ethylhexyl) phthalate	120	111		ug/L		92	52 - 147
4-Bromophenyl phenyl ether	120	106		ug/L		88	54 - 122
Butyl benzyl phthalate	120	110		ug/L		91	54 - 133
4-Chloroaniline	120	75.5		ug/L		63	26 - 120
4-Chloro-3-methylphenol	120	105		ug/L		87	48 - 131
2-Chloronaphthalene	120	102		ug/L		85	52 - 121
2-Chlorophenol	120	89.7		ug/L		75	40 - 120
4-Chlorophenyl phenyl ether	120	107		ug/L		89	56 - 125
Dibenz[a,h]acridine	120	135		ug/L		113	31 - 150
Dibenzofuran	120	107		ug/L		89	56 - 122
3,3'-Dichlorobenzidine	160	227	*+	ug/L		142	36 - 132
2,4-Dichlorophenol	120	100		ug/L		84	49 - 120
Diethyl phthalate	120	115		ug/L		96	50 - 137
2,4-Dimethylphenol	120	100		ug/L		83	48 - 120
Dimethyl phthalate	120	107		ug/L		89	57 - 124
Di-n-butyl phthalate	120	122		ug/L		102	58 - 126
4,6-Dinitro-ortho-cresol	240	288		ug/L		120	23 - 148
2,4-Dinitrophenol	240	296		ug/L		123	10 - 150
2,4-Dinitrotoluene	120	112		ug/L		93	54 - 142
2,6-Dinitrotoluene	120	103		ug/L		86	55 - 130
Di-n-octyl phthalate	120	118		ug/L		99	57 - 138
1,4-Dioxane	120	75.2		ug/L		63	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	96.5		ug/L		80	45 - 124
Hexachlorobenzene	120	115		ug/L		96	52 - 129

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-573863/2-A
Matrix: Water
Analysis Batch: 574036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	120	75.2		ug/L		63	10 - 134
Hexachloroethane	120	90.4		ug/L		75	20 - 120
Indene	120	95.2		ug/L		79	49 - 120
Isophorone	120	93.3		ug/L		78	48 - 120
2-Methylphenol	120	104		ug/L		86	46 - 124
3 & 4 Methylphenol	120	103		ug/L		86	45 - 120
2-Nitroaniline	120	95.6		ug/L		80	51 - 145
3-Nitroaniline	120	92.2		ug/L		77	37 - 127
4-Nitroaniline	120	126		ug/L		105	36 - 137
Nitrobenzene	120	90.1		ug/L		75	45 - 120
2-Nitrophenol	120	103		ug/L		86	40 - 124
4-Nitrophenol	240	220		ug/L		92	23 - 146
N-Nitrosodimethylamine	120	104		ug/L		87	29 - 137
N-Nitrosodi-n-propylamine	120	102		ug/L		85	45 - 120
N-Nitrosodiphenylamine	119	98.3		ug/L		83	54 - 120
Pentachlorophenol	240	265		ug/L		110	31 - 130
Phenol	120	84.8		ug/L		71	11 - 120
Pyridine	240	151		ug/L		63	16 - 120
Quinoline	120	113		ug/L		94	49 - 130
2,4,5-Trichlorophenol	120	106		ug/L		89	51 - 136
2,4,6-Trichlorophenol	120	105		ug/L		88	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*83*		*36 - 126*
Phenol-d5	*76*		*17 - 127*
Terphenyl-d14	*89*		*44 - 149*
2,4,6-Tribromophenol	*112*		*26 - 150*

Lab Sample ID: LCS 400-573863/5-A
Matrix: Water
Analysis Batch: 574036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	8.02	J *-	ug/L		7	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*82*		*46 - 124*
2-Fluorophenol	*55*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*90*		*44 - 149*
2,4,6-Tribromophenol	*76*		*26 - 150*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-573863/6-A
Matrix: Water
Analysis Batch: 574036

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	5.69	J *- *1	ug/L		5	10 - 120	34	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*37*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*64*		*17 - 127*
Terphenyl-d14	*81*		*44 - 149*
2,4,6-Tribromophenol	*62*		*26 - 150*

Lab Sample ID: 400-218288-4 MS
Matrix: Water
Analysis Batch: 574036

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		116	65.4		ug/L		56	10 - 120
Benzoic acid	27	J	481	381		ug/L		74	10 - 149
Benzyl alcohol	ND		116	96.3		ug/L		83	33 - 120
Bis(2-chloroethoxy)methane	ND		116	82.9		ug/L		72	26 - 120
Bis(2-chloroethyl)ether	ND		116	93.7		ug/L		81	42 - 120
bis (2-chloroisopropyl) ether	ND		116	84.9		ug/L		73	28 - 120
Bis(2-ethylhexyl) phthalate	ND		116	88.9		ug/L		77	39 - 120
4-Bromophenyl phenyl ether	ND		116	89.8		ug/L		77	40 - 120
Butyl benzyl phthalate	ND		116	90.7		ug/L		78	45 - 120
4-Chloroaniline	ND		116	62.8		ug/L		54	10 - 120
4-Chloro-3-methylphenol	ND		116	95.1		ug/L		82	34 - 120
2-Chloronaphthalene	ND		116	92.1		ug/L		79	39 - 120
2-Chlorophenol	ND		116	85.0		ug/L		73	25 - 120
4-Chlorophenyl phenyl ether	ND		116	91.0		ug/L		79	44 - 120
Dibenz[a,h]acridine	ND		116	113		ug/L		97	50 - 150
Dibenzofuran	ND		116	93.0		ug/L		80	25 - 130
3,3'-Dichlorobenzidine	ND	*+	155	64.5		ug/L		42	10 - 120
2,4-Dichlorophenol	ND		116	90.8		ug/L		78	31 - 120
Diethyl phthalate	ND		116	99.4		ug/L		86	46 - 120
2,4-Dimethylphenol	ND		116	93.9		ug/L		81	21 - 120
Dimethyl phthalate	ND		116	95.9		ug/L		83	38 - 120
Di-n-butyl phthalate	ND		116	100		ug/L		86	49 - 120
4,6-Dinitro-ortho-cresol	ND	F1	232	288	F1	ug/L		124	25 - 120
2,4-Dinitrophenol	ND		232	293		ug/L		126	15 - 140
2,4-Dinitrotoluene	ND		116	99.6		ug/L		86	53 - 120
2,6-Dinitrotoluene	ND		116	92.0		ug/L		79	43 - 120
Di-n-octyl phthalate	ND		116	95.7		ug/L		83	35 - 121
1,4-Dioxane	ND		116	70.3		ug/L		61	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		116	88.2		ug/L		76	50 - 150
Hexachlorobenzene	ND		116	97.3		ug/L		84	38 - 122
Hexachlorocyclopentadiene	ND		116	64.2		ug/L		55	10 - 120
Hexachloroethane	ND		116	87.1		ug/L		75	10 - 150

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-218288-4 MS
Matrix: Water
Analysis Batch: 574036

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Indene	ND		116	87.1		ug/L		75	50 - 150
Isophorone	ND		116	85.8		ug/L		74	42 - 120
2-Methylphenol	ND		116	95.4		ug/L		82	28 - 120
3 & 4 Methylphenol	ND		116	94.9		ug/L		82	31 - 120
2-Nitroaniline	ND		116	86.2		ug/L		74	45 - 120
3-Nitroaniline	ND		116	68.2		ug/L		59	10 - 130
4-Nitroaniline	ND		116	111		ug/L		96	10 - 132
Nitrobenzene	ND		116	81.9		ug/L		71	39 - 120
2-Nitrophenol	ND		116	95.1		ug/L		82	33 - 120
4-Nitrophenol	ND		232	197		ug/L		85	10 - 120
N-Nitrosodimethylamine	ND		116	90.0		ug/L		78	10 - 139
N-Nitrosodi-n-propylamine	ND		116	94.8		ug/L		82	37 - 124
N-Nitrosodiphenylamine	ND		115	89.7		ug/L		78	10 - 150
Pentachlorophenol	ND		232	265		ug/L		114	29 - 130
Phenol	ND		116	91.9		ug/L		79	10 - 150
Pyridine	ND		232	142		ug/L		61	10 - 120
Quinoline	ND		116	93.9		ug/L		81	51 - 120
2,4,5-Trichlorophenol	ND		116	95.9		ug/L		83	34 - 120
2,4,6-Trichlorophenol	ND		116	94.1		ug/L		81	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*46 - 124*
2-Fluorophenol	*53*		*13 - 113*
Nitrobenzene-d5	*77*		*36 - 126*
Phenol-d5	*71*		*17 - 127*
Terphenyl-d14	*64*		*44 - 149*
2,4,6-Tribromophenol	*100*		*26 - 150*

Lab Sample ID: 400-218288-4 MSD
Matrix: Water
Analysis Batch: 574036

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		110	70.8		ug/L		64	10 - 120	8	63
Benzoic acid	27	J	455	345		ug/L		70	10 - 149	10	49
Benzyl alcohol	ND		110	93.0		ug/L		85	33 - 120	3	37
Bis(2-chloroethoxy)methane	ND		110	78.0		ug/L		71	26 - 120	6	70
Bis(2-chloroethyl)ether	ND		110	84.5		ug/L		77	42 - 120	10	42
bis (2-chloroisopropyl) ether	ND		110	78.5		ug/L		71	28 - 120	8	41
Bis(2-ethylhexyl) phthalate	ND		110	73.3		ug/L		67	39 - 120	19	35
4-Bromophenyl phenyl ether	ND		110	81.3		ug/L		74	40 - 120	10	30
Butyl benzyl phthalate	ND		110	77.5		ug/L		71	45 - 120	16	32
4-Chloroaniline	ND		110	61.8		ug/L		56	10 - 120	2	94
4-Chloro-3-methylphenol	ND		110	90.7		ug/L		83	34 - 120	5	40
2-Chloronaphthalene	ND		110	85.5		ug/L		78	39 - 120	7	29
2-Chlorophenol	ND		110	70.1		ug/L		64	25 - 120	19	42
4-Chlorophenyl phenyl ether	ND		110	83.1		ug/L		76	44 - 120	9	27
Dibenz[a,h]acridine	ND		110	98.2		ug/L		90	50 - 150	14	40

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-218288-4 MSD
Matrix: Water
Analysis Batch: 574036

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenzofuran	ND		110	87.6		ug/L		80	25 - 130	6	29
3,3'-Dichlorobenzidine	ND	*+	146	69.0		ug/L		47	10 - 120	7	58
2,4-Dichlorophenol	ND		110	82.9		ug/L		76	31 - 120	9	43
Diethyl phthalate	ND		110	91.7	B	ug/L		84	46 - 120	8	40
2,4-Dimethylphenol	ND		110	88.7		ug/L		81	21 - 120	6	47
Dimethyl phthalate	ND		110	87.4		ug/L		80	38 - 120	9	36
Di-n-butyl phthalate	ND		110	89.5		ug/L		82	49 - 120	11	32
4,6-Dinitro-ortho-cresol	ND	F1	220	270	F1	ug/L		123	25 - 120	6	42
2,4-Dinitrophenol	ND		220	292		ug/L		133	15 - 140	0	36
2,4-Dinitrotoluene	ND		110	92.7		ug/L		84	53 - 120	7	28
2,6-Dinitrotoluene	ND		110	86.0		ug/L		78	43 - 120	7	28
Di-n-octyl phthalate	ND		110	80.5		ug/L		73	35 - 121	17	35
1,4-Dioxane	ND		110	64.1		ug/L		58	50 - 150	9	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		110	79.5		ug/L		72	50 - 150	10	40
Hexachlorobenzene	ND		110	87.5		ug/L		80	38 - 122	11	33
Hexachlorocyclopentadiene	ND		110	58.2		ug/L		53	10 - 120	10	50
Hexachloroethane	ND		110	78.8		ug/L		72	10 - 150	10	41
Indene	ND		110	82.3		ug/L		75	50 - 150	6	40
Isophorone	ND		110	80.9		ug/L		74	42 - 120	6	33
2-Methylphenol	ND		110	87.9		ug/L		80	28 - 120	8	47
3 & 4 Methylphenol	ND		110	89.3		ug/L		81	31 - 120	6	47
2-Nitroaniline	ND		110	81.3		ug/L		74	45 - 120	6	33
3-Nitroaniline	ND		110	64.6		ug/L		59	10 - 130	5	39
4-Nitroaniline	ND		110	110		ug/L		100	10 - 132	1	50
Nitrobenzene	ND		110	75.8		ug/L		69	39 - 120	8	35
2-Nitrophenol	ND		110	89.9		ug/L		82	33 - 120	6	43
4-Nitrophenol	ND		220	197		ug/L		90	10 - 120	0	82
N-Nitrosodimethylamine	ND		110	92.9		ug/L		85	10 - 139	3	62
N-Nitrosodi-n-propylamine	ND		110	88.8		ug/L		81	37 - 124	6	36
N-Nitrosodiphenylamine	ND		109	82.8		ug/L		76	10 - 150	8	34
Pentachlorophenol	ND		220	250		ug/L		114	29 - 130	6	42
Phenol	ND		110	68.1		ug/L		62	10 - 150	30	52
Pyridine	ND		220	133		ug/L		61	10 - 120	7	55
Quinoline	ND		110	96.7		ug/L		88	51 - 120	3	40
2,4,5-Trichlorophenol	ND		110	90.5		ug/L		82	34 - 120	6	42
2,4,6-Trichlorophenol	ND		110	88.6		ug/L		81	33 - 120	6	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*73*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*65*		*17 - 127*
Terphenyl-d14	*58*		*44 - 149*
2,4,6-Tribromophenol	*102*		*26 - 150*

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218288-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-573863/1-A
Matrix: Water
Analysis Batch: 574053

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573863

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/14/22 10:42	04/15/22 17:19	1
Acenaphthylene	0.0863	J	0.20	0.045	ug/L		04/14/22 10:42	04/15/22 17:19	1
Anthracene	ND		0.20	0.032	ug/L		04/14/22 10:42	04/15/22 17:19	1
Benzo[a]anthracene	0.0693	J	0.20	0.046	ug/L		04/14/22 10:42	04/15/22 17:19	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/14/22 10:42	04/15/22 17:19	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/14/22 10:42	04/15/22 17:19	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/14/22 10:42	04/15/22 17:19	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/14/22 10:42	04/15/22 17:19	1
Chrysene	ND		0.20	0.074	ug/L		04/14/22 10:42	04/15/22 17:19	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/14/22 10:42	04/15/22 17:19	1
Fluoranthene	ND		0.20	0.068	ug/L		04/14/22 10:42	04/15/22 17:19	1
Fluorene	ND		0.20	0.11	ug/L		04/14/22 10:42	04/15/22 17:19	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/14/22 10:42	04/15/22 17:19	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/14/22 10:42	04/15/22 17:19	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/14/22 10:42	04/15/22 17:19	1
Phenanthrene	ND		0.20	0.036	ug/L		04/14/22 10:42	04/15/22 17:19	1
Pyrene	ND		0.20	0.040	ug/L		04/14/22 10:42	04/15/22 17:19	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*106*		*15 - 122*	*04/14/22 10:42*	*04/15/22 17:19*	*1*
Nitrobenzene-d5	*99*		*19 - 130*	*04/14/22 10:42*	*04/15/22 17:19*	*1*
Terphenyl-d14	*130*		*33 - 138*	*04/14/22 10:42*	*04/15/22 17:19*	*1*

Lab Sample ID: LCS 400-573863/2-A
Matrix: Water
Analysis Batch: 574053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	146	*+	ug/L		121	41 - 120
Acenaphthylene	120	141		ug/L		117	44 - 120
Anthracene	120	155	*+	ug/L		129	49 - 120
Benzo[a]anthracene	120	133		ug/L		111	61 - 135
Benzo[a]pyrene	120	151	*+	ug/L		126	52 - 120
Benzo[b]fluoranthene	120	142		ug/L		119	53 - 134
Benzo[g,h,i]perylene	120	145		ug/L		121	47 - 133
Benzo[k]fluoranthene	120	145		ug/L		121	57 - 134
Chrysene	120	131		ug/L		109	55 - 122
Dibenz(a,h)anthracene	120	162		ug/L		135	48 - 146
Fluoranthene	120	149		ug/L		124	54 - 128
Fluorene	120	158	*+	ug/L		132	45 - 125
Indeno[1,2,3-cd]pyrene	120	168		ug/L		140	43 - 142
1-Methylnaphthalene	120	108		ug/L		90	41 - 120
2-Methylnaphthalene	120	113		ug/L		94	32 - 124
Phenanthrene	120	143		ug/L		120	48 - 120
Pyrene	120	142		ug/L		118	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*112*		*15 - 122*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-573863/2-A
Matrix: Water
Analysis Batch: 574053

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573863

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*55*		*19 - 130*
Terphenyl-d14	*112*		*33 - 138*

Lab Sample ID: 400-218288-4 MS
Matrix: Water
Analysis Batch: 574053

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND	*+	116	131		ug/L		113	35 - 113
Acenaphthylene	0.42	B	116	132		ug/L		113	41 - 118
Anthracene	ND	*+	116	133		ug/L		115	45 - 122
Benzo[a]anthracene	0.19	B	116	108		ug/L		93	55 - 133
Benzo[a]pyrene	0.16	J *+	116	110		ug/L		94	50 - 108
Benzo[b]fluoranthene	0.14	J	116	105		ug/L		90	50 - 128
Benzo[g,h,i]perylene	ND		116	99.7		ug/L		86	46 - 133
Benzo[k]fluoranthene	0.14	J	116	104		ug/L		89	52 - 128
Chrysene	0.10	J	116	108		ug/L		93	52 - 116
Dibenz(a,h)anthracene	0.11	J	116	105		ug/L		91	52 - 143
Fluoranthene	0.10	J	116	111		ug/L		96	32 - 150
Fluorene	ND	*+	116	149		ug/L		128	15 - 150
Indeno[1,2,3-cd]pyrene	0.15	J	116	107		ug/L		92	41 - 141
1-Methylnaphthalene	ND		116	103		ug/L		89	10 - 150
2-Methylnaphthalene	ND		116	105		ug/L		91	10 - 150
Phenanthrene	ND		116	124		ug/L		107	36 - 125
Pyrene	0.071	J	116	128		ug/L		110	41 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*107*		*15 - 122*
Nitrobenzene-d5	*50*		*19 - 130*
Terphenyl-d14	*85*		*33 - 138*

Lab Sample ID: 400-218288-4 MSD
Matrix: Water
Analysis Batch: 574053

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND	*+	110	124		ug/L		113	35 - 113	5	49
Acenaphthylene	0.42	B	110	124		ug/L		113	41 - 118	6	48
Anthracene	ND	*+	110	126		ug/L		114	45 - 122	6	56
Benzo[a]anthracene	0.19	B	110	95.7		ug/L		87	55 - 133	12	57
Benzo[a]pyrene	0.16	J *+	110	98.4		ug/L		89	50 - 108	11	59
Benzo[b]fluoranthene	0.14	J	110	87.1		ug/L		79	50 - 128	18	62
Benzo[g,h,i]perylene	ND		110	97.2		ug/L		89	46 - 133	2	58
Benzo[k]fluoranthene	0.14	J	110	96.7		ug/L		88	52 - 128	7	58
Chrysene	0.10	J	110	99.2		ug/L		90	52 - 116	9	59
Dibenz(a,h)anthracene	0.11	J	110	97.8		ug/L		89	52 - 143	7	60
Fluoranthene	0.10	J	110	112		ug/L		101	32 - 150	0	59
Fluorene	ND	*+	110	138		ug/L		125	15 - 150	8	49

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 400-218288-4 MSD
Matrix: Water
Analysis Batch: 574053

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA
Prep Batch: 573863

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno[1,2,3-cd]pyrene	0.15	J	110	101		ug/L		92	41 - 141	6	58
1-Methylnaphthalene	ND		110	100		ug/L		91	10 - 150	3	66
2-Methylnaphthalene	ND		110	104		ug/L		95	10 - 150	1	66
Phenanthrene	ND		110	115		ug/L		105	36 - 125	7	69
Pyrene	0.071	J	110	108		ug/L		98	41 - 127	17	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*104*		*15 - 122*
Nitrobenzene-d5	*68*		*19 - 130*
Terphenyl-d14	*84*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-574249/1-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574249

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/18/22 11:58	04/19/22 20:37	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/18/22 11:58	04/19/22 20:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*135*		*51 - 149*	*04/18/22 11:58*	*04/19/22 20:37*	*1*

Lab Sample ID: LCS 400-574249/2-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574249

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.148	*+	ug/L		148	60 - 140
1,2-Dibromoethane	0.101	0.115		ug/L		114	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*128*		*51 - 149*

Lab Sample ID: LCSD 400-574249/3-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574249

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.151	*+	ug/L		150	60 - 140	1	30
1,2-Dibromoethane	0.101	0.119		ug/L		118	60 - 140	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*132*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-218288-4 MS
Matrix: Water
Analysis Batch: 574373

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA
Prep Batch: 574249

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	ND	*+ F1	0.111	0.194	F1	ug/L		175	10 - 150
1,2-Dibromoethane	ND		0.111	0.148		ug/L		134	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*138*		*51 - 149*

Lab Sample ID: 400-218288-4 MSD
Matrix: Water
Analysis Batch: 574373

Client Sample ID: MW6A-ROX-041122
Prep Type: Total/NA
Prep Batch: 574249

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND	*+ F1	0.115	0.181	F1	ug/L		157	10 - 150	3	20
1,2-Dibromoethane	ND		0.116	0.138		ug/L		119	39 - 150	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*117*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

- ☐ ACCUTEST (_____)
- ☐ CALSCIENCE (_____)
- ☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
- ☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/11/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY:	LOG CODE:
AECOM	

SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60674381 – 3.2.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	AECOM Other ID:
Melissa Remiger, Bob Billman - please see special instructions	314-802-1207; 314-802-1122	melissa.remiger@aecom.com; bob.billman@aecom.com	

SAMPLER NAME(S) (Print): Brett Howell, Jamell Nichols

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.2.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 0-0°C IR9

4.9°C IR9

1.4°C IR9

Container PID Readings or Laboratory Notes:

Page 8 of 9	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041122-8260	4/11/2022	0000	Water	2					2	X			
	TB-ROX-041122-8011	4/11/2022	0000	Water	2					2		X		
	MW6D-ROX-041122	4/11/2022	1000	Water	6			2		8	X	X	X	X
	MW6A-ROX-041122	4/11/2022	1105	Water	6			2		8	X	X	X	X
	MW6A-ROX-041122-MS	4/11/2022	1105	Water	6			2		8	X	X	X	X
	MW6A-ROX-041122-MSD	4/11/2022	1105	Water	6			2		8	X	X	X	X
	MW6B-ROX-041122	4/11/2022	1155	Water	6			2		8	X	X	X	X
	MW6C-ROX-041122	4/11/2022	1235	Water	6			2		8	X	X	X	X
	MW26-ROX-041122	4/11/2022	1410	Water	6			2		8	X	X	X	X

400-218288 COC

	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature) Brett Howell	FEDEX: 1482 3813 1649 1482 3813 1650 1482 3813 1660	4/11/2022	1630
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4-12-22	Time 931

CUSTODY SEALS: 1913470, 1913471, 1913472, 1913473, 1913474, 1913475

Version: 1Apr22

4/20/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218288-1

Login Number: 218288
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR9, 4.9°C IR9, 1.4°C IR-9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Job ID: 400-218288-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218393-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Victoria Kirkpatrick

Date Reviewed: 6/13/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041222-8260-BP	TB-ROX-041222-8011-BP
MW23-ROX-041222	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated chlorobenzene was detected in trip blank TB-ROX-041222-8260-BP. Several SVOC, PAH, and VOC by 8011 LCS/LCSD recoveries were outside evaluation criteria. Several PAH surrogate recoveries were outside criteria in sample MW23-ROX-041222 and the PAH method blank. Several SVOC internal standard recoveries were outside criteria in the LCSD. The continuing calibration verifications for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-041222-8260-BP	VOCs	Chlorobenzene	0.58 µg/L

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-574007/3-A/4-A	SVOCs	Benzenethiol	**4/7**	**50**	10-120/30
LCS 400-574007/2-A	PAHs	Anthracene	**121**	NA	49-120
LCS 400-574007/2-A	PAHs	Fluorene	**134**	NA	45-125
LCS/LCSD 400-573847/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**156/163**	3	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-041222	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW23-ROX-041222	PAHs	2-Fluorobiphenyl	**130**	15-122
MW23-ROX-041222	PAHs	Nitrobenzene-d_5	**132**	19-130
MW23-ROX-041222	PAHs	Terphenyl-d_{14}	**142**	33-138
MB 400-574007/1-A	PAHs	2-Fluorobiphenyl	**125**	15-122
MB 400-574007/1-A	PAHs	Nitrobenzene-d_5	**134**	19-130
MB 400-574007/1-A	PAHs	Terphenyl-d_{14}	**177**	33-138

Analytical data that required qualification based on surrogate data are included in the table below. Method blanks are quality control samples and do not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-041222	PAHs	All detects	**J**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

No

Sample ID	Parameter	Analyte	IS Area Recovery	12/24 Hour Standard	IS Criteria
LCSD 400-574007/4-A	SVOCs	Chrysene-d_{12}	**357191**	863900	431950-1727800
LCSD 400-574007/4-A	SVOCs	Perylene-d_{12}	**324615**	733877	366939-1467754

LCSDs are quality control samples and do not require qualification. No qualification of data was required.

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-041222	VOCs	Vinyl chloride	**UJ**
MW23-ROX-041222	SVOCs	Aniline	**UJ**
MW23-ROX-041222	SVOCs	Benzyl alcohol	**UJ**
MW23-ROX-041222	SVOCs	bis(2-Chloroethoxy) methane	**UJ**
MW23-ROX-041222	SVOCs	bis(2-Chloroethyl) ether	**UJ**
MW23-ROX-041222	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW23-ROX-041222	SVOCs	Isophorone	**UJ**
MW23-ROX-041222	SVOCs	Quinoline	**UJ**



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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218393-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
4/22/2022 5:12:52 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

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Reviewed 6/13/2022 MR

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

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

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

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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Job ID: 400-218393-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218393-1

Comments
No additional comments.

Receipt
The samples were received on 4/13/2022 9:26 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.0° C, 1.4° C and 4.4° C.

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-574173 recovered outside acceptance criteria, low biased, for Vinyl chloride. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041222-8260-BP (400-218393-1) and MW23-ROX-041222 (400-218393-3). The requested target analyte list include 2-chloroethyl vinyl ether, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: Sample TB-ROX-041222-8260-BP (400-218393-1) contained Chlorobenzene between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-574007 and analytical batch 400-574262 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-574007 and analytical batch 400-574262 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574262 recovered above the upper control limit for 1,4-Dioxane, N-Nitrosodimethylamine, 4-Nitrophenol and Hexachlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574262 recovered outside acceptance criteria, low biased, for Benzyl alcohol, Bis(2-chloroethyl)ether, Isophorone, Hexachlorocyclopentadiene, Aniline, Bis(2-chloroethoxy)methane and Quinoline. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: Internal standard (ISTD) response for Chrysene-d12 and Perylene-d12 for the following sample in analytical batch 400-574262 was outside acceptance criteria: (LCSD 400-574007/4-A). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-574452 recovered above the upper control limit for Anthracene and Fluorene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: Surrogate recovery for the following sample was outside the upper control limit: MW23-ROX-041222 (400-218393-3). This sample did not contain any target analytes above the reporting limit; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D LL: The surrogate recovery for the blank associated with preparation batch 400-574007 and analytical batch 400-574283

Job ID: 400-218393-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

was outside the upper control limits.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-574542 recovered above the upper control limit for Anthracene, Acenaphthene and Fluorene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The laboratory control sample (LCS) for preparation batch 400-574007 and analytical batch 400-574542 recovered outside control limits for the following analytes: Anthracene and Fluorene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574373 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-573847 and analytical batch 400-574373 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218393-1	TB-ROX-041222-8260-BP	Water	04/12/22 00:01	04/13/22 09:26
400-218393-2	TB-ROX-041222-8011-BP	Water	04/12/22 00:01	04/13/22 09:26
400-218393-3	MW23-ROX-041222	Water	04/12/22 12:35	04/13/22 09:26

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Client Sample ID: TB-ROX-041222-8260-BP

Lab Sample ID: 400-218393-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.58	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-041222-8011-BP

Lab Sample ID: 400-218393-2

No Detections.

Client Sample ID: MW23-ROX-041222

Lab Sample ID: 400-218393-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.25	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.086	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.078	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.10	J	0.19	0.041	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Client Sample ID: TB-ROX-041222-8260-BP
Date Collected: 04/12/22 00:01
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218393-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/17/22 18:35	1
Acrolein	ND		20	3.3	ug/L			04/17/22 18:35	1
Acrylonitrile	ND		10	2.8	ug/L			04/17/22 18:35	1
Benzene	ND		1.0	0.13	ug/L			04/17/22 18:35	1
Bromobenzene	ND		1.0	0.54	ug/L			04/17/22 18:35	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/17/22 18:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/17/22 18:35	1
Bromoform	ND		5.0	0.25	ug/L			04/17/22 18:35	1
Bromomethane	ND		1.0	0.98	ug/L			04/17/22 18:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/17/22 18:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/17/22 18:35	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/17/22 18:35	1
Chlorobenzene	0.58	J	1.0	0.15	ug/L			04/17/22 18:35	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/17/22 18:35	1
Chloroethane	ND		1.0	0.76	ug/L			04/17/22 18:35	1
Chloroform	ND		1.0	1.0	ug/L			04/17/22 18:35	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/17/22 18:35	1
Chloromethane	ND		1.0	0.32	ug/L			04/17/22 18:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/17/22 18:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/17/22 18:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/17/22 18:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/17/22 18:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/17/22 18:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/17/22 18:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/17/22 18:35	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/17/22 18:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/17/22 18:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/22 18:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/17/22 18:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/22 18:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/17/22 18:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/17/22 18:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/17/22 18:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/17/22 18:35	1
2-Hexanone	ND		25	1.4	ug/L			04/17/22 18:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/17/22 18:35	1
Methylene bromide	ND		5.0	0.22	ug/L			04/17/22 18:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/17/22 18:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/17/22 18:35	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/17/22 18:35	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/17/22 18:35	1
Naphthalene	ND		1.0	1.0	ug/L			04/17/22 18:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/17/22 18:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/22 18:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/17/22 18:35	1
o-Xylene	ND		5.0	0.60	ug/L			04/17/22 18:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/17/22 18:35	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/17/22 18:35	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/17/22 18:35	1

Client Sample ID: TB-ROX-041222-8260-BP
Date Collected: 04/12/22 00:01
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218393-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			04/17/22 18:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/17/22 18:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/17/22 18:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/17/22 18:35	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/17/22 18:35	1
Toluene	ND		1.0	0.41	ug/L			04/17/22 18:35	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/17/22 18:35	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/17/22 18:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/17/22 18:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/17/22 18:35	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/17/22 18:35	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/17/22 18:35	1
Trichloroethene	ND		1.0	0.15	ug/L			04/17/22 18:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/17/22 18:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/17/22 18:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/17/22 18:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/17/22 18:35	1
Vinyl acetate	ND		25	0.93	ug/L			04/17/22 18:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/17/22 18:35	1
Xylenes, Total	ND		10	1.6	ug/L			04/17/22 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*72 - 119*		*04/17/22 18:35*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/17/22 18:35*	*1*
Toluene-d8 (Surr)	*86*		*64 - 132*		*04/17/22 18:35*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/18/22 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*04/18/22 19:35*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/18/22 19:35*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/18/22 19:35*	*1*

Client Sample ID: TB-ROX-041222-8011-BP
Date Collected: 04/12/22 00:01
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218393-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.034	0.019	ug/L		04/14/22 10:01	04/20/22 11:13	1
1,2-Dibromoethane	ND		0.023	0.017	ug/L		04/14/22 10:01	04/20/22 11:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*51 - 149*	*04/14/22 10:01*	*04/20/22 11:13*	*1*

Client Sample ID: MW23-ROX-041222

Date Collected: 04/12/22 12:35
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218393-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/17/22 19:04	1
Acrolein	ND		20	3.3	ug/L			04/17/22 19:04	1
Acrylonitrile	ND		10	2.8	ug/L			04/17/22 19:04	1
Benzene	ND		1.0	0.13	ug/L			04/17/22 19:04	1
Bromobenzene	ND		1.0	0.54	ug/L			04/17/22 19:04	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/17/22 19:04	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/17/22 19:04	1
Bromoform	ND		5.0	0.25	ug/L			04/17/22 19:04	1
Bromomethane	ND		1.0	0.98	ug/L			04/17/22 19:04	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/17/22 19:04	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/17/22 19:04	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/17/22 19:04	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/17/22 19:04	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/17/22 19:04	1
Chloroethane	ND		1.0	0.76	ug/L			04/17/22 19:04	1
Chloroform	ND		1.0	1.0	ug/L			04/17/22 19:04	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/17/22 19:04	1
Chloromethane	ND		1.0	0.32	ug/L			04/17/22 19:04	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/17/22 19:04	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/17/22 19:04	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/17/22 19:04	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/17/22 19:04	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/17/22 19:04	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/17/22 19:04	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/17/22 19:04	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/17/22 19:04	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/17/22 19:04	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/22 19:04	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/17/22 19:04	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/22 19:04	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/17/22 19:04	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/17/22 19:04	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/17/22 19:04	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/17/22 19:04	1
2-Hexanone	ND		25	1.4	ug/L			04/17/22 19:04	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/17/22 19:04	1
Methylene bromide	ND		5.0	0.22	ug/L			04/17/22 19:04	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/17/22 19:04	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/17/22 19:04	1
Methyl tert-butyl ether	0.25	J	1.0	0.22	ug/L			04/17/22 19:04	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/17/22 19:04	1
Naphthalene	ND		1.0	1.0	ug/L			04/17/22 19:04	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/17/22 19:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/22 19:04	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/17/22 19:04	1
o-Xylene	ND		5.0	0.60	ug/L			04/17/22 19:04	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/17/22 19:04	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/17/22 19:04	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/17/22 19:04	1

Client Sample ID: MW23-ROX-041222 **Lab Sample ID: 400-218393-3**
Date Collected: 04/12/22 12:35 **Matrix: Water**
Date Received: 04/13/22 09:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			04/17/22 19:04	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/17/22 19:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/17/22 19:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/17/22 19:04	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/17/22 19:04	1
Toluene	ND		1.0	0.41	ug/L			04/17/22 19:04	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/17/22 19:04	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/17/22 19:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/17/22 19:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/17/22 19:04	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/17/22 19:04	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/17/22 19:04	1
Trichloroethene	ND		1.0	0.15	ug/L			04/17/22 19:04	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/17/22 19:04	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/17/22 19:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/17/22 19:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/17/22 19:04	1
Vinyl acetate	ND		25	0.93	ug/L			04/17/22 19:04	1
Vinyl chloride	ND	UJ	1.0	0.50	ug/L			04/17/22 19:04	1
Xylenes, Total	ND		10	1.6	ug/L			04/17/22 19:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*87*		*72 - 119*		*04/17/22 19:04*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/17/22 19:04*	*1*
Toluene-d8 (Surr)	*85*		*64 - 132*		*04/17/22 19:04*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/18/22 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 119*		*04/18/22 20:01*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/18/22 20:01*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/18/22 20:01*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/15/22 10:27	04/19/22 17:35	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/15/22 10:27	04/19/22 17:35	1
Anthracene	ND	*+	0.19	0.031	ug/L		04/15/22 10:27	04/19/22 17:35	1
Benzo[a]anthracene	**0.086**	J J	0.19	0.044	ug/L		04/15/22 10:27	04/19/22 17:35	1
Benzo[a]pyrene	**0.078**	J J	0.19	0.040	ug/L		04/15/22 10:27	04/19/22 17:35	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/15/22 10:27	04/19/22 17:35	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/15/22 10:27	04/19/22 17:35	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/15/22 10:27	04/19/22 17:35	1
Chrysene	ND		0.19	0.071	ug/L		04/15/22 10:27	04/19/22 17:35	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/15/22 10:27	04/19/22 17:35	1
Fluoranthene	ND		0.19	0.065	ug/L		04/15/22 10:27	04/19/22 17:35	1
Fluorene	ND	*+	0.19	0.11	ug/L		04/15/22 10:27	04/19/22 17:35	1
Indeno[1,2,3-cd]pyrene	**0.10**	J J	0.19	0.041	ug/L		04/15/22 10:27	04/19/22 17:35	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Client Sample ID: MW23-ROX-041222
Date Collected: 04/12/22 12:35
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218393-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/15/22 10:27	04/19/22 17:35	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/15/22 10:27	04/19/22 17:35	1
Phenanthrene	ND		0.19	0.035	ug/L		04/15/22 10:27	04/19/22 17:35	1
Pyrene	ND		0.19	0.039	ug/L		04/15/22 10:27	04/19/22 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*130*	*S1+*	*15 - 122*	*04/15/22 10:27*	*04/19/22 17:35*	*1*
Nitrobenzene-d5	*132*	*S1+*	*19 - 130*	*04/15/22 10:27*	*04/19/22 17:35*	*1*
Terphenyl-d14	*142*	*S1+*	*33 - 138*	*04/15/22 10:27*	*04/19/22 17:35*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.7	ug/L		04/15/22 10:27	04/18/22 23:07	1
Benzenethiol	ND	*- *1	9.6	1.6	ug/L		04/15/22 10:27	04/18/22 23:07	1
Benzoic acid	ND		29	7.0	ug/L		04/15/22 10:27	04/18/22 23:07	1
Benzyl alcohol	ND		9.6	1.9	ug/L		04/15/22 10:27	04/18/22 23:07	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/15/22 10:27	04/18/22 23:07	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		04/15/22 10:27	04/18/22 23:07	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/15/22 10:27	04/18/22 23:07	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/15/22 10:27	04/18/22 23:07	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/15/22 10:27	04/18/22 23:07	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/15/22 10:27	04/18/22 23:07	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/15/22 10:27	04/18/22 23:07	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		04/15/22 10:27	04/18/22 23:07	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/15/22 10:27	04/18/22 23:07	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/15/22 10:27	04/18/22 23:07	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/15/22 10:27	04/18/22 23:07	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/15/22 10:27	04/18/22 23:07	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/15/22 10:27	04/18/22 23:07	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		04/15/22 10:27	04/18/22 23:07	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/15/22 10:27	04/18/22 23:07	1
Diethyl phthalate	ND		9.6	0.23	ug/L		04/15/22 10:27	04/18/22 23:07	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		04/15/22 10:27	04/18/22 23:07	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/15/22 10:27	04/18/22 23:07	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/15/22 10:27	04/18/22 23:07	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/15/22 10:27	04/18/22 23:07	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/15/22 10:27	04/18/22 23:07	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/15/22 10:27	04/18/22 23:07	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/15/22 10:27	04/18/22 23:07	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/15/22 10:27	04/18/22 23:07	1
1,4-Dioxane	ND		9.6	0.96	ug/L		04/15/22 10:27	04/18/22 23:07	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/15/22 10:27	04/18/22 23:07	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/15/22 10:27	04/18/22 23:07	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/15/22 10:27	04/18/22 23:07	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/15/22 10:27	04/18/22 23:07	1
Indene	ND		9.6	0.96	ug/L		04/15/22 10:27	04/18/22 23:07	1
Isophorone	ND		9.6	0.13	ug/L		04/15/22 10:27	04/18/22 23:07	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/15/22 10:27	04/18/22 23:07	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/15/22 10:27	04/18/22 23:07	1

Client Sample ID: MW23-ROX-041222

Date Collected: 04/12/22 12:35
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218393-3

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.6	2.1	ug/L		04/15/22 10:27	04/18/22 23:07	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/15/22 10:27	04/18/22 23:07	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/15/22 10:27	04/18/22 23:07	1
Nitrobenzene	ND		9.6	0.13	ug/L		04/15/22 10:27	04/18/22 23:07	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/15/22 10:27	04/18/22 23:07	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/15/22 10:27	04/18/22 23:07	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		04/15/22 10:27	04/18/22 23:07	1
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/15/22 10:27	04/18/22 23:07	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/15/22 10:27	04/18/22 23:07	1
Pentachlorophenol	ND		19	1.3	ug/L		04/15/22 10:27	04/18/22 23:07	1
Phenol	ND		9.6	2.5	ug/L		04/15/22 10:27	04/18/22 23:07	1
Pyridine	ND		9.6	3.1	ug/L		04/15/22 10:27	04/18/22 23:07	1
Quinoline	ND	U5	9.6	4.3	ug/L		04/15/22 10:27	04/18/22 23:07	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		04/15/22 10:27	04/18/22 23:07	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		04/15/22 10:27	04/18/22 23:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*04/15/22 10:27*	*04/18/22 23:07*	*1*
2-Fluorophenol	*20*		*13 - 113*	*04/15/22 10:27*	*04/18/22 23:07*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*04/15/22 10:27*	*04/18/22 23:07*	*1*
Phenol-d5	*45*		*17 - 127*	*04/15/22 10:27*	*04/18/22 23:07*	*1*
Terphenyl-d14	*85*		*44 - 149*	*04/15/22 10:27*	*04/18/22 23:07*	*1*
2,4,6-Tribromophenol	*92*		*26 - 150*	*04/15/22 10:27*	*04/18/22 23:07*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.034	0.020	ug/L		04/14/22 10:01	04/20/22 11:33	1
1,2-Dibromoethane	ND		0.023	0.017	ug/L		04/14/22 10:01	04/20/22 11:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*04/14/22 10:01*	*04/20/22 11:33*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
*3	ISTD response or retention time outside acceptable limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218393-1	TB-ROX-041222-8260-BP	86	99	86
400-218393-1 - RA	TB-ROX-041222-8260-BP	104	99	95
400-218393-3	MW23-ROX-041222	87	99	85
400-218393-3 - RA	MW23-ROX-041222	103	99	96
LCS 400-574173/1002	Lab Control Sample	93	98	92
LCS 400-574281/1002	Lab Control Sample	106	95	98
MB 400-574173/4	Method Blank	86	98	85
MB 400-574281/4	Method Blank	102	98	97

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218393-3	MW23-ROX-041222	67	20	67	45	85	92
LCS 400-574007/2-A	Lab Control Sample	68	25	58	49	87	104
LCS 400-574007/3-A	Lab Control Sample	58	13	63	34	92	62
LCSD 400-574007/4-A	Lab Control Sample Dup	62	37	63	51	96 *3	73
MB 400-574007/1-A	Method Blank	57	13	60	39	90	75

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218393-3	MW23-ROX-041222	130 S1+	132 S1+	142 S1+
LCS 400-574007/2-A	Lab Control Sample	103	120	110
MB 400-574007/1-A	Method Blank	125 S1+	134 S1+	177 S1+

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB2
Lab Sample ID	**Client Sample ID**	**(51-149)**
400-218393-2	TB-ROX-041222-8011-BP	119
400-218393-3	MW23-ROX-041222	113
LCS 400-573847/2-A	Lab Control Sample	118
LCSD 400-573847/3-A	Lab Control Sample Dup	125
MB 400-573847/1-A	Method Blank	113

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Client Sample ID: TB-ROX-041222-8260-BP

Lab Sample ID: 400-218393-1

Date Collected: 04/12/22 00:01
Date Received: 04/13/22 09:26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	574281	04/18/22 19:35	BEP	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	574173	04/17/22 18:35	BEP	TAL PEN

Client Sample ID: TB-ROX-041222-8011-BP

Lab Sample ID: 400-218393-2

Date Collected: 04/12/22 00:01
Date Received: 04/13/22 09:26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			31.1 mL	35 mL	573847	04/14/22 10:01	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/20/22 11:13	DS	TAL PEN

Client Sample ID: MW23-ROX-041222

Lab Sample ID: 400-218393-3

Date Collected: 04/12/22 12:35
Date Received: 04/13/22 09:26

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	574281	04/18/22 20:01	BEP	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	574173	04/17/22 19:04	BEP	TAL PEN
Total/NA	Prep	3520C			259.6 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 23:07	S1B	TAL PEN
Total/NA	Prep	3520C			259.6 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574452	04/19/22 17:35	PP1	TAL PEN
Total/NA	Prep	8011			30.5 mL	35 mL	573847	04/14/22 10:01	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/20/22 11:33	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-573847/1-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573847	04/14/22 10:01	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/20/22 03:45	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574007/1-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 14:50	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574283	04/18/22 23:05	PP1	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574173/4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574173	04/17/22 11:21	BEP	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574281/4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574281	04/18/22 16:08	BEP	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-573847/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573847	04/14/22 10:01	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/20/22 04:05	DS	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574007/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 15:52	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			574542	04/20/22 15:03	KJA	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574007/3-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 15:10	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574173/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574173	04/17/22 10:15	BEP	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-574281/1002

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574281	04/18/22 15:04	BEP	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-573847/3-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573847	04/14/22 10:01	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/20/22 04:26	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574007/4-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 15:31	S1B	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

GC/MS VOA

Analysis Batch: 574173

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218393-1	TB-ROX-041222-8260-BP	Total/NA	Water	8260B	
400-218393-3	MW23-ROX-041222	Total/NA	Water	8260B	
MB 400-574173/4	Method Blank	Total/NA	Water	8260B	
LCS 400-574173/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 574281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218393-1 - RA	TB-ROX-041222-8260-BP	Total/NA	Water	8260B	
400-218393-3 - RA	MW23-ROX-041222	Total/NA	Water	8260B	
MB 400-574281/4	Method Blank	Total/NA	Water	8260B	
LCS 400-574281/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 574007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218393-3	MW23-ROX-041222	Total/NA	Water	3520C	
MB 400-574007/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-574007/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-574007/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-574007/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 574262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218393-3	MW23-ROX-041222	Total/NA	Water	8270D	574007
MB 400-574007/1-A	Method Blank	Total/NA	Water	8270D	574007
LCS 400-574007/2-A	Lab Control Sample	Total/NA	Water	8270D	574007
LCS 400-574007/3-A	Lab Control Sample	Total/NA	Water	8270D	574007
LCSD 400-574007/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	574007

Analysis Batch: 574283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-574007/1-A	Method Blank	Total/NA	Water	8270D LL	574007

Analysis Batch: 574452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218393-3	MW23-ROX-041222	Total/NA	Water	8270D LL	574007

Analysis Batch: 574542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-574007/2-A	Lab Control Sample	Total/NA	Water	8270D LL	574007

GC Semi VOA

Prep Batch: 573847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218393-2	TB-ROX-041222-8011-BP	Total/NA	Water	8011	
400-218393-3	MW23-ROX-041222	Total/NA	Water	8011	
MB 400-573847/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-573847/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-573847/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218393-1

GC Semi VOA

Analysis Batch: 574373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218393-2	TB-ROX-041222-8011-BP	Total/NA	Water	8011	573847
400-218393-3	MW23-ROX-041222	Total/NA	Water	8011	573847
MB 400-573847/1-A	Method Blank	Total/NA	Water	8011	573847
LCS 400-573847/2-A	Lab Control Sample	Total/NA	Water	8011	573847
LCSD 400-573847/3-A	Lab Control Sample Dup	Total/NA	Water	8011	573847

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574173/4
Matrix: Water
Analysis Batch: 574173

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/17/22 11:21	1
Acrolein	ND		20	3.3	ug/L			04/17/22 11:21	1
Acrylonitrile	ND		10	2.8	ug/L			04/17/22 11:21	1
Benzene	ND		1.0	0.13	ug/L			04/17/22 11:21	1
Bromobenzene	ND		1.0	0.54	ug/L			04/17/22 11:21	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/17/22 11:21	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/17/22 11:21	1
Bromoform	ND		5.0	0.25	ug/L			04/17/22 11:21	1
Bromomethane	ND		1.0	0.98	ug/L			04/17/22 11:21	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/17/22 11:21	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/17/22 11:21	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/17/22 11:21	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/17/22 11:21	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/17/22 11:21	1
Chloroethane	ND		1.0	0.76	ug/L			04/17/22 11:21	1
Chloroform	ND		1.0	1.0	ug/L			04/17/22 11:21	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/17/22 11:21	1
Chloromethane	ND		1.0	0.32	ug/L			04/17/22 11:21	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/17/22 11:21	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/17/22 11:21	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/17/22 11:21	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/17/22 11:21	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/17/22 11:21	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/17/22 11:21	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/17/22 11:21	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/17/22 11:21	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/17/22 11:21	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/22 11:21	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/17/22 11:21	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/17/22 11:21	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/17/22 11:21	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/17/22 11:21	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/17/22 11:21	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/17/22 11:21	1
2-Hexanone	ND		25	1.4	ug/L			04/17/22 11:21	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/17/22 11:21	1
Methylene bromide	ND		5.0	0.22	ug/L			04/17/22 11:21	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/17/22 11:21	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/17/22 11:21	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/17/22 11:21	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/17/22 11:21	1
Naphthalene	ND		1.0	1.0	ug/L			04/17/22 11:21	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/17/22 11:21	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/17/22 11:21	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/17/22 11:21	1
o-Xylene	ND		5.0	0.60	ug/L			04/17/22 11:21	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/17/22 11:21	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/17/22 11:21	1

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

Lab Sample ID: MB 400-574173/4
Matrix: Water
Analysis Batch: 574173

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/17/22 11:21	1
Styrene	ND		1.0	1.0	ug/L			04/17/22 11:21	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/17/22 11:21	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/17/22 11:21	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/17/22 11:21	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/17/22 11:21	1
Toluene	ND		1.0	0.41	ug/L			04/17/22 11:21	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/17/22 11:21	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/17/22 11:21	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/17/22 11:21	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/17/22 11:21	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/17/22 11:21	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/17/22 11:21	1
Trichloroethene	ND		1.0	0.15	ug/L			04/17/22 11:21	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/17/22 11:21	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/17/22 11:21	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/17/22 11:21	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/17/22 11:21	1
Vinyl acetate	ND		25	0.93	ug/L			04/17/22 11:21	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/17/22 11:21	1
Xylenes, Total	ND		10	1.6	ug/L			04/17/22 11:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*72 - 119*		*04/17/22 11:21*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*04/17/22 11:21*	*1*
Toluene-d8 (Surr)	*85*		*64 - 132*		*04/17/22 11:21*	*1*

Lab Sample ID: LCS 400-574173/1002
Matrix: Water
Analysis Batch: 574173

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	115		ug/L		57	43 - 160
Acrolein	500	366		ug/L		73	38 - 160
Acrylonitrile	500	420		ug/L		84	64 - 142
Benzene	50.0	46.5		ug/L		93	70 - 130
Bromobenzene	50.0	45.6		ug/L		91	70 - 132
Bromochloromethane	50.0	47.1		ug/L		94	70 - 130
Bromodichloromethane	50.0	42.9		ug/L		86	67 - 133
Bromoform	50.0	45.5		ug/L		91	57 - 140
Bromomethane	50.0	56.4		ug/L		113	10 - 160
2-Butanone (MEK)	200	149		ug/L		75	61 - 145
Carbon disulfide	50.0	47.1		ug/L		94	61 - 137
Carbon tetrachloride	50.0	46.9		ug/L		94	61 - 137
Chlorobenzene	50.0	45.2		ug/L		90	70 - 130
Dibromochloromethane	50.0	43.8		ug/L		88	67 - 135
Chloroethane	50.0	44.5		ug/L		89	55 - 141
Chloroform	50.0	43.5		ug/L		87	69 - 130

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

Lab Sample ID: LCS 400-574173/1002
Matrix: Water
Analysis Batch: 574173

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1-Chlorohexane	50.0	40.3		ug/L		81	69 - 130
Chloromethane	50.0	37.2		ug/L		74	58 - 137
cis-1,2-Dichloroethene	50.0	42.2		ug/L		84	68 - 130
cis-1,3-Dichloropropene	50.0	46.4		ug/L		93	69 - 132
1,2-Dichlorobenzene	50.0	42.1		ug/L		84	67 - 130
1,3-Dichlorobenzene	50.0	44.1		ug/L		88	70 - 130
1,4-Dichlorobenzene	50.0	44.5		ug/L		89	70 - 130
Dichlorodifluoromethane	50.0	32.7		ug/L		65	41 - 146
1,1-Dichloroethane	50.0	41.8		ug/L		84	70 - 130
1,2-Dichloroethane	50.0	39.3		ug/L		79	69 - 130
1,1-Dichloroethene	50.0	49.9		ug/L		100	63 - 134
1,2-Dichloropropane	50.0	44.0		ug/L		88	70 - 130
1,3-Dichloropropane	50.0	41.1		ug/L		82	70 - 130
2,2-Dichloropropane	50.0	43.1		ug/L		86	52 - 135
1,1-Dichloropropene	50.0	45.5		ug/L		91	70 - 130
Ethylbenzene	50.0	43.4		ug/L		87	70 - 130
Ethyl methacrylate	50.0	41.8		ug/L		84	68 - 130
Hexachlorobutadiene	50.0	48.6		ug/L		97	53 - 140
2-Hexanone	200	131		ug/L		66	65 - 137
Isopropylbenzene	50.0	44.9		ug/L		90	70 - 130
Methylene bromide	50.0	45.6		ug/L		91	70 - 130
Methylene Chloride	50.0	47.1		ug/L		94	66 - 135
4-Methyl-2-pentanone (MIBK)	200	161		ug/L		80	69 - 138
Methyl tert-butyl ether	50.0	36.3		ug/L		73	66 - 130
m-Xylene & p-Xylene	50.0	41.2		ug/L		82	70 - 130
Naphthalene	50.0	41.2		ug/L		82	47 - 149
n-Butylbenzene	50.0	41.7		ug/L		83	67 - 130
N-Propylbenzene	50.0	45.0		ug/L		90	70 - 130
o-Chlorotoluene	50.0	39.1		ug/L		78	70 - 130
o-Xylene	50.0	41.3		ug/L		83	70 - 130
p-Chlorotoluene	50.0	39.5		ug/L		79	70 - 130
p-Isopropyltoluene	50.0	42.5		ug/L		85	65 - 130
sec-Butylbenzene	50.0	42.7		ug/L		85	66 - 130
Styrene	50.0	44.0		ug/L		88	70 - 130
tert-Butylbenzene	50.0	39.2		ug/L		78	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.6		ug/L		93	67 - 131
1,1,2,2-Tetrachloroethane	50.0	38.5		ug/L		77	70 - 131
Tetrachloroethene	50.0	47.4		ug/L		95	65 - 130
Toluene	50.0	43.3		ug/L		87	70 - 130
trans-1,2-Dichloroethene	50.0	50.2		ug/L		100	70 - 130
trans-1,3-Dichloropropene	50.0	39.9		ug/L		80	63 - 130
1,2,3-Trichlorobenzene	50.0	46.6		ug/L		93	60 - 138
1,2,4-Trichlorobenzene	50.0	46.7		ug/L		93	60 - 140
1,1,1-Trichloroethane	50.0	46.4		ug/L		93	68 - 130
1,1,2-Trichloroethane	50.0	40.4		ug/L		81	70 - 130
Trichloroethene	50.0	54.2		ug/L		108	70 - 130
Trichlorofluoromethane	50.0	42.1		ug/L		84	65 - 138
1,2,3-Trichloropropane	50.0	39.6		ug/L		79	70 - 130
1,2,4-Trimethylbenzene	50.0	39.9		ug/L		80	70 - 130

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

Lab Sample ID: LCS 400-574173/1002
Matrix: Water
Analysis Batch: 574173

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,3,5-Trimethylbenzene	50.0	40.7		ug/L		81	69 - 130
Vinyl acetate	100	91.7		ug/L		92	26 - 160
Vinyl chloride	50.0	39.8		ug/L		80	59 - 136
Xylenes, Total	100	82.5		ug/L		83	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*92*		*64 - 132*

Lab Sample ID: MB 400-574281/4
Matrix: Water
Analysis Batch: 574281

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/18/22 16:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*04/18/22 16:08*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*04/18/22 16:08*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/18/22 16:08*	*1*

Lab Sample ID: LCS 400-574281/1002
Matrix: Water
Analysis Batch: 574281

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	43.6		ug/L		87	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*72 - 119*
Dibromofluoromethane	*95*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574007/1-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/15/22 10:27	04/18/22 14:50	1
Benzenethiol	ND		10	1.7	ug/L		04/15/22 10:27	04/18/22 14:50	1
Benzoic acid	ND		30	7.3	ug/L		04/15/22 10:27	04/18/22 14:50	1
Benzyl alcohol	ND		10	2.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/15/22 10:27	04/18/22 14:50	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/15/22 10:27	04/18/22 14:50	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/15/22 10:27	04/18/22 14:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574007/1-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/15/22 10:27	04/18/22 14:50	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Chloroaniline	ND		10	3.4	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/15/22 10:27	04/18/22 14:50	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/15/22 10:27	04/18/22 14:50	1
2-Chlorophenol	ND		10	2.2	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Dibenzofuran	ND		10	0.17	ug/L		04/15/22 10:27	04/18/22 14:50	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Diethyl phthalate	ND		10	0.24	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/15/22 10:27	04/18/22 14:50	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/15/22 10:27	04/18/22 14:50	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/15/22 10:27	04/18/22 14:50	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/15/22 10:27	04/18/22 14:50	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/15/22 10:27	04/18/22 14:50	1
1,4-Dioxane	ND		10	1.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/15/22 10:27	04/18/22 14:50	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/15/22 10:27	04/18/22 14:50	1
Hexachloroethane	ND		10	4.2	ug/L		04/15/22 10:27	04/18/22 14:50	1
Indene	ND		10	1.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Isophorone	ND		10	0.14	ug/L		04/15/22 10:27	04/18/22 14:50	1
2-Methylphenol	ND		10	1.8	ug/L		04/15/22 10:27	04/18/22 14:50	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/15/22 10:27	04/18/22 14:50	1
2-Nitroaniline	ND		10	2.2	ug/L		04/15/22 10:27	04/18/22 14:50	1
3-Nitroaniline	ND		10	1.8	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Nitroaniline	ND		10	1.5	ug/L		04/15/22 10:27	04/18/22 14:50	1
Nitrobenzene	ND		10	0.13	ug/L		04/15/22 10:27	04/18/22 14:50	1
2-Nitrophenol	ND		10	5.2	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Nitrophenol	ND		10	2.1	ug/L		04/15/22 10:27	04/18/22 14:50	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/15/22 10:27	04/18/22 14:50	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/15/22 10:27	04/18/22 14:50	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/15/22 10:27	04/18/22 14:50	1
Pentachlorophenol	ND		20	1.4	ug/L		04/15/22 10:27	04/18/22 14:50	1
Phenol	ND		10	2.6	ug/L		04/15/22 10:27	04/18/22 14:50	1
Pyridine	ND		10	3.2	ug/L		04/15/22 10:27	04/18/22 14:50	1
Quinoline	ND		10	4.5	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/15/22 10:27	04/18/22 14:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574007/1-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574007

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	57		46 - 124	04/15/22 10:27	04/18/22 14:50	1
2-Fluorophenol	13		13 - 113	04/15/22 10:27	04/18/22 14:50	1
Nitrobenzene-d5	60		36 - 126	04/15/22 10:27	04/18/22 14:50	1
Phenol-d5	39		17 - 127	04/15/22 10:27	04/18/22 14:50	1
Terphenyl-d14	90		44 - 149	04/15/22 10:27	04/18/22 14:50	1
2,4,6-Tribromophenol	75		26 - 150	04/15/22 10:27	04/18/22 14:50	1

Lab Sample ID: LCS 400-574007/2-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	69.0		ug/L		58	21 - 120
Benzoic acid	498	201		ug/L		40	10 - 144
Benzyl alcohol	120	60.7		ug/L		51	28 - 120
Bis(2-chloroethoxy)methane	120	65.1		ug/L		54	47 - 120
Bis(2-chloroethyl)ether	120	71.6		ug/L		60	44 - 120
bis (2-chloroisopropyl) ether	120	89.7		ug/L		75	33 - 121
Bis(2-ethylhexyl) phthalate	120	86.3		ug/L		72	52 - 147
4-Bromophenyl phenyl ether	120	115		ug/L		96	54 - 122
Butyl benzyl phthalate	120	86.1		ug/L		72	54 - 133
4-Chloroaniline	120	73.9		ug/L		62	26 - 120
4-Chloro-3-methylphenol	120	81.2		ug/L		68	48 - 131
2-Chloronaphthalene	120	90.0		ug/L		75	52 - 121
2-Chlorophenol	120	61.2		ug/L		51	40 - 120
4-Chlorophenyl phenyl ether	120	98.3		ug/L		82	56 - 125
Dibenz[a,h]acridine	120	111		ug/L		93	31 - 150
Dibenzofuran	120	93.7		ug/L		78	56 - 122
3,3'-Dichlorobenzidine	160	166		ug/L		103	36 - 132
2,4-Dichlorophenol	120	69.2		ug/L		58	49 - 120
Diethyl phthalate	120	108		ug/L		90	50 - 137
2,4-Dimethylphenol	120	81.4		ug/L		68	48 - 120
Dimethyl phthalate	120	95.7		ug/L		80	57 - 124
Di-n-butyl phthalate	120	109		ug/L		91	58 - 126
4,6-Dinitro-ortho-cresol	240	184		ug/L		77	23 - 148
2,4-Dinitrophenol	240	165		ug/L		69	10 - 150
2,4-Dinitrotoluene	120	94.5		ug/L		79	54 - 142
2,6-Dinitrotoluene	120	87.9		ug/L		73	55 - 130
Di-n-octyl phthalate	120	90.6		ug/L		76	57 - 138
1,4-Dioxane	120	51.0		ug/L		43	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	85.8		ug/L		71	45 - 124
Hexachlorobenzene	120	142		ug/L		118	52 - 129
Hexachlorocyclopentadiene	120	58.1		ug/L		48	10 - 134
Hexachloroethane	120	83.5		ug/L		70	20 - 120
Indene	120	88.1		ug/L		73	49 - 120
Isophorone	120	68.5		ug/L		57	48 - 120
2-Methylphenol	120	80.6		ug/L		67	46 - 124
3 & 4 Methylphenol	120	81.1		ug/L		68	45 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574007/2-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitroaniline	120	91.6		ug/L		76	51 - 145
3-Nitroaniline	120	75.1		ug/L		63	37 - 127
4-Nitroaniline	120	123		ug/L		102	36 - 137
Nitrobenzene	120	70.0		ug/L		58	45 - 120
2-Nitrophenol	120	60.2		ug/L		50	40 - 124
4-Nitrophenol	240	228		ug/L		95	23 - 146
N-Nitrosodimethylamine	120	103		ug/L		86	29 - 137
N-Nitrosodi-n-propylamine	120	93.2		ug/L		78	45 - 120
N-Nitrosodiphenylamine	119	90.0		ug/L		76	54 - 120
Pentachlorophenol	240	196		ug/L		82	31 - 130
Phenol	120	66.5		ug/L		55	11 - 120
Pyridine	240	99.5		ug/L		41	16 - 120
Quinoline	120	88.6		ug/L		74	49 - 130
2,4,5-Trichlorophenol	120	89.8		ug/L		75	51 - 136
2,4,6-Trichlorophenol	120	86.4		ug/L		72	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*68*		*46 - 124*
2-Fluorophenol	*25*		*13 - 113*
Nitrobenzene-d5	*58*		*36 - 126*
Phenol-d5	*49*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*104*		*26 - 150*

Lab Sample ID: LCS 400-574007/3-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	4.77	J *-	ug/L		4	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*58*		*46 - 124*
2-Fluorophenol	*13*		*13 - 113*
Nitrobenzene-d5	*63*		*36 - 126*
Phenol-d5	*34*		*17 - 127*
Terphenyl-d14	*92*		*44 - 149*
2,4,6-Tribromophenol	*62*		*26 - 150*

Lab Sample ID: LCSD 400-574007/4-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	7.99	J *- *1	ug/L		7	10 - 120	50	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*62*		*46 - 124*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574007/4-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574007

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorophenol	37		13 - 113
Nitrobenzene-d5	63		36 - 126
Phenol-d5	51		17 - 127
Terphenyl-d14	96	*3	44 - 149
2,4,6-Tribromophenol	73		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-574007/1-A
Matrix: Water
Analysis Batch: 574283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/15/22 10:27	04/18/22 23:05	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/15/22 10:27	04/18/22 23:05	1
Anthracene	ND		0.20	0.032	ug/L		04/15/22 10:27	04/18/22 23:05	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/15/22 10:27	04/18/22 23:05	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/15/22 10:27	04/18/22 23:05	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/15/22 10:27	04/18/22 23:05	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/15/22 10:27	04/18/22 23:05	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/15/22 10:27	04/18/22 23:05	1
Chrysene	ND		0.20	0.074	ug/L		04/15/22 10:27	04/18/22 23:05	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/15/22 10:27	04/18/22 23:05	1
Fluoranthene	ND		0.20	0.068	ug/L		04/15/22 10:27	04/18/22 23:05	1
Fluorene	ND		0.20	0.11	ug/L		04/15/22 10:27	04/18/22 23:05	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/15/22 10:27	04/18/22 23:05	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/15/22 10:27	04/18/22 23:05	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/15/22 10:27	04/18/22 23:05	1
Phenanthrene	ND		0.20	0.036	ug/L		04/15/22 10:27	04/18/22 23:05	1
Pyrene	ND		0.20	0.040	ug/L		04/15/22 10:27	04/18/22 23:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	125	S1+	15 - 122	04/15/22 10:27	04/18/22 23:05	1
Nitrobenzene-d5	134	S1+	19 - 130	04/15/22 10:27	04/18/22 23:05	1
Terphenyl-d14	177	S1+	33 - 138	04/15/22 10:27	04/18/22 23:05	1

Lab Sample ID: LCS 400-574007/2-A
Matrix: Water
Analysis Batch: 574542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	142		ug/L		119	41 - 120
Acenaphthylene	120	135		ug/L		113	44 - 120
Anthracene	120	145	*+	ug/L		121	49 - 120
Benzo[a]anthracene	120	132		ug/L		110	61 - 135
Benzo[a]pyrene	120	133		ug/L		111	52 - 120
Benzo[b]fluoranthene	120	134		ug/L		112	53 - 134
Benzo[g,h,i]perylene	120	132		ug/L		110	47 - 133

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-574007/2-A
Matrix: Water
Analysis Batch: 574542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[k]fluoranthene	120	132		ug/L		110	57 - 134
Chrysene	120	130		ug/L		108	55 - 122
Dibenz(a,h)anthracene	120	131		ug/L		109	48 - 146
Fluoranthene	120	137		ug/L		114	54 - 128
Fluorene	120	161	*+	ug/L		134	45 - 125
Indeno[1,2,3-cd]pyrene	120	139		ug/L		116	43 - 142
1-Methylnaphthalene	120	106		ug/L		89	41 - 120
2-Methylnaphthalene	120	109		ug/L		91	32 - 124
Phenanthrene	120	138		ug/L		115	48 - 120
Pyrene	120	151		ug/L		126	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*103*		*15 - 122*
Nitrobenzene-d5	*120*		*19 - 130*
Terphenyl-d14	*110*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-573847/1-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/14/22 10:01	04/20/22 03:45	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/14/22 10:01	04/20/22 03:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*04/14/22 10:01*	*04/20/22 03:45*	*1*

Lab Sample ID: LCS 400-573847/2-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.157	*+	ug/L		156	60 - 140
1,2-Dibromoethane	0.101	0.122		ug/L		121	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*118*		*51 - 149*

Lab Sample ID: LCSD 400-573847/3-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 573847

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.164	*+	ug/L		163	60 - 140	3	30
1,2-Dibromoethane	0.101	0.127		ug/L		126	60 - 140	0	30

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-573847/3-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 573847

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	125		51 - 149

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

- ☐ ACCUTEST (_____)
- ☐ CALSCIENCE (_____)
- ☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
- ☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL	
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES	
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES_____		

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/12/2022
PO #	GSAP Project ID	PAGE: 1 of 1
60674381 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM

LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA

State: IL

AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.2.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions

PHONE NO.: 314-802-1207; 314-802-1122

E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com

AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger

SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols

LAB USE ONLY

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) __EDD_____

TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.2.2

400-218393 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041222-8260-BP	4/12/2022	0000	Water	2					2	X			
	TB-ROX-041222-8011-BP	4/12/2022	0000	Water	2					2		X		
	MW23-ROX-041222	4/12/2022	1235	Water	6			2		8	X	X	X	X

Relinquished by: (Signature) MARY MASSA	Received by: (Signature) FEDEX: 1482 3813 1693, 1482 3813 1682, 1482 3813 1671	Date: 4/12/2022	Time: 1530
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4.13.22	Time: 09:26

CUSTODY SEALS: 1913469, 1913469, 1913467, 1913466, 1913465, 1913464

Temp 0.0C 4.4°C IR9 1.4oC

Version: 1Apr22

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4/22/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218393-1

Login Number: 218393
List Number: 1
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 1.4°C, 4.4°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-218393-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218399-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Victoria Kirkpatrick

Date Reviewed: 6/13/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041222-8260	TB-ROX-041222-8011
MW3-ROX-041222	MW16-ROX-041222
ROST3MW-ROX-041222	MW12-ROX-041222

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated chlorobenzene was detected in trip blank TB-ROX-041222-8260, and several VOCs were detected in the method blank. Several VOC, SVOC, PAH, and VOC by 8011 LCS/LCSD recoveries were outside evaluation criteria. Several SVOC/PAH surrogate recoveries were outside criteria in several investigative and quality control samples. Several VOC, SVOC, and PAH MS/MSD recoveries, and/or MS/MSD RPDs, were outside evaluation criteria in sample MW16-ROX-041222. Several SVOC internal standard recoveries were outside criteria in the LCSD. The continuing calibration verifications for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-041222-8260	VOCs	Chlorobenzene	0.60 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-574702/9	VOCs	1,2,3-Trichlorobenzene	1.35 µg/L
MB 400-574702/9	VOCs	1,2,4-Trichlorobenzene	0.881 µg/L

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS 400-574702/1002	VOCs	2-Chloroethyl vinyl ether	**210**	NA	10-160
LCS/LCSD 400-574007/3-A/4-A	SVOCs	Benzenethiol	**4**/**7**	**50**	10-120/30
LCS 400-574007/2-A	PAHs	Anthracene	**121**	NA	49-120
LCS 400-574007/2-A	PAHs	Fluorene	**134**	NA	45-125
LCS/LCSD 400-573847/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**156**/**163**	3	60-140/30
LCS/LCSD 400-574563/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	134/**146**	**52**	60-140/30
LCS/LCSD 400-574592/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**151**/133	13	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW3-ROX-041222	SVOCs	Benzenethiol	**UJ**
MW16-ROX-041222	SVOCs	Benzenethiol	**UJ**
ROST3MW-ROX-041222	SVOCs	Benzenethiol	**UJ**
MW12-ROX-041222	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW3-ROX-041222	SVOCs	2-Fluorobiphenyl	**35**	46-124
MW16-ROX-041222	PAHs	2-Fluorobiphenyl	**128**	15-122
MW16-ROX-041222	PAHs	Nitrobenzene-d_5	**136**	19-130
MW16-ROX-041222	PAHs	Terphenyl-d_{14}	**166**	33-138
ROST3MW-ROX-041222	PAHs	2-Fluorobiphenyl	**128**	15-122
ROST3MW-ROX-041222	PAHs	Terphenyl-d_{14}	**170**	33-138
ROST3MW-ROX-041222	SVOCs	2-Fluorophenol	**5**	13-113
MW12-ROX-041222	SVOCs	2-Fluorobiphenyl	**40**	46-124
MW12-ROX-041222	SVOCs	2-Fluorophenol	**9**	13-113
MB 400-574007/1-A	PAHs	2-Fluorobiphenyl	**125**	15-122
MB 400-574007/1-A	PAHs	Nitrobenzene-d_5	**134**	19-130
MB 400-574007/1-A	PAHs	Terphenyl-d_{14}	**177**	33-138

Analytical data that required qualification based on surrogate data are included in the table below. Qualifications due to surrogate recoveries were not required if only one of three base/neutral and/or acid surrogate recoveries were outside evaluation criteria. Method blanks are quality control samples and do not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW16-ROX-041222	PAHs	All detects	**J**
ROST3MW-ROX-041222	PAHs	All detects	**J**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, sample MW16-ROX-041222 was spiked and analyzed for VOCs, SVOCs, PAHs, and VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW16-ROX-041222	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW16-ROX-041222	VOCs	Chloromethane	**44/44**	0	49-148/31
MW16-ROX-041222	SVOCs	bis(2-Ethylhexyl) phthalate	49/70	**36**	39-120/35
MW16-ROX-041222	SVOCs	4-Bromophenyl phenyl ether	50/70	**33**	40-120/30
MW16-ROX-041222	SVOCs	Butyl benzyl phthalate	49/70	**35**	45-120
MW16-ROX-041222	SVOCs	2-Chloronaphthalene	50/67	**30**	39-120/29
MW16-ROX-041222	SVOCs	4-Chlorophenyl phenyl ether	51/70	**31**	44-120/27

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW16-ROX-041222	SVOCs	Dibenzofuran	51/69	**30**	25-130/29
MW16-ROX-041222	SVOCs	2,4-Dinitrotoluene	55/74	**30**	53-120/28
MW16-ROX-041222	SVOCs	2,6-Dinitrotoluene	51/68	**29**	43-120/28
MW16-ROX-041222	SVOCs	1,4-Dioxane	**41**/50	21	50-150/40
MW16-ROX-041222	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**48**/64	29	50-150/40
MW16-ROX-041222	SVOCs	Indene	**47**/62	28	50-150/40
MW16-ROX-041222	SVOCs	2-Nitroaniline	**42**/55	28	45-120/33
MW16-ROX-041222	SVOCs	N-Nitrosodimethylamine	48/70	**68**	10-139/62
MW16-ROX-041222	PAHs	Acenaphthene	50/**128**	**88**	35-113/49
MW16-ROX-041222	PAHs	Acenaphthylene	49/**122**	**86**	41-118/48
MW16-ROX-041222	PAHs	Anthracene	53/**136**	**88**	45-122/56
MW16-ROX-041222	PAHs	Benzo[a]anthracene	**47**/122	**89**	55-133/57
MW16-ROX-041222	PAHs	Benzo[a]pyrene	**49**/**125**	**88**	50-108/59
MW16-ROX-041222	PAHs	Benzo[b]fluoranthene	**47**/115	**85**	50-128/62
MW16-ROX-041222	PAHs	Benzo[g,h,i]perylene	46/112	**84**	46-133/58
MW16-ROX-041222	PAHs	Benzo[k]fluoranthene	**49**/112	**79**	52-128/58
MW16-ROX-041222	PAHs	Chrysene	**48**/**119**	**86**	52-116/59
MW16-ROX-041222	PAHs	Dibenz(a,h)anthracene	**43**/116	**93**	52-143/60
MW16-ROX-041222	PAHs	Fluoranthene	49/131	**92**	32-150/59
MW16-ROX-041222	PAHs	Fluorene	56/147	**90**	15-150/49
MW16-ROX-041222	PAHs	Indeno[1,2,3-cd]pyrene	45/123	**94**	41-141/58
MW16-ROX-041222	PAHs	1-Methylnaphthalene	43/94	**77**	10-150/66
MW16-ROX-041222	PAHs	2-Methylnaphthalene	44/97	**76**	10-150/66
MW16-ROX-041222	PAHs	Phenanthrene	49/**128**	**89**	36-125/69

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW16-ROX-041222	PAHs	Pyrene	52/**138**	**91**	41-127/58

Analytical data that required qualification based on MS/MSD data are included in the table below. Professional judgement was used to qualify; however, not reject the compound 2-chloroethyl vinyl ether due to acceptable LCS recoveries for this compound and to the acid reactive nature of 2-chloroethyl vinyl ether. Analytical data reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Analytical data associated with MS/MSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW16-ROX-041222	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW16-ROX-041222	VOCs	Chloromethane	**UJ**
MW16-ROX-041222	PAHs	Benzo[a]anthracene	**UJ**
MW16-ROX-041222	PAHs	Benzo[k]fluoranthene	**UJ**
MW16-ROX-041222	PAHs	Chrysene	**UJ**
MW16-ROX-041222	PAHs	Dibenz(a,h)anthracene	**UJ**
MW16-ROX-041222	SVOCs	1,4-Dioxane	**UJ**
MW16-ROX-041222	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	**UJ**
MW16-ROX-041222	SVOCs	Indene	**UJ**
MW16-ROX-041222	SVOCs	2-Nitroaniline	**UJ**

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

No

Sample ID	Parameter	Analyte	IS Area Recovery	12/24 Hour Standard	IS Criteria
LCSD 400-574007/4-A	SVOCs	Chrysene-d_{12}	**357191**	863900	431950-1727800
LCSD 400-574007/4-A	SVOCs	Perylene-d_{12}	**324615**	733877	366939-1467754

LCSDs are quality control samples and do not require qualification. No qualification of data was required.

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW3-ROX-041222	SVOCs	Aniline	**UJ**
MW3-ROX-041222	SVOCs	Benzyl alcohol	**UJ**
MW3-ROX-041222	SVOCs	bis(2-Chloroethoxy) methane	**UJ**
MW3-ROX-041222	SVOCs	bis(2-Chloroethyl) ether	**UJ**
MW3-ROX-041222	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW3-ROX-041222	SVOCs	Isophorone	**UJ**
MW3-ROX-041222	SVOCs	Quinoline	**UJ**
MW16-ROX-041222	SVOCs	Aniline	**UJ**
MW16-ROX-041222	SVOCs	Benzyl alcohol	**UJ**
MW16-ROX-041222	SVOCs	bis(2-Chloroethoxy) methane	**UJ**
MW16-ROX-041222	SVOCs	bis(2-Chloroethyl) ether	**UJ**
MW16-ROX-041222	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW16-ROX-041222	SVOCs	Isophorone	**UJ**
MW16-ROX-041222	SVOCs	Quinoline	**UJ**
ROST3MW-ROX-041222	SVOCs	Aniline	**UJ**
ROST3MW-ROX-041222	SVOCs	Benzyl alcohol	**UJ**
ROST3MW-ROX-041222	SVOCs	bis(2-Chloroethoxy) methane	**UJ**
ROST3MW-ROX-041222	SVOCs	bis(2-Chloroethyl) ether	**UJ**
ROST3MW-ROX-041222	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST3MW-ROX-041222	SVOCs	Isophorone	**UJ**
ROST3MW-ROX-041222	SVOCs	Quinoline	**UJ**
MW12-ROX-041222	SVOCs	Aniline	**UJ**
MW12-ROX-041222	SVOCs	Benzyl alcohol	**UJ**
MW12-ROX-041222	SVOCs	bis(2-Chloroethoxy) methane	**UJ**
MW12-ROX-041222	SVOCs	bis(2-Chloroethyl) ether	**UJ**
MW12-ROX-041222	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW12-ROX-041222	SVOCs	Isophorone	**UJ**
MW12-ROX-041222	SVOCs	Quinoline	**UJ**

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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218399-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
4/22/2022 6:31:03 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
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Reviewed 6/13/2022
MR

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

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

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

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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Job ID: 400-218399-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218399-1

Comments
No additional comments.

Receipt
The samples were received on 4/13/2022 9:26 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.0° C, 1.4° C and 4.4° C.

GC/MS VOA
Method 8260B: Sample TB-ROX-041222-8260 (400-218399-1) contained Chlorobenzene between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-574702 recovered above the upper control limit for 2-Chloroethyl vinyl ether. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-574702 recovered outside control limits for the following analyte: 2-Chloroethyl vinyl ether. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-574702 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-574702 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260B: The RPD for the matrix spike / matrix spike duplicate (MS/MSD) for 2-Chloroethyl vinyl ether was not calculable for analytical batch 400-574702 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260B: The method blank for analytical batch 400-574702 contained 1,2,3-Trichlorobenzene above the reporting limit (RL) and 1,2,4-Trichlorobenzene above the method detection limit (MDL). None of the samples associated with this method blank contained the target compounds; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041222-8260 (400-218399-1), MW3-ROX-041222 (400-218399-3), MW16-ROX-041222 (400-218399-4), ROST3MW-ROX-041222 (400-218399-5) and MW12-ROX-041222 (400-218399-6). The requested target analyte list includes 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-574007 and analytical batch 400-574262 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-574007 and analytical batch 400-574262 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-574007 and analytical batch 400-574262 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Job ID: 400-218399-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 400-574007 and analytical batch 400-574262 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574262 recovered above the upper control limit for 1,4-Dioxane, N-Nitrosodimethylamine, 4-Nitrophenol and Hexachlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574262 recovered outside acceptance criteria, low biased, for Benzyl alcohol, Bis(2-chloroethyl)ether, Isophorone, Hexachlorocyclopentadiene, Aniline, Bis(2-chloroethoxy)methane and Quinoline. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW12-ROX-041222 (400-218399-6). These results have been reported and qualified.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW3-ROX-041222 (400-218399-3) and ROST3MW-ROX-041222 (400-218399-5). These results have been reported and qualified.

Method 8270D: Internal standard (ISTD) response for Chrysene-d12 and Perylene-d12 for the following sample in analytical batch 400-574262 was outside acceptance criteria: (LCSD 400-574007/4-A). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-574007 and analytical batch 400-574392 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8270D: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 400-574007 and analytical batch 400-574392 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-574283 recovered above the upper control limit for Fluorene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-574452 recovered above the upper control limit for Anthracene and Fluorene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: Surrogate recovery for the following samples were outside the upper control limit: MW16-ROX-041222 (400-218399-4) and ROST3MW-ROX-041222 (400-218399-5). This sample did not contain any target analytes above the reporting limit; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D LL: The surrogate recovery for the blank associated with preparation batch 400-574007 and analytical batch 400-574283 was outside the upper control limits.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-574542 recovered above the upper control limit for Anthracene, Acenaphthene and Fluorene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The laboratory control sample (LCS) for preparation batch 400-574007 and analytical batch 400-574542 recovered outside control limits for the following analytes: Anthracene and Fluorene. These analytes were biased high in the LCS and were not

Job ID: 400-218399-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

detected in the associated samples; therefore, the data have been reported.

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

GC Semi VOA

Method 8011: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-574563 and analytical batch 400-574654 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574654 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574654 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-573847 and analytical batch 400-574373 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574373 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample duplicate (LCSD) for preparation batch 400-574563 and analytical batch 400-574654 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8011: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-574563 and analytical batch 400-574654 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574723 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) for preparation batch 400-574592 and analytical batch 400-574723 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218399-1	TB-ROX-041222-8260	Water	04/12/22 00:01	04/13/22 09:26
400-218399-2	TB-ROX-041222-8011	Water	04/12/22 00:01	04/13/22 09:26
400-218399-3	MW3-ROX-041222	Water	04/12/22 09:00	04/13/22 09:26
400-218399-4	MW16-ROX-041222	Water	04/12/22 09:40	04/13/22 09:26
400-218399-5	ROST3MW-ROX-041222	Water	04/12/22 10:50	04/13/22 09:26
400-218399-6	MW12-ROX-041222	Water	04/12/22 13:15	04/13/22 09:26

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Client Sample ID: TB-ROX-041222-8260

Lab Sample ID: 400-218399-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.60	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-041222-8011

Lab Sample ID: 400-218399-2

No Detections.

Client Sample ID: MW3-ROX-041222

Lab Sample ID: 400-218399-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.50	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.055	J	0.19	0.044	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW16-ROX-041222

Lab Sample ID: 400-218399-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.11	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.080	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.10	J	0.19	0.065	ug/L	1		8270D LL	Total/NA
Pyrene	0.055	J	0.19	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: ROST3MW-ROX-041222

Lab Sample ID: 400-218399-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.054	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
Pyrene	0.041	J	0.19	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW12-ROX-041222

Lab Sample ID: 400-218399-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-ROX-041222-8260

Date Collected: 04/12/22 00:01
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/22 15:39	1
Acrolein	ND		20	3.3	ug/L			04/19/22 15:39	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/22 15:39	1
Benzene	ND		1.0	0.13	ug/L			04/19/22 15:39	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/22 15:39	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/22 15:39	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/22 15:39	1
Bromoform	ND		5.0	0.25	ug/L			04/19/22 15:39	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/22 15:39	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/22 15:39	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/22 15:39	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/22 15:39	1
Chlorobenzene	0.60	J	1.0	0.15	ug/L			04/19/22 15:39	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/22 15:39	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/22 15:39	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/22 15:39	1
Chloroform	ND		1.0	1.0	ug/L			04/19/22 15:39	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/22 15:39	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/22 15:39	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/22 15:39	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/22 15:39	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/22 15:39	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/22 15:39	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/22 15:39	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/22 15:39	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/22 15:39	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/22 15:39	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 15:39	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 15:39	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 15:39	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 15:39	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/22 15:39	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/22 15:39	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/22 15:39	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/22 15:39	1
2-Hexanone	ND		25	1.4	ug/L			04/19/22 15:39	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/19/22 15:39	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/22 15:39	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/22 15:39	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/22 15:39	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/22 15:39	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/22 15:39	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/22 15:39	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/22 15:39	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/22 15:39	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/22 15:39	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/22 15:39	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/22 15:39	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/22 15:39	1

Client Sample ID: TB-ROX-041222-8260
Date Collected: 04/12/22 00:01
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/22 15:39	1
Styrene	ND		1.0	1.0	ug/L			04/19/22 15:39	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/22 15:39	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/22 15:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/22 15:39	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/22 15:39	1
Toluene	ND		1.0	0.41	ug/L			04/19/22 15:39	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 15:39	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/22 15:39	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/22 15:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/22 15:39	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/22 15:39	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/22 15:39	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/22 15:39	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/22 15:39	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/22 15:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/19/22 15:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/19/22 15:39	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/22 15:39	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/22 15:39	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/22 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*04/19/22 15:39*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/19/22 15:39*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/19/22 15:39*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Client Sample ID: TB-ROX-041222-8011
Date Collected: 04/12/22 00:01
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.035	0.020	ug/L		04/14/22 10:01	04/20/22 11:53	1
1,2-Dibromoethane	ND		0.023	0.018	ug/L		04/14/22 10:01	04/20/22 11:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*125*		*51 - 149*	*04/14/22 10:01*	*04/20/22 11:53*	*1*

Client Sample ID: MW3-ROX-041222
Date Collected: 04/12/22 09:00
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/22 16:05	1
Acrolein	ND		20	3.3	ug/L			04/19/22 16:05	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/22 16:05	1
Benzene	ND		1.0	0.13	ug/L			04/19/22 16:05	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/22 16:05	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/22 16:05	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/22 16:05	1
Bromoform	ND		5.0	0.25	ug/L			04/19/22 16:05	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/22 16:05	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/22 16:05	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/22 16:05	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/22 16:05	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/22 16:05	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/22 16:05	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/22 16:05	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/22 16:05	1
Chloroform	ND		1.0	1.0	ug/L			04/19/22 16:05	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/22 16:05	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/22 16:05	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/22 16:05	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/22 16:05	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/22 16:05	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/22 16:05	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/22 16:05	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/22 16:05	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/22 16:05	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/22 16:05	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 16:05	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 16:05	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 16:05	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 16:05	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/22 16:05	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/22 16:05	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/22 16:05	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/22 16:05	1
2-Hexanone	ND		25	1.4	ug/L			04/19/22 16:05	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/19/22 16:05	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/22 16:05	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/22 16:05	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/22 16:05	1
Methyl tert-butyl ether	**0.50**	**J**	1.0	0.22	ug/L			04/19/22 16:05	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/22 16:05	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/22 16:05	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/22 16:05	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/22 16:05	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/22 16:05	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/22 16:05	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/22 16:05	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/22 16:05	1

Client Sample ID: MW3-ROX-041222

Date Collected: 04/12/22 09:00
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/22 16:05	1
Styrene	ND		1.0	1.0	ug/L			04/19/22 16:05	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/22 16:05	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/22 16:05	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/22 16:05	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/22 16:05	1
Toluene	ND		1.0	0.41	ug/L			04/19/22 16:05	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 16:05	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/22 16:05	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/22 16:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/22 16:05	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/22 16:05	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/22 16:05	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/22 16:05	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/22 16:05	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/22 16:05	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/19/22 16:05	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/19/22 16:05	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/22 16:05	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/22 16:05	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/22 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/19/22 16:05*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/19/22 16:05*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/19/22 16:05*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/15/22 10:27	04/19/22 17:51	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/15/22 10:27	04/19/22 17:51	1
Anthracene	ND	*+	0.19	0.031	ug/L		04/15/22 10:27	04/19/22 17:51	1
Benzo[a]anthracene	0.055	J	0.19	0.044	ug/L		04/15/22 10:27	04/19/22 17:51	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/15/22 10:27	04/19/22 17:51	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/15/22 10:27	04/19/22 17:51	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/15/22 10:27	04/19/22 17:51	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/15/22 10:27	04/19/22 17:51	1
Chrysene	ND		0.19	0.071	ug/L		04/15/22 10:27	04/19/22 17:51	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/15/22 10:27	04/19/22 17:51	1
Fluoranthene	ND		0.19	0.065	ug/L		04/15/22 10:27	04/19/22 17:51	1
Fluorene	ND	*+	0.19	0.11	ug/L		04/15/22 10:27	04/19/22 17:51	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/15/22 10:27	04/19/22 17:51	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/15/22 10:27	04/19/22 17:51	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/15/22 10:27	04/19/22 17:51	1
Phenanthrene	ND		0.19	0.035	ug/L		04/15/22 10:27	04/19/22 17:51	1
Pyrene	ND		0.19	0.038	ug/L		04/15/22 10:27	04/19/22 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*15 - 122*	*04/15/22 10:27*	*04/19/22 17:51*	*1*
Nitrobenzene-d5	*78*		*19 - 130*	*04/15/22 10:27*	*04/19/22 17:51*	*1*

Client Sample ID: MW3-ROX-041222
Date Collected: 04/12/22 09:00
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	85		33 - 138	04/15/22 10:27	04/19/22 17:51	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.6	3.7	ug/L		04/15/22 10:27	04/18/22 17:15	1
Benzenethiol	ND	*- *1 UJ	9.6	1.6	ug/L		04/15/22 10:27	04/18/22 17:15	1
Benzoic acid	ND		29	7.0	ug/L		04/15/22 10:27	04/18/22 17:15	1
Benzyl alcohol	ND	UJ	9.6	1.9	ug/L		04/15/22 10:27	04/18/22 17:15	1
Bis(2-chloroethoxy)methane	ND	UJ	9.6	0.15	ug/L		04/15/22 10:27	04/18/22 17:15	1
Bis(2-chloroethyl)ether	ND	UJ	9.6	2.6	ug/L		04/15/22 10:27	04/18/22 17:15	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/15/22 10:27	04/18/22 17:15	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/15/22 10:27	04/18/22 17:15	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/15/22 10:27	04/18/22 17:15	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/15/22 10:27	04/18/22 17:15	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/15/22 10:27	04/18/22 17:15	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		04/15/22 10:27	04/18/22 17:15	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/15/22 10:27	04/18/22 17:15	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/15/22 10:27	04/18/22 17:15	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/15/22 10:27	04/18/22 17:15	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/15/22 10:27	04/18/22 17:15	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/15/22 10:27	04/18/22 17:15	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		04/15/22 10:27	04/18/22 17:15	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/15/22 10:27	04/18/22 17:15	1
Diethyl phthalate	ND		9.6	0.23	ug/L		04/15/22 10:27	04/18/22 17:15	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		04/15/22 10:27	04/18/22 17:15	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/15/22 10:27	04/18/22 17:15	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/15/22 10:27	04/18/22 17:15	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/15/22 10:27	04/18/22 17:15	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/15/22 10:27	04/18/22 17:15	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/15/22 10:27	04/18/22 17:15	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/15/22 10:27	04/18/22 17:15	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/15/22 10:27	04/18/22 17:15	1
1,4-Dioxane	ND		9.6	0.96	ug/L		04/15/22 10:27	04/18/22 17:15	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/15/22 10:27	04/18/22 17:15	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/15/22 10:27	04/18/22 17:15	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/15/22 10:27	04/18/22 17:15	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/15/22 10:27	04/18/22 17:15	1
Indene	ND		9.6	0.96	ug/L		04/15/22 10:27	04/18/22 17:15	1
Isophorone	ND	UJ	9.6	0.13	ug/L		04/15/22 10:27	04/18/22 17:15	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/15/22 10:27	04/18/22 17:15	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/15/22 10:27	04/18/22 17:15	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/15/22 10:27	04/18/22 17:15	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/15/22 10:27	04/18/22 17:15	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/15/22 10:27	04/18/22 17:15	1
Nitrobenzene	ND		9.6	0.13	ug/L		04/15/22 10:27	04/18/22 17:15	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/15/22 10:27	04/18/22 17:15	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/15/22 10:27	04/18/22 17:15	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		04/15/22 10:27	04/18/22 17:15	1

Client Sample ID: MW3-ROX-041222
Date Collected: 04/12/22 09:00
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/15/22 10:27	04/18/22 17:15	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/15/22 10:27	04/18/22 17:15	1
Pentachlorophenol	ND		19	1.3	ug/L		04/15/22 10:27	04/18/22 17:15	1
Phenol	ND		9.6	2.5	ug/L		04/15/22 10:27	04/18/22 17:15	1
Pyridine	ND		9.6	3.1	ug/L		04/15/22 10:27	04/18/22 17:15	1
Quinoline	ND	U5	9.6	4.3	ug/L		04/15/22 10:27	04/18/22 17:15	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		04/15/22 10:27	04/18/22 17:15	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		04/15/22 10:27	04/18/22 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*35*	*S1-*	*46 - 124*	*04/15/22 10:27*	*04/18/22 17:15*	*1*
2-Fluorophenol	*14*		*13 - 113*	*04/15/22 10:27*	*04/18/22 17:15*	*1*
Nitrobenzene-d5	*36*		*36 - 126*	*04/15/22 10:27*	*04/18/22 17:15*	*1*
Phenol-d5	*27*		*17 - 127*	*04/15/22 10:27*	*04/18/22 17:15*	*1*
Terphenyl-d14	*44*		*44 - 149*	*04/15/22 10:27*	*04/18/22 17:15*	*1*
2,4,6-Tribromophenol	*48*		*26 - 150*	*04/15/22 10:27*	*04/18/22 17:15*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.034	0.019	ug/L		04/20/22 11:56	04/20/22 20:52	1
1,2-Dibromoethane	ND		0.023	0.017	ug/L		04/20/22 11:56	04/20/22 20:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*51 - 149*	*04/20/22 11:56*	*04/20/22 20:52*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Client Sample ID: MW16-ROX-041222
Date Collected: 04/12/22 09:40
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/21/22 13:28	1
Acrolein	ND		20	3.3	ug/L			04/21/22 13:28	1
Acrylonitrile	ND		10	2.8	ug/L			04/21/22 13:28	1
Benzene	ND		1.0	0.13	ug/L			04/21/22 13:28	1
Bromobenzene	ND		1.0	0.54	ug/L			04/21/22 13:28	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/21/22 13:28	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/21/22 13:28	1
Bromoform	ND		5.0	0.25	ug/L			04/21/22 13:28	1
Bromomethane	ND		1.0	0.98	ug/L			04/21/22 13:28	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/21/22 13:28	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/21/22 13:28	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/21/22 13:28	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/21/22 13:28	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/21/22 13:28	1
Chloroethane	ND		1.0	0.76	ug/L			04/21/22 13:28	1
2-Chloroethyl vinyl ether	ND	F1 *+ UJ	5.0	2.0	ug/L			04/21/22 13:28	1
Chloroform	ND		1.0	1.0	ug/L			04/21/22 13:28	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/21/22 13:28	1
Chloromethane	ND	F1 UJ	1.0	0.32	ug/L			04/21/22 13:28	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/21/22 13:28	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/21/22 13:28	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/21/22 13:28	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/21/22 13:28	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/21/22 13:28	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/21/22 13:28	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/21/22 13:28	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/21/22 13:28	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/21/22 13:28	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/22 13:28	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/21/22 13:28	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/22 13:28	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/21/22 13:28	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/21/22 13:28	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/21/22 13:28	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/21/22 13:28	1
2-Hexanone	ND		25	1.4	ug/L			04/21/22 13:28	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/21/22 13:28	1
Methylene bromide	ND		5.0	0.22	ug/L			04/21/22 13:28	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/21/22 13:28	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/21/22 13:28	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/21/22 13:28	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/21/22 13:28	1
Naphthalene	ND		5.0	3.0	ug/L			04/21/22 13:28	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/21/22 13:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/22 13:28	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/21/22 13:28	1
o-Xylene	ND		5.0	0.60	ug/L			04/21/22 13:28	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/21/22 13:28	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/21/22 13:28	1

Client Sample ID: MW16-ROX-041222

Date Collected: 04/12/22 09:40
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/21/22 13:28	1
Styrene	ND		1.0	1.0	ug/L			04/21/22 13:28	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/21/22 13:28	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/21/22 13:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/21/22 13:28	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/21/22 13:28	1
Toluene	ND		1.0	0.41	ug/L			04/21/22 13:28	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/21/22 13:28	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/21/22 13:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/21/22 13:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/21/22 13:28	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/21/22 13:28	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/21/22 13:28	1
Trichloroethene	ND		1.0	0.15	ug/L			04/21/22 13:28	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/21/22 13:28	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/21/22 13:28	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/21/22 13:28	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/21/22 13:28	1
Vinyl acetate	ND		25	0.93	ug/L			04/21/22 13:28	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/21/22 13:28	1
Xylenes, Total	ND		10	1.6	ug/L			04/21/22 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 119*		*04/21/22 13:28*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*04/21/22 13:28*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*04/21/22 13:28*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/15/22 10:27	04/19/22 00:07	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/15/22 10:27	04/19/22 00:07	1
Anthracene	ND	*+	0.19	0.031	ug/L		04/15/22 10:27	04/19/22 00:07	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/15/22 10:27	04/19/22 00:07	1
Benzo[a]pyrene	**0.11**	J	0.19	0.040	ug/L		04/15/22 10:27	04/19/22 00:07	1
Benzo[b]fluoranthene	**0.080**	J	0.19	0.033	ug/L		04/15/22 10:27	04/19/22 00:07	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/15/22 10:27	04/19/22 00:07	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/15/22 10:27	04/19/22 00:07	1
Chrysene	ND		0.19	0.071	ug/L		04/15/22 10:27	04/19/22 00:07	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/15/22 10:27	04/19/22 00:07	1
Fluoranthene	**0.10**	J	0.19	0.065	ug/L		04/15/22 10:27	04/19/22 00:07	1
Fluorene	ND	*+	0.19	0.11	ug/L		04/15/22 10:27	04/19/22 00:07	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/15/22 10:27	04/19/22 00:07	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/15/22 10:27	04/19/22 00:07	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/15/22 10:27	04/19/22 00:07	1
Phenanthrene	ND		0.19	0.034	ug/L		04/15/22 10:27	04/19/22 00:07	1
Pyrene	**0.055**	J	0.19	0.038	ug/L		04/15/22 10:27	04/19/22 00:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*128*	*S1+*	*15 - 122*	*04/15/22 10:27*	*04/19/22 00:07*	*1*
Nitrobenzene-d5	*136*	*S1+*	*19 - 130*	*04/15/22 10:27*	*04/19/22 00:07*	*1*

Client Sample ID: MW16-ROX-041222

Date Collected: 04/12/22 09:40
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-4

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*166*	*S1+*	*33 - 138*	*04/15/22 10:27*	*04/19/22 00:07*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	F2	9.6	3.6	ug/L		04/15/22 10:27	04/18/22 16:55	1
Benzenethiol	ND	*-*1	9.6	1.6	ug/L		04/15/22 10:27	04/18/22 16:55	1
Benzoic acid	ND	F2	29	7.0	ug/L		04/15/22 10:27	04/18/22 16:55	1
Benzyl alcohol	ND	F1 F2	9.6	1.9	ug/L		04/15/22 10:27	04/18/22 16:55	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/15/22 10:27	04/18/22 16:55	1
Bis(2-chloroethyl)ether	ND	F1 F2	9.6	2.6	ug/L		04/15/22 10:27	04/18/22 16:55	1
bis (2-chloroisopropyl) ether	ND	F2	9.6	0.15	ug/L		04/15/22 10:27	04/18/22 16:55	1
Bis(2-ethylhexyl) phthalate	ND	F1 F2	9.6	4.8	ug/L		04/15/22 10:27	04/18/22 16:55	1
4-Bromophenyl phenyl ether	ND	F1 F2	9.6	0.19	ug/L		04/15/22 10:27	04/18/22 16:55	1
Butyl benzyl phthalate	ND	F1 F2	9.6	0.18	ug/L		04/15/22 10:27	04/18/22 16:55	1
4-Chloroaniline	ND	F2	9.6	3.3	ug/L		04/15/22 10:27	04/18/22 16:55	1
4-Chloro-3-methylphenol	ND	F1 F2	9.6	3.6	ug/L		04/15/22 10:27	04/18/22 16:55	1
2-Chloronaphthalene	ND	F1 F2	9.6	0.13	ug/L		04/15/22 10:27	04/18/22 16:55	1
2-Chlorophenol	ND	F2	9.6	2.1	ug/L		04/15/22 10:27	04/18/22 16:55	1
4-Chlorophenyl phenyl ether	ND	F1 F2	9.6	1.9	ug/L		04/15/22 10:27	04/18/22 16:55	1
Dibenz[a,h]acridine	ND	F1 F2	9.6	0.96	ug/L		04/15/22 10:27	04/18/22 16:55	1
Dibenzofuran	ND	F2	9.6	0.16	ug/L		04/15/22 10:27	04/18/22 16:55	1
3,3'-Dichlorobenzidine	ND	F2	9.6	2.5	ug/L		04/15/22 10:27	04/18/22 16:55	1
2,4-Dichlorophenol	ND	F1 F2	9.6	2.9	ug/L		04/15/22 10:27	04/18/22 16:55	1
Diethyl phthalate	ND	F1 F2	9.6	0.23	ug/L		04/15/22 10:27	04/18/22 16:55	1
2,4-Dimethylphenol	ND	F2	9.6	3.3	ug/L		04/15/22 10:27	04/18/22 16:55	1
Dimethyl phthalate	ND	F1 F2	9.6	0.16	ug/L		04/15/22 10:27	04/18/22 16:55	1
Di-n-butyl phthalate	ND	F1 F2	9.6	2.6	ug/L		04/15/22 10:27	04/18/22 16:55	1
4,6-Dinitro-ortho-cresol	ND	F1 F2	9.6	1.5	ug/L		04/15/22 10:27	04/18/22 16:55	1
2,4-Dinitrophenol	ND	F2	29	3.3	ug/L		04/15/22 10:27	04/18/22 16:55	1
2,4-Dinitrotoluene	ND	F1 F2	9.6	1.8	ug/L		04/15/22 10:27	04/18/22 16:55	1
2,6-Dinitrotoluene	ND	F1 F2	9.6	1.8	ug/L		04/15/22 10:27	04/18/22 16:55	1
Di-n-octyl phthalate	ND	F2	9.6	0.16	ug/L		04/15/22 10:27	04/18/22 16:55	1
1,4-Dioxane	ND	F1 F2	9.6	0.96	ug/L		04/15/22 10:27	04/18/22 16:55	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	F1 F2	9.6	0.96	ug/L		04/15/22 10:27	04/18/22 16:55	1
Hexachlorobenzene	ND	F2	9.6	0.16	ug/L		04/15/22 10:27	04/18/22 16:55	1
Hexachlorocyclopentadiene	ND	F2	19	2.5	ug/L		04/15/22 10:27	04/18/22 16:55	1
Hexachloroethane	ND	F2	9.6	4.0	ug/L		04/15/22 10:27	04/18/22 16:55	1
Indene	ND	F1 F2	9.6	0.96	ug/L		04/15/22 10:27	04/18/22 16:55	1
Isophorone	ND	F1 F2	9.6	0.13	ug/L		04/15/22 10:27	04/18/22 16:55	1
2-Methylphenol	ND	F2	9.6	1.7	ug/L		04/15/22 10:27	04/18/22 16:55	1
3 & 4 Methylphenol	ND	F1 F2	19	0.37	ug/L		04/15/22 10:27	04/18/22 16:55	1
2-Nitroaniline	ND	F1 F2	9.6	2.1	ug/L		04/15/22 10:27	04/18/22 16:55	1
3-Nitroaniline	ND	F2	9.6	1.7	ug/L		04/15/22 10:27	04/18/22 16:55	1
4-Nitroaniline	ND	F2	9.6	1.4	ug/L		04/15/22 10:27	04/18/22 16:55	1
Nitrobenzene	ND	F1 F2	9.6	0.12	ug/L		04/15/22 10:27	04/18/22 16:55	1
2-Nitrophenol	ND	F1 F2	9.6	5.0	ug/L		04/15/22 10:27	04/18/22 16:55	1
4-Nitrophenol	ND	F2	9.6	2.0	ug/L		04/15/22 10:27	04/18/22 16:55	1
N-Nitrosodimethylamine	ND	F2	9.6	3.3	ug/L		04/15/22 10:27	04/18/22 16:55	1

Client Sample ID: MW16-ROX-041222

Date Collected: 04/12/22 09:40
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-4

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND	F1 F2	9.6	3.2	ug/L		04/15/22 10:27	04/18/22 16:55	1
N-Nitrosodiphenylamine	ND	F2	9.6	0.17	ug/L		04/15/22 10:27	04/18/22 16:55	1
Pentachlorophenol	ND	F1 F2	19	1.3	ug/L		04/15/22 10:27	04/18/22 16:55	1
Phenol	ND	F2	9.6	2.5	ug/L		04/15/22 10:27	04/18/22 16:55	1
Pyridine	ND	F2	9.6	3.1	ug/L		04/15/22 10:27	04/18/22 16:55	1
Quinoline	ND	F1 F2 UJ	9.6	4.3	ug/L		04/15/22 10:27	04/18/22 16:55	1
2,4,5-Trichlorophenol	ND	F1 F2	9.6	3.5	ug/L		04/15/22 10:27	04/18/22 16:55	1
2,4,6-Trichlorophenol	ND	F1 F2	9.6	3.3	ug/L		04/15/22 10:27	04/18/22 16:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*57*		*46 - 124*	*04/15/22 10:27*	*04/18/22 16:55*	*1*
2-Fluorophenol	*24*		*13 - 113*	*04/15/22 10:27*	*04/18/22 16:55*	*1*
Nitrobenzene-d5	*62*		*36 - 126*	*04/15/22 10:27*	*04/18/22 16:55*	*1*
Phenol-d5	*46*		*17 - 127*	*04/15/22 10:27*	*04/18/22 16:55*	*1*
Terphenyl-d14	*88*		*44 - 149*	*04/15/22 10:27*	*04/18/22 16:55*	*1*
2,4,6-Tribromophenol	*69*		*26 - 150*	*04/15/22 10:27*	*04/18/22 16:55*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/20/22 13:18	04/21/22 13:30	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/20/22 13:18	04/21/22 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*51 - 149*	*04/20/22 13:18*	*04/21/22 13:30*	*1*

Client Sample ID: ROST3MW-ROX-041222

Date Collected: 04/12/22 10:50
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/22 16:57	1
Acrolein	ND		20	3.3	ug/L			04/19/22 16:57	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/22 16:57	1
Benzene	ND		1.0	0.13	ug/L			04/19/22 16:57	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/22 16:57	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/22 16:57	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/22 16:57	1
Bromoform	ND		5.0	0.25	ug/L			04/19/22 16:57	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/22 16:57	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/22 16:57	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/22 16:57	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/22 16:57	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/22 16:57	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/22 16:57	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/22 16:57	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/22 16:57	1
Chloroform	ND		1.0	1.0	ug/L			04/19/22 16:57	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/22 16:57	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/22 16:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/22 16:57	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/22 16:57	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/22 16:57	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/22 16:57	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/22 16:57	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/22 16:57	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/22 16:57	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/22 16:57	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 16:57	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 16:57	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 16:57	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 16:57	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/22 16:57	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/22 16:57	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/22 16:57	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/22 16:57	1
2-Hexanone	ND		25	1.4	ug/L			04/19/22 16:57	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/19/22 16:57	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/22 16:57	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/22 16:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/22 16:57	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/22 16:57	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/22 16:57	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/22 16:57	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/22 16:57	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/22 16:57	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/22 16:57	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/22 16:57	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/22 16:57	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/22 16:57	1

Client Sample ID: ROST3MW-ROX-041222
Date Collected: 04/12/22 10:50
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/22 16:57	1
Styrene	ND		1.0	1.0	ug/L			04/19/22 16:57	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/22 16:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/22 16:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/22 16:57	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/22 16:57	1
Toluene	ND		1.0	0.41	ug/L			04/19/22 16:57	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 16:57	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/22 16:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/22 16:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/22 16:57	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/22 16:57	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/22 16:57	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/22 16:57	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/22 16:57	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/22 16:57	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/19/22 16:57	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/19/22 16:57	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/22 16:57	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/22 16:57	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/22 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*72 - 119*		*04/19/22 16:57*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*04/19/22 16:57*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*04/19/22 16:57*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		04/15/22 10:27	04/19/22 18:06	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/15/22 10:27	04/19/22 18:06	1
Anthracene	ND	*+	0.19	0.030	ug/L		04/15/22 10:27	04/19/22 18:06	1
Benzo[a]anthracene	0.054	J J	0.19	0.044	ug/L		04/15/22 10:27	04/19/22 18:06	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/15/22 10:27	04/19/22 18:06	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		04/15/22 10:27	04/19/22 18:06	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/15/22 10:27	04/19/22 18:06	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/15/22 10:27	04/19/22 18:06	1
Chrysene	ND		0.19	0.070	ug/L		04/15/22 10:27	04/19/22 18:06	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/15/22 10:27	04/19/22 18:06	1
Fluoranthene	ND		0.19	0.065	ug/L		04/15/22 10:27	04/19/22 18:06	1
Fluorene	ND	*+	0.19	0.10	ug/L		04/15/22 10:27	04/19/22 18:06	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/15/22 10:27	04/19/22 18:06	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		04/15/22 10:27	04/19/22 18:06	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/15/22 10:27	04/19/22 18:06	1
Phenanthrene	ND		0.19	0.034	ug/L		04/15/22 10:27	04/19/22 18:06	1
Pyrene	0.041	J J	0.19	0.038	ug/L		04/15/22 10:27	04/19/22 18:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*128*	*S1+*	*15 - 122*	*04/15/22 10:27*	*04/19/22 18:06*	*1*
Nitrobenzene-d5	*122*		*19 - 130*	*04/15/22 10:27*	*04/19/22 18:06*	*1*

Client Sample ID: ROST3MW-ROX-041222

Date Collected: 04/12/22 10:50
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-5

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	170	S1+	33 - 138	04/15/22 10:27	04/19/22 18:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/15/22 10:27	04/18/22 17:36	1
Benzenethiol	ND	*- *1	9.5	1.6	ug/L		04/15/22 10:27	04/18/22 17:36	1
Benzoic acid	ND		29	6.9	ug/L		04/15/22 10:27	04/18/22 17:36	1
Benzyl alcohol	ND		9.5	1.9	ug/L		04/15/22 10:27	04/18/22 17:36	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		04/15/22 10:27	04/18/22 17:36	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		04/15/22 10:27	04/18/22 17:36	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		04/15/22 10:27	04/18/22 17:36	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/15/22 10:27	04/18/22 17:36	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/15/22 10:27	04/18/22 17:36	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/15/22 10:27	04/18/22 17:36	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/15/22 10:27	04/18/22 17:36	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/15/22 10:27	04/18/22 17:36	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/15/22 10:27	04/18/22 17:36	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/15/22 10:27	04/18/22 17:36	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/15/22 10:27	04/18/22 17:36	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		04/15/22 10:27	04/18/22 17:36	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/15/22 10:27	04/18/22 17:36	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		04/15/22 10:27	04/18/22 17:36	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/15/22 10:27	04/18/22 17:36	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/15/22 10:27	04/18/22 17:36	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/15/22 10:27	04/18/22 17:36	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/15/22 10:27	04/18/22 17:36	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/15/22 10:27	04/18/22 17:36	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/15/22 10:27	04/18/22 17:36	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/15/22 10:27	04/18/22 17:36	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/15/22 10:27	04/18/22 17:36	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/15/22 10:27	04/18/22 17:36	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/15/22 10:27	04/18/22 17:36	1
1,4-Dioxane	ND		9.5	0.95	ug/L		04/15/22 10:27	04/18/22 17:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		04/15/22 10:27	04/18/22 17:36	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/15/22 10:27	04/18/22 17:36	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/15/22 10:27	04/18/22 17:36	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/15/22 10:27	04/18/22 17:36	1
Indene	ND		9.5	0.95	ug/L		04/15/22 10:27	04/18/22 17:36	1
Isophorone	ND		9.5	0.13	ug/L		04/15/22 10:27	04/18/22 17:36	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/15/22 10:27	04/18/22 17:36	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/15/22 10:27	04/18/22 17:36	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/15/22 10:27	04/18/22 17:36	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/15/22 10:27	04/18/22 17:36	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/15/22 10:27	04/18/22 17:36	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/15/22 10:27	04/18/22 17:36	1
2-Nitrophenol	ND		9.5	4.9	ug/L		04/15/22 10:27	04/18/22 17:36	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/15/22 10:27	04/18/22 17:36	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/15/22 10:27	04/18/22 17:36	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Client Sample ID: ROST3MW-ROX-041222

Date Collected: 04/12/22 10:50
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-5

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		04/15/22 10:27	04/18/22 17:36	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/15/22 10:27	04/18/22 17:36	1
Pentachlorophenol	ND		19	1.3	ug/L		04/15/22 10:27	04/18/22 17:36	1
Phenol	ND		9.5	2.5	ug/L		04/15/22 10:27	04/18/22 17:36	1
Pyridine	ND		9.5	3.0	ug/L		04/15/22 10:27	04/18/22 17:36	1
Quinoline	ND	U5	9.5	4.3	ug/L		04/15/22 10:27	04/18/22 17:36	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/15/22 10:27	04/18/22 17:36	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/15/22 10:27	04/18/22 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*59*		*46 - 124*	*04/15/22 10:27*	*04/18/22 17:36*	*1*
2-Fluorophenol	*5*	*S1-*	*13 - 113*	*04/15/22 10:27*	*04/18/22 17:36*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*04/15/22 10:27*	*04/18/22 17:36*	*1*
Phenol-d5	*23*		*17 - 127*	*04/15/22 10:27*	*04/18/22 17:36*	*1*
Terphenyl-d14	*89*		*44 - 149*	*04/15/22 10:27*	*04/18/22 17:36*	*1*
2,4,6-Tribromophenol	*51*		*26 - 150*	*04/15/22 10:27*	*04/18/22 17:36*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.032	0.018	ug/L		04/20/22 11:56	04/20/22 21:12	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/20/22 11:56	04/20/22 21:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*115*		*51 - 149*	*04/20/22 11:56*	*04/20/22 21:12*	*1*

Client Sample ID: MW12-ROX-041222

Date Collected: 04/12/22 13:15
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/22 17:23	1
Acrolein	ND		20	3.3	ug/L			04/19/22 17:23	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/22 17:23	1
Benzene	ND		1.0	0.13	ug/L			04/19/22 17:23	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/22 17:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/22 17:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/22 17:23	1
Bromoform	ND		5.0	0.25	ug/L			04/19/22 17:23	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/22 17:23	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/22 17:23	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/22 17:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/22 17:23	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/22 17:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/22 17:23	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/22 17:23	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/22 17:23	1
Chloroform	ND		1.0	1.0	ug/L			04/19/22 17:23	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/22 17:23	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/22 17:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/22 17:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/22 17:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/22 17:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/22 17:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/22 17:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/22 17:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/22 17:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/22 17:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 17:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 17:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 17:23	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 17:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/22 17:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/22 17:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/22 17:23	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/22 17:23	1
2-Hexanone	ND		25	1.4	ug/L			04/19/22 17:23	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/19/22 17:23	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/22 17:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/22 17:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/22 17:23	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/22 17:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/22 17:23	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/22 17:23	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/22 17:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/22 17:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/22 17:23	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/22 17:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/22 17:23	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/22 17:23	1

Client Sample ID: MW12-ROX-041222

Date Collected: 04/12/22 13:15
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/22 17:23	1
Styrene	ND		1.0	1.0	ug/L			04/19/22 17:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/22 17:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/22 17:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/22 17:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/22 17:23	1
Toluene	ND		1.0	0.41	ug/L			04/19/22 17:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 17:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/22 17:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/22 17:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/22 17:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/22 17:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/22 17:23	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/22 17:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/22 17:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/22 17:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/19/22 17:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/19/22 17:23	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/22 17:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/22 17:23	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/22 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 119*		*04/19/22 17:23*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/19/22 17:23*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/19/22 17:23*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/15/22 10:27	04/19/22 18:22	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/15/22 10:27	04/19/22 18:22	1
Anthracene	ND	*+	0.19	0.031	ug/L		04/15/22 10:27	04/19/22 18:22	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/15/22 10:27	04/19/22 18:22	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/15/22 10:27	04/19/22 18:22	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/15/22 10:27	04/19/22 18:22	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/15/22 10:27	04/19/22 18:22	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/15/22 10:27	04/19/22 18:22	1
Chrysene	ND		0.19	0.072	ug/L		04/15/22 10:27	04/19/22 18:22	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		04/15/22 10:27	04/19/22 18:22	1
Fluoranthene	ND		0.19	0.066	ug/L		04/15/22 10:27	04/19/22 18:22	1
Fluorene	ND	*+	0.19	0.11	ug/L		04/15/22 10:27	04/19/22 18:22	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/15/22 10:27	04/19/22 18:22	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/15/22 10:27	04/19/22 18:22	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/15/22 10:27	04/19/22 18:22	1
Phenanthrene	ND		0.19	0.035	ug/L		04/15/22 10:27	04/19/22 18:22	1
Pyrene	ND		0.19	0.039	ug/L		04/15/22 10:27	04/19/22 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*15 - 122*	*04/15/22 10:27*	*04/19/22 18:22*	*1*
Nitrobenzene-d5	*86*		*19 - 130*	*04/15/22 10:27*	*04/19/22 18:22*	*1*

Client Sample ID: MW12-ROX-041222
Date Collected: 04/12/22 13:15
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	109		33 - 138	04/15/22 10:27	04/19/22 18:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/15/22 10:27	04/18/22 17:57	1
Benzenethiol	ND	*- *1	9.7	1.7	ug/L		04/15/22 10:27	04/18/22 17:57	1
Benzoic acid	ND		29	7.1	ug/L		04/15/22 10:27	04/18/22 17:57	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/15/22 10:27	04/18/22 17:57	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		04/15/22 10:27	04/18/22 17:57	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/15/22 10:27	04/18/22 17:57	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		04/15/22 10:27	04/18/22 17:57	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/15/22 10:27	04/18/22 17:57	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/15/22 10:27	04/18/22 17:57	1
Butyl benzyl phthalate	ND		9.7	0.19	ug/L		04/15/22 10:27	04/18/22 17:57	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/15/22 10:27	04/18/22 17:57	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/15/22 10:27	04/18/22 17:57	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/15/22 10:27	04/18/22 17:57	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/15/22 10:27	04/18/22 17:57	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/15/22 10:27	04/18/22 17:57	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/15/22 10:27	04/18/22 17:57	1
Dibenzofuran	ND		9.7	0.17	ug/L		04/15/22 10:27	04/18/22 17:57	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/15/22 10:27	04/18/22 17:57	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/15/22 10:27	04/18/22 17:57	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/15/22 10:27	04/18/22 17:57	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/15/22 10:27	04/18/22 17:57	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		04/15/22 10:27	04/18/22 17:57	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/15/22 10:27	04/18/22 17:57	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		04/15/22 10:27	04/18/22 17:57	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/15/22 10:27	04/18/22 17:57	1
2,4-Dinitrotoluene	ND		9.7	1.9	ug/L		04/15/22 10:27	04/18/22 17:57	1
2,6-Dinitrotoluene	ND		9.7	1.9	ug/L		04/15/22 10:27	04/18/22 17:57	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		04/15/22 10:27	04/18/22 17:57	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/15/22 10:27	04/18/22 17:57	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/15/22 10:27	04/18/22 17:57	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		04/15/22 10:27	04/18/22 17:57	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/15/22 10:27	04/18/22 17:57	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/15/22 10:27	04/18/22 17:57	1
Indene	ND		9.7	0.97	ug/L		04/15/22 10:27	04/18/22 17:57	1
Isophorone	ND		9.7	0.14	ug/L		04/15/22 10:27	04/18/22 17:57	1
2-Methylphenol	ND		9.7	1.8	ug/L		04/15/22 10:27	04/18/22 17:57	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/15/22 10:27	04/18/22 17:57	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/15/22 10:27	04/18/22 17:57	1
3-Nitroaniline	ND		9.7	1.8	ug/L		04/15/22 10:27	04/18/22 17:57	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/15/22 10:27	04/18/22 17:57	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/15/22 10:27	04/18/22 17:57	1
2-Nitrophenol	ND		9.7	5.1	ug/L		04/15/22 10:27	04/18/22 17:57	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/15/22 10:27	04/18/22 17:57	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/15/22 10:27	04/18/22 17:57	1

Client Sample ID: MW12-ROX-041222
Date Collected: 04/12/22 13:15
Date Received: 04/13/22 09:26

Lab Sample ID: 400-218399-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/15/22 10:27	04/18/22 17:57	1
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L		04/15/22 10:27	04/18/22 17:57	1
Pentachlorophenol	ND		19	1.4	ug/L		04/15/22 10:27	04/18/22 17:57	1
Phenol	ND		9.7	2.5	ug/L		04/15/22 10:27	04/18/22 17:57	1
Pyridine	ND		9.7	3.1	ug/L		04/15/22 10:27	04/18/22 17:57	1
Quinoline	ND	UJ	9.7	4.4	ug/L		04/15/22 10:27	04/18/22 17:57	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/15/22 10:27	04/18/22 17:57	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/15/22 10:27	04/18/22 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*40*	*S1-*	*46 - 124*	*04/15/22 10:27*	*04/18/22 17:57*	*1*
2-Fluorophenol	*9*	*S1-*	*13 - 113*	*04/15/22 10:27*	*04/18/22 17:57*	*1*
Nitrobenzene-d5	*43*		*36 - 126*	*04/15/22 10:27*	*04/18/22 17:57*	*1*
Phenol-d5	*23*		*17 - 127*	*04/15/22 10:27*	*04/18/22 17:57*	*1*
Terphenyl-d14	*64*		*44 - 149*	*04/15/22 10:27*	*04/18/22 17:57*	*1*
2,4,6-Tribromophenol	*35*		*26 - 150*	*04/15/22 10:27*	*04/18/22 17:57*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.032	0.018	ug/L		04/20/22 11:56	04/20/22 21:33	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/20/22 11:56	04/20/22 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*123*		*51 - 149*	*04/20/22 11:56*	*04/20/22 21:33*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
*3	ISTD response or retention time outside acceptable limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218399-1	TB-ROX-041222-8260	104	99	96
400-218399-3	MW3-ROX-041222	107	100	96
400-218399-4	MW16-ROX-041222	106	108	104
400-218399-4 MS	MW16-ROX-041222	94	104	103
400-218399-4 MSD	MW16-ROX-041222	96	103	102
400-218399-5	ROST3MW-ROX-041222	109	97	98
400-218399-6	MW12-ROX-041222	105	101	96
LCS 400-574349/1002	Lab Control Sample	104	102	98
LCS 400-574702/1002	Lab Control Sample	94	107	105
MB 400-574349/4	Method Blank	108	100	97
MB 400-574702/9	Method Blank	103	104	106

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218399-3	MW3-ROX-041222	35 S1-	14	36	27	44	48
400-218399-4	MW16-ROX-041222	57	24	62	46	88	69
400-218399-4 MS	MW16-ROX-041222	47	21	49	37	46	60
400-218399-4 MSD	MW16-ROX-041222	63	24	64	47	66	79
400-218399-5	ROST3MW-ROX-041222	59	5 S1-	61	23	89	51
400-218399-6	MW12-ROX-041222	40 S1-	9 S1-	43	23	64	35
LCS 400-574007/2-A	Lab Control Sample	68	25	58	49	87	104
LCS 400-574007/3-A	Lab Control Sample	58	13	63	34	92	62
LCSD 400-574007/4-A	Lab Control Sample Dup	62	37	63	51	96 *3	73
MB 400-574007/1-A	Method Blank	57	13	60	39	90	75

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218399-3	MW3-ROX-041222	82	78	85
400-218399-4	MW16-ROX-041222	128 S1+	136 S1+	166 S1+
400-218399-4 MS	MW16-ROX-041222	43	56	47

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218399-4 MSD	MW16-ROX-041222	111	113	116
400-218399-5	ROST3MW-ROX-041222	128 S1+	122	170 S1+
400-218399-6	MW12-ROX-041222	88	86	109
LCS 400-574007/2-A	Lab Control Sample	103	120	110
MB 400-574007/1-A	Method Blank	125 S1+	134 S1+	177 S1+

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB2
Lab Sample ID	Client Sample ID	(51-149)
400-218399-2	TB-ROX-041222-8011	125
400-218399-3	MW3-ROX-041222	112
400-218399-5	ROST3MW-ROX-041222	115
400-218399-6	MW12-ROX-041222	123
LCS 400-573847/2-A	Lab Control Sample	118
LCS 400-574563/2-A	Lab Control Sample	122
LCSD 400-573847/3-A	Lab Control Sample Dup	125
LCSD 400-574563/3-A	Lab Control Sample Dup	134
MB 400-573847/1-A	Method Blank	113
MB 400-574563/1-A	Method Blank	119

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-218399-4	MW16-ROX-041222	111
400-218399-4 MS	MW16-ROX-041222	119
400-218399-4 MSD	MW16-ROX-041222	114
LCS 400-574592/2-A	Lab Control Sample	122
LCSD 400-574592/3-A	Lab Control Sample Dup	105
MB 400-574592/1-A	Method Blank	110

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Client Sample ID: TB-ROX-041222-8260

Lab Sample ID: 400-218399-1

Date Collected: 04/12/22 00:01
Matrix: Water
Date Received: 04/13/22 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 15:39	BPO	TAL PEN

Client Sample ID: TB-ROX-041222-8011

Lab Sample ID: 400-218399-2

Date Collected: 04/12/22 00:01
Matrix: Water
Date Received: 04/13/22 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			29.8 mL	35 mL	573847	04/14/22 10:01	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/20/22 11:53	DS	TAL PEN

Client Sample ID: MW3-ROX-041222

Lab Sample ID: 400-218399-3

Date Collected: 04/12/22 09:00
Matrix: Water
Date Received: 04/13/22 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 16:05	BPO	TAL PEN
Total/NA	Prep	3520C			259.8 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 17:15	S1B	TAL PEN
Total/NA	Prep	3520C			259.8 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574452	04/19/22 17:51	PP1	TAL PEN
Total/NA	Prep	8011			31 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/20/22 20:52	DS	TAL PEN

Client Sample ID: MW16-ROX-041222

Lab Sample ID: 400-218399-4

Date Collected: 04/12/22 09:40
Matrix: Water
Date Received: 04/13/22 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574702	04/21/22 13:28	SAB	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 16:55	S1B	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574283	04/19/22 00:07	PP1	TAL PEN
Total/NA	Prep	8011			34.7 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 13:30	DS	TAL PEN

Client Sample ID: ROST3MW-ROX-041222

Lab Sample ID: 400-218399-5

Date Collected: 04/12/22 10:50
Matrix: Water
Date Received: 04/13/22 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 16:57	BPO	TAL PEN
Total/NA	Prep	3520C			263 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 17:36	S1B	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Client Sample ID: ROST3MW-ROX-041222

Lab Sample ID: 400-218399-5

Date Collected: 04/12/22 10:50
Matrix: Water
Date Received: 04/13/22 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			263 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574452	04/19/22 18:06	PP1	TAL PEN
Total/NA	Prep	8011			33 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/20/22 21:12	DS	TAL PEN

Client Sample ID: MW12-ROX-041222

Lab Sample ID: 400-218399-6

Date Collected: 04/12/22 13:15
Matrix: Water
Date Received: 04/13/22 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 17:23	BPO	TAL PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 17:57	S1B	TAL PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574452	04/19/22 18:22	PP1	TAL PEN
Total/NA	Prep	8011			32.7 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/20/22 21:33	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-573847/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573847	04/14/22 10:01	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/20/22 03:45	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574007/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 14:50	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574283	04/18/22 23:05	PP1	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574349/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 10:44	BPO	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-574563/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/20/22 19:50	DS	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-574592/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 12:28	DS	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-574702/9
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574702	04/21/22 14:33	SAB	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-573847/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573847	04/14/22 10:01	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/20/22 04:05	DS	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574007/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 15:52	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			574542	04/20/22 15:03	KJA	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574007/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 15:10	S1B	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574349/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 09:39	BPO	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574563/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/20/22 20:11	DS	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574592/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 12:49	DS	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574702/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574702	04/21/22 11:52	SAB	TAL PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-573847/3-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	573847	04/14/22 10:01	RS	TAL PEN
Total/NA	Analysis	8011		1			574373	04/20/22 04:26	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-574007/4-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574262	04/18/22 15:31	S1B	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574563/3-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/20/22 20:31	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574592/3-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 13:09	DS	TAL PEN

Client Sample ID: MW16-ROX-041222

Lab Sample ID: 400-218399-4 MS

Date Collected: 04/12/22 09:40
Matrix: Water
Date Received: 04/13/22 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574702	04/21/22 13:52	SAB	TAL PEN
Total/NA	Prep	3520C			260.6 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 13:03	S1B	TAL PEN
Total/NA	Prep	3520C			260.6 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			574283	04/18/22 23:36	PP1	TAL PEN
Total/NA	Prep	8011			33.6 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 13:50	DS	TAL PEN

Client Sample ID: MW16-ROX-041222

Lab Sample ID: 400-218399-4 MSD

Date Collected: 04/12/22 09:40
Matrix: Water
Date Received: 04/13/22 09:26

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574702	04/21/22 14:13	SAB	TAL PEN
Total/NA	Prep	3520C			258.6 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 13:25	S1B	TAL PEN
Total/NA	Prep	3520C			258.6 mL	1 mL	574007	04/15/22 10:27	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			574283	04/18/22 23:52	PP1	TAL PEN
Total/NA	Prep	8011			35.3 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 14:11	DS	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218399-1

GC/MS VOA

Analysis Batch: 574349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-1	TB-ROX-041222-8260	Total/NA	Water	8260B	
400-218399-3	MW3-ROX-041222	Total/NA	Water	8260B	
400-218399-5	ROST3MW-ROX-041222	Total/NA	Water	8260B	
400-218399-6	MW12-ROX-041222	Total/NA	Water	8260B	
MB 400-574349/4	Method Blank	Total/NA	Water	8260B	
LCS 400-574349/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 574702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-4	MW16-ROX-041222	Total/NA	Water	8260B	
MB 400-574702/9	Method Blank	Total/NA	Water	8260B	
LCS 400-574702/1002	Lab Control Sample	Total/NA	Water	8260B	
400-218399-4 MS	MW16-ROX-041222	Total/NA	Water	8260B	
400-218399-4 MSD	MW16-ROX-041222	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 574007

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-3	MW3-ROX-041222	Total/NA	Water	3520C	
400-218399-4	MW16-ROX-041222	Total/NA	Water	3520C	
400-218399-5	ROST3MW-ROX-041222	Total/NA	Water	3520C	
400-218399-6	MW12-ROX-041222	Total/NA	Water	3520C	
MB 400-574007/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-574007/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-574007/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-574007/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-218399-4 MS	MW16-ROX-041222	Total/NA	Water	3520C	
400-218399-4 MSD	MW16-ROX-041222	Total/NA	Water	3520C	

Analysis Batch: 574262

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-3	MW3-ROX-041222	Total/NA	Water	8270D	574007
400-218399-4	MW16-ROX-041222	Total/NA	Water	8270D	574007
400-218399-5	ROST3MW-ROX-041222	Total/NA	Water	8270D	574007
400-218399-6	MW12-ROX-041222	Total/NA	Water	8270D	574007
MB 400-574007/1-A	Method Blank	Total/NA	Water	8270D	574007
LCS 400-574007/2-A	Lab Control Sample	Total/NA	Water	8270D	574007
LCS 400-574007/3-A	Lab Control Sample	Total/NA	Water	8270D	574007
LCSD 400-574007/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	574007

Analysis Batch: 574283

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-4	MW16-ROX-041222	Total/NA	Water	8270D LL	574007
MB 400-574007/1-A	Method Blank	Total/NA	Water	8270D LL	574007
400-218399-4 MS	MW16-ROX-041222	Total/NA	Water	8270D LL	574007
400-218399-4 MSD	MW16-ROX-041222	Total/NA	Water	8270D LL	574007

Analysis Batch: 574392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-4 MS	MW16-ROX-041222	Total/NA	Water	8270D	574007

GC/MS Semi VOA (Continued)

Analysis Batch: 574392 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-4 MSD	MW16-ROX-041222	Total/NA	Water	8270D	574007

Analysis Batch: 574452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-3	MW3-ROX-041222	Total/NA	Water	8270D LL	574007
400-218399-5	ROST3MW-ROX-041222	Total/NA	Water	8270D LL	574007
400-218399-6	MW12-ROX-041222	Total/NA	Water	8270D LL	574007

Analysis Batch: 574542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-574007/2-A	Lab Control Sample	Total/NA	Water	8270D LL	574007

GC Semi VOA

Prep Batch: 573847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-2	TB-ROX-041222-8011	Total/NA	Water	8011	
MB 400-573847/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-573847/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-573847/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 574373

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-2	TB-ROX-041222-8011	Total/NA	Water	8011	573847
MB 400-573847/1-A	Method Blank	Total/NA	Water	8011	573847
LCS 400-573847/2-A	Lab Control Sample	Total/NA	Water	8011	573847
LCSD 400-573847/3-A	Lab Control Sample Dup	Total/NA	Water	8011	573847

Prep Batch: 574563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-3	MW3-ROX-041222	Total/NA	Water	8011	
400-218399-5	ROST3MW-ROX-041222	Total/NA	Water	8011	
400-218399-6	MW12-ROX-041222	Total/NA	Water	8011	
MB 400-574563/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-574563/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-574563/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Prep Batch: 574592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-4	MW16-ROX-041222	Total/NA	Water	8011	
MB 400-574592/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-574592/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-574592/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-218399-4 MS	MW16-ROX-041222	Total/NA	Water	8011	
400-218399-4 MSD	MW16-ROX-041222	Total/NA	Water	8011	

Analysis Batch: 574654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-3	MW3-ROX-041222	Total/NA	Water	8011	574563
400-218399-5	ROST3MW-ROX-041222	Total/NA	Water	8011	574563
400-218399-6	MW12-ROX-041222	Total/NA	Water	8011	574563

GC Semi VOA (Continued)

Analysis Batch: 574654 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-574563/1-A	Method Blank	Total/NA	Water	8011	574563
LCS 400-574563/2-A	Lab Control Sample	Total/NA	Water	8011	574563
LCSD 400-574563/3-A	Lab Control Sample Dup	Total/NA	Water	8011	574563

Analysis Batch: 574723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218399-4	MW16-ROX-041222	Total/NA	Water	8011	574592
MB 400-574592/1-A	Method Blank	Total/NA	Water	8011	574592
LCS 400-574592/2-A	Lab Control Sample	Total/NA	Water	8011	574592
LCSD 400-574592/3-A	Lab Control Sample Dup	Total/NA	Water	8011	574592
400-218399-4 MS	MW16-ROX-041222	Total/NA	Water	8011	574592
400-218399-4 MSD	MW16-ROX-041222	Total/NA	Water	8011	574592

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574349/4
Matrix: Water
Analysis Batch: 574349

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/22 10:44	1
Acrolein	ND		20	3.3	ug/L			04/19/22 10:44	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/22 10:44	1
Benzene	ND		1.0	0.13	ug/L			04/19/22 10:44	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/22 10:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/22 10:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Bromoform	ND		5.0	0.25	ug/L			04/19/22 10:44	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/22 10:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/22 10:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/22 10:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/22 10:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/22 10:44	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/22 10:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/22 10:44	1
Chloroform	ND		1.0	1.0	ug/L			04/19/22 10:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/22 10:44	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/22 10:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/22 10:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/22 10:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/22 10:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/22 10:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/22 10:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/22 10:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/22 10:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 10:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/22 10:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/22 10:44	1
2-Hexanone	ND		25	1.4	ug/L			04/19/22 10:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/19/22 10:44	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/22 10:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/22 10:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/22 10:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/22 10:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/22 10:44	1
Naphthalene	ND		5.0	3.0	ug/L			04/19/22 10:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/22 10:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/22 10:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/22 10:44	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/22 10:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/22 10:44	1

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

Lab Sample ID: MB 400-574349/4
Matrix: Water
Analysis Batch: 574349

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/22 10:44	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/22 10:44	1
Styrene	ND		1.0	1.0	ug/L			04/19/22 10:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/22 10:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/22 10:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/22 10:44	1
Toluene	ND		1.0	0.41	ug/L			04/19/22 10:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 10:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/22 10:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/22 10:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/22 10:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/22 10:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/22 10:44	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/22 10:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/22 10:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/22 10:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/19/22 10:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/19/22 10:44	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/22 10:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/22 10:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*04/19/22 10:44*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/19/22 10:44*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/19/22 10:44*	*1*

Lab Sample ID: LCS 400-574349/1002
Matrix: Water
Analysis Batch: 574349

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	184		ug/L		92	43 - 160
Acrolein	500	462		ug/L		92	38 - 160
Acrylonitrile	500	481		ug/L		96	64 - 142
Benzene	50.0	45.2		ug/L		90	70 - 130
Bromobenzene	50.0	46.4		ug/L		93	70 - 132
Bromochloromethane	50.0	45.8		ug/L		92	70 - 130
Bromodichloromethane	50.0	42.4		ug/L		85	67 - 133
Bromoform	50.0	44.7		ug/L		89	57 - 140
Bromomethane	50.0	35.9		ug/L		72	10 - 160
2-Butanone (MEK)	200	177		ug/L		89	61 - 145
Carbon disulfide	50.0	47.9		ug/L		96	61 - 137
Carbon tetrachloride	50.0	39.0		ug/L		78	61 - 137
Chlorobenzene	50.0	45.5		ug/L		91	70 - 130
Dibromochloromethane	50.0	44.0		ug/L		88	67 - 135
Chloroethane	50.0	43.5		ug/L		87	55 - 141

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

Lab Sample ID: LCS 400-574349/1002
Matrix: Water
Analysis Batch: 574349

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	60.8		ug/L		122	10 - 160
Chloroform	50.0	42.3		ug/L		85	69 - 130
1-Chlorohexane	50.0	43.5		ug/L		87	69 - 130
Chloromethane	50.0	49.9		ug/L		100	58 - 137
cis-1,2-Dichloroethene	50.0	42.8		ug/L		86	68 - 130
cis-1,3-Dichloropropene	50.0	43.9		ug/L		88	69 - 132
1,2-Dichlorobenzene	50.0	44.3		ug/L		89	67 - 130
1,3-Dichlorobenzene	50.0	44.5		ug/L		89	70 - 130
1,4-Dichlorobenzene	50.0	45.3		ug/L		91	70 - 130
Dichlorodifluoromethane	50.0	32.7		ug/L		65	41 - 146
1,1-Dichloroethane	50.0	43.8		ug/L		88	70 - 130
1,2-Dichloroethane	50.0	37.2		ug/L		74	69 - 130
1,1-Dichloroethene	50.0	44.5		ug/L		89	63 - 134
1,2-Dichloropropane	50.0	43.1		ug/L		86	70 - 130
1,3-Dichloropropane	50.0	44.4		ug/L		89	70 - 130
2,2-Dichloropropane	50.0	32.2		ug/L		64	52 - 135
1,1-Dichloropropene	50.0	43.2		ug/L		86	70 - 130
Ethylbenzene	50.0	44.2		ug/L		88	70 - 130
Ethyl methacrylate	50.0	43.9		ug/L		88	68 - 130
Hexachlorobutadiene	50.0	53.7		ug/L		107	53 - 140
2-Hexanone	200	164		ug/L		82	65 - 137
Isopropylbenzene	50.0	44.6		ug/L		89	70 - 130
Methylene bromide	50.0	42.5		ug/L		85	70 - 130
Methylene Chloride	50.0	47.3		ug/L		95	66 - 135
4-Methyl-2-pentanone (MIBK)	200	162		ug/L		81	69 - 138
Methyl tert-butyl ether	50.0	39.8		ug/L		80	66 - 130
m-Xylene & p-Xylene	50.0	44.2		ug/L		88	70 - 130
Naphthalene	50.0	44.9		ug/L		90	47 - 149
n-Butylbenzene	50.0	43.9		ug/L		88	67 - 130
N-Propylbenzene	50.0	45.5		ug/L		91	70 - 130
o-Chlorotoluene	50.0	44.2		ug/L		88	70 - 130
o-Xylene	50.0	42.2		ug/L		84	70 - 130
p-Chlorotoluene	50.0	45.3		ug/L		91	70 - 130
p-Isopropyltoluene	50.0	44.1		ug/L		88	65 - 130
sec-Butylbenzene	50.0	45.2		ug/L		90	66 - 130
Styrene	50.0	44.2		ug/L		88	70 - 130
tert-Butylbenzene	50.0	41.2		ug/L		82	64 - 139
1,1,1,2-Tetrachloroethane	50.0	42.0		ug/L		84	67 - 131
1,1,2,2-Tetrachloroethane	50.0	45.0		ug/L		90	70 - 131
Tetrachloroethene	50.0	45.1		ug/L		90	65 - 130
Toluene	50.0	44.5		ug/L		89	70 - 130
trans-1,2-Dichloroethene	50.0	46.2		ug/L		92	70 - 130
trans-1,3-Dichloropropene	50.0	40.3		ug/L		81	63 - 130
1,2,3-Trichlorobenzene	50.0	48.2		ug/L		96	60 - 138
1,2,4-Trichlorobenzene	50.0	48.6		ug/L		97	60 - 140
1,1,1-Trichloroethane	50.0	38.7		ug/L		77	68 - 130
1,1,2-Trichloroethane	50.0	44.5		ug/L		89	70 - 130
Trichloroethene	50.0	46.6		ug/L		93	70 - 130
Trichlorofluoromethane	50.0	40.9		ug/L		82	65 - 138

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

Lab Sample ID: LCS 400-574349/1002
Matrix: Water
Analysis Batch: 574349

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	44.7		ug/L		89	70 - 130
1,2,4-Trimethylbenzene	50.0	44.0		ug/L		88	70 - 130
1,3,5-Trimethylbenzene	50.0	44.5		ug/L		89	69 - 130
Vinyl acetate	100	110		ug/L		110	26 - 160
Vinyl chloride	50.0	45.3		ug/L		91	59 - 136
Xylenes, Total	100	86.3		ug/L		86	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*72 - 119*
Dibromofluoromethane	*102*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: MB 400-574702/9
Matrix: Water
Analysis Batch: 574702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/21/22 14:33	1
Acrolein	ND		20	3.3	ug/L			04/21/22 14:33	1
Acrylonitrile	ND		10	2.8	ug/L			04/21/22 14:33	1
Benzene	ND		1.0	0.13	ug/L			04/21/22 14:33	1
Bromobenzene	ND		1.0	0.54	ug/L			04/21/22 14:33	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/21/22 14:33	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/21/22 14:33	1
Bromoform	ND		5.0	0.25	ug/L			04/21/22 14:33	1
Bromomethane	ND		1.0	0.98	ug/L			04/21/22 14:33	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/21/22 14:33	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/21/22 14:33	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/21/22 14:33	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/21/22 14:33	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/21/22 14:33	1
Chloroethane	ND		1.0	0.76	ug/L			04/21/22 14:33	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/21/22 14:33	1
Chloroform	ND		1.0	1.0	ug/L			04/21/22 14:33	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/21/22 14:33	1
Chloromethane	ND		1.0	0.32	ug/L			04/21/22 14:33	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/21/22 14:33	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/21/22 14:33	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/21/22 14:33	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/21/22 14:33	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/21/22 14:33	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/21/22 14:33	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/21/22 14:33	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/21/22 14:33	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/21/22 14:33	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/22 14:33	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/21/22 14:33	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/21/22 14:33	1

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

Lab Sample ID: MB 400-574702/9
Matrix: Water
Analysis Batch: 574702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/21/22 14:33	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/21/22 14:33	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/21/22 14:33	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/21/22 14:33	1
2-Hexanone	ND		25	1.4	ug/L			04/21/22 14:33	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/21/22 14:33	1
Methylene bromide	ND		5.0	0.22	ug/L			04/21/22 14:33	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/21/22 14:33	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/21/22 14:33	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/21/22 14:33	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/21/22 14:33	1
Naphthalene	ND		5.0	3.0	ug/L			04/21/22 14:33	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/21/22 14:33	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/21/22 14:33	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/21/22 14:33	1
o-Xylene	ND		5.0	0.60	ug/L			04/21/22 14:33	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/21/22 14:33	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/21/22 14:33	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/21/22 14:33	1
Styrene	ND		1.0	1.0	ug/L			04/21/22 14:33	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/21/22 14:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/21/22 14:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/21/22 14:33	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/21/22 14:33	1
Toluene	ND		1.0	0.41	ug/L			04/21/22 14:33	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/21/22 14:33	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/21/22 14:33	1
1,2,3-Trichlorobenzene	1.35		1.0	0.90	ug/L			04/21/22 14:33	1
1,2,4-Trichlorobenzene	0.881	J	1.0	0.82	ug/L			04/21/22 14:33	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/21/22 14:33	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/21/22 14:33	1
Trichloroethene	ND		1.0	0.15	ug/L			04/21/22 14:33	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/21/22 14:33	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/21/22 14:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/21/22 14:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/21/22 14:33	1
Vinyl acetate	ND		25	0.93	ug/L			04/21/22 14:33	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/21/22 14:33	1
Xylenes, Total	ND		10	1.6	ug/L			04/21/22 14:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 119*		*04/21/22 14:33*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*04/21/22 14:33*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*04/21/22 14:33*	*1*

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

Lab Sample ID: LCS 400-574702/1002
Matrix: Water
Analysis Batch: 574702

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	209		ug/L		105	43 - 160
Acrolein	500	558		ug/L		112	38 - 160
Acrylonitrile	500	540		ug/L		108	64 - 142
Benzene	50.0	50.7		ug/L		101	70 - 130
Bromobenzene	50.0	56.8		ug/L		114	70 - 132
Bromochloromethane	50.0	52.6		ug/L		105	70 - 130
Bromodichloromethane	50.0	50.8		ug/L		102	67 - 133
Bromoform	50.0	58.2		ug/L		116	57 - 140
Bromomethane	50.0	59.7		ug/L		119	10 - 160
2-Butanone (MEK)	200	211		ug/L		105	61 - 145
Carbon disulfide	50.0	49.0		ug/L		98	61 - 137
Carbon tetrachloride	50.0	52.4		ug/L		105	61 - 137
Chlorobenzene	50.0	56.0		ug/L		112	70 - 130
Dibromochloromethane	50.0	54.5		ug/L		109	67 - 135
Chloroethane	50.0	52.5		ug/L		105	55 - 141
2-Chloroethyl vinyl ether	50.0	105	*+	ug/L		210	10 - 160
Chloroform	50.0	49.6		ug/L		99	69 - 130
1-Chlorohexane	50.0	59.9		ug/L		120	69 - 130
Chloromethane	50.0	43.5		ug/L		87	58 - 137
cis-1,2-Dichloroethene	50.0	50.5		ug/L		101	68 - 130
cis-1,3-Dichloropropene	50.0	50.5		ug/L		101	69 - 132
1,2-Dichlorobenzene	50.0	61.3		ug/L		123	67 - 130
1,3-Dichlorobenzene	50.0	61.7		ug/L		123	70 - 130
1,4-Dichlorobenzene	50.0	59.7		ug/L		119	70 - 130
Dichlorodifluoromethane	50.0	42.5		ug/L		85	41 - 146
1,1-Dichloroethane	50.0	48.3		ug/L		97	70 - 130
1,2-Dichloroethane	50.0	52.7		ug/L		105	69 - 130
1,1-Dichloroethene	50.0	51.6		ug/L		103	63 - 134
1,2-Dichloropropane	50.0	51.1		ug/L		102	70 - 130
1,3-Dichloropropane	50.0	54.1		ug/L		108	70 - 130
2,2-Dichloropropane	50.0	52.1		ug/L		104	52 - 135
1,1-Dichloropropene	50.0	51.5		ug/L		103	70 - 130
Ethylbenzene	50.0	59.2		ug/L		118	70 - 130
Ethyl methacrylate	50.0	56.1		ug/L		112	68 - 130
Hexachlorobutadiene	50.0	63.2		ug/L		126	53 - 140
2-Hexanone	200	240		ug/L		120	65 - 137
Isopropylbenzene	50.0	59.8		ug/L		120	70 - 130
Methylene bromide	50.0	49.3		ug/L		99	70 - 130
Methylene Chloride	50.0	49.5		ug/L		99	66 - 135
4-Methyl-2-pentanone (MIBK)	200	208		ug/L		104	69 - 138
Methyl tert-butyl ether	50.0	51.9		ug/L		104	66 - 130
m-Xylene & p-Xylene	50.0	58.9		ug/L		118	70 - 130
Naphthalene	50.0	57.3		ug/L		115	47 - 149
n-Butylbenzene	50.0	62.0		ug/L		124	67 - 130
N-Propylbenzene	50.0	60.8		ug/L		122	70 - 130
o-Chlorotoluene	50.0	60.8		ug/L		122	70 - 130
o-Xylene	50.0	59.8		ug/L		120	70 - 130
p-Chlorotoluene	50.0	61.4		ug/L		123	70 - 130

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

Lab Sample ID: LCS 400-574702/1002
Matrix: Water
Analysis Batch: 574702

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
p-Isopropyltoluene	50.0	61.0		ug/L		122	65 - 130
sec-Butylbenzene	50.0	60.9		ug/L		122	66 - 130
Styrene	50.0	59.0		ug/L		118	70 - 130
tert-Butylbenzene	50.0	61.5		ug/L		123	64 - 139
1,1,1,2-Tetrachloroethane	50.0	55.8		ug/L		112	67 - 131
1,1,2,2-Tetrachloroethane	50.0	52.4		ug/L		105	70 - 131
Tetrachloroethene	50.0	57.5		ug/L		115	65 - 130
Toluene	50.0	53.2		ug/L		106	70 - 130
trans-1,2-Dichloroethene	50.0	50.2		ug/L		100	70 - 130
trans-1,3-Dichloropropene	50.0	53.6		ug/L		107	63 - 130
1,2,3-Trichlorobenzene	50.0	63.4		ug/L		127	60 - 138
1,2,4-Trichlorobenzene	50.0	66.0		ug/L		132	60 - 140
1,1,1-Trichloroethane	50.0	52.6		ug/L		105	68 - 130
1,1,2-Trichloroethane	50.0	53.0		ug/L		106	70 - 130
Trichloroethene	50.0	52.5		ug/L		105	70 - 130
Trichlorofluoromethane	50.0	55.4		ug/L		111	65 - 138
1,2,3-Trichloropropane	50.0	57.0		ug/L		114	70 - 130
1,2,4-Trimethylbenzene	50.0	62.7		ug/L		125	70 - 130
1,3,5-Trimethylbenzene	50.0	62.0		ug/L		124	69 - 130
Vinyl acetate	100	116		ug/L		116	26 - 160
Vinyl chloride	50.0	48.7		ug/L		97	59 - 136
Xylenes, Total	100	119		ug/L		119	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*94*		*72 - 119*
Dibromofluoromethane	*107*		*75 - 126*
Toluene-d8 (Surr)	*105*		*64 - 132*

Lab Sample ID: 400-218399-4 MS
Matrix: Water
Analysis Batch: 574702

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	203		ug/L		101	43 - 150
Acrolein	ND		500	579		ug/L		116	38 - 150
Acrylonitrile	ND		500	567		ug/L		113	62 - 149
Benzene	ND		50.0	51.4		ug/L		103	56 - 142
Bromobenzene	ND		50.0	57.4		ug/L		115	59 - 136
Bromochloromethane	ND		50.0	53.2		ug/L		106	64 - 140
Bromodichloromethane	ND		50.0	51.4		ug/L		103	59 - 143
Bromoform	ND		50.0	56.9		ug/L		114	50 - 140
Bromomethane	ND		50.0	46.1		ug/L		92	10 - 150
2-Butanone (MEK)	ND		200	215		ug/L		108	55 - 150
Carbon disulfide	ND		50.0	48.5		ug/L		97	48 - 150
Carbon tetrachloride	ND		50.0	51.9		ug/L		104	55 - 145
Chlorobenzene	ND		50.0	54.9		ug/L		110	64 - 130
Dibromochloromethane	ND		50.0	53.6		ug/L		107	56 - 143
Chloroethane	ND		50.0	37.0		ug/L		74	50 - 150

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

Lab Sample ID: 400-218399-4 MS
Matrix: Water
Analysis Batch: 574702

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	ND	F1 *+	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	50.6		ug/L		101	60 - 141
1-Chlorohexane	ND		50.0	58.6		ug/L		117	56 - 136
Chloromethane	ND	F1	50.0	22.0	F1	ug/L		44	49 - 148
cis-1,2-Dichloroethene	ND		50.0	50.2		ug/L		100	59 - 143
cis-1,3-Dichloropropene	ND		50.0	49.7		ug/L		99	57 - 140
1,2-Dichlorobenzene	ND		50.0	61.3		ug/L		123	52 - 137
1,3-Dichlorobenzene	ND		50.0	62.1		ug/L		124	54 - 135
1,4-Dichlorobenzene	ND		50.0	60.7		ug/L		121	53 - 135
Dichlorodifluoromethane	ND		50.0	7.81		ug/L		16	16 - 150
1,1-Dichloroethane	ND		50.0	49.3		ug/L		99	61 - 144
1,2-Dichloroethane	ND		50.0	53.7		ug/L		107	60 - 141
1,1-Dichloroethene	ND		50.0	50.7		ug/L		101	54 - 147
1,2-Dichloropropane	ND		50.0	50.9		ug/L		102	66 - 137
1,3-Dichloropropane	ND		50.0	54.7		ug/L		109	66 - 133
2,2-Dichloropropane	ND		50.0	50.1		ug/L		100	42 - 144
1,1-Dichloropropene	ND		50.0	49.9		ug/L		100	65 - 136
Ethylbenzene	ND		50.0	55.6		ug/L		111	58 - 131
Ethyl methacrylate	ND		50.0	55.7		ug/L		111	64 - 130
Hexachlorobutadiene	ND		50.0	61.6		ug/L		123	31 - 149
2-Hexanone	ND		200	238		ug/L		119	65 - 140
Isopropylbenzene	ND		50.0	55.9		ug/L		112	56 - 133
Methylene bromide	ND		50.0	51.9		ug/L		104	63 - 138
Methylene Chloride	ND		50.0	50.9		ug/L		102	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	220		ug/L		110	63 - 146
Methyl tert-butyl ether	ND		50.0	51.2		ug/L		102	59 - 137
m-Xylene & p-Xylene	ND		50.0	55.0		ug/L		110	57 - 130
Naphthalene	ND		50.0	57.0		ug/L		114	25 - 150
n-Butylbenzene	ND		50.0	61.0		ug/L		122	41 - 142
N-Propylbenzene	ND		50.0	60.7		ug/L		121	51 - 138
o-Chlorotoluene	ND		50.0	60.4		ug/L		121	53 - 134
o-Xylene	ND		50.0	56.9		ug/L		114	61 - 130
p-Chlorotoluene	ND		50.0	59.9		ug/L		120	54 - 133
p-Isopropyltoluene	ND		50.0	59.6		ug/L		119	48 - 139
sec-Butylbenzene	ND		50.0	59.9		ug/L		120	50 - 138
Styrene	ND		50.0	56.8		ug/L		114	58 - 131
tert-Butylbenzene	ND		50.0	61.3		ug/L		123	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	56.1		ug/L		112	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	56.6		ug/L		113	66 - 135
Tetrachloroethene	ND		50.0	54.1		ug/L		108	52 - 133
Toluene	ND		50.0	52.9		ug/L		106	65 - 130
trans-1,2-Dichloroethene	ND		50.0	50.9		ug/L		102	61 - 143
trans-1,3-Dichloropropene	ND		50.0	53.5		ug/L		107	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	62.1		ug/L		124	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	64.8		ug/L		130	39 - 148
1,1,1-Trichloroethane	ND		50.0	51.7		ug/L		103	57 - 142
1,1,2-Trichloroethane	ND		50.0	54.1		ug/L		108	66 - 131
Trichloroethene	ND		50.0	51.4		ug/L		103	64 - 136
Trichlorofluoromethane	ND		50.0	40.7		ug/L		81	54 - 150

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

Lab Sample ID: 400-218399-4 MS
Matrix: Water
Analysis Batch: 574702

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	ND		50.0	58.4		ug/L		117	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	62.6		ug/L		125	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	60.5		ug/L		121	52 - 135
Vinyl acetate	ND		100	97.6		ug/L		98	26 - 150
Vinyl chloride	ND		50.0	26.4		ug/L		53	46 - 150
Xylenes, Total	ND		100	112		ug/L		112	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*94*		*72 - 119*
Dibromofluoromethane	*104*		*75 - 126*
Toluene-d8 (Surr)	*103*		*64 - 132*

Lab Sample ID: 400-218399-4 MSD
Matrix: Water
Analysis Batch: 574702

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	ND		200	223		ug/L		112	43 - 150	10	30
Acrolein	ND		500	627		ug/L		125	38 - 150	8	31
Acrylonitrile	ND		500	607		ug/L		121	62 - 149	7	30
Benzene	ND		50.0	50.1		ug/L		100	56 - 142	3	30
Bromobenzene	ND		50.0	58.8		ug/L		118	59 - 136	2	30
Bromochloromethane	ND		50.0	52.6		ug/L		105	64 - 140	1	30
Bromodichloromethane	ND		50.0	50.8		ug/L		102	59 - 143	1	30
Bromoform	ND		50.0	59.9		ug/L		120	50 - 140	5	30
Bromomethane	ND		50.0	44.6		ug/L		89	10 - 150	3	50
2-Butanone (MEK)	ND		200	243		ug/L		122	55 - 150	12	30
Carbon disulfide	ND		50.0	47.2		ug/L		94	48 - 150	3	30
Carbon tetrachloride	ND		50.0	52.3		ug/L		105	55 - 145	1	30
Chlorobenzene	ND		50.0	55.3		ug/L		111	64 - 130	1	30
Dibromochloromethane	ND		50.0	56.1		ug/L		112	56 - 143	4	30
Chloroethane	ND		50.0	36.9		ug/L		74	50 - 150	0	30
2-Chloroethyl vinyl ether	ND	F1 *+	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	49.8		ug/L		100	60 - 141	2	30
1-Chlorohexane	ND		50.0	57.9		ug/L		116	56 - 136	1	30
Chloromethane	ND	F1	50.0	21.9	F1	ug/L		44	49 - 148	0	31
cis-1,2-Dichloroethene	ND		50.0	50.6		ug/L		101	59 - 143	1	30
cis-1,3-Dichloropropene	ND		50.0	50.4		ug/L		101	57 - 140	1	30
1,2-Dichlorobenzene	ND		50.0	61.8		ug/L		124	52 - 137	1	30
1,3-Dichlorobenzene	ND		50.0	61.9		ug/L		124	54 - 135	0	30
1,4-Dichlorobenzene	ND		50.0	59.2		ug/L		118	53 - 135	3	30
Dichlorodifluoromethane	ND		50.0	7.79		ug/L		16	16 - 150	0	31
1,1-Dichloroethane	ND		50.0	47.7		ug/L		95	61 - 144	3	30
1,2-Dichloroethane	ND		50.0	53.0		ug/L		106	60 - 141	1	30
1,1-Dichloroethene	ND		50.0	51.0		ug/L		102	54 - 147	0	30
1,2-Dichloropropane	ND		50.0	50.1		ug/L		100	66 - 137	1	30
1,3-Dichloropropane	ND		50.0	55.8		ug/L		112	66 - 133	2	30
2,2-Dichloropropane	ND		50.0	50.3		ug/L		101	42 - 144	0	31

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

Lab Sample ID: 400-218399-4 MSD
Matrix: Water
Analysis Batch: 574702

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloropropene	ND		50.0	50.0		ug/L		100	65 - 136	0	30
Ethylbenzene	ND		50.0	56.5		ug/L		113	58 - 131	2	30
Ethyl methacrylate	ND		50.0	60.0		ug/L		120	64 - 130	8	30
Hexachlorobutadiene	ND		50.0	61.4		ug/L		123	31 - 149	0	36
2-Hexanone	ND		200	274		ug/L		137	65 - 140	14	30
Isopropylbenzene	ND		50.0	56.9		ug/L		114	56 - 133	2	30
Methylene bromide	ND		50.0	50.7		ug/L		101	63 - 138	2	30
Methylene Chloride	ND		50.0	48.5		ug/L		97	60 - 146	5	32
4-Methyl-2-pentanone (MIBK)	ND		200	242		ug/L		121	63 - 146	9	30
Methyl tert-butyl ether	ND		50.0	53.1		ug/L		106	59 - 137	4	30
m-Xylene & p-Xylene	ND		50.0	55.6		ug/L		111	57 - 130	1	30
Naphthalene	ND		50.0	60.0		ug/L		120	25 - 150	5	30
n-Butylbenzene	ND		50.0	60.9		ug/L		122	41 - 142	0	31
N-Propylbenzene	ND		50.0	60.9		ug/L		122	51 - 138	0	30
o-Chlorotoluene	ND		50.0	61.7		ug/L		123	53 - 134	2	30
o-Xylene	ND		50.0	57.1		ug/L		114	61 - 130	0	30
p-Chlorotoluene	ND		50.0	61.8		ug/L		124	54 - 133	3	30
p-Isopropyltoluene	ND		50.0	58.8		ug/L		118	48 - 139	1	30
sec-Butylbenzene	ND		50.0	60.3		ug/L		121	50 - 138	1	30
Styrene	ND		50.0	57.5		ug/L		115	58 - 131	1	30
tert-Butylbenzene	ND		50.0	61.6		ug/L		123	54 - 146	1	30
1,1,1,2-Tetrachloroethane	ND		50.0	55.7		ug/L		111	59 - 137	1	30
1,1,2,2-Tetrachloroethane	ND		50.0	58.3		ug/L		117	66 - 135	3	30
Tetrachloroethene	ND		50.0	56.1		ug/L		112	52 - 133	4	30
Toluene	ND		50.0	53.5		ug/L		107	65 - 130	1	30
trans-1,2-Dichloroethene	ND		50.0	48.9		ug/L		98	61 - 143	4	30
trans-1,3-Dichloropropene	ND		50.0	54.8		ug/L		110	53 - 133	2	30
1,2,3-Trichlorobenzene	ND		50.0	63.2		ug/L		126	43 - 145	2	30
1,2,4-Trichlorobenzene	ND		50.0	64.2		ug/L		128	39 - 148	1	30
1,1,1-Trichloroethane	ND		50.0	51.6		ug/L		103	57 - 142	0	30
1,1,2-Trichloroethane	ND		50.0	57.0		ug/L		114	66 - 131	5	30
Trichloroethene	ND		50.0	52.3		ug/L		105	64 - 136	2	30
Trichlorofluoromethane	ND		50.0	41.4		ug/L		83	54 - 150	2	30
1,2,3-Trichloropropane	ND		50.0	64.7		ug/L		129	65 - 133	10	30
1,2,4-Trimethylbenzene	ND		50.0	62.8		ug/L		126	50 - 139	0	30
1,3,5-Trimethylbenzene	ND		50.0	62.3		ug/L		125	52 - 135	3	30
Vinyl acetate	ND		100	107		ug/L		107	26 - 150	10	33
Vinyl chloride	ND		50.0	27.3		ug/L		55	46 - 150	4	30
Xylenes, Total	ND		100	113		ug/L		113	59 - 130	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 119*
Dibromofluoromethane	*103*		*75 - 126*
Toluene-d8 (Surr)	*102*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574007/1-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/15/22 10:27	04/18/22 14:50	1
Benzenethiol	ND		10	1.7	ug/L		04/15/22 10:27	04/18/22 14:50	1
Benzoic acid	ND		30	7.3	ug/L		04/15/22 10:27	04/18/22 14:50	1
Benzyl alcohol	ND		10	2.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/15/22 10:27	04/18/22 14:50	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/15/22 10:27	04/18/22 14:50	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/15/22 10:27	04/18/22 14:50	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/15/22 10:27	04/18/22 14:50	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Chloroaniline	ND		10	3.4	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/15/22 10:27	04/18/22 14:50	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/15/22 10:27	04/18/22 14:50	1
2-Chlorophenol	ND		10	2.2	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Dibenzofuran	ND		10	0.17	ug/L		04/15/22 10:27	04/18/22 14:50	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Diethyl phthalate	ND		10	0.24	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/15/22 10:27	04/18/22 14:50	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/15/22 10:27	04/18/22 14:50	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/15/22 10:27	04/18/22 14:50	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/15/22 10:27	04/18/22 14:50	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/15/22 10:27	04/18/22 14:50	1
1,4-Dioxane	ND		10	1.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/15/22 10:27	04/18/22 14:50	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/15/22 10:27	04/18/22 14:50	1
Hexachloroethane	ND		10	4.2	ug/L		04/15/22 10:27	04/18/22 14:50	1
Indene	ND		10	1.0	ug/L		04/15/22 10:27	04/18/22 14:50	1
Isophorone	ND		10	0.14	ug/L		04/15/22 10:27	04/18/22 14:50	1
2-Methylphenol	ND		10	1.8	ug/L		04/15/22 10:27	04/18/22 14:50	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/15/22 10:27	04/18/22 14:50	1
2-Nitroaniline	ND		10	2.2	ug/L		04/15/22 10:27	04/18/22 14:50	1
3-Nitroaniline	ND		10	1.8	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Nitroaniline	ND		10	1.5	ug/L		04/15/22 10:27	04/18/22 14:50	1
Nitrobenzene	ND		10	0.13	ug/L		04/15/22 10:27	04/18/22 14:50	1
2-Nitrophenol	ND		10	5.2	ug/L		04/15/22 10:27	04/18/22 14:50	1
4-Nitrophenol	ND		10	2.1	ug/L		04/15/22 10:27	04/18/22 14:50	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/15/22 10:27	04/18/22 14:50	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/15/22 10:27	04/18/22 14:50	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/15/22 10:27	04/18/22 14:50	1
Pentachlorophenol	ND		20	1.4	ug/L		04/15/22 10:27	04/18/22 14:50	1
Phenol	ND		10	2.6	ug/L		04/15/22 10:27	04/18/22 14:50	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574007/1-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		04/15/22 10:27	04/18/22 14:50	1
Quinoline	ND		10	4.5	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/15/22 10:27	04/18/22 14:50	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/15/22 10:27	04/18/22 14:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*57*		*46 - 124*	*04/15/22 10:27*	*04/18/22 14:50*	*1*
2-Fluorophenol	*13*		*13 - 113*	*04/15/22 10:27*	*04/18/22 14:50*	*1*
Nitrobenzene-d5	*60*		*36 - 126*	*04/15/22 10:27*	*04/18/22 14:50*	*1*
Phenol-d5	*39*		*17 - 127*	*04/15/22 10:27*	*04/18/22 14:50*	*1*
Terphenyl-d14	*90*		*44 - 149*	*04/15/22 10:27*	*04/18/22 14:50*	*1*
2,4,6-Tribromophenol	*75*		*26 - 150*	*04/15/22 10:27*	*04/18/22 14:50*	*1*

Lab Sample ID: LCS 400-574007/2-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	69.0		ug/L		58	21 - 120
Benzoic acid	498	201		ug/L		40	10 - 144
Benzyl alcohol	120	60.7		ug/L		51	28 - 120
Bis(2-chloroethoxy)methane	120	65.1		ug/L		54	47 - 120
Bis(2-chloroethyl)ether	120	71.6		ug/L		60	44 - 120
bis (2-chloroisopropyl) ether	120	89.7		ug/L		75	33 - 121
Bis(2-ethylhexyl) phthalate	120	86.3		ug/L		72	52 - 147
4-Bromophenyl phenyl ether	120	115		ug/L		96	54 - 122
Butyl benzyl phthalate	120	86.1		ug/L		72	54 - 133
4-Chloroaniline	120	73.9		ug/L		62	26 - 120
4-Chloro-3-methylphenol	120	81.2		ug/L		68	48 - 131
2-Chloronaphthalene	120	90.0		ug/L		75	52 - 121
2-Chlorophenol	120	61.2		ug/L		51	40 - 120
4-Chlorophenyl phenyl ether	120	98.3		ug/L		82	56 - 125
Dibenz[a,h]acridine	120	111		ug/L		93	31 - 150
Dibenzofuran	120	93.7		ug/L		78	56 - 122
3,3'-Dichlorobenzidine	160	166		ug/L		103	36 - 132
2,4-Dichlorophenol	120	69.2		ug/L		58	49 - 120
Diethyl phthalate	120	108		ug/L		90	50 - 137
2,4-Dimethylphenol	120	81.4		ug/L		68	48 - 120
Dimethyl phthalate	120	95.7		ug/L		80	57 - 124
Di-n-butyl phthalate	120	109		ug/L		91	58 - 126
4,6-Dinitro-ortho-cresol	240	184		ug/L		77	23 - 148
2,4-Dinitrophenol	240	165		ug/L		69	10 - 150
2,4-Dinitrotoluene	120	94.5		ug/L		79	54 - 142
2,6-Dinitrotoluene	120	87.9		ug/L		73	55 - 130
Di-n-octyl phthalate	120	90.6		ug/L		76	57 - 138
1,4-Dioxane	120	51.0		ug/L		43	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	85.8		ug/L		71	45 - 124
Hexachlorobenzene	120	142		ug/L		118	52 - 129

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574007/2-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	120	58.1		ug/L		48	10 - 134
Hexachloroethane	120	83.5		ug/L		70	20 - 120
Indene	120	88.1		ug/L		73	49 - 120
Isophorone	120	68.5		ug/L		57	48 - 120
2-Methylphenol	120	80.6		ug/L		67	46 - 124
3 & 4 Methylphenol	120	81.1		ug/L		68	45 - 120
2-Nitroaniline	120	91.6		ug/L		76	51 - 145
3-Nitroaniline	120	75.1		ug/L		63	37 - 127
4-Nitroaniline	120	123		ug/L		102	36 - 137
Nitrobenzene	120	70.0		ug/L		58	45 - 120
2-Nitrophenol	120	60.2		ug/L		50	40 - 124
4-Nitrophenol	240	228		ug/L		95	23 - 146
N-Nitrosodimethylamine	120	103		ug/L		86	29 - 137
N-Nitrosodi-n-propylamine	120	93.2		ug/L		78	45 - 120
N-Nitrosodiphenylamine	119	90.0		ug/L		76	54 - 120
Pentachlorophenol	240	196		ug/L		82	31 - 130
Phenol	120	66.5		ug/L		55	11 - 120
Pyridine	240	99.5		ug/L		41	16 - 120
Quinoline	120	88.6		ug/L		74	49 - 130
2,4,5-Trichlorophenol	120	89.8		ug/L		75	51 - 136
2,4,6-Trichlorophenol	120	86.4		ug/L		72	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*68*		*46 - 124*
2-Fluorophenol	*25*		*13 - 113*
Nitrobenzene-d5	*58*		*36 - 126*
Phenol-d5	*49*		*17 - 127*
Terphenyl-d14	*87*		*44 - 149*
2,4,6-Tribromophenol	*104*		*26 - 150*

Lab Sample ID: LCS 400-574007/3-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	4.77	J *-	ug/L		4	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*58*		*46 - 124*
2-Fluorophenol	*13*		*13 - 113*
Nitrobenzene-d5	*63*		*36 - 126*
Phenol-d5	*34*		*17 - 127*
Terphenyl-d14	*92*		*44 - 149*
2,4,6-Tribromophenol	*62*		*26 - 150*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574007/4-A
Matrix: Water
Analysis Batch: 574262

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	7.99	J *- *1	ug/L		7	10 - 120	50	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*62*		*46 - 124*
2-Fluorophenol	*37*		*13 - 113*
Nitrobenzene-d5	*63*		*36 - 126*
Phenol-d5	*51*		*17 - 127*
Terphenyl-d14	*96*	**3*	*44 - 149*
2,4,6-Tribromophenol	*73*		*26 - 150*

Lab Sample ID: 400-218399-4 MS
Matrix: Water
Analysis Batch: 574392

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND	F2	115	44.1		ug/L		38	10 - 120
Benzoic acid	ND	F2	477	163		ug/L		34	10 - 149
Benzyl alcohol	ND	F1 F2	115	52.8		ug/L		46	33 - 120
Bis(2-chloroethoxy)methane	ND		115	53.3		ug/L		46	26 - 120
Bis(2-chloroethyl)ether	ND	F1 F2	115	58.8		ug/L		51	42 - 120
bis (2-chloroisopropyl) ether	ND	F2	115	54.8		ug/L		48	28 - 120
Bis(2-ethylhexyl) phthalate	ND	F1 F2	115	56.1		ug/L		49	39 - 120
4-Bromophenyl phenyl ether	ND	F1 F2	115	57.7		ug/L		50	40 - 120
Butyl benzyl phthalate	ND	F1 F2	115	56.6		ug/L		49	45 - 120
4-Chloroaniline	ND	F2	115	46.6		ug/L		41	10 - 120
4-Chloro-3-methylphenol	ND	F1 F2	115	56.8		ug/L		49	34 - 120
2-Chloronaphthalene	ND	F1 F2	115	57.4		ug/L		50	39 - 120
2-Chlorophenol	ND	F2	115	41.5		ug/L		36	25 - 120
4-Chlorophenyl phenyl ether	ND	F1 F2	115	58.8		ug/L		51	44 - 120
Dibenz[a,h]acridine	ND	F1 F2	115	79.9		ug/L		70	50 - 150
Dibenzofuran	ND	F2	115	58.8		ug/L		51	25 - 130
3,3'-Dichlorobenzidine	ND	F2	153	111		ug/L		72	10 - 120
2,4-Dichlorophenol	ND	F1 F2	115	50.3		ug/L		44	31 - 120
Diethyl phthalate	ND	F1 F2	115	64.6		ug/L		56	46 - 120
2,4-Dimethylphenol	ND	F2	115	55.6		ug/L		48	21 - 120
Dimethyl phthalate	ND	F1 F2	115	60.5		ug/L		53	38 - 120
Di-n-butyl phthalate	ND	F1 F2	115	69.0		ug/L		60	49 - 120
4,6-Dinitro-ortho-cresol	ND	F1 F2	230	175		ug/L		76	25 - 120
2,4-Dinitrophenol	ND	F2	230	194		ug/L		84	15 - 140
2,4-Dinitrotoluene	ND	F1 F2	115	63.3		ug/L		55	53 - 120
2,6-Dinitrotoluene	ND	F1 F2	115	58.7		ug/L		51	43 - 120
Di-n-octyl phthalate	ND	F2	115	60.1		ug/L		52	35 - 121
1,4-Dioxane	ND	F1 F2	115	47.0	F1	ug/L		41	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND	F1 F2	115	55.3	F1	ug/L		48	50 - 150
Hexachlorobenzene	ND	F2	115	65.1		ug/L		57	38 - 122
Hexachlorocyclopentadiene	ND	F2	115	39.8		ug/L		35	10 - 120
Hexachloroethane	ND	F2	115	53.7		ug/L		47	10 - 150

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-218399-4 MS
Matrix: Water
Analysis Batch: 574392

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Indene	ND	F1 F2	115	54.1	F1	ug/L		47	50 - 150
Isophorone	ND	F1 F2	115	55.3		ug/L		48	42 - 120
2-Methylphenol	ND	F2	115	55.6		ug/L		48	28 - 120
3 & 4 Methylphenol	ND	F1 F2	115	54.3		ug/L		47	31 - 120
2-Nitroaniline	ND	F1 F2	115	48.6	F1	ug/L		42	45 - 120
3-Nitroaniline	ND	F2	115	50.2		ug/L		44	10 - 130
4-Nitroaniline	ND	F2	115	68.7		ug/L		60	10 - 132
Nitrobenzene	ND	F1 F2	115	58.3		ug/L		51	39 - 120
2-Nitrophenol	ND	F1 F2	115	53.8		ug/L		47	33 - 120
4-Nitrophenol	ND	F2	230	130		ug/L		56	10 - 120
N-Nitrosodimethylamine	ND	F2	115	40.1		ug/L		35	10 - 139
N-Nitrosodi-n-propylamine	ND	F1 F2	115	59.2		ug/L		51	37 - 124
N-Nitrosodiphenylamine	ND	F2	114	54.6		ug/L		48	10 - 150
Pentachlorophenol	ND	F1 F2	230	129		ug/L		56	29 - 130
Phenol	ND	F2	115	40.3		ug/L		35	10 - 150
Pyridine	ND	F2	230	80.5		ug/L		35	10 - 120
Quinoline	ND	F1 F2	115	64.8		ug/L		56	51 - 120
2,4,5-Trichlorophenol	ND	F1 F2	115	53.8		ug/L		47	34 - 120
2,4,6-Trichlorophenol	ND	F1 F2	115	51.3		ug/L		45	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*47*		*45 - 124*
2-Fluorophenol	*21*		*13 - 113*
Nitrobenzene-d5	*49*		*36 - 126*
Phenol-d5	*37*		*17 - 127*
Terphenyl-d14	*46*		*44 - 149*
2,4,6-Tribromophenol	*60*		*26 - 150*

Lab Sample ID: 400-218399-4 MSD
Matrix: Water
Analysis Batch: 574392

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND	F2	116	54.5		ug/L		47	10 - 120	21	63
Benzoic acid	ND	F2	481	210		ug/L		44	10 - 149	25	49
Benzyl alcohol	ND	F1 F2	116	71.3		ug/L		61	33 - 120	30	37
Bis(2-chloroethoxy)methane	ND		116	70.2		ug/L		61	26 - 120	27	70
Bis(2-chloroethyl)ether	ND	F1 F2	116	79.2		ug/L		68	42 - 120	30	42
bis (2-chloroisopropyl) ether	ND	F2	116	71.7		ug/L		62	28 - 120	27	41
Bis(2-ethylhexyl) phthalate	ND	F1 F2	116	81.2	F2	ug/L		70	39 - 120	36	35
4-Bromophenyl phenyl ether	ND	F1 F2	116	80.7	F2	ug/L		70	40 - 120	33	30
Butyl benzyl phthalate	ND	F1 F2	116	81.0	F2	ug/L		70	45 - 120	35	32
4-Chloroaniline	ND	F2	116	56.4		ug/L		49	10 - 120	19	94
4-Chloro-3-methylphenol	ND	F1 F2	116	74.3		ug/L		64	34 - 120	27	40
2-Chloronaphthalene	ND	F1 F2	116	77.8	F2	ug/L		67	39 - 120	30	29
2-Chlorophenol	ND	F2	116	50.3		ug/L		43	25 - 120	19	42
4-Chlorophenyl phenyl ether	ND	F1 F2	116	80.7	F2	ug/L		70	44 - 120	31	27
Dibenz[a,h]acridine	ND	F1 F2	116	104		ug/L		90	50 - 150	26	40

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-218399-4 MSD
Matrix: Water
Analysis Batch: 574392

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenzofuran	ND	F2	116	79.9	F2	ug/L		69	25 - 130	30	29
3,3'-Dichlorobenzidine	ND	F2	155	146		ug/L		94	10 - 120	27	58
2,4-Dichlorophenol	ND	F1 F2	116	63.9		ug/L		55	31 - 120	24	43
Diethyl phthalate	ND	F1 F2	116	86.9		ug/L		75	46 - 120	29	40
2,4-Dimethylphenol	ND	F2	116	73.3		ug/L		63	21 - 120	27	47
Dimethyl phthalate	ND	F1 F2	116	82.1		ug/L		71	38 - 120	30	36
Di-n-butyl phthalate	ND	F1 F2	116	95.0		ug/L		82	49 - 120	32	32
4,6-Dinitro-ortho-cresol	ND	F1 F2	232	226		ug/L		97	25 - 120	26	42
2,4-Dinitrophenol	ND	F2	232	236		ug/L		102	15 - 140	20	36
2,4-Dinitrotoluene	ND	F1 F2	116	85.8	F2	ug/L		74	53 - 120	30	28
2,6-Dinitrotoluene	ND	F1 F2	116	78.4	F2	ug/L		68	43 - 120	29	28
Di-n-octyl phthalate	ND	F2	116	84.2		ug/L		73	35 - 121	33	35
1,4-Dioxane	ND	F1 F2	116	57.8		ug/L		50	50 - 150	21	40
1,2-Diphenylhydrazine (as Azobenzene)	ND	F1 F2	116	74.1		ug/L		64	50 - 150	29	40
Hexachlorobenzene	ND	F2	116	88.9		ug/L		77	38 - 122	31	33
Hexachlorocyclopentadiene	ND	F2	116	56.1		ug/L		48	10 - 120	34	50
Hexachloroethane	ND	F2	116	70.2		ug/L		61	10 - 150	27	41
Indene	ND	F1 F2	116	71.5		ug/L		62	50 - 150	28	40
Isophorone	ND	F1 F2	116	72.9		ug/L		63	42 - 120	27	33
2-Methylphenol	ND	F2	116	73.4		ug/L		63	28 - 120	28	47
3 & 4 Methylphenol	ND	F1 F2	116	70.0		ug/L		60	31 - 120	25	47
2-Nitroaniline	ND	F1 F2	116	64.3		ug/L		55	45 - 120	28	33
3-Nitroaniline	ND	F2	116	65.8		ug/L		57	10 - 130	27	39
4-Nitroaniline	ND	F2	116	87.5		ug/L		75	10 - 132	24	50
Nitrobenzene	ND	F1 F2	116	76.0		ug/L		66	39 - 120	26	35
2-Nitrophenol	ND	F1 F2	116	66.0		ug/L		57	33 - 120	20	43
4-Nitrophenol	ND	F2	232	169		ug/L		73	10 - 120	26	82
N-Nitrosodimethylamine	ND	F2	116	81.5	F2	ug/L		70	10 - 139	68	62
N-Nitrosodi-n-propylamine	ND	F1 F2	116	78.3		ug/L		67	37 - 124	28	36
N-Nitrosodiphenylamine	ND	F2	115	74.6		ug/L		65	10 - 150	31	34
Pentachlorophenol	ND	F1 F2	232	175		ug/L		76	29 - 130	30	42
Phenol	ND	F2	116	51.4		ug/L		44	10 - 150	24	52
Pyridine	ND	F2	232	105		ug/L		45	10 - 120	26	55
Quinoline	ND	F1 F2	116	85.8		ug/L		74	51 - 120	28	40
2,4,5-Trichlorophenol	ND	F1 F2	116	72.2		ug/L		62	34 - 120	29	42
2,4,6-Trichlorophenol	ND	F1 F2	116	68.3		ug/L		59	33 - 120	28	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*63*		*46 - 124*
2-Fluorophenol	*24*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*47*		*17 - 127*
Terphenyl-d14	*66*		*44 - 149*
2,4,6-Tribromophenol	*79*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-574007/1-A
Matrix: Water
Analysis Batch: 574283

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574007

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/15/22 10:27	04/18/22 23:05	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/15/22 10:27	04/18/22 23:05	1
Anthracene	ND		0.20	0.032	ug/L		04/15/22 10:27	04/18/22 23:05	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/15/22 10:27	04/18/22 23:05	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/15/22 10:27	04/18/22 23:05	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/15/22 10:27	04/18/22 23:05	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/15/22 10:27	04/18/22 23:05	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/15/22 10:27	04/18/22 23:05	1
Chrysene	ND		0.20	0.074	ug/L		04/15/22 10:27	04/18/22 23:05	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/15/22 10:27	04/18/22 23:05	1
Fluoranthene	ND		0.20	0.068	ug/L		04/15/22 10:27	04/18/22 23:05	1
Fluorene	ND		0.20	0.11	ug/L		04/15/22 10:27	04/18/22 23:05	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/15/22 10:27	04/18/22 23:05	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/15/22 10:27	04/18/22 23:05	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/15/22 10:27	04/18/22 23:05	1
Phenanthrene	ND		0.20	0.036	ug/L		04/15/22 10:27	04/18/22 23:05	1
Pyrene	ND		0.20	0.040	ug/L		04/15/22 10:27	04/18/22 23:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*125*	*S1+*	*15 - 122*	*04/15/22 10:27*	*04/18/22 23:05*	*1*
Nitrobenzene-d5	*134*	*S1+*	*19 - 130*	*04/15/22 10:27*	*04/18/22 23:05*	*1*
Terphenyl-d14	*177*	*S1+*	*33 - 138*	*04/15/22 10:27*	*04/18/22 23:05*	*1*

Lab Sample ID: LCS 400-574007/2-A
Matrix: Water
Analysis Batch: 574542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	142		ug/L		119	41 - 120
Acenaphthylene	120	135		ug/L		113	44 - 120
Anthracene	120	145	*+	ug/L		121	49 - 120
Benzo[a]anthracene	120	132		ug/L		110	61 - 135
Benzo[a]pyrene	120	133		ug/L		111	52 - 120
Benzo[b]fluoranthene	120	134		ug/L		112	53 - 134
Benzo[g,h,i]perylene	120	132		ug/L		110	47 - 133
Benzo[k]fluoranthene	120	132		ug/L		110	57 - 134
Chrysene	120	130		ug/L		108	55 - 122
Dibenz(a,h)anthracene	120	131		ug/L		109	48 - 146
Fluoranthene	120	137		ug/L		114	54 - 128
Fluorene	120	161	*+	ug/L		134	45 - 125
Indeno[1,2,3-cd]pyrene	120	139		ug/L		116	43 - 142
1-Methylnaphthalene	120	106		ug/L		89	41 - 120
2-Methylnaphthalene	120	109		ug/L		91	32 - 124
Phenanthrene	120	138		ug/L		115	48 - 120
Pyrene	120	151		ug/L		126	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*103*		*15 - 122*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-574007/2-A
Matrix: Water
Analysis Batch: 574542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574007

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	120		19 - 130
Terphenyl-d14	110		33 - 138

Lab Sample ID: 400-218399-4 MS
Matrix: Water
Analysis Batch: 574283

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		115	58.1		ug/L		50	35 - 113
Acenaphthylene	ND		115	56.1		ug/L		49	41 - 118
Anthracene	ND	*+	115	61.4		ug/L		53	45 - 122
Benzo[a]anthracene	ND		115	54.1	F1	ug/L		47	55 - 133
Benzo[a]pyrene	0.11	J	115	56.7	F1	ug/L		49	50 - 108
Benzo[b]fluoranthene	0.080	J	115	54.0	F1	ug/L		47	50 - 128
Benzo[g,h,i]perylene	ND		115	53.3		ug/L		46	46 - 133
Benzo[k]fluoranthene	ND		115	56.1	F1	ug/L		49	52 - 128
Chrysene	ND		115	54.9	F1	ug/L		48	52 - 116
Dibenz(a,h)anthracene	ND		115	49.4	F1	ug/L		43	52 - 143
Fluoranthene	0.10	J	115	56.4		ug/L		49	32 - 150
Fluorene	ND	*+	115	64.5		ug/L		56	15 - 150
Indeno[1,2,3-cd]pyrene	ND		115	51.6		ug/L		45	41 - 141
1-Methylnaphthalene	ND		115	49.0		ug/L		43	10 - 150
2-Methylnaphthalene	ND		115	50.6		ug/L		44	10 - 150
Phenanthrene	ND		115	56.7		ug/L		49	36 - 125
Pyrene	0.055	J	115	59.8		ug/L		52	41 - 127

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorobiphenyl	43		15 - 122
Nitrobenzene-d5	56		19 - 130
Terphenyl-d14	47		33 - 138

Lab Sample ID: 400-218399-4 MSD
Matrix: Water
Analysis Batch: 574283

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		116	149	F1 F2	ug/L		128	35 - 113	88	49
Acenaphthylene	ND		116	141	F1 F2	ug/L		122	41 - 118	86	48
Anthracene	ND	*+	116	158	F1 F2	ug/L		136	45 - 122	88	56
Benzo[a]anthracene	ND		116	141	F2	ug/L		122	55 - 133	89	57
Benzo[a]pyrene	0.11	J	116	145	F1 F2	ug/L		125	50 - 108	88	59
Benzo[b]fluoranthene	0.080	J	116	133	F2	ug/L		115	50 - 128	85	62
Benzo[g,h,i]perylene	ND		116	131	F2	ug/L		112	46 - 133	84	58
Benzo[k]fluoranthene	ND		116	130	F2	ug/L		112	52 - 128	79	58
Chrysene	ND		116	138	F1 F2	ug/L		119	52 - 116	86	59
Dibenz(a,h)anthracene	ND		116	135	F2	ug/L		116	52 - 143	93	60
Fluoranthene	0.10	J	116	152	F2	ug/L		131	32 - 150	92	59
Fluorene	ND	*+	116	171	F2	ug/L		147	15 - 150	90	49

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 400-218399-4 MSD
Matrix: Water
Analysis Batch: 574283

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA
Prep Batch: 574007

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno[1,2,3-cd]pyrene	ND		116	143	F2	ug/L		123	41 - 141	94	58
1-Methylnaphthalene	ND		116	110	F2	ug/L		94	10 - 150	77	66
2-Methylnaphthalene	ND		116	112	F2	ug/L		97	10 - 150	76	66
Phenanthrene	ND		116	148	F1 F2	ug/L		128	36 - 125	89	69
Pyrene	0.055	J	116	160	F1 F2	ug/L		138	41 - 127	91	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*111*		*15 - 122*
Nitrobenzene-d5	*113*		*19 - 130*
Terphenyl-d14	*116*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-573847/1-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 573847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/14/22 10:01	04/20/22 03:45	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/14/22 10:01	04/20/22 03:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*04/14/22 10:01*	*04/20/22 03:45*	*1*

Lab Sample ID: LCS 400-573847/2-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 573847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.157	*+	ug/L		156	60 - 140
1,2-Dibromoethane	0.101	0.122		ug/L		121	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*118*		*51 - 149*

Lab Sample ID: LCSD 400-573847/3-A
Matrix: Water
Analysis Batch: 574373

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 573847

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.164	*+	ug/L		163	60 - 140	3	30
1,2-Dibromoethane	0.101	0.127		ug/L		126	60 - 140	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*125*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-574563/1-A
Matrix: Water
Analysis Batch: 574654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574563

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/20/22 11:56	04/20/22 19:50	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/20/22 11:56	04/20/22 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*51 - 149*	*04/20/22 11:56*	*04/20/22 19:50*	*1*

Lab Sample ID: LCS 400-574563/2-A
Matrix: Water
Analysis Batch: 574654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574563

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.135		ug/L		134	60 - 140
1,2-Dibromoethane	0.101	0.125		ug/L		124	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*122*		*51 - 149*

Lab Sample ID: LCSD 400-574563/3-A
Matrix: Water
Analysis Batch: 574654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574563

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.147	*+ *1	ug/L		146	60 - 140	52	30
1,2-Dibromoethane	0.101	0.130		ug/L		129	60 - 140	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*134*		*51 - 149*

Lab Sample ID: MB 400-574592/1-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/20/22 13:18	04/21/22 12:28	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/20/22 13:18	04/21/22 12:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*51 - 149*	*04/20/22 13:18*	*04/21/22 12:28*	*1*

Lab Sample ID: LCS 400-574592/2-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574592

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.152	*+	ug/L		151	60 - 140
1,2-Dibromoethane	0.101	0.117		ug/L		116	60 - 140

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-574592/2-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574592

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*122*		*51 - 149*

Lab Sample ID: LCSD 400-574592/3-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574592

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.134	p	ug/L		133	60 - 140	13	30
1,2-Dibromoethane	0.101	0.109		ug/L		108	60 - 140	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*51 - 149*

Lab Sample ID: 400-218399-4 MS
Matrix: Water
Analysis Batch: 574723

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA
Prep Batch: 574592

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	ND	*+	0.105	0.152		ug/L		145	10 - 150
1,2-Dibromoethane	ND		0.105	0.119		ug/L		113	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*119*		*51 - 149*

Lab Sample ID: 400-218399-4 MSD
Matrix: Water
Analysis Batch: 574723

Client Sample ID: MW16-ROX-041222
Prep Type: Total/NA
Prep Batch: 574592

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	ND	*+	0.0996	0.139		ug/L		140	10 - 150	9	20
1,2-Dibromoethane	ND		0.0999	0.109		ug/L		110	39 - 150	8	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*114*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)

☐ CALSCIENCE (_____)

☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))

☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG ☐ PIPELINE ☐ RETAIL

☐ CHEMICALS ☐ CONSULTANT ☐ LUBES

☐ TRANSPORTATION ☑ OTHER _ENV. SERVICES_____

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/12/2022
PO #	GSAP Project ID	PAGE: 1 of 1
60674381 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM

LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA

State: IL

AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.2.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions

PHONE NO.: 314-802-1207; 314-802-1122

E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com

AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger

TELEPHONE: 314-429-0100

FAX: 314-429-0462

Bill To Contact E-MAIL: melissa.remiger@aecom.com

SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) __EDD_____

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.2.2

400-218399 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041222-8260	4/12/2022	0000	Water	2					2	X			
	TB-ROX-041222-8011	4/12/2022	0000	Water	2					2		X		
	MW3-ROX-041222	4/12/2022	0900	Water	6			2		8	X	X	X	X
	MW16-ROX-041222	4/12/2022	0940	Water	6			2		8	X	X	X	X
	MW16-ROX-041222-MS	4/12/2022	0940	Water	6			2		8	X	X	X	X
	MW16-ROX-041222-MSD	4/12/2022	0940	Water	6			2		8	X	X	X	X
	ROST3MW-ROX-041222	4/12/2022	1050	Water	6			2		8	X	X	X	X
	MW12-ROX-041222	4/12/2022	1315	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 1482 3813 1693, 1482 3813 1682, 1482 3813 1671	4/12/2022	1630
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4.13.22	Time: 09:26

CUSTODY SEALS: 1913469, 1913469, 1913467, 1913466, 1913465, 1913464

Temp 0.0° 1.4° 4.4° IR9

Version: 1Apr22

Page 01 of 03

4/22/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218399-1

Login Number: 218399
List Number: 1
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 1.4°C, 4.4°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-218399-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218465-1-Rev.1

Data Reviewer: Melissa Remiger

Peer Reviewer: Zachary Neigh

Date Reviewed: 6/13/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041322-8260	TB-ROX-041322-8011
MW5-ROX-041322	MW28-ROX-041322
MW1-ROX-041322	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated PAHs in sample MW28-ROX-041322 were re-extracted outside extraction holding time criteria. Chlorobenzene was detected in trip blank TB-ROX-041322-8260, and diethyl phthalate and several PAHs were detected in the method blanks. Several SVOC, PAH, and VOC by 8011 LCS/LCSD recoveries were outside evaluation criteria. The PAH surrogate recovery for terphenyl-d_{14} was outside criteria in the method blank. Acetone and 2-chloroethyl vinyl ether MS/MSD recoveries were outside evaluation criteria in sample MW1-ROX-041322. The continuing calibration verifications for aniline and hexachlorocyclopentadiene were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on May 25, 2022 to report PAH reanalysis results in sample MW28-ROX-041322, and to correct the sample ID for MW5-ROX-041322.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

No; PAHs in sample MW28-ROX-041322 were re-extracted 16 days outside extraction holding time criteria (7 days) and then re-analyzed for confirmation. The initial analysis results were not consistent with historical data; the sample was re-extracted and re-analyzed out of hold time with significantly lower results. Both sets of data are reported. Analytical data requiring qualification is summarized in the table below.

Sample ID	Parameter	Analyte	Qualification
MW28-ROX-041322 – RE	PAHs	All non-detects	**UJ**
MW28-ROX-041322 – RE	PAHs	All detects	**J**

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-041322-8260	VOCs	Chlorobenzene	0.56 µg/L
MB 400-574212/1-A	SVOCs	Diethyl phthalate	0.469 µg/L
MB 400-574212/1-A	PAHs	Benzo[a]anthracene	0.162 µg/L
MB 400-574212/1-A	PAHs	Benzo[a]pyrene	0.144 µg/L
MB 400-574212/1-A	PAHs	Benzo[b]fluoranthene	0.124 µg/L
MB 400-574212/1-A	PAHs	Chrysene	0.0949 µg/L
MB 400-574212/1-A	PAHs	Fluoranthene	0.151 µg/L
MB 400-574212/1-A	PAHs	Pyrene	0.146 µg/L
MB 400-576607/1-A	PAHs	Benzo[a]pyrene	0.0465 µg/L
MB 400-576607/1-A	PAHs	Benzo[g,h,i]perylene	0.183 µg/L
MB 400-576607/1-A	PAHs	Dibenz(a,h)anthracene	0.216 µg/L
MB 400-576607/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.201 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW5-ROX-041322	PAHs	Fluoranthene	-	**U**
MW5-ROX-041322	PAHs	Pyrene	-	**U**
MW28-ROX-041322	PAHs	Benzo[a]anthracene	-	**U**
MW28-ROX-041322	PAHs	Benzo[a]pyrene	-	**U**
MW28-ROX-041322	PAHs	Benzo[b]fluoranthene	0.42 µg/L	**U**
MW28-ROX-041322	PAHs	Chrysene	-	**U**
MW28-ROX-041322	PAHs	Fluoranthene	0.21 µg/L	**U**
MW28-ROX-041322	PAHs	Pyrene	-	**U**
MW28-ROX-041322 – RE	PAHs	Indeno[1,2,3-cd]pyrene	-	**U**
MW1-ROX-041322	SVOCs	Diethyl phthalate	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-574212/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	**137/142**	3	36-132/30
LCS/LCSD 400-574212/4-A/5-A	SVOCs	Benzenethiol	**7/5**	28	10-120/30
LCS/LCSD 400-576607/2-A/3-A	PAHs	Acenaphthylene	**121**/114	6	44-120/30
LCS/LCSD 400-576607/2-A/3-A	PAHs	Phenanthrene	**121**/113	7	48-120/56
LCS/LCSD 400-574563/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	134/**146**	**52**	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270. Phenanthrene in MW28-ROX-041322 – RE was previously qualified in Section 3.0 of this data review due to holding time criteria.

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-041322	SVOCs	Benzenethiol	**UJ**
MW28-ROX-041322	SVOCs	Benzenethiol	**UJ**
MW1-ROX-041322	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MB 400-574212/1-A	PAHs	Terphenyl-d_{14}	**150**	33-138

Method blanks are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, although not requested, sample MW1-ROX-041322 was spiked and analyzed for VOCs.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW1-ROX-041322	VOCs	Acetone	**272/273**	0	43-150/30

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW1-ROX-041322	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50

Analytical data that required qualification based on MS/MSD data are included in the table below. Professional judgement was used to qualify; however, not reject the compound 2-chloroethyl vinyl ether due to acceptable LCS recoveries for this compound and to the acid reactive nature of 2-chloroethyl vinyl ether. Analytical data reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW1-ROX-041322	VOCs	2-Chloroethyl vinyl ether	**UJ**

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and non-detect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for aniline and hexachlorocyclopentadiene were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-041322	SVOCs	Aniline	**UJ**
MW5-ROX-041322	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW28-ROX-041322	SVOCs	Aniline	**UJ**
MW28-ROX-041322	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW1-ROX-041322	SVOCs	Aniline	**UJ**
MW1-ROX-041322	SVOCs	Hexachlorocyclopentadiene	**UJ**



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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218465-1
Client Project/Site: ROXANA QUARTERLY GW
Revision: 1

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
5/25/2022 4:01:31 PM

Leah Klingensmith, Senior Project Manager
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Reviewed 6/15/2022
MR

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

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

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Job ID: 400-218465-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218465-1

Comments
Revised Report
Report revised to report reanalysis results for PAHs on MW28-ROX-041322 (400-218465-4).
Supersedes report dated 5-3-2022.

Receipt
The samples were received on 4/14/2022 9:07 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.5° C.

GC/MS VOA
Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041322-8260 (400-218465-1), MW5-TOX-041322 (400-218465-3), MW28-ROX-041322 (400-218465-4), MW1-ROX-041322 (400-218465-5). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-574531 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8260B: The following sample TB-ROX-041322-8260 (400-218465-1) contained Chlorobenzene between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-574531 were outside control limits for 2-Chloroethyl vinyl ether due to the acidic nature of the parent sample.

Method 8260B: The RPD for the MS/MSD for 2-chloroethyl vinyl ether was not calculable for analytical batch 400-574531 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-574212 and analytical batch 400-574392 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The method blank for preparation batch 400-574212 and analytical batch 400-574392 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-574212 and analytical batch 400-574392 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574392 recovered above the upper control limit for 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574392 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene and Aniline. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Job ID: 400-218465-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D LL: The method blank for preparation batch 400-574212 and analytical batch 400-575311 contained Benzo[b]fluoranthene, Pyrene, Chrysene, Fluoranthene, Benzo[a]anthracene and Benzo[a]pyrene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 400-574212/1-A). These results have been reported and qualified.

Method 8270D LL: The method blank for preparation batch 400-576607 and analytical batch 400-576608 contained Benzo[a]pyrene and Benzo[g,h,i]perylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: The method blank for preparation batch 400-576607 contained Dibenz(a,h)anthracene and Indeno[1,2,3-cd]pyrene above the reporting limit (RL). None of the samples associated with this method blank contained the target compound above the reporting limit; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 8270D LL: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-576607 and analytical batch 400-576608 recovered outside control limits for the following analytes: Acenaphthylene and Phenanthrene. These analytes were biased high in the LCS and were not detected above the reporting limit in the associated samples; therefore, the data have been reported.

Method 8270D LL: The initial analysis results for the following sample did not correspond with historical data. The sample was re-extracted and re-analyzed out of hold time with significantly lower results. The lab has not been able to determine the source of the contamination in the original analysis: MW28-ROX-041322 (400-218465-4).

Method 8270D LL: The following sample was re-prepared outside of preparation holding time due to client requested confirmation: MW28-ROX-041322 (400-218465-4). Both sets of data are reported.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574654 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574654 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218465-1	TB-ROX-041322-8260	Water	04/13/22 00:01	04/14/22 09:07
400-218465-2	TB-ROX-041322-8011	Water	04/13/22 00:01	04/14/22 09:07
400-218465-3	MW5-ROX-041322	Water	04/13/22 08:25	04/14/22 09:07
400-218465-4	MW28-ROX-041322	Water	04/13/22 09:05	04/14/22 09:07
400-218465-5	MW1-ROX-041322	Water	04/13/22 09:55	04/14/22 09:07

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Client Sample ID: TB-ROX-041322-8260

Lab Sample ID: 400-218465-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.56	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-041322-8011

Lab Sample ID: 400-218465-2

No Detections.

Client Sample ID: MW5-ROX-041322

Lab Sample ID: 400-218465-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.13	J	0.19	0.13	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.17	J	0.19	0.048	ug/L	1		8270D LL	Total/NA
Fluoranthene	~~0.17~~	J B U	0.19	0.065	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.14	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.093~~	J B U	0.19	0.039	ug/L	1		8270D LL	Total/NA
Di-n-butyl phthalate	3.5	J	9.6	2.6	ug/L	1		8270D	Total/NA

Client Sample ID: MW28-ROX-041322

Lab Sample ID: 400-218465-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.8		1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	~~0.066~~	J B U	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	~~0.14~~	J B U	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.42~~	B U	~~0.19~~ 0.42	0.032	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.59		0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.37		0.19	0.095	ug/L	1		8270D LL	Total/NA
Chrysene	~~0.082~~	J B U	0.19	0.071	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.50		0.19	0.048	ug/L	1		8270D LL	Total/NA
Fluoranthene	~~0.21~~	B U	~~0.19~~ 0.21	0.065	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.57		0.19	0.041	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.14~~	J B U	0.19	0.038	ug/L	1		8270D LL	Total/NA
Anthracene - RE	0.054	J H J	0.19	0.031	ug/L	1		8270D LL	Total/NA
Fluoranthene - RE	0.087	J H J	0.19	0.066	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene - RE	~~0.066~~	J H B UJ	0.19	0.042	ug/L	1		8270D LL	Total/NA
Phenanthrene - RE	0.055	J H *+ J	0.19	0.035	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW1-ROX-041322

Lab Sample ID: 400-218465-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.9		1.0	0.22	ug/L	1		8260B	Total/NA
tert-Butylbenzene	1.1		1.0	0.63	ug/L	1		8260B	Total/NA
Diethyl phthalate	~~0.26~~	J B U	9.6	0.23	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Client Sample ID: TB-ROX-041322-8260
Date Collected: 04/13/22 00:01
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/22 15:13	1
Acrolein	ND		20	3.3	ug/L			04/19/22 15:13	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/22 15:13	1
Benzene	ND		1.0	0.13	ug/L			04/19/22 15:13	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/22 15:13	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/22 15:13	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/22 15:13	1
Bromoform	ND		5.0	0.25	ug/L			04/19/22 15:13	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/22 15:13	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/22 15:13	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/22 15:13	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/22 15:13	1
Chlorobenzene	0.56	J	1.0	0.15	ug/L			04/19/22 15:13	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/22 15:13	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/22 15:13	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/22 15:13	1
Chloroform	ND		1.0	1.0	ug/L			04/19/22 15:13	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/22 15:13	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/22 15:13	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/22 15:13	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/22 15:13	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/22 15:13	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/22 15:13	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/22 15:13	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/22 15:13	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/22 15:13	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/22 15:13	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 15:13	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 15:13	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 15:13	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 15:13	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/22 15:13	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/22 15:13	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/22 15:13	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/22 15:13	1
2-Hexanone	ND		25	1.4	ug/L			04/19/22 15:13	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/19/22 15:13	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/22 15:13	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/22 15:13	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/22 15:13	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/22 15:13	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/22 15:13	1
Naphthalene	ND		1.0	1.0	ug/L			04/19/22 15:13	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/22 15:13	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/22 15:13	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/22 15:13	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/22 15:13	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/22 15:13	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/22 15:13	1

Client Sample ID: TB-ROX-041322-8260
Date Collected: 04/13/22 00:01
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/22 15:13	1
Styrene	ND		1.0	1.0	ug/L			04/19/22 15:13	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/22 15:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/22 15:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/22 15:13	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/22 15:13	1
Toluene	ND		1.0	0.41	ug/L			04/19/22 15:13	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 15:13	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/22 15:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/22 15:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/22 15:13	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/22 15:13	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/22 15:13	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/22 15:13	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/22 15:13	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/22 15:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/19/22 15:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/19/22 15:13	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/22 15:13	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/22 15:13	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/22 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*04/19/22 15:13*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*04/19/22 15:13*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/19/22 15:13*	*1*

Client Sample ID: TB-ROX-041322-8011
Date Collected: 04/13/22 00:01
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.034	0.019	ug/L		04/20/22 11:56	04/21/22 00:57	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/20/22 11:56	04/21/22 00:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*122*		*51 - 149*	*04/20/22 11:56*	*04/21/22 00:57*	*1*

Client Sample ID: MW5-ROX-041322
Date Collected: 04/13/22 08:25
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/22 19:58	1
Acrolein	ND		20	3.3	ug/L			04/19/22 19:58	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/22 19:58	1
Benzene	ND		1.0	0.13	ug/L			04/19/22 19:58	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/22 19:58	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/22 19:58	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/22 19:58	1
Bromoform	ND		5.0	0.25	ug/L			04/19/22 19:58	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/22 19:58	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/22 19:58	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/22 19:58	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/22 19:58	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/22 19:58	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/22 19:58	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/22 19:58	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/22 19:58	1
Chloroform	ND		1.0	1.0	ug/L			04/19/22 19:58	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/22 19:58	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/22 19:58	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/22 19:58	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/22 19:58	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/22 19:58	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/22 19:58	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/22 19:58	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/22 19:58	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/22 19:58	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/22 19:58	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 19:58	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 19:58	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 19:58	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 19:58	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/22 19:58	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/22 19:58	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/22 19:58	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/22 19:58	1
2-Hexanone	ND		25	1.4	ug/L			04/19/22 19:58	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/19/22 19:58	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/22 19:58	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/22 19:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/22 19:58	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/22 19:58	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/22 19:58	1
Naphthalene	ND		1.0	1.0	ug/L			04/19/22 19:58	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/22 19:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/22 19:58	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/22 19:58	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/22 19:58	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/22 19:58	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/22 19:58	1

Client Sample ID: MW5-ROX-041322
Date Collected: 04/13/22 08:25
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/22 19:58	1
Styrene	ND		1.0	1.0	ug/L			04/19/22 19:58	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/22 19:58	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/22 19:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/22 19:58	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/22 19:58	1
Toluene	ND		1.0	0.41	ug/L			04/19/22 19:58	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 19:58	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/22 19:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/22 19:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/22 19:58	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/22 19:58	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/22 19:58	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/22 19:58	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/22 19:58	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/22 19:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/19/22 19:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/19/22 19:58	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/22 19:58	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/22 19:58	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/22 19:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*04/19/22 19:58*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/19/22 19:58*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/19/22 19:58*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/18/22 10:03	05/02/22 10:46	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/18/22 10:03	05/02/22 10:46	1
Anthracene	ND		0.19	0.031	ug/L		04/18/22 10:03	05/02/22 10:46	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/18/22 10:03	05/02/22 10:46	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/18/22 10:03	05/02/22 10:46	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/18/22 10:03	05/02/22 10:46	1
Benzo[g,h,i]perylene	0.13	J	0.19	0.13	ug/L		04/18/22 10:03	05/02/22 10:46	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/18/22 10:03	05/02/22 10:46	1
Chrysene	ND		0.19	0.071	ug/L		04/18/22 10:03	05/02/22 10:46	1
Dibenz(a,h)anthracene	0.17	J	0.19	0.048	ug/L		04/18/22 10:03	05/02/22 10:46	1
Fluoranthene	~~0.17~~	J B U	0.19	0.065	ug/L		04/18/22 10:03	05/02/22 10:46	1
Fluorene	ND		0.19	0.11	ug/L		04/18/22 10:03	05/02/22 10:46	1
Indeno[1,2,3-cd]pyrene	0.14	J	0.19	0.041	ug/L		04/18/22 10:03	05/02/22 10:46	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/18/22 10:03	05/02/22 10:46	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/18/22 10:03	05/02/22 10:46	1
Phenanthrene	ND		0.19	0.035	ug/L		04/18/22 10:03	05/02/22 10:46	1
Pyrene	~~0.093~~	J B U	0.19	0.039	ug/L		04/18/22 10:03	05/02/22 10:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*15 - 122*	*04/18/22 10:03*	*05/02/22 10:46*	*1*
Nitrobenzene-d5	*72*		*19 - 130*	*04/18/22 10:03*	*05/02/22 10:46*	*1*

Client Sample ID: MW5-ROX-041322

Date Collected: 04/13/22 08:25
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-3

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	73		33 - 138	04/18/22 10:03	05/02/22 10:46	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.6	3.7	ug/L		04/18/22 10:03	04/19/22 19:56	1
Benzenethiol	ND	*- UJ	9.6	1.6	ug/L		04/18/22 10:03	04/19/22 19:56	1
Benzoic acid	ND		29	7.0	ug/L		04/18/22 10:03	04/19/22 19:56	1
Benzyl alcohol	ND		9.6	1.9	ug/L		04/18/22 10:03	04/19/22 19:56	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/18/22 10:03	04/19/22 19:56	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		04/18/22 10:03	04/19/22 19:56	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/18/22 10:03	04/19/22 19:56	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/18/22 10:03	04/19/22 19:56	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/18/22 10:03	04/19/22 19:56	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/18/22 10:03	04/19/22 19:56	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/18/22 10:03	04/19/22 19:56	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		04/18/22 10:03	04/19/22 19:56	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/18/22 10:03	04/19/22 19:56	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/18/22 10:03	04/19/22 19:56	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/18/22 10:03	04/19/22 19:56	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/18/22 10:03	04/19/22 19:56	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/18/22 10:03	04/19/22 19:56	1
3,3'-Dichlorobenzidine	ND	*+	9.6	2.5	ug/L		04/18/22 10:03	04/19/22 19:56	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/18/22 10:03	04/19/22 19:56	1
Diethyl phthalate	ND		9.6	0.23	ug/L		04/18/22 10:03	04/19/22 19:56	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		04/18/22 10:03	04/19/22 19:56	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/18/22 10:03	04/19/22 19:56	1
Di-n-butyl phthalate	3.5	J	9.6	2.6	ug/L		04/18/22 10:03	04/19/22 19:56	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/18/22 10:03	04/19/22 19:56	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/18/22 10:03	04/19/22 19:56	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/18/22 10:03	04/19/22 19:56	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/18/22 10:03	04/19/22 19:56	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/18/22 10:03	04/19/22 19:56	1
1,4-Dioxane	ND		9.6	0.96	ug/L		04/18/22 10:03	04/19/22 19:56	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/18/22 10:03	04/19/22 19:56	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/18/22 10:03	04/19/22 19:56	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/18/22 10:03	04/19/22 19:56	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/18/22 10:03	04/19/22 19:56	1
Indene	ND		9.6	0.96	ug/L		04/18/22 10:03	04/19/22 19:56	1
Isophorone	ND		9.6	0.13	ug/L		04/18/22 10:03	04/19/22 19:56	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/18/22 10:03	04/19/22 19:56	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/18/22 10:03	04/19/22 19:56	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/18/22 10:03	04/19/22 19:56	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/18/22 10:03	04/19/22 19:56	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/18/22 10:03	04/19/22 19:56	1
Nitrobenzene	ND		9.6	0.13	ug/L		04/18/22 10:03	04/19/22 19:56	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/18/22 10:03	04/19/22 19:56	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/18/22 10:03	04/19/22 19:56	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		04/18/22 10:03	04/19/22 19:56	1

Client Sample ID: MW5-ROX-041322
Date Collected: 04/13/22 08:25
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/18/22 10:03	04/19/22 19:56	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/18/22 10:03	04/19/22 19:56	1
Pentachlorophenol	ND		19	1.3	ug/L		04/18/22 10:03	04/19/22 19:56	1
Phenol	ND		9.6	2.5	ug/L		04/18/22 10:03	04/19/22 19:56	1
Pyridine	ND		9.6	3.1	ug/L		04/18/22 10:03	04/19/22 19:56	1
Quinoline	ND		9.6	4.3	ug/L		04/18/22 10:03	04/19/22 19:56	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		04/18/22 10:03	04/19/22 19:56	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		04/18/22 10:03	04/19/22 19:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*46 - 124*	*04/18/22 10:03*	*04/19/22 19:56*	*1*
2-Fluorophenol	*32*		*13 - 113*	*04/18/22 10:03*	*04/19/22 19:56*	*1*
Nitrobenzene-d5	*80*		*36 - 126*	*04/18/22 10:03*	*04/19/22 19:56*	*1*
Phenol-d5	*61*		*17 - 127*	*04/18/22 10:03*	*04/19/22 19:56*	*1*
Terphenyl-d14	*87*		*44 - 149*	*04/18/22 10:03*	*04/19/22 19:56*	*1*
2,4,6-Tribromophenol	*67*		*26 - 150*	*04/18/22 10:03*	*04/19/22 19:56*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.032	0.018	ug/L		04/20/22 11:56	04/21/22 01:18	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/20/22 11:56	04/21/22 01:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*122*		*51 - 149*	*04/20/22 11:56*	*04/21/22 01:18*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Client Sample ID: MW28-ROX-041322
Date Collected: 04/13/22 09:05
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/22 20:24	1
Acrolein	ND		20	3.3	ug/L			04/19/22 20:24	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/22 20:24	1
Benzene	ND		1.0	0.13	ug/L			04/19/22 20:24	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/22 20:24	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/22 20:24	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/22 20:24	1
Bromoform	ND		5.0	0.25	ug/L			04/19/22 20:24	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/22 20:24	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/22 20:24	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/22 20:24	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/22 20:24	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/22 20:24	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/22 20:24	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/22 20:24	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/22 20:24	1
Chloroform	ND		1.0	1.0	ug/L			04/19/22 20:24	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/22 20:24	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/22 20:24	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/22 20:24	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/22 20:24	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/22 20:24	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/22 20:24	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/22 20:24	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/22 20:24	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/22 20:24	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/22 20:24	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 20:24	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 20:24	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 20:24	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 20:24	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/22 20:24	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/22 20:24	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/22 20:24	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/22 20:24	1
2-Hexanone	ND		25	1.4	ug/L			04/19/22 20:24	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/19/22 20:24	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/22 20:24	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/22 20:24	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/22 20:24	1
Methyl tert-butyl ether	**2.8**		1.0	0.22	ug/L			04/19/22 20:24	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/22 20:24	1
Naphthalene	ND		1.0	1.0	ug/L			04/19/22 20:24	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/22 20:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/22 20:24	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/22 20:24	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/22 20:24	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/22 20:24	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/22 20:24	1

Client Sample ID: MW28-ROX-041322
Date Collected: 04/13/22 09:05
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/22 20:24	1
Styrene	ND		1.0	1.0	ug/L			04/19/22 20:24	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/22 20:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/22 20:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/22 20:24	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/22 20:24	1
Toluene	ND		1.0	0.41	ug/L			04/19/22 20:24	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 20:24	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/22 20:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/22 20:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/22 20:24	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/22 20:24	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/22 20:24	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/22 20:24	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/22 20:24	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/22 20:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/19/22 20:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/19/22 20:24	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/22 20:24	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/22 20:24	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/22 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*72 - 119*		*04/19/22 20:24*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/19/22 20:24*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/19/22 20:24*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/18/22 10:03	05/02/22 11:03	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/18/22 10:03	05/02/22 11:03	1
Anthracene	ND		0.19	0.031	ug/L		04/18/22 10:03	05/02/22 11:03	1
Benzo[a]anthracene	~~0.066~~	J B	0.19	0.044	ug/L		04/18/22 10:03	05/02/22 11:03	1
Benzo[a]pyrene	~~0.14~~	J B	0.19	0.040	ug/L		04/18/22 10:03	05/02/22 11:03	1
Benzo[b]fluoranthene	~~0.42~~	B	~~0.19~~ 0.42	0.032	ug/L		04/18/22 10:03	05/02/22 11:03	1
Benzo[g,h,i]perylene	0.59		0.19	0.12	ug/L		04/18/22 10:03	05/02/22 11:03	1
Benzo[k]fluoranthene	0.37		0.19	0.095	ug/L		04/18/22 10:03	05/02/22 11:03	1
Chrysene	~~0.082~~	J B	0.19	0.071	ug/L		04/18/22 10:03	05/02/22 11:03	1
Dibenz(a,h)anthracene	0.50		0.19	0.048	ug/L		04/18/22 10:03	05/02/22 11:03	1
Fluoranthene	~~0.21~~	B	~~0.19~~ 0.21	0.065	ug/L		04/18/22 10:03	05/02/22 11:03	1
Fluorene	ND		0.19	0.10	ug/L		04/18/22 10:03	05/02/22 11:03	1
Indeno[1,2,3-cd]pyrene	0.57		0.19	0.041	ug/L		04/18/22 10:03	05/02/22 11:03	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/18/22 10:03	05/02/22 11:03	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/18/22 10:03	05/02/22 11:03	1
Phenanthrene	ND		0.19	0.034	ug/L		04/18/22 10:03	05/02/22 11:03	1
Pyrene	~~0.14~~	J B	0.19	0.038	ug/L		04/18/22 10:03	05/02/22 11:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*15 - 122*	*04/18/22 10:03*	*05/02/22 11:03*	*1*
Nitrobenzene-d5	*79*		*19 - 130*	*04/18/22 10:03*	*05/02/22 11:03*	*1*

Client Sample ID: MW28-ROX-041322
Date Collected: 04/13/22 09:05
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*95*		*33 - 138*	*04/18/22 10:03*	*05/02/22 11:03*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.19	0.031	ug/L		05/06/22 07:23	05/06/22 17:35	1
Acenaphthylene	ND	H *+	0.19	0.044	ug/L		05/06/22 07:23	05/06/22 17:35	1
Anthracene	**0.054**	**J H**	0.19	0.031	ug/L		05/06/22 07:23	05/06/22 17:35	1
Benzo[a]anthracene	ND	H	0.19	0.045	ug/L		05/06/22 07:23	05/06/22 17:35	1
Benzo[a]pyrene	ND	H	0.19	0.041	ug/L		05/06/22 07:23	05/06/22 17:35	1
Benzo[b]fluoranthene	ND	H	0.19	0.033	ug/L		05/06/22 07:23	05/06/22 17:35	1
Benzo[g,h,i]perylene	ND	H	0.19	0.13	ug/L		05/06/22 07:23	05/06/22 17:35	1
Benzo[k]fluoranthene	ND	H	0.19	0.097	ug/L		05/06/22 07:23	05/06/22 17:35	1
Chrysene	ND	H	0.19	0.072	ug/L		05/06/22 07:23	05/06/22 17:35	1
Dibenz(a,h)anthracene	ND	H	0.19	0.048	ug/L		05/06/22 07:23	05/06/22 17:35	1
Fluoranthene	**0.087**	**J H**	0.19	0.066	ug/L		05/06/22 07:23	05/06/22 17:35	1
Fluorene	ND	H	0.19	0.11	ug/L		05/06/22 07:23	05/06/22 17:35	1
Indeno[1,2,3-cd]pyrene	~~0.066~~	**J H B**	0.19	0.042	ug/L		05/06/22 07:23	05/06/22 17:35	1
1-Methylnaphthalene	ND	H	0.19	0.072	ug/L		05/06/22 07:23	05/06/22 17:35	1
2-Methylnaphthalene	ND	H	0.19	0.058	ug/L		05/06/22 07:23	05/06/22 17:35	1
Phenanthrene	**0.055**	**J H *+**	0.19	0.035	ug/L		05/06/22 07:23	05/06/22 17:35	1
Pyrene	ND	H	0.19	0.039	ug/L		05/06/22 07:23	05/06/22 17:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	*87*		*15 - 122*	*05/06/22 07:23*	*05/06/22 17:35*	*1*
Nitrobenzene-d5	*105*		*19 - 130*	*05/06/22 07:23*	*05/06/22 17:35*	*1*
Terphenyl-d14	*106*		*33 - 138*	*05/06/22 07:23*	*05/06/22 17:35*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/18/22 10:03	04/19/22 20:17	1
Benzenethiol	ND	*-	9.5	1.6	ug/L		04/18/22 10:03	04/19/22 20:17	1
Benzoic acid	ND		29	7.0	ug/L		04/18/22 10:03	04/19/22 20:17	1
Benzyl alcohol	ND		9.5	1.9	ug/L		04/18/22 10:03	04/19/22 20:17	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		04/18/22 10:03	04/19/22 20:17	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		04/18/22 10:03	04/19/22 20:17	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		04/18/22 10:03	04/19/22 20:17	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/18/22 10:03	04/19/22 20:17	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/18/22 10:03	04/19/22 20:17	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/18/22 10:03	04/19/22 20:17	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/18/22 10:03	04/19/22 20:17	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/18/22 10:03	04/19/22 20:17	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/18/22 10:03	04/19/22 20:17	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/18/22 10:03	04/19/22 20:17	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/18/22 10:03	04/19/22 20:17	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		04/18/22 10:03	04/19/22 20:17	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/18/22 10:03	04/19/22 20:17	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		04/18/22 10:03	04/19/22 20:17	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/18/22 10:03	04/19/22 20:17	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/18/22 10:03	04/19/22 20:17	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/18/22 10:03	04/19/22 20:17	1

Client Sample ID: MW28-ROX-041322
Date Collected: 04/13/22 09:05
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/18/22 10:03	04/19/22 20:17	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/18/22 10:03	04/19/22 20:17	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/18/22 10:03	04/19/22 20:17	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/18/22 10:03	04/19/22 20:17	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/18/22 10:03	04/19/22 20:17	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/18/22 10:03	04/19/22 20:17	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/18/22 10:03	04/19/22 20:17	1
1,4-Dioxane	ND		9.5	0.95	ug/L		04/18/22 10:03	04/19/22 20:17	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		04/18/22 10:03	04/19/22 20:17	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/18/22 10:03	04/19/22 20:17	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/18/22 10:03	04/19/22 20:17	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/18/22 10:03	04/19/22 20:17	1
Indene	ND		9.5	0.95	ug/L		04/18/22 10:03	04/19/22 20:17	1
Isophorone	ND		9.5	0.13	ug/L		04/18/22 10:03	04/19/22 20:17	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/18/22 10:03	04/19/22 20:17	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/18/22 10:03	04/19/22 20:17	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/18/22 10:03	04/19/22 20:17	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/18/22 10:03	04/19/22 20:17	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/18/22 10:03	04/19/22 20:17	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/18/22 10:03	04/19/22 20:17	1
2-Nitrophenol	ND		9.5	5.0	ug/L		04/18/22 10:03	04/19/22 20:17	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/18/22 10:03	04/19/22 20:17	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/18/22 10:03	04/19/22 20:17	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		04/18/22 10:03	04/19/22 20:17	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/18/22 10:03	04/19/22 20:17	1
Pentachlorophenol	ND		19	1.3	ug/L		04/18/22 10:03	04/19/22 20:17	1
Phenol	ND		9.5	2.5	ug/L		04/18/22 10:03	04/19/22 20:17	1
Pyridine	ND		9.5	3.1	ug/L		04/18/22 10:03	04/19/22 20:17	1
Quinoline	ND		9.5	4.3	ug/L		04/18/22 10:03	04/19/22 20:17	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/18/22 10:03	04/19/22 20:17	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/18/22 10:03	04/19/22 20:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*04/18/22 10:03*	*04/19/22 20:17*	*1*
2-Fluorophenol	*48*		*13 - 113*	*04/18/22 10:03*	*04/19/22 20:17*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*04/18/22 10:03*	*04/19/22 20:17*	*1*
Phenol-d5	*71*		*17 - 127*	*04/18/22 10:03*	*04/19/22 20:17*	*1*
Terphenyl-d14	*93*		*44 - 149*	*04/18/22 10:03*	*04/19/22 20:17*	*1*
2,4,6-Tribromophenol	*83*		*26 - 150*	*04/18/22 10:03*	*04/19/22 20:17*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.032	0.018	ug/L		04/20/22 11:56	04/21/22 01:38	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/20/22 11:56	04/21/22 01:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*121*		*51 - 149*	*04/20/22 11:56*	*04/21/22 01:38*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Client Sample ID: MW1-ROX-041322
Date Collected: 04/13/22 09:55
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	F1	25	10	ug/L			04/20/22 11:41	1
Acrolein	ND		20	3.3	ug/L			04/20/22 11:41	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 11:41	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 11:41	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 11:41	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 11:41	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 11:41	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 11:41	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 11:41	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 11:41	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 11:41	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 11:41	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 11:41	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 11:41	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 11:41	1
2-Chloroethyl vinyl ether	ND	F1 UJ	5.0	2.0	ug/L			04/20/22 11:41	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 11:41	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 11:41	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 11:41	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 11:41	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 11:41	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 11:41	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 11:41	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 11:41	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 11:41	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 11:41	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 11:41	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 11:41	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 11:41	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 11:41	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 11:41	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 11:41	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 11:41	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 11:41	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 11:41	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 11:41	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 11:41	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 11:41	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 11:41	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 11:41	1
Methyl tert-butyl ether	**3.9**		1.0	0.22	ug/L			04/20/22 11:41	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 11:41	1
Naphthalene	ND		1.0	1.0	ug/L			04/20/22 11:41	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 11:41	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 11:41	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 11:41	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 11:41	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 11:41	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 11:41	1

Client Sample ID: MW1-ROX-041322

Date Collected: 04/13/22 09:55
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 11:41	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 11:41	1
tert-Butylbenzene	**1.1**		1.0	0.63	ug/L			04/20/22 11:41	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 11:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 11:41	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 11:41	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 11:41	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 11:41	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 11:41	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 11:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 11:41	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 11:41	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 11:41	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 11:41	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 11:41	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 11:41	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 11:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 11:41	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 11:41	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 11:41	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 11:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 119*		*04/20/22 11:41*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/20/22 11:41*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/20/22 11:41*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/18/22 10:03	05/02/22 11:20	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/18/22 10:03	05/02/22 11:20	1
Anthracene	ND		0.19	0.031	ug/L		04/18/22 10:03	05/02/22 11:20	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/18/22 10:03	05/02/22 11:20	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/18/22 10:03	05/02/22 11:20	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/18/22 10:03	05/02/22 11:20	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/18/22 10:03	05/02/22 11:20	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/18/22 10:03	05/02/22 11:20	1
Chrysene	ND		0.19	0.071	ug/L		04/18/22 10:03	05/02/22 11:20	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/18/22 10:03	05/02/22 11:20	1
Fluoranthene	ND		0.19	0.065	ug/L		04/18/22 10:03	05/02/22 11:20	1
Fluorene	ND		0.19	0.11	ug/L		04/18/22 10:03	05/02/22 11:20	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/18/22 10:03	05/02/22 11:20	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/18/22 10:03	05/02/22 11:20	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/18/22 10:03	05/02/22 11:20	1
Phenanthrene	ND		0.19	0.034	ug/L		04/18/22 10:03	05/02/22 11:20	1
Pyrene	ND		0.19	0.038	ug/L		04/18/22 10:03	05/02/22 11:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*15 - 122*	*04/18/22 10:03*	*05/02/22 11:20*	*1*
Nitrobenzene-d5	*77*		*19 - 130*	*04/18/22 10:03*	*05/02/22 11:20*	*1*

Client Sample ID: MW1-ROX-041322
Date Collected: 04/13/22 09:55
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	77		33 - 138	04/18/22 10:03	05/02/22 11:20	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.6	3.6	ug/L		04/18/22 10:03	04/19/22 20:39	1
Benzenethiol	ND	*- UJ	9.6	1.6	ug/L		04/18/22 10:03	04/19/22 20:39	1
Benzoic acid	ND		29	7.0	ug/L		04/18/22 10:03	04/19/22 20:39	1
Benzyl alcohol	ND		9.6	1.9	ug/L		04/18/22 10:03	04/19/22 20:39	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/18/22 10:03	04/19/22 20:39	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		04/18/22 10:03	04/19/22 20:39	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/18/22 10:03	04/19/22 20:39	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/18/22 10:03	04/19/22 20:39	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/18/22 10:03	04/19/22 20:39	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/18/22 10:03	04/19/22 20:39	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/18/22 10:03	04/19/22 20:39	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		04/18/22 10:03	04/19/22 20:39	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/18/22 10:03	04/19/22 20:39	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/18/22 10:03	04/19/22 20:39	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/18/22 10:03	04/19/22 20:39	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/18/22 10:03	04/19/22 20:39	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/18/22 10:03	04/19/22 20:39	1
3,3'-Dichlorobenzidine	ND	*+	9.6	2.5	ug/L		04/18/22 10:03	04/19/22 20:39	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/18/22 10:03	04/19/22 20:39	1
Diethyl phthalate	~~0.26~~	J B U	9.6	0.23	ug/L		04/18/22 10:03	04/19/22 20:39	1
2,4-Dimethylphenol	ND		9.6	3.3	ug/L		04/18/22 10:03	04/19/22 20:39	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/18/22 10:03	04/19/22 20:39	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/18/22 10:03	04/19/22 20:39	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/18/22 10:03	04/19/22 20:39	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/18/22 10:03	04/19/22 20:39	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/18/22 10:03	04/19/22 20:39	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/18/22 10:03	04/19/22 20:39	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/18/22 10:03	04/19/22 20:39	1
1,4-Dioxane	ND		9.6	0.96	ug/L		04/18/22 10:03	04/19/22 20:39	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/18/22 10:03	04/19/22 20:39	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/18/22 10:03	04/19/22 20:39	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/18/22 10:03	04/19/22 20:39	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/18/22 10:03	04/19/22 20:39	1
Indene	ND		9.6	0.96	ug/L		04/18/22 10:03	04/19/22 20:39	1
Isophorone	ND		9.6	0.13	ug/L		04/18/22 10:03	04/19/22 20:39	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/18/22 10:03	04/19/22 20:39	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/18/22 10:03	04/19/22 20:39	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/18/22 10:03	04/19/22 20:39	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/18/22 10:03	04/19/22 20:39	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/18/22 10:03	04/19/22 20:39	1
Nitrobenzene	ND		9.6	0.12	ug/L		04/18/22 10:03	04/19/22 20:39	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/18/22 10:03	04/19/22 20:39	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/18/22 10:03	04/19/22 20:39	1
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L		04/18/22 10:03	04/19/22 20:39	1

Client Sample ID: MW1-ROX-041322
Date Collected: 04/13/22 09:55
Date Received: 04/14/22 09:07

Lab Sample ID: 400-218465-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/18/22 10:03	04/19/22 20:39	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/18/22 10:03	04/19/22 20:39	1
Pentachlorophenol	ND		19	1.3	ug/L		04/18/22 10:03	04/19/22 20:39	1
Phenol	ND		9.6	2.5	ug/L		04/18/22 10:03	04/19/22 20:39	1
Pyridine	ND		9.6	3.1	ug/L		04/18/22 10:03	04/19/22 20:39	1
Quinoline	ND		9.6	4.3	ug/L		04/18/22 10:03	04/19/22 20:39	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		04/18/22 10:03	04/19/22 20:39	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		04/18/22 10:03	04/19/22 20:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*94*		*46 - 124*	*04/18/22 10:03*	*04/19/22 20:39*	*1*
2-Fluorophenol	*32*		*13 - 113*	*04/18/22 10:03*	*04/19/22 20:39*	*1*
Nitrobenzene-d5	*85*		*36 - 126*	*04/18/22 10:03*	*04/19/22 20:39*	*1*
Phenol-d5	*67*		*17 - 127*	*04/18/22 10:03*	*04/19/22 20:39*	*1*
Terphenyl-d14	*82*		*44 - 149*	*04/18/22 10:03*	*04/19/22 20:39*	*1*
2,4,6-Tribromophenol	*94*		*26 - 150*	*04/18/22 10:03*	*04/19/22 20:39*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.034	0.019	ug/L		04/20/22 11:56	04/21/22 01:58	1
1,2-Dibromoethane	ND		0.023	0.017	ug/L		04/20/22 11:56	04/21/22 01:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*51 - 149*	*04/20/22 11:56*	*04/21/22 01:58*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218465-1	TB-ROX-041322-8260	104	96	97
400-218465-3	MW5-ROX-041322	104	101	96
400-218465-4	MW28-ROX-041322	106	100	97
400-218465-5	MW1-ROX-041322	105	99	95
400-218465-5 MS	MW1-ROX-041322	106	99	95
400-218465-5 MSD	MW1-ROX-041322	107	98	96
LCS 400-574349/1002	Lab Control Sample	104	102	98
LCS 400-574531/1002	Lab Control Sample	102	101	94
MB 400-574349/4	Method Blank	108	100	97
MB 400-574531/4	Method Blank	107	102	95

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218465-3	MW5-ROX-041322	89	32	80	61	87	67
400-218465-4	MW28-ROX-041322	88	48	79	71	93	83
400-218465-5	MW1-ROX-041322	94	32	85	67	82	94
LCS 400-574212/2-A	Lab Control Sample	91	44	91	75	95	112
LCS 400-574212/4-A	Lab Control Sample	94	37	86	65	95	73
LCSD 400-574212/3-A	Lab Control Sample Dup	93	34	89	73	94	113
LCSD 400-574212/5-A	Lab Control Sample Dup	87	25	78	52	88	76
MB 400-574212/1-A	Method Blank	88	20	78	57	89	86

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218465-3	MW5-ROX-041322	70	72	73
400-218465-4	MW28-ROX-041322	78	79	95
400-218465-4 - RE	MW28-ROX-041322	87	105	106
400-218465-5	MW1-ROX-041322	75	77	77
LCS 400-574212/2-A	Lab Control Sample	98	80	97
LCS 400-576607/2-A	Lab Control Sample	114	124	116

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-218465-1
Project/Site: ROXANA QUARTERLY GW

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
LCSD 400-574212/3-A	Lab Control Sample Dup	92	74	91
LCSD 400-576607/3-A	Lab Control Sample Dup	103	112	104
MB 400-574212/1-A	Method Blank	90	98	150 S1+
MB 400-576607/1-A	Method Blank	82	108	104

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB2
Lab Sample ID	Client Sample ID	(51-149)
400-218465-2	TB-ROX-041322-8011	122
400-218465-3	MW5-ROX-041322	122
400-218465-4	MW28-ROX-041322	121
400-218465-5	MW1-ROX-041322	119
LCS 400-574563/2-A	Lab Control Sample	122
LCSD 400-574563/3-A	Lab Control Sample Dup	134
MB 400-574563/1-A	Method Blank	119

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Client Sample ID: TB-ROX-041322-8260

Lab Sample ID: 400-218465-1

Date Collected: 04/13/22 00:01
Date Received: 04/14/22 09:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 15:13	BPO	TAL PEN

Client Sample ID: TB-ROX-041322-8011

Lab Sample ID: 400-218465-2

Date Collected: 04/13/22 00:01
Date Received: 04/14/22 09:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			31.3 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/21/22 00:57	DS	TAL PEN

Client Sample ID: MW5-ROX-041322

Lab Sample ID: 400-218465-3

Date Collected: 04/13/22 08:25
Date Received: 04/14/22 09:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 19:58	BPO	TAL PEN
Total/NA	Prep	3520C			259.6 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 19:56	S1B	TAL PEN
Total/NA	Prep	3520C			259.6 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			576004	05/02/22 10:46	KJA	TAL PEN
Total/NA	Prep	8011			33.2 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/21/22 01:18	DS	TAL PEN

Client Sample ID: MW28-ROX-041322

Lab Sample ID: 400-218465-4

Date Collected: 04/13/22 09:05
Date Received: 04/14/22 09:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 20:24	BPO	TAL PEN
Total/NA	Prep	3520C			262.2 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 20:17	S1B	TAL PEN
Total/NA	Prep	3520C			262.2 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			576004	05/02/22 11:03	KJA	TAL PEN
Total/NA	Prep	3520C	RE		258.2 mL	1 mL	576607	05/06/22 07:23	KWS	TAL PEN
Total/NA	Analysis	8270D LL	RE	1			576608	05/06/22 17:35	PP1	TAL PEN
Total/NA	Prep	8011			33.2 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/21/22 01:38	DS	TAL PEN

Client Sample ID: MW1-ROX-041322

Lab Sample ID: 400-218465-5

Date Collected: 04/13/22 09:55
Date Received: 04/14/22 09:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 11:41	BPO	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Client Sample ID: MW1-ROX-041322

Lab Sample ID: 400-218465-5

Date Collected: 04/13/22 09:55
Matrix: Water
Date Received: 04/14/22 09:07

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			261.2 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 20:39	S1B	TAL PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			576004	05/02/22 11:20	KJA	TAL PEN
Total/NA	Prep	8011			31.1 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/21/22 01:58	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574212/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 17:25	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575311	04/25/22 20:56	KJA	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574349/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 10:44	BPO	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574531/4

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 10:50	BPO	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574563/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/20/22 19:50	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-576607/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	576607	05/06/22 07:23	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			576608	05/06/22 16:44	PP1	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574212/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 17:46	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575786	04/30/22 14:03	PP1	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574212/4-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 18:30	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574349/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574349	04/19/22 09:39	BPO	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574531/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 09:48	BPO	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574563/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/20/22 20:11	DS	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-576607/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	576607	05/06/22 07:23	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			576608	05/06/22 17:01	PP1	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574212/3-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 18:08	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575786	04/30/22 14:20	PP1	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574212/5-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 18:51	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574563/3-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574563	04/20/22 11:56	RS	TAL PEN
Total/NA	Analysis	8011		1			574654	04/20/22 20:31	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-576607/3-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	576607	05/06/22 07:23	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			576608	05/06/22 17:18	PP1	TAL PEN

Client Sample ID: MW1-ROX-041322

Lab Sample ID: 400-218465-5 MS

Date Collected: 04/13/22 09:55
Date Received: 04/14/22 09:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 12:33	BPO	TAL PEN

Client Sample ID: MW1-ROX-041322

Lab Sample ID: 400-218465-5 MSD

Date Collected: 04/13/22 09:55
Date Received: 04/14/22 09:07

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 12:59	BPO	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

GC/MS VOA

Analysis Batch: 574349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218465-1	TB-ROX-041322-8260	Total/NA	Water	8260B	
400-218465-3	MW5-ROX-041322	Total/NA	Water	8260B	
400-218465-4	MW28-ROX-041322	Total/NA	Water	8260B	
MB 400-574349/4	Method Blank	Total/NA	Water	8260B	
LCS 400-574349/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 574531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218465-5	MW1-ROX-041322	Total/NA	Water	8260B	
MB 400-574531/4	Method Blank	Total/NA	Water	8260B	
LCS 400-574531/1002	Lab Control Sample	Total/NA	Water	8260B	
400-218465-5 MS	MW1-ROX-041322	Total/NA	Water	8260B	
400-218465-5 MSD	MW1-ROX-041322	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 574212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218465-3	MW5-ROX-041322	Total/NA	Water	3520C	
400-218465-4	MW28-ROX-041322	Total/NA	Water	3520C	
400-218465-5	MW1-ROX-041322	Total/NA	Water	3520C	
MB 400-574212/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-574212/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-574212/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-574212/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-574212/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 574392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218465-3	MW5-ROX-041322	Total/NA	Water	8270D	574212
400-218465-4	MW28-ROX-041322	Total/NA	Water	8270D	574212
400-218465-5	MW1-ROX-041322	Total/NA	Water	8270D	574212
MB 400-574212/1-A	Method Blank	Total/NA	Water	8270D	574212
LCS 400-574212/2-A	Lab Control Sample	Total/NA	Water	8270D	574212
LCS 400-574212/4-A	Lab Control Sample	Total/NA	Water	8270D	574212
LCSD 400-574212/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	574212
LCSD 400-574212/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	574212

Analysis Batch: 575311

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-574212/1-A	Method Blank	Total/NA	Water	8270D LL	574212

Analysis Batch: 575786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-574212/2-A	Lab Control Sample	Total/NA	Water	8270D LL	574212
LCSD 400-574212/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	574212

Analysis Batch: 576004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218465-3	MW5-ROX-041322	Total/NA	Water	8270D LL	574212
400-218465-4	MW28-ROX-041322	Total/NA	Water	8270D LL	574212

GC/MS Semi VOA (Continued)

Analysis Batch: 576004 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218465-5	MW1-ROX-041322	Total/NA	Water	8270D LL	574212

Prep Batch: 576607

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218465-4 - RE	MW28-ROX-041322	Total/NA	Water	3520C	
MB 400-576607/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-576607/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-576607/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 576608

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218465-4 - RE	MW28-ROX-041322	Total/NA	Water	8270D LL	576607
MB 400-576607/1-A	Method Blank	Total/NA	Water	8270D LL	576607
LCS 400-576607/2-A	Lab Control Sample	Total/NA	Water	8270D LL	576607
LCSD 400-576607/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	576607

GC Semi VOA

Prep Batch: 574563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218465-2	TB-ROX-041322-8011	Total/NA	Water	8011	
400-218465-3	MW5-ROX-041322	Total/NA	Water	8011	
400-218465-4	MW28-ROX-041322	Total/NA	Water	8011	
400-218465-5	MW1-ROX-041322	Total/NA	Water	8011	
MB 400-574563/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-574563/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-574563/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 574654

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218465-2	TB-ROX-041322-8011	Total/NA	Water	8011	574563
400-218465-3	MW5-ROX-041322	Total/NA	Water	8011	574563
400-218465-4	MW28-ROX-041322	Total/NA	Water	8011	574563
400-218465-5	MW1-ROX-041322	Total/NA	Water	8011	574563
MB 400-574563/1-A	Method Blank	Total/NA	Water	8011	574563
LCS 400-574563/2-A	Lab Control Sample	Total/NA	Water	8011	574563
LCSD 400-574563/3-A	Lab Control Sample Dup	Total/NA	Water	8011	574563

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574349/4
Matrix: Water
Analysis Batch: 574349

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/19/22 10:44	1
Acrolein	ND		20	3.3	ug/L			04/19/22 10:44	1
Acrylonitrile	ND		10	2.8	ug/L			04/19/22 10:44	1
Benzene	ND		1.0	0.13	ug/L			04/19/22 10:44	1
Bromobenzene	ND		1.0	0.54	ug/L			04/19/22 10:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/19/22 10:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Bromoform	ND		5.0	0.25	ug/L			04/19/22 10:44	1
Bromomethane	ND		1.0	0.98	ug/L			04/19/22 10:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/19/22 10:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/19/22 10:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/19/22 10:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/19/22 10:44	1
Chloroethane	ND		1.0	0.76	ug/L			04/19/22 10:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/19/22 10:44	1
Chloroform	ND		1.0	1.0	ug/L			04/19/22 10:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/19/22 10:44	1
Chloromethane	ND		1.0	0.32	ug/L			04/19/22 10:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/19/22 10:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/19/22 10:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/19/22 10:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/19/22 10:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/19/22 10:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/19/22 10:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/19/22 10:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 10:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/19/22 10:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/19/22 10:44	1
2-Hexanone	ND		25	1.4	ug/L			04/19/22 10:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/19/22 10:44	1
Methylene bromide	ND		5.0	0.22	ug/L			04/19/22 10:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/19/22 10:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/19/22 10:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/19/22 10:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/19/22 10:44	1
Naphthalene	ND		1.0	1.0	ug/L			04/19/22 10:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/19/22 10:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/19/22 10:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/19/22 10:44	1
o-Xylene	ND		5.0	0.60	ug/L			04/19/22 10:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/19/22 10:44	1

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

Lab Sample ID: MB 400-574349/4
Matrix: Water
Analysis Batch: 574349

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/19/22 10:44	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/19/22 10:44	1
Styrene	ND		1.0	1.0	ug/L			04/19/22 10:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/19/22 10:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/19/22 10:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/19/22 10:44	1
Toluene	ND		1.0	0.41	ug/L			04/19/22 10:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/19/22 10:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/19/22 10:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/19/22 10:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/19/22 10:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/19/22 10:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/19/22 10:44	1
Trichloroethene	ND		1.0	0.15	ug/L			04/19/22 10:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/19/22 10:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/19/22 10:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/19/22 10:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/19/22 10:44	1
Vinyl acetate	ND		25	0.93	ug/L			04/19/22 10:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/19/22 10:44	1
Xylenes, Total	ND		10	1.6	ug/L			04/19/22 10:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*72 - 119*		*04/19/22 10:44*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/19/22 10:44*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/19/22 10:44*	*1*

Lab Sample ID: LCS 400-574349/1002
Matrix: Water
Analysis Batch: 574349

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	184		ug/L		92	43 - 160
Acrolein	500	462		ug/L		92	38 - 160
Acrylonitrile	500	481		ug/L		96	64 - 142
Benzene	50.0	45.2		ug/L		90	70 - 130
Bromobenzene	50.0	46.4		ug/L		93	70 - 132
Bromochloromethane	50.0	45.8		ug/L		92	70 - 130
Bromodichloromethane	50.0	42.4		ug/L		85	67 - 133
Bromoform	50.0	44.7		ug/L		89	57 - 140
Bromomethane	50.0	35.9		ug/L		72	10 - 160
2-Butanone (MEK)	200	177		ug/L		89	61 - 145
Carbon disulfide	50.0	47.9		ug/L		96	61 - 137
Carbon tetrachloride	50.0	39.0		ug/L		78	61 - 137
Chlorobenzene	50.0	45.5		ug/L		91	70 - 130
Dibromochloromethane	50.0	44.0		ug/L		88	67 - 135
Chloroethane	50.0	43.5		ug/L		87	55 - 141

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

Lab Sample ID: LCS 400-574349/1002
Matrix: Water
Analysis Batch: 574349

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	60.8		ug/L		122	10 - 160
Chloroform	50.0	42.3		ug/L		85	69 - 130
1-Chlorohexane	50.0	43.5		ug/L		87	69 - 130
Chloromethane	50.0	49.9		ug/L		100	58 - 137
cis-1,2-Dichloroethene	50.0	42.8		ug/L		86	68 - 130
cis-1,3-Dichloropropene	50.0	43.9		ug/L		88	69 - 132
1,2-Dichlorobenzene	50.0	44.3		ug/L		89	67 - 130
1,3-Dichlorobenzene	50.0	44.5		ug/L		89	70 - 130
1,4-Dichlorobenzene	50.0	45.3		ug/L		91	70 - 130
Dichlorodifluoromethane	50.0	32.7		ug/L		65	41 - 146
1,1-Dichloroethane	50.0	43.8		ug/L		88	70 - 130
1,2-Dichloroethane	50.0	37.2		ug/L		74	69 - 130
1,1-Dichloroethene	50.0	44.5		ug/L		89	63 - 134
1,2-Dichloropropane	50.0	43.1		ug/L		86	70 - 130
1,3-Dichloropropane	50.0	44.4		ug/L		89	70 - 130
2,2-Dichloropropane	50.0	32.2		ug/L		64	52 - 135
1,1-Dichloropropene	50.0	43.2		ug/L		86	70 - 130
Ethylbenzene	50.0	44.2		ug/L		88	70 - 130
Ethyl methacrylate	50.0	43.9		ug/L		88	68 - 130
Hexachlorobutadiene	50.0	53.7		ug/L		107	53 - 140
2-Hexanone	200	164		ug/L		82	65 - 137
Isopropylbenzene	50.0	44.6		ug/L		89	70 - 130
Methylene bromide	50.0	42.5		ug/L		85	70 - 130
Methylene Chloride	50.0	47.3		ug/L		95	66 - 135
4-Methyl-2-pentanone (MIBK)	200	162		ug/L		81	69 - 138
Methyl tert-butyl ether	50.0	39.8		ug/L		80	66 - 130
m-Xylene & p-Xylene	50.0	44.2		ug/L		88	70 - 130
Naphthalene	50.0	44.9		ug/L		90	47 - 149
n-Butylbenzene	50.0	43.9		ug/L		88	67 - 130
N-Propylbenzene	50.0	45.5		ug/L		91	70 - 130
o-Chlorotoluene	50.0	44.2		ug/L		88	70 - 130
o-Xylene	50.0	42.2		ug/L		84	70 - 130
p-Chlorotoluene	50.0	45.3		ug/L		91	70 - 130
p-Isopropyltoluene	50.0	44.1		ug/L		88	65 - 130
sec-Butylbenzene	50.0	45.2		ug/L		90	66 - 130
Styrene	50.0	44.2		ug/L		88	70 - 130
tert-Butylbenzene	50.0	41.2		ug/L		82	64 - 139
1,1,1,2-Tetrachloroethane	50.0	42.0		ug/L		84	67 - 131
1,1,2,2-Tetrachloroethane	50.0	45.0		ug/L		90	70 - 131
Tetrachloroethene	50.0	45.1		ug/L		90	65 - 130
Toluene	50.0	44.5		ug/L		89	70 - 130
trans-1,2-Dichloroethene	50.0	46.2		ug/L		92	70 - 130
trans-1,3-Dichloropropene	50.0	40.3		ug/L		81	63 - 130
1,2,3-Trichlorobenzene	50.0	48.2		ug/L		96	60 - 138
1,2,4-Trichlorobenzene	50.0	48.6		ug/L		97	60 - 140
1,1,1-Trichloroethane	50.0	38.7		ug/L		77	68 - 130
1,1,2-Trichloroethane	50.0	44.5		ug/L		89	70 - 130
Trichloroethene	50.0	46.6		ug/L		93	70 - 130
Trichlorofluoromethane	50.0	40.9		ug/L		82	65 - 138

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

Lab Sample ID: LCS 400-574349/1002
Matrix: Water
Analysis Batch: 574349

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	44.7		ug/L		89	70 - 130
1,2,4-Trimethylbenzene	50.0	44.0		ug/L		88	70 - 130
1,3,5-Trimethylbenzene	50.0	44.5		ug/L		89	69 - 130
Vinyl acetate	100	110		ug/L		110	26 - 160
Vinyl chloride	50.0	45.3		ug/L		91	59 - 136
Xylenes, Total	100	86.3		ug/L		86	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*72 - 119*
Dibromofluoromethane	*102*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: MB 400-574531/4
Matrix: Water
Analysis Batch: 574531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 10:50	1
Acrolein	ND		20	3.3	ug/L			04/20/22 10:50	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 10:50	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 10:50	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 10:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 10:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 10:50	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 10:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 10:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 10:50	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 10:50	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 10:50	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 10:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 10:50	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 10:50	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 10:50	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 10:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 10:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 10:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 10:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 10:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 10:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 10:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 10:50	1

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

Lab Sample ID: MB 400-574531/4
Matrix: Water
Analysis Batch: 574531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 10:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 10:50	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 10:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 10:50	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 10:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 10:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 10:50	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 10:50	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 10:50	1
Naphthalene	ND		1.0	1.0	ug/L			04/20/22 10:50	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 10:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 10:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 10:50	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 10:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 10:50	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 10:50	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 10:50	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 10:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 10:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 10:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 10:50	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 10:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 10:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 10:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 10:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 10:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 10:50	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 10:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 10:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 10:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 10:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 10:50	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 10:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/20/22 10:50*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/20/22 10:50*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/20/22 10:50*	*1*

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

Lab Sample ID: LCS 400-574531/1002
Matrix: Water
Analysis Batch: 574531

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	212		ug/L		106	43 - 160
Acrolein	500	484		ug/L		97	38 - 160
Acrylonitrile	500	556		ug/L		111	64 - 142
Benzene	50.0	53.2		ug/L		106	70 - 130
Bromobenzene	50.0	49.6		ug/L		99	70 - 132
Bromochloromethane	50.0	53.5		ug/L		107	70 - 130
Bromodichloromethane	50.0	48.9		ug/L		98	67 - 133
Bromoform	50.0	47.1		ug/L		94	57 - 140
Bromomethane	50.0	40.6		ug/L		81	10 - 160
2-Butanone (MEK)	200	204		ug/L		102	61 - 145
Carbon disulfide	50.0	55.8		ug/L		112	61 - 137
Carbon tetrachloride	50.0	45.5		ug/L		91	61 - 137
Chlorobenzene	50.0	50.4		ug/L		101	70 - 130
Dibromochloromethane	50.0	48.3		ug/L		97	67 - 135
Chloroethane	50.0	46.0		ug/L		92	55 - 141
2-Chloroethyl vinyl ether	50.0	57.4		ug/L		115	10 - 160
Chloroform	50.0	49.4		ug/L		99	69 - 130
1-Chlorohexane	50.0	48.5		ug/L		97	69 - 130
Chloromethane	50.0	48.2		ug/L		96	58 - 137
cis-1,2-Dichloroethene	50.0	50.0		ug/L		100	68 - 130
cis-1,3-Dichloropropene	50.0	50.8		ug/L		102	69 - 132
1,2-Dichlorobenzene	50.0	46.9		ug/L		94	67 - 130
1,3-Dichlorobenzene	50.0	47.2		ug/L		94	70 - 130
1,4-Dichlorobenzene	50.0	48.0		ug/L		96	70 - 130
Dichlorodifluoromethane	50.0	32.7		ug/L		65	41 - 146
1,1-Dichloroethane	50.0	51.3		ug/L		103	70 - 130
1,2-Dichloroethane	50.0	42.9		ug/L		86	69 - 130
1,1-Dichloroethene	50.0	52.5		ug/L		105	63 - 134
1,2-Dichloropropane	50.0	50.9		ug/L		102	70 - 130
1,3-Dichloropropane	50.0	48.9		ug/L		98	70 - 130
2,2-Dichloropropane	50.0	37.7		ug/L		75	52 - 135
1,1-Dichloropropene	50.0	50.7		ug/L		101	70 - 130
Ethylbenzene	50.0	48.7		ug/L		97	70 - 130
Ethyl methacrylate	50.0	48.0		ug/L		96	68 - 130
Hexachlorobutadiene	50.0	56.2		ug/L		112	53 - 140
2-Hexanone	200	180		ug/L		90	65 - 137
Isopropylbenzene	50.0	48.8		ug/L		98	70 - 130
Methylene bromide	50.0	49.1		ug/L		98	70 - 130
Methylene Chloride	50.0	55.8		ug/L		112	66 - 135
4-Methyl-2-pentanone (MIBK)	200	191		ug/L		95	69 - 138
Methyl tert-butyl ether	50.0	46.2		ug/L		92	66 - 130
m-Xylene & p-Xylene	50.0	48.5		ug/L		97	70 - 130
Naphthalene	50.0	48.2		ug/L		96	47 - 149
n-Butylbenzene	50.0	47.0		ug/L		94	67 - 130
N-Propylbenzene	50.0	48.6		ug/L		97	70 - 130
o-Chlorotoluene	50.0	47.4		ug/L		95	70 - 130
o-Xylene	50.0	46.8		ug/L		94	70 - 130
p-Chlorotoluene	50.0	48.4		ug/L		97	70 - 130

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

Lab Sample ID: LCS 400-574531/1002
Matrix: Water
Analysis Batch: 574531

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
p-Isopropyltoluene	50.0	46.4		ug/L		93	65 - 130
sec-Butylbenzene	50.0	48.0		ug/L		96	66 - 130
Styrene	50.0	48.7		ug/L		97	70 - 130
tert-Butylbenzene	50.0	43.7		ug/L		87	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.2		ug/L		92	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.5		ug/L		97	70 - 131
Tetrachloroethene	50.0	49.8		ug/L		100	65 - 130
Toluene	50.0	49.4		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	54.0		ug/L		108	70 - 130
trans-1,3-Dichloropropene	50.0	44.5		ug/L		89	63 - 130
1,2,3-Trichlorobenzene	50.0	51.3		ug/L		103	60 - 138
1,2,4-Trichlorobenzene	50.0	51.5		ug/L		103	60 - 140
1,1,1-Trichloroethane	50.0	45.6		ug/L		91	68 - 130
1,1,2-Trichloroethane	50.0	49.4		ug/L		99	70 - 130
Trichloroethene	50.0	54.1		ug/L		108	70 - 130
Trichlorofluoromethane	50.0	42.4		ug/L		85	65 - 138
1,2,3-Trichloropropane	50.0	48.1		ug/L		96	70 - 130
1,2,4-Trimethylbenzene	50.0	47.0		ug/L		94	70 - 130
1,3,5-Trimethylbenzene	50.0	47.4		ug/L		95	69 - 130
Vinyl acetate	100	113		ug/L		113	26 - 160
Vinyl chloride	50.0	48.0		ug/L		96	59 - 136
Xylenes, Total	100	95.3		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*94*		*64 - 132*

Lab Sample ID: 400-218465-5 MS
Matrix: Water
Analysis Batch: 574531

Client Sample ID: MW1-ROX-041322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND	F1	200	544	F1	ug/L		272	43 - 150
Acrolein	ND		500	566		ug/L		113	38 - 150
Acrylonitrile	ND		500	698		ug/L		140	62 - 149
Benzene	ND		50.0	60.1		ug/L		120	56 - 142
Bromobenzene	ND		50.0	57.6		ug/L		115	59 - 136
Bromochloromethane	ND		50.0	61.1		ug/L		122	64 - 140
Bromodichloromethane	ND		50.0	55.6		ug/L		111	59 - 143
Bromoform	ND		50.0	55.5		ug/L		111	50 - 140
Bromomethane	ND		50.0	40.9		ug/L		82	10 - 150
2-Butanone (MEK)	ND		200	248		ug/L		124	55 - 150
Carbon disulfide	ND		50.0	62.0		ug/L		124	48 - 150
Carbon tetrachloride	ND		50.0	50.6		ug/L		101	55 - 145
Chlorobenzene	ND		50.0	56.0		ug/L		112	64 - 130
Dibromochloromethane	ND		50.0	55.0		ug/L		110	56 - 143
Chloroethane	ND		50.0	48.7		ug/L		97	50 - 150

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

Lab Sample ID: 400-218465-5 MS
Matrix: Water
Analysis Batch: 574531

Client Sample ID: MW1-ROX-041322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	55.7		ug/L		111	60 - 141
1-Chlorohexane	ND		50.0	53.6		ug/L		107	56 - 136
Chloromethane	ND		50.0	51.7		ug/L		103	49 - 148
cis-1,2-Dichloroethene	ND		50.0	56.7		ug/L		113	59 - 143
cis-1,3-Dichloropropene	ND		50.0	58.1		ug/L		116	57 - 140
1,2-Dichlorobenzene	ND		50.0	54.5		ug/L		109	52 - 137
1,3-Dichlorobenzene	ND		50.0	53.8		ug/L		108	54 - 135
1,4-Dichlorobenzene	ND		50.0	55.4		ug/L		111	53 - 135
Dichlorodifluoromethane	ND		50.0	34.4		ug/L		69	16 - 150
1,1-Dichloroethane	ND		50.0	58.1		ug/L		116	61 - 144
1,2-Dichloroethane	ND		50.0	49.7		ug/L		99	60 - 141
1,1-Dichloroethene	ND		50.0	58.4		ug/L		117	54 - 147
1,2-Dichloropropane	ND		50.0	58.1		ug/L		116	66 - 137
1,3-Dichloropropane	ND		50.0	56.8		ug/L		114	66 - 133
2,2-Dichloropropane	ND		50.0	42.0		ug/L		84	42 - 144
1,1-Dichloropropene	ND		50.0	57.3		ug/L		115	65 - 136
Ethylbenzene	ND		50.0	54.7		ug/L		109	58 - 131
Ethyl methacrylate	ND		50.0	57.0		ug/L		114	64 - 130
Hexachlorobutadiene	ND		50.0	61.3		ug/L		123	31 - 149
2-Hexanone	ND		200	221		ug/L		110	65 - 140
Isopropylbenzene	ND		50.0	55.0		ug/L		110	56 - 133
Methylene bromide	ND		50.0	58.0		ug/L		116	63 - 138
Methylene Chloride	ND		50.0	64.3		ug/L		129	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	235		ug/L		117	63 - 146
Methyl tert-butyl ether	3.9		50.0	59.3		ug/L		111	59 - 137
m-Xylene & p-Xylene	ND		50.0	54.1		ug/L		108	57 - 130
Naphthalene	ND		50.0	58.9		ug/L		118	25 - 150
n-Butylbenzene	ND		50.0	51.0		ug/L		102	41 - 142
N-Propylbenzene	ND		50.0	55.4		ug/L		111	51 - 138
o-Chlorotoluene	ND		50.0	53.2		ug/L		106	53 - 134
o-Xylene	ND		50.0	52.7		ug/L		105	61 - 130
p-Chlorotoluene	ND		50.0	55.4		ug/L		111	54 - 133
p-Isopropyltoluene	ND		50.0	52.5		ug/L		105	48 - 139
sec-Butylbenzene	ND		50.0	54.9		ug/L		110	50 - 138
Styrene	ND		50.0	55.4		ug/L		111	58 - 131
tert-Butylbenzene	1.1		50.0	51.5		ug/L		101	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	52.2		ug/L		104	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	60.2		ug/L		120	66 - 135
Tetrachloroethene	ND		50.0	54.6		ug/L		109	52 - 133
Toluene	ND		50.0	55.1		ug/L		110	65 - 130
trans-1,2-Dichloroethene	ND		50.0	60.5		ug/L		121	61 - 143
trans-1,3-Dichloropropene	ND		50.0	50.3		ug/L		101	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	59.7		ug/L		119	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	57.5		ug/L		115	39 - 148
1,1,1-Trichloroethane	ND		50.0	50.9		ug/L		102	57 - 142
1,1,2-Trichloroethane	ND		50.0	58.9		ug/L		118	66 - 131
Trichloroethene	ND		50.0	60.5		ug/L		121	64 - 136
Trichlorofluoromethane	ND		50.0	44.5		ug/L		89	54 - 150

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

Lab Sample ID: 400-218465-5 MS
Matrix: Water
Analysis Batch: 574531

Client Sample ID: MW1-ROX-041322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	ND		50.0	57.9		ug/L		116	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	53.9		ug/L		108	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	53.8		ug/L		108	52 - 135
Vinyl acetate	ND		100	129		ug/L		129	26 - 150
Vinyl chloride	ND		50.0	50.2		ug/L		100	46 - 150
Xylenes, Total	ND		100	107		ug/L		107	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*106*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*95*		*64 - 132*

Lab Sample ID: 400-218465-5 MSD
Matrix: Water
Analysis Batch: 574531

Client Sample ID: MW1-ROX-041322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	ND	F1	200	545	F1	ug/L		273	43 - 150	0	30
Acrolein	ND		500	502		ug/L		100	38 - 150	12	31
Acrylonitrile	ND		500	734		ug/L		147	62 - 149	5	30
Benzene	ND		50.0	61.2		ug/L		122	56 - 142	2	30
Bromobenzene	ND		50.0	55.6		ug/L		111	59 - 136	4	30
Bromochloromethane	ND		50.0	62.9		ug/L		126	64 - 140	3	30
Bromodichloromethane	ND		50.0	57.2		ug/L		114	59 - 143	3	30
Bromoform	ND		50.0	58.2		ug/L		116	50 - 140	5	30
Bromomethane	ND		50.0	37.3		ug/L		75	10 - 150	9	50
2-Butanone (MEK)	ND		200	267		ug/L		134	55 - 150	7	30
Carbon disulfide	ND		50.0	64.2		ug/L		128	48 - 150	3	30
Carbon tetrachloride	ND		50.0	51.8		ug/L		104	55 - 145	2	30
Chlorobenzene	ND		50.0	54.8		ug/L		110	64 - 130	2	30
Dibromochloromethane	ND		50.0	56.3		ug/L		113	56 - 143	2	30
Chloroethane	ND		50.0	43.1		ug/L		86	50 - 150	12	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	57.5		ug/L		115	60 - 141	3	30
1-Chlorohexane	ND		50.0	50.1		ug/L		100	56 - 136	7	30
Chloromethane	ND		50.0	46.9		ug/L		94	49 - 148	10	31
cis-1,2-Dichloroethene	ND		50.0	58.6		ug/L		117	59 - 143	3	30
cis-1,3-Dichloropropene	ND		50.0	59.3		ug/L		119	57 - 140	2	30
1,2-Dichlorobenzene	ND		50.0	51.6		ug/L		103	52 - 137	6	30
1,3-Dichlorobenzene	ND		50.0	49.3		ug/L		99	54 - 135	9	30
1,4-Dichlorobenzene	ND		50.0	50.9		ug/L		102	53 - 135	8	30
Dichlorodifluoromethane	ND		50.0	30.0		ug/L		60	16 - 150	14	31
1,1-Dichloroethane	ND		50.0	59.7		ug/L		119	61 - 144	3	30
1,2-Dichloroethane	ND		50.0	50.6		ug/L		101	60 - 141	2	30
1,1-Dichloroethene	ND		50.0	60.7		ug/L		121	54 - 147	4	30
1,2-Dichloropropane	ND		50.0	59.8		ug/L		120	66 - 137	3	30
1,3-Dichloropropane	ND		50.0	58.4		ug/L		117	66 - 133	3	30
2,2-Dichloropropane	ND		50.0	44.8		ug/L		90	42 - 144	7	31

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

Lab Sample ID: 400-218465-5 MSD
Matrix: Water
Analysis Batch: 574531

Client Sample ID: MW1-ROX-041322
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloropropene	ND		50.0	57.8		ug/L		116	65 - 136	1	30
Ethylbenzene	ND		50.0	52.0		ug/L		104	58 - 131	5	30
Ethyl methacrylate	ND		50.0	60.4		ug/L		121	64 - 130	6	30
Hexachlorobutadiene	ND		50.0	48.0		ug/L		96	31 - 149	24	36
2-Hexanone	ND		200	237		ug/L		118	65 - 140	7	30
Isopropylbenzene	ND		50.0	50.7		ug/L		101	56 - 133	8	30
Methylene bromide	ND		50.0	59.7		ug/L		119	63 - 138	3	30
Methylene Chloride	ND		50.0	66.5		ug/L		133	60 - 146	3	32
4-Methyl-2-pentanone (MIBK)	ND		200	246		ug/L		123	63 - 146	4	30
Methyl tert-butyl ether	3.9		50.0	62.4		ug/L		117	59 - 137	5	30
m-Xylene & p-Xylene	ND		50.0	50.9		ug/L		102	57 - 130	6	30
Naphthalene	ND		50.0	59.9		ug/L		120	25 - 150	2	30
n-Butylbenzene	ND		50.0	41.7		ug/L		83	41 - 142	20	31
N-Propylbenzene	ND		50.0	49.2		ug/L		98	51 - 138	12	30
o-Chlorotoluene	ND		50.0	48.7		ug/L		97	53 - 134	9	30
o-Xylene	ND		50.0	49.8		ug/L		100	61 - 130	6	30
p-Chlorotoluene	ND		50.0	50.1		ug/L		100	54 - 133	10	30
p-Isopropyltoluene	ND		50.0	45.2		ug/L		90	48 - 139	15	30
sec-Butylbenzene	ND		50.0	47.8		ug/L		96	50 - 138	14	30
Styrene	ND		50.0	52.8		ug/L		106	58 - 131	5	30
tert-Butylbenzene	1.1		50.0	46.4		ug/L		91	54 - 146	10	30
1,1,1,2-Tetrachloroethane	ND		50.0	52.2		ug/L		104	59 - 137	0	30
1,1,2,2-Tetrachloroethane	ND		50.0	62.3		ug/L		125	66 - 135	3	30
Tetrachloroethene	ND		50.0	53.5		ug/L		107	52 - 133	2	30
Toluene	ND		50.0	54.7		ug/L		109	65 - 130	1	30
trans-1,2-Dichloroethene	ND		50.0	62.5		ug/L		125	61 - 143	3	30
trans-1,3-Dichloropropene	ND		50.0	52.5		ug/L		105	53 - 133	4	30
1,2,3-Trichlorobenzene	ND		50.0	55.6		ug/L		111	43 - 145	7	30
1,2,4-Trichlorobenzene	ND		50.0	52.2		ug/L		104	39 - 148	10	30
1,1,1-Trichloroethane	ND		50.0	53.1		ug/L		106	57 - 142	4	30
1,1,2-Trichloroethane	ND		50.0	61.0		ug/L		122	66 - 131	3	30
Trichloroethene	ND		50.0	60.7		ug/L		121	64 - 136	0	30
Trichlorofluoromethane	ND		50.0	39.0		ug/L		78	54 - 150	13	30
1,2,3-Trichloropropane	ND		50.0	62.5		ug/L		125	65 - 133	8	30
1,2,4-Trimethylbenzene	ND		50.0	48.0		ug/L		96	50 - 139	12	30
1,3,5-Trimethylbenzene	ND		50.0	48.9		ug/L		98	52 - 135	10	30
Vinyl acetate	ND		100	112		ug/L		112	26 - 150	14	33
Vinyl chloride	ND		50.0	44.9		ug/L		90	46 - 150	11	30
Xylenes, Total	ND		100	101		ug/L		101	59 - 130	6	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574212/1-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/18/22 10:03	04/19/22 17:25	1
Benzenethiol	ND		10	1.7	ug/L		04/18/22 10:03	04/19/22 17:25	1
Benzoic acid	ND		30	7.3	ug/L		04/18/22 10:03	04/19/22 17:25	1
Benzyl alcohol	ND		10	2.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/18/22 10:03	04/19/22 17:25	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/18/22 10:03	04/19/22 17:25	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/18/22 10:03	04/19/22 17:25	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/18/22 10:03	04/19/22 17:25	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Chloroaniline	ND		10	3.4	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/18/22 10:03	04/19/22 17:25	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/18/22 10:03	04/19/22 17:25	1
2-Chlorophenol	ND		10	2.2	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Dibenzofuran	ND		10	0.17	ug/L		04/18/22 10:03	04/19/22 17:25	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Diethyl phthalate	0.469	J	10	0.24	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/18/22 10:03	04/19/22 17:25	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/18/22 10:03	04/19/22 17:25	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/18/22 10:03	04/19/22 17:25	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/18/22 10:03	04/19/22 17:25	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/18/22 10:03	04/19/22 17:25	1
1,4-Dioxane	ND		10	1.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/18/22 10:03	04/19/22 17:25	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/18/22 10:03	04/19/22 17:25	1
Hexachloroethane	ND		10	4.2	ug/L		04/18/22 10:03	04/19/22 17:25	1
Indene	ND		10	1.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Isophorone	ND		10	0.14	ug/L		04/18/22 10:03	04/19/22 17:25	1
2-Methylphenol	ND		10	1.8	ug/L		04/18/22 10:03	04/19/22 17:25	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/18/22 10:03	04/19/22 17:25	1
2-Nitroaniline	ND		10	2.2	ug/L		04/18/22 10:03	04/19/22 17:25	1
3-Nitroaniline	ND		10	1.8	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Nitroaniline	ND		10	1.5	ug/L		04/18/22 10:03	04/19/22 17:25	1
Nitrobenzene	ND		10	0.13	ug/L		04/18/22 10:03	04/19/22 17:25	1
2-Nitrophenol	ND		10	5.2	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Nitrophenol	ND		10	2.1	ug/L		04/18/22 10:03	04/19/22 17:25	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/18/22 10:03	04/19/22 17:25	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/18/22 10:03	04/19/22 17:25	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/18/22 10:03	04/19/22 17:25	1
Pentachlorophenol	ND		20	1.4	ug/L		04/18/22 10:03	04/19/22 17:25	1
Phenol	ND		10	2.6	ug/L		04/18/22 10:03	04/19/22 17:25	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574212/1-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		04/18/22 10:03	04/19/22 17:25	1
Quinoline	ND		10	4.5	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/18/22 10:03	04/19/22 17:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*04/18/22 10:03*	*04/19/22 17:25*	*1*
2-Fluorophenol	*20*		*13 - 113*	*04/18/22 10:03*	*04/19/22 17:25*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*04/18/22 10:03*	*04/19/22 17:25*	*1*
Phenol-d5	*57*		*17 - 127*	*04/18/22 10:03*	*04/19/22 17:25*	*1*
Terphenyl-d14	*89*		*44 - 149*	*04/18/22 10:03*	*04/19/22 17:25*	*1*
2,4,6-Tribromophenol	*86*		*26 - 150*	*04/18/22 10:03*	*04/19/22 17:25*	*1*

Lab Sample ID: LCS 400-574212/2-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	72.5		ug/L		60	21 - 120
Benzoic acid	498	241		ug/L		48	10 - 144
Benzyl alcohol	120	91.2		ug/L		76	28 - 120
Bis(2-chloroethoxy)methane	120	97.7		ug/L		81	47 - 120
Bis(2-chloroethyl)ether	120	105		ug/L		87	44 - 120
bis (2-chloroisopropyl) ether	120	99.4		ug/L		83	33 - 121
Bis(2-ethylhexyl) phthalate	120	108		ug/L		90	52 - 147
4-Bromophenyl phenyl ether	120	118		ug/L		98	54 - 122
Butyl benzyl phthalate	120	111		ug/L		93	54 - 133
4-Chloroaniline	120	67.4		ug/L		56	26 - 120
4-Chloro-3-methylphenol	120	106		ug/L		89	48 - 131
2-Chloronaphthalene	120	113		ug/L		94	52 - 121
2-Chlorophenol	120	85.7		ug/L		71	40 - 120
4-Chlorophenyl phenyl ether	120	117		ug/L		98	56 - 125
Dibenz[a,h]acridine	120	150		ug/L		125	31 - 150
Dibenzofuran	120	116		ug/L		97	56 - 122
3,3'-Dichlorobenzidine	160	219	*+	ug/L		137	36 - 132
2,4-Dichlorophenol	120	99.0		ug/L		83	49 - 120
Diethyl phthalate	120	124		ug/L		104	50 - 137
2,4-Dimethylphenol	120	106		ug/L		88	48 - 120
Dimethyl phthalate	120	117		ug/L		97	57 - 124
Di-n-butyl phthalate	120	134		ug/L		112	58 - 126
4,6-Dinitro-ortho-cresol	240	299		ug/L		124	23 - 148
2,4-Dinitrophenol	240	287		ug/L		120	10 - 150
2,4-Dinitrotoluene	120	122		ug/L		102	54 - 142
2,6-Dinitrotoluene	120	112		ug/L		94	55 - 130
Di-n-octyl phthalate	120	114		ug/L		95	57 - 138
1,4-Dioxane	120	83.3		ug/L		69	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	107		ug/L		89	45 - 124
Hexachlorobenzene	120	128		ug/L		107	52 - 129

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574212/2-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	120	84.4		ug/L		70	10 - 134
Hexachloroethane	120	104		ug/L		87	20 - 120
Indene	120	104		ug/L		86	49 - 120
Isophorone	120	100		ug/L		83	48 - 120
2-Methylphenol	120	114		ug/L		95	46 - 124
3 & 4 Methylphenol	120	106		ug/L		89	45 - 120
2-Nitroaniline	120	102		ug/L		85	51 - 145
3-Nitroaniline	120	89.8		ug/L		75	37 - 127
4-Nitroaniline	120	129		ug/L		108	36 - 137
Nitrobenzene	120	96.9		ug/L		81	45 - 120
2-Nitrophenol	120	107		ug/L		89	40 - 124
4-Nitrophenol	240	222		ug/L		92	23 - 146
N-Nitrosodimethylamine	120	113		ug/L		94	29 - 137
N-Nitrosodi-n-propylamine	120	110		ug/L		92	45 - 120
N-Nitrosodiphenylamine	119	110		ug/L		92	54 - 120
Pentachlorophenol	240	248		ug/L		103	31 - 130
Phenol	120	96.8		ug/L		81	11 - 120
Pyridine	240	166		ug/L		69	16 - 120
Quinoline	120	119		ug/L		99	49 - 130
2,4,5-Trichlorophenol	120	108		ug/L		90	51 - 136
2,4,6-Trichlorophenol	120	105		ug/L		88	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*44*		*13 - 113*
Nitrobenzene-d5	*91*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*112*		*26 - 150*

Lab Sample ID: LCS 400-574212/4-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	8.03	J *-	ug/L		7	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*94*		*46 - 124*
2-Fluorophenol	*37*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*
Phenol-d5	*65*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*73*		*26 - 150*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574212/3-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	64.7		ug/L		54	21 - 120	11	30
Benzoic acid	498	300		ug/L		60	10 - 144	22	30
Benzyl alcohol	120	91.0		ug/L		76	28 - 120	0	30
Bis(2-chloroethoxy)methane	120	102		ug/L		85	47 - 120	4	30
Bis(2-chloroethyl)ether	120	113		ug/L		94	44 - 120	7	30
bis (2-chloroisopropyl) ether	120	102		ug/L		85	33 - 121	3	30
Bis(2-ethylhexyl) phthalate	120	118		ug/L		98	52 - 147	9	30
4-Bromophenyl phenyl ether	120	126		ug/L		105	54 - 122	7	30
Butyl benzyl phthalate	120	116		ug/L		96	54 - 133	4	30
4-Chloroaniline	120	67.1		ug/L		56	26 - 120	0	30
4-Chloro-3-methylphenol	120	114		ug/L		95	48 - 131	7	30
2-Chloronaphthalene	120	118		ug/L		98	52 - 121	4	30
2-Chlorophenol	120	83.6		ug/L		70	40 - 120	3	30
4-Chlorophenyl phenyl ether	120	124		ug/L		103	56 - 125	5	30
Dibenz[a,h]acridine	120	160		ug/L		134	31 - 150	6	30
Dibenzofuran	120	121		ug/L		101	56 - 122	4	30
3,3'-Dichlorobenzidine	160	227	*+	ug/L		142	36 - 132	3	30
2,4-Dichlorophenol	120	107		ug/L		89	49 - 120	8	30
Diethyl phthalate	120	130		ug/L		108	50 - 137	5	30
2,4-Dimethylphenol	120	112		ug/L		93	48 - 120	5	30
Dimethyl phthalate	120	124		ug/L		104	57 - 124	7	30
Di-n-butyl phthalate	120	145		ug/L		121	58 - 126	8	30
4,6-Dinitro-ortho-cresol	240	320		ug/L		134	23 - 148	7	30
2,4-Dinitrophenol	240	304		ug/L		127	10 - 150	6	30
2,4-Dinitrotoluene	120	129		ug/L		107	54 - 142	5	30
2,6-Dinitrotoluene	120	118		ug/L		98	55 - 130	5	30
Di-n-octyl phthalate	120	125		ug/L		105	57 - 138	9	30
1,4-Dioxane	120	88.5		ug/L		74	31 - 120	6	30
1,2-Diphenylhydrazine (as Azobenzene)	120	114		ug/L		95	45 - 124	7	30
Hexachlorobenzene	120	135		ug/L		112	52 - 129	5	30
Hexachlorocyclopentadiene	120	89.0		ug/L		74	10 - 134	5	30
Hexachloroethane	120	106		ug/L		88	20 - 120	1	30
Indene	120	106		ug/L		88	49 - 120	2	30
Isophorone	120	105		ug/L		87	48 - 120	4	30
2-Methylphenol	120	122		ug/L		102	46 - 124	7	30
3 & 4 Methylphenol	120	113		ug/L		94	45 - 120	6	30
2-Nitroaniline	120	107		ug/L		89	51 - 145	5	30
3-Nitroaniline	120	91.3		ug/L		76	37 - 127	2	30
4-Nitroaniline	120	132		ug/L		110	36 - 137	2	30
Nitrobenzene	120	98.8		ug/L		82	45 - 120	2	30
2-Nitrophenol	120	113		ug/L		94	40 - 124	5	30
4-Nitrophenol	240	235		ug/L		98	23 - 146	6	30
N-Nitrosodimethylamine	120	110		ug/L		92	29 - 137	2	30
N-Nitrosodi-n-propylamine	120	113		ug/L		94	45 - 120	2	30
N-Nitrosodiphenylamine	119	116		ug/L		97	54 - 120	5	30
Pentachlorophenol	240	258		ug/L		108	31 - 130	4	30
Phenol	120	97.8		ug/L		82	11 - 120	1	30
Pyridine	240	169		ug/L		70	16 - 120	2	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574212/3-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Quinoline	120	124		ug/L		103	49 - 130	4	30
2,4,5-Trichlorophenol	120	117		ug/L		97	51 - 136	8	30
2,4,6-Trichlorophenol	120	112		ug/L		93	50 - 127	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*93*		*46 - 124*
2-Fluorophenol	*34*		*13 - 113*
Nitrobenzene-d5	*89*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*
2,4,6-Tribromophenol	*113*		*26 - 150*

Lab Sample ID: LCSD 400-574212/5-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	6.03	J *-	ug/L		5	10 - 120	28	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*46 - 124*
2-Fluorophenol	*25*		*13 - 113*
Nitrobenzene-d5	*78*		*36 - 126*
Phenol-d5	*52*		*17 - 127*
Terphenyl-d14	*88*		*44 - 149*
2,4,6-Tribromophenol	*76*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-574212/1-A
Matrix: Water
Analysis Batch: 575311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/18/22 10:03	04/25/22 20:56	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/18/22 10:03	04/25/22 20:56	1
Anthracene	ND		0.20	0.032	ug/L		04/18/22 10:03	04/25/22 20:56	1
Benzo[a]anthracene	0.162	J	0.20	0.046	ug/L		04/18/22 10:03	04/25/22 20:56	1
Benzo[a]pyrene	0.144	J	0.20	0.042	ug/L		04/18/22 10:03	04/25/22 20:56	1
Benzo[b]fluoranthene	0.124	J	0.20	0.034	ug/L		04/18/22 10:03	04/25/22 20:56	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/18/22 10:03	04/25/22 20:56	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/18/22 10:03	04/25/22 20:56	1
Chrysene	0.0949	J	0.20	0.074	ug/L		04/18/22 10:03	04/25/22 20:56	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/18/22 10:03	04/25/22 20:56	1
Fluoranthene	0.151	J	0.20	0.068	ug/L		04/18/22 10:03	04/25/22 20:56	1
Fluorene	ND		0.20	0.11	ug/L		04/18/22 10:03	04/25/22 20:56	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/18/22 10:03	04/25/22 20:56	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/18/22 10:03	04/25/22 20:56	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-574212/1-A
Matrix: Water
Analysis Batch: 575311

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/18/22 10:03	04/25/22 20:56	1
Phenanthrene	ND		0.20	0.036	ug/L		04/18/22 10:03	04/25/22 20:56	1
Pyrene	0.146	J	0.20	0.040	ug/L		04/18/22 10:03	04/25/22 20:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*15 - 122*	*04/18/22 10:03*	*04/25/22 20:56*	*1*
Nitrobenzene-d5	*98*		*19 - 130*	*04/18/22 10:03*	*04/25/22 20:56*	*1*
Terphenyl-d14	*150*	*S1+*	*33 - 138*	*04/18/22 10:03*	*04/25/22 20:56*	*1*

Lab Sample ID: LCS 400-574212/2-A
Matrix: Water
Analysis Batch: 575786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	120		ug/L		100	41 - 120
Acenaphthylene	120	129		ug/L		107	44 - 120
Anthracene	120	123		ug/L		102	49 - 120
Benzo[a]anthracene	120	120	B	ug/L		100	61 - 135
Benzo[a]pyrene	120	130	B	ug/L		108	52 - 120
Benzo[b]fluoranthene	120	135	B	ug/L		112	53 - 134
Benzo[g,h,i]perylene	120	118		ug/L		99	47 - 133
Benzo[k]fluoranthene	120	127		ug/L		106	57 - 134
Chrysene	120	121	B	ug/L		101	55 - 122
Dibenz(a,h)anthracene	120	124		ug/L		103	48 - 146
Fluoranthene	120	112	B	ug/L		93	54 - 128
Fluorene	120	124		ug/L		103	45 - 125
Indeno[1,2,3-cd]pyrene	120	120		ug/L		100	43 - 142
1-Methylnaphthalene	120	106		ug/L		88	41 - 120
2-Methylnaphthalene	120	116		ug/L		97	32 - 124
Phenanthrene	120	126		ug/L		105	48 - 120
Pyrene	120	114	B	ug/L		95	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*15 - 122*
Nitrobenzene-d5	*80*		*19 - 130*
Terphenyl-d14	*97*		*33 - 138*

Lab Sample ID: LCSD 400-574212/3-A
Matrix: Water
Analysis Batch: 575786

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	115		ug/L		96	41 - 120	4	56
Acenaphthylene	120	124		ug/L		104	44 - 120	3	56
Anthracene	120	121		ug/L		101	49 - 120	2	51
Benzo[a]anthracene	120	117	B	ug/L		97	61 - 135	3	49
Benzo[a]pyrene	120	125	B	ug/L		105	52 - 120	4	50
Benzo[b]fluoranthene	120	134	B	ug/L		112	53 - 134	1	54

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 400-574212/3-A
Matrix: Water
Analysis Batch: 575786

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[g,h,i]perylene	120	116		ug/L		97	47 - 133	2	50
Benzo[k]fluoranthene	120	115		ug/L		96	57 - 134	10	52
Chrysene	120	116	B	ug/L		97	55 - 122	4	50
Dibenz(a,h)anthracene	120	124		ug/L		104	48 - 146	0	50
Fluoranthene	120	109	B	ug/L		91	54 - 128	3	52
Fluorene	120	119		ug/L		99	45 - 125	4	56
Indeno[1,2,3-cd]pyrene	120	120		ug/L		100	43 - 142	0	51
1-Methylnaphthalene	120	106		ug/L		89	41 - 120	0	55
2-Methylnaphthalene	120	112		ug/L		93	32 - 124	4	57
Phenanthrene	120	123		ug/L		102	48 - 120	3	56
Pyrene	120	109	B	ug/L		91	48 - 132	4	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*15 - 122*
Nitrobenzene-d5	*74*		*19 - 130*
Terphenyl-d14	*91*		*33 - 138*

Lab Sample ID: MB 400-576607/1-A
Matrix: Water
Analysis Batch: 576608

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 576607

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		05/06/22 07:23	05/06/22 16:44	1
Acenaphthylene	ND		0.20	0.045	ug/L		05/06/22 07:23	05/06/22 16:44	1
Anthracene	ND		0.20	0.032	ug/L		05/06/22 07:23	05/06/22 16:44	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		05/06/22 07:23	05/06/22 16:44	1
Benzo[a]pyrene	0.0465	J	0.20	0.042	ug/L		05/06/22 07:23	05/06/22 16:44	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		05/06/22 07:23	05/06/22 16:44	1
Benzo[g,h,i]perylene	0.183	J	0.20	0.13	ug/L		05/06/22 07:23	05/06/22 16:44	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		05/06/22 07:23	05/06/22 16:44	1
Chrysene	ND		0.20	0.074	ug/L		05/06/22 07:23	05/06/22 16:44	1
Dibenz(a,h)anthracene	0.216		0.20	0.050	ug/L		05/06/22 07:23	05/06/22 16:44	1
Fluoranthene	ND		0.20	0.068	ug/L		05/06/22 07:23	05/06/22 16:44	1
Fluorene	ND		0.20	0.11	ug/L		05/06/22 07:23	05/06/22 16:44	1
Indeno[1,2,3-cd]pyrene	0.201		0.20	0.043	ug/L		05/06/22 07:23	05/06/22 16:44	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		05/06/22 07:23	05/06/22 16:44	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		05/06/22 07:23	05/06/22 16:44	1
Phenanthrene	ND		0.20	0.036	ug/L		05/06/22 07:23	05/06/22 16:44	1
Pyrene	ND		0.20	0.040	ug/L		05/06/22 07:23	05/06/22 16:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*15 - 122*	*05/06/22 07:23*	*05/06/22 16:44*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*05/06/22 07:23*	*05/06/22 16:44*	*1*
Terphenyl-d14	*104*		*33 - 138*	*05/06/22 07:23*	*05/06/22 16:44*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-576607/2-A
Matrix: Water
Analysis Batch: 576608

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 576607

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	134		ug/L		112	41 - 120
Acenaphthylene	120	145	*+	ug/L		121	44 - 120
Anthracene	120	140		ug/L		117	49 - 120
Benzo[a]anthracene	120	132		ug/L		110	61 - 135
Benzo[a]pyrene	120	140		ug/L		117	52 - 120
Benzo[b]fluoranthene	120	141		ug/L		118	53 - 134
Benzo[g,h,i]perylene	120	115		ug/L		96	47 - 133
Benzo[k]fluoranthene	120	141		ug/L		117	57 - 134
Chrysene	120	130		ug/L		109	55 - 122
Dibenz(a,h)anthracene	120	130		ug/L		108	48 - 146
Fluoranthene	120	125		ug/L		104	54 - 128
Fluorene	120	140		ug/L		116	45 - 125
Indeno[1,2,3-cd]pyrene	120	125		ug/L		104	43 - 142
1-Methylnaphthalene	120	133		ug/L		111	41 - 120
2-Methylnaphthalene	120	132		ug/L		110	32 - 124
Phenanthrene	120	145	*+	ug/L		121	48 - 120
Pyrene	120	126		ug/L		105	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*114*		*15 - 122*
Nitrobenzene-d5	*124*		*19 - 130*
Terphenyl-d14	*116*		*33 - 138*

Lab Sample ID: LCSD 400-576607/3-A
Matrix: Water
Analysis Batch: 576608

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 576607

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	127		ug/L		106	41 - 120	6	56
Acenaphthylene	120	137		ug/L		114	44 - 120	6	56
Anthracene	120	132		ug/L		110	49 - 120	6	51
Benzo[a]anthracene	120	124		ug/L		103	61 - 135	6	49
Benzo[a]pyrene	120	130		ug/L		108	52 - 120	7	50
Benzo[b]fluoranthene	120	136		ug/L		114	53 - 134	3	54
Benzo[g,h,i]perylene	120	101		ug/L		84	47 - 133	13	50
Benzo[k]fluoranthene	120	129		ug/L		108	57 - 134	9	52
Chrysene	120	120		ug/L		100	55 - 122	8	50
Dibenz(a,h)anthracene	120	113		ug/L		94	48 - 146	14	50
Fluoranthene	120	117		ug/L		98	54 - 128	7	52
Fluorene	120	131		ug/L		109	45 - 125	7	56
Indeno[1,2,3-cd]pyrene	120	110		ug/L		92	43 - 142	13	51
1-Methylnaphthalene	120	125		ug/L		104	41 - 120	6	55
2-Methylnaphthalene	120	124		ug/L		104	32 - 124	6	57
Phenanthrene	120	135		ug/L		113	48 - 120	7	56
Pyrene	120	119		ug/L		99	48 - 132	6	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*103*		*15 - 122*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 400-576607/3-A
Matrix: Water
Analysis Batch: 576608

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 576607

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Nitrobenzene-d5	*112*		*19 - 130*
Terphenyl-d14	*104*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-574563/1-A
Matrix: Water
Analysis Batch: 574654

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574563

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/20/22 11:56	04/20/22 19:50	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/20/22 11:56	04/20/22 19:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*51 - 149*	*04/20/22 11:56*	*04/20/22 19:50*	*1*

Lab Sample ID: LCS 400-574563/2-A
Matrix: Water
Analysis Batch: 574654

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574563

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.135		ug/L		134	60 - 140
1,2-Dibromoethane	0.101	0.125		ug/L		124	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*122*		*51 - 149*

Lab Sample ID: LCSD 400-574563/3-A
Matrix: Water
Analysis Batch: 574654

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574563

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.147	*+ *1	ug/L		146	60 - 140	52	30
1,2-Dibromoethane	0.101	0.130		ug/L		129	60 - 140	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*134*		*51 - 149*

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:

☐ SGW FDG ☐ PIPELINE ☐ RETAIL
☐ CHEMICALS ☐ CONSULTANT ☐ LUBES
☐ TRANSPORTATION ☑ OTHER _ENV. SERVICES_____

Print Bill To Contact Name:	PlaNet Site or Project ID
Melissa Remiger	25278
PO #	**GSAP Project ID**
60674381 – 3.2.2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/13/2022
PAGE: 1 of 1

SAMPLING COMPANY: AECOM
LOG CODE:
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger
TELEPHONE: 314-429-0100 FAX: 314-429-0462 Bill To Contact E-MAIL: melissa.remiger@aecom.com
TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) __EDD_____
TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project/ Task Number: Roxana Quarterly GW 60674381 – 3.2.2
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols
LAB USE ONLY

SPECIAL INSTRUCTIONS OR NOTES :

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

REQUESTED ANALYSIS 60674381 – 3.2.2

400-218465 COC

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
Container PID Readings or Laboratory Notes:

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041322-8260	4/13/2022	0000	Water	2					2	X			
	TB-ROX-041322-8011	4/13/2022	0000	Water	2					2		X		
	MW5-ROX-041322	4/13/2022	0825	Water	6			2		8	X	X	X	X
	MW28-ROX-041322	4/13/2022	0905	Water	6			2		8	X	X	X	X
	MW1-ROX-041322	4/13/2022	0955	Water	6			2		8	X	X	X	X

MM 4/13/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 1482 3813 1708	4/13/2022	1230
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4.14.22	Time: 09:07

CUSTODY SEALS: 1913462, 1913463

Temp 0.5°C IRG

Version: 1Apr22

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218465-1

Login Number: 218465
List Number: 1
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.5°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218465-1

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218564-1-Rev.1

Data Reviewer: Melissa Remiger

Peer Reviewer: Zachary Neigh

Date Reviewed: 6/15/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041522-8260	TB-ROX-041522-8011
ROST4PZG-ROX-041522	ROST4PZG-ROX-041522-DUP
MW22-ROX-041522	ROST4PZC-ROX-041522
P57-ROX-041522	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated chlorobenzene was detected in trip blank TB-ROX-041522-8260, and diethyl phthalate and acenaphthylene were detected in the method blanks. Several SVOC and VOC by 8011 LCS/LCSD recoveries were outside evaluation criteria. Several PAH surrogate recoveries were outside criteria in several investigative and quality control samples. The continuing calibration verifications for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on June 15, 2022 to include missing PAH LCS/LCSD.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-041522-8260	VOCs	Chlorobenzene	0.23 µg/L
MB 400-574212/1-A	SVOCs	Diethyl phthalate	0.469 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-574212/1-A	PAHs	Acenaphthylene	0.0649 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
ROST4PZC-ROX-041522	SVOCs	Diethyl phthalate	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-574212/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	**137/142**	3	36-132/30
LCS/LCSD 400-574212/4-A/5-A	SVOCs	Benzenethiol	**7/5**	28	10-120/30
LCS/LCSD 400-575192/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**143/153**	7	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
ROST4PZG-ROX-041522	SVOCs	Benzenethiol	**UJ**
ROST4PZG-ROX-041522-DUP	SVOCs	Benzenethiol	**UJ**
MW22-ROX-041522	SVOCs	Benzenethiol	**UJ**
ROST4PZC-ROX-041522	SVOCs	Benzenethiol	**UJ**
P57-ROX-041522	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
ROST4PZG-ROX-041522	PAHs	2-Fluorobiphenyl	**128**	15-122
ROST4PZC-ROX-041522	PAHs	2-Fluorobiphenyl	**128**	15-122
MB 400-574212/1-A	PAHs	2-Fluorobiphenyl	**134**	15-122

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MB 400-574212/1-A	PAHs	Terphenyl-d_{14}	**173**	33-138

Qualifications due to surrogate recoveries were not required if only one of three base/neutral surrogate recoveries were outside evaluation criteria. Method blanks are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
ROST4PZG-ROX-041522	ROST4PZG-ROX-041522-DUP

Were field duplicates within evaluation criteria?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside evaluation criteria, biased low, in CCV 400-574600/3. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
ROST4PZG-ROX-041522	SVOCs	Benzyl alcohol	**UJ**
ROST4PZG-ROX-041522	SVOCs	bis(2-Chloroethoxy) methane	**UJ**
ROST4PZG-ROX-041522	SVOCs	bis(2-Chloroethyl) ether	**UJ**
ROST4PZG-ROX-041522	SVOCs	bis(2-Chloroisopropyl) ether	**UJ**
ROST4PZG-ROX-041522	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**

Sample ID	Parameter	Analyte	Qualification
ROST4PZG-ROX-041522	SVOCs	1,4-Dioxane	UJ
ROST4PZG-ROX-041522	SVOCs	1,2-Diphenylhydrazine (as Azobenzene	UJ
ROST4PZG-ROX-041522	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZG-ROX-041522	SVOCs	Isophorone	UJ
ROST4PZG-ROX-041522	SVOCs	N-Nitrosodi-n-propylamine	UJ
ROST4PZG-ROX-041522	SVOCs	Phenol	UJ
ROST4PZG-ROX-041522	SVOCs	Pyridine	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	Benzyl alcohol	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	bis(2-Chloroethoxy) methane	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	bis(2-Chloroethyl) ether	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	bis(2-Chloroisopropyl) ether	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	4,6-Dinitro-ortho-cresol	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	1,4-Dioxane	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	1,2-Diphenylhydrazine (as Azobenzene	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	Isophorone	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	N-Nitrosodi-n-propylamine	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	Phenol	UJ
ROST4PZG-ROX-041522-DUP	SVOCs	Pyridine	UJ
MW22-ROX-041522	SVOCs	Benzyl alcohol	UJ
MW22-ROX-041522	SVOCs	bis(2-Chloroethoxy) methane	UJ
MW22-ROX-041522	SVOCs	bis(2-Chloroethyl) ether	UJ
MW22-ROX-041522	SVOCs	bis(2-Chloroisopropyl) ether	UJ
MW22-ROX-041522	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW22-ROX-041522	SVOCs	1,4-Dioxane	UJ
MW22-ROX-041522	SVOCs	1,2-Diphenylhydrazine (as Azobenzene	UJ
MW22-ROX-041522	SVOCs	Hexachlorocyclopentadiene	UJ
MW22-ROX-041522	SVOCs	Isophorone	UJ
MW22-ROX-041522	SVOCs	N-Nitrosodi-n-propylamine	UJ
MW22-ROX-041522	SVOCs	Phenol	UJ
MW22-ROX-041522	SVOCs	Pyridine	UJ
ROST4PZC-ROX-041522	SVOCs	Benzyl alcohol	UJ
ROST4PZC-ROX-041522	SVOCs	bis(2-Chloroethoxy) methane	UJ
ROST4PZC-ROX-041522	SVOCs	bis(2-Chloroethyl) ether	UJ
ROST4PZC-ROX-041522	SVOCs	bis(2-Chloroisopropyl) ether	UJ
ROST4PZC-ROX-041522	SVOCs	4,6-Dinitro-ortho-cresol	UJ
ROST4PZC-ROX-041522	SVOCs	1,4-Dioxane	UJ
ROST4PZC-ROX-041522	SVOCs	1,2-Diphenylhydrazine (as Azobenzene	UJ
ROST4PZC-ROX-041522	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZC-ROX-041522	SVOCs	Isophorone	UJ
ROST4PZC-ROX-041522	SVOCs	N-Nitrosodi-n-propylamine	UJ
ROST4PZC-ROX-041522	SVOCs	Phenol	UJ

Sample ID	Parameter	Analyte	Qualification
ROST4PZC-ROX-041522	SVOCs	Pyridine	**UJ**
P57-ROX-041522	SVOCs	Benzyl alcohol	**UJ**
P57-ROX-041522	SVOCs	bis(2-Chloroethoxy) methane	**UJ**
P57-ROX-041522	SVOCs	bis(2-Chloroethyl) ether	**UJ**
P57-ROX-041522	SVOCs	bis(2-Chloroisopropyl) ether	**UJ**
P57-ROX-041522	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
P57-ROX-041522	SVOCs	1,4-Dioxane	**UJ**
P57-ROX-041522	SVOCs	1,2-Diphenylhydrazine (as Azobenzene	**UJ**
P57-ROX-041522	SVOCs	Hexachlorocyclopentadiene	**UJ**
P57-ROX-041522	SVOCs	Isophorone	**UJ**
P57-ROX-041522	SVOCs	N-Nitrosodi-n-propylamine	**UJ**
P57-ROX-041522	SVOCs	Phenol	**UJ**
P57-ROX-041522	SVOCs	Pyridine	**UJ**

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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218564-1
Client Project/Site: ROXANA QUARTERLY GW
Revision: 1

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
6/15/2022 4:16:38 PM

Leah Klingensmith, Senior Project Manager
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Reviewed 6/15/202
MR

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

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

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

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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Job ID: 400-218564-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218564-1

Comments
Revised Report
Report revised to include missing QC.
Supersedes Report dated 5-2-2022.

Receipt
The samples were received on 4/16/2022 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.0° C and 3.1° C.

GC/MS VOA
Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041522-8260 (400-218564-1), ROST4PZG-ROX-041522 (400-218564-3), ROST4PZG-ROX-041522-DUP (400-218564-4), MW22-ROX-041522 (400-218564-5), ROST4PZC-ROX-041522 (400-218564-6) and P57-ROX-041522 (400-218564-7). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

Method 8260B: The following sample TB-ROX-041522-8260 (400-218564-1) contained Chlorobenzene between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-574212 and analytical batch 400-574392 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-574212 and analytical batch 400-574392 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574600 recovered above the upper control limit for N-Nitrosodimethylamine and Hexachlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574600 recovered outside acceptance criteria, low biased, for N-Nitrosodi-n-propylamine, 1,4-Dioxane, Pyridine, Bis(2-chloroethyl)ether, Phenol, Isophorone, 2,2'-oxybis[1-chloropropane], 1,2-Diphenylhydrazine (as Azobenzene), 4,6-Dinitro-2-methylphenol, Hexachlorocyclopentadiene, Bis(2-chloroethoxy)methane and Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The method blank for preparation batch 400-574212 and analytical batch 400-574392 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: Surrogate recovery for the following samples were outside the upper control limit: ROST4PZG-ROX-041522 (400-218564-3) and ROST4PZG-ROX-041522-DUP (400-218564-4). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D LL: The surrogate recovery for the blank associated with preparation batch 400-574212 and analytical batch 400-574718 was outside the upper control limits.

Job ID: 400-218564-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D LL: The method blank for preparation batch 400-574212 and analytical batch 400-574718 contained Acenaphthylene above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-574212 and analytical batch 400-575311 recovered outside control limits for the following analytes: Anthracene, Acenaphthylene and Fluorene. These analytes were biased high in the LCS and were not detected above the reporting limit in the associated samples; therefore, the data have been reported.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: ROST4PZG-ROX-041522 (400-218564-3) and ROST4PZC-ROX-041522 (400-218564-6). These results have been reported and qualified.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-575299 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-575192 and analytical batch 400-575299 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218564-1	TB-ROX-041522-8260	Water	04/15/22 00:01	04/16/22 09:30
400-218564-2	TB-ROX-041522-8011	Water	04/15/22 00:01	04/16/22 09:30
400-218564-3	ROST4PZG-ROX-041522	Water	04/15/22 09:05	04/16/22 09:30
400-218564-4	ROST4PZG-ROX-041522-DUP	Water	04/15/22 09:05	04/16/22 09:30
400-218564-5	MW22-ROX-041522	Water	04/15/22 09:55	04/16/22 09:30
400-218564-6	ROST4PZC-ROX-041522	Water	04/15/22 11:00	04/16/22 09:30
400-218564-7	P57-ROX-041522	Water	04/15/22 12:30	04/16/22 09:30

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Client Sample ID: TB-ROX-041522-8260 — Lab Sample ID: 400-218564-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.23	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-041522-8011 — Lab Sample ID: 400-218564-2

No Detections.

Client Sample ID: ROST4PZG-ROX-041522 — Lab Sample ID: 400-218564-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.067	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.088	J	0.19	0.066	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.090	J	0.19	0.058	ug/L	1		8270D LL	Total/NA
Pyrene	0.051	J	0.19	0.039	ug/L	1		8270D LL	Total/NA

Client Sample ID: ROST4PZG-ROX-041522-DUP — Lab Sample ID: 400-218564-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.057	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.063	J	0.19	0.057	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.055	J	0.19	0.034	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW22-ROX-041522 — Lab Sample ID: 400-218564-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.1		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	25		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropylbenzene	7.8		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	32		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	16		5.0	3.0	ug/L	1		8260B	Total/NA
N-Propylbenzene	14		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	2.9	J	5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	1.2		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	0.90	J	1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	2.5		1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	2.7		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	100		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	19		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	35		10	1.6	ug/L	1		8260B	Total/NA
Benzo[a]pyrene	0.058	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.11	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.11	J	0.19	0.097	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.14	J	0.19	0.066	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.10	J	0.19	0.042	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	4.4		0.19	0.072	ug/L	1		8270D LL	Total/NA
Pyrene	0.073	J	0.19	0.039	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene - RA	5.1		0.19	0.058	ug/L	1		8270D LL	Total/NA

Client Sample ID: ROST4PZC-ROX-041522 — Lab Sample ID: 400-218564-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.23	J	1.0	0.13	ug/L	1		8260B	Total/NA
Acenaphthene	1.0		0.19	0.031	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.059	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.12	J	0.19	0.065	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Client Sample ID: ROST4PZC-ROX-041522 (Continued)

Lab Sample ID: 400-218564-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	1.0		0.19	0.10	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.050	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	5.6		0.19	0.071	ug/L	1		8270D LL	Total/NA
Phenanthrene	2.8		0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.098	J	0.19	0.038	ug/L	1		8270D LL	Total/NA
Dibenzofuran	0.82	J	9.5	0.16	ug/L	1		8270D	Total/NA
Diethyl phthalate	~~0.60~~	J B U	9.5	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: P57-ROX-041522

Lab Sample ID: 400-218564-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	48		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	0.52	J	1.0	0.50	ug/L	1		8260B	Total/NA
Isopropylbenzene	6.7		1.0	0.53	ug/L	1		8260B	Total/NA
Naphthalene	9.5		5.0	3.0	ug/L	1		8260B	Total/NA
N-Propylbenzene	5.3		1.0	0.69	ug/L	1		8260B	Total/NA
sec-Butylbenzene	0.80	J	1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	1.7		1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	2.3		1.0	0.41	ug/L	1		8260B	Total/NA
Acenaphthene	0.34		0.19	0.031	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.099	J	0.19	0.065	ug/L	1		8270D LL	Total/NA
Fluorene	0.52		0.19	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	28		0.19	0.071	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.36		0.19	0.034	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene - RA	29		0.19	0.057	ug/L	1		8270D LL	Total/NA
Dibenzofuran	0.55	J	9.6	0.16	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Client Sample ID: TB-ROX-041522-8260
Date Collected: 04/15/22 00:01
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 14:58	1
Acrolein	ND		20	3.3	ug/L			04/20/22 14:58	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 14:58	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 14:58	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 14:58	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 14:58	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 14:58	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 14:58	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 14:58	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 14:58	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 14:58	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 14:58	1
Chlorobenzene	0.23	J	1.0	0.15	ug/L			04/20/22 14:58	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 14:58	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 14:58	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 14:58	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 14:58	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 14:58	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 14:58	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 14:58	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 14:58	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 14:58	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 14:58	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 14:58	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 14:58	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 14:58	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 14:58	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 14:58	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 14:58	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 14:58	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 14:58	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 14:58	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 14:58	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 14:58	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 14:58	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 14:58	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 14:58	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 14:58	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 14:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 14:58	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 14:58	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 14:58	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 14:58	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 14:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 14:58	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 14:58	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 14:58	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 14:58	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 14:58	1

Client Sample ID: TB-ROX-041522-8260
Date Collected: 04/15/22 00:01
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 14:58	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 14:58	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 14:58	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 14:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 14:58	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 14:58	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 14:58	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 14:58	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 14:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 14:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 14:58	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 14:58	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 14:58	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 14:58	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 14:58	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 14:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 14:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 14:58	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 14:58	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 14:58	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/20/22 14:58*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*04/20/22 14:58*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*04/20/22 14:58*	*1*

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Client Sample ID: TB-ROX-041522-8011
Date Collected: 04/15/22 00:01
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.033	0.019	ug/L		04/25/22 14:06	04/26/22 18:41	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		04/25/22 14:06	04/26/22 18:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*130*		*51 - 149*	*04/25/22 14:06*	*04/26/22 18:41*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Client Sample ID: ROST4PZG-ROX-041522
Date Collected: 04/15/22 09:05
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 17:49	1
Acrolein	ND		20	3.3	ug/L			04/20/22 17:49	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 17:49	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 17:49	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 17:49	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 17:49	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 17:49	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 17:49	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 17:49	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 17:49	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 17:49	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 17:49	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 17:49	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 17:49	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 17:49	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 17:49	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 17:49	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 17:49	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 17:49	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 17:49	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 17:49	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 17:49	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 17:49	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 17:49	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 17:49	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 17:49	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 17:49	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 17:49	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 17:49	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 17:49	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 17:49	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 17:49	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 17:49	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 17:49	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 17:49	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 17:49	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 17:49	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 17:49	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 17:49	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 17:49	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 17:49	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 17:49	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 17:49	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 17:49	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 17:49	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 17:49	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 17:49	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 17:49	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 17:49	1

Client Sample ID: ROST4PZG-ROX-041522
Date Collected: 04/15/22 09:05
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 17:49	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 17:49	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 17:49	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 17:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 17:49	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 17:49	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 17:49	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 17:49	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 17:49	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 17:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 17:49	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 17:49	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 17:49	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 17:49	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 17:49	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 17:49	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 17:49	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 17:49	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 17:49	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 17:49	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*04/20/22 17:49*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*04/20/22 17:49*	*1*
Toluene-d8 (Surr)	*86*		*64 - 132*		*04/20/22 17:49*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/19/22 09:11	04/28/22 00:21	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/19/22 09:11	04/28/22 00:21	1
Anthracene	ND		0.19	0.031	ug/L		04/19/22 09:11	04/28/22 00:21	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/19/22 09:11	04/28/22 00:21	1
Benzo[a]pyrene	**0.067**	**J**	0.19	0.041	ug/L		04/19/22 09:11	04/28/22 00:21	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/19/22 09:11	04/28/22 00:21	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/19/22 09:11	04/28/22 00:21	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/19/22 09:11	04/28/22 00:21	1
Chrysene	ND		0.19	0.072	ug/L		04/19/22 09:11	04/28/22 00:21	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/19/22 09:11	04/28/22 00:21	1
Fluoranthene	**0.088**	**J**	0.19	0.066	ug/L		04/19/22 09:11	04/28/22 00:21	1
Fluorene	ND		0.19	0.11	ug/L		04/19/22 09:11	04/28/22 00:21	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/19/22 09:11	04/28/22 00:21	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/19/22 09:11	04/28/22 00:21	1
2-Methylnaphthalene	**0.090**	**J**	0.19	0.058	ug/L		04/19/22 09:11	04/28/22 00:21	1
Phenanthrene	ND		0.19	0.035	ug/L		04/19/22 09:11	04/28/22 00:21	1
Pyrene	**0.051**	**J**	0.19	0.039	ug/L		04/19/22 09:11	04/28/22 00:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*128*	*S1+*	*15 - 122*	*04/19/22 09:11*	*04/28/22 00:21*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*04/19/22 09:11*	*04/28/22 00:21*	*1*

Client Sample ID: ROST4PZG-ROX-041522
Date Collected: 04/15/22 09:05
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	124		33 - 138	04/19/22 09:11	04/28/22 00:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/19/22 09:11	04/20/22 19:18	1
Benzoic acid	ND		29	7.1	ug/L		04/19/22 09:11	04/20/22 19:18	1
Benzyl alcohol	ND	UJ	9.7	1.9	ug/L		04/19/22 09:11	04/20/22 19:18	1
Bis(2-chloroethoxy)methane	ND	UJ	9.7	0.15	ug/L		04/19/22 09:11	04/20/22 19:18	1
Bis(2-chloroethyl)ether	ND	UJ	9.7	2.6	ug/L		04/19/22 09:11	04/20/22 19:18	1
bis (2-chloroisopropyl) ether	ND	UJ	9.7	0.15	ug/L		04/19/22 09:11	04/20/22 19:18	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		04/19/22 09:11	04/20/22 19:18	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/19/22 09:11	04/20/22 19:18	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/19/22 09:11	04/20/22 19:18	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/19/22 09:11	04/20/22 19:18	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/19/22 09:11	04/20/22 19:18	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/19/22 09:11	04/20/22 19:18	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/19/22 09:11	04/20/22 19:18	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/19/22 09:11	04/20/22 19:18	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/19/22 09:11	04/20/22 19:18	1
Dibenzofuran	ND		9.7	0.16	ug/L		04/19/22 09:11	04/20/22 19:18	1
3,3'-Dichlorobenzidine	ND	*+	9.7	2.5	ug/L		04/19/22 09:11	04/20/22 19:18	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/19/22 09:11	04/20/22 19:18	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/19/22 09:11	04/20/22 19:18	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/19/22 09:11	04/20/22 19:18	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		04/19/22 09:11	04/20/22 19:18	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/19/22 09:11	04/20/22 19:18	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.7	1.5	ug/L		04/19/22 09:11	04/20/22 19:18	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/22 09:11	04/20/22 19:18	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/19/22 09:11	04/20/22 19:18	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/19/22 09:11	04/20/22 19:18	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		04/19/22 09:11	04/20/22 19:18	1
1,4-Dioxane	ND	UJ	9.7	0.97	ug/L		04/19/22 09:11	04/20/22 19:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.7	0.97	ug/L		04/19/22 09:11	04/20/22 19:18	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		04/19/22 09:11	04/20/22 19:18	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/19/22 09:11	04/20/22 19:18	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/19/22 09:11	04/20/22 19:18	1
Indene	ND		9.7	0.97	ug/L		04/19/22 09:11	04/20/22 19:18	1
Isophorone	ND	UJ	9.7	0.14	ug/L		04/19/22 09:11	04/20/22 19:18	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/19/22 09:11	04/20/22 19:18	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/19/22 09:11	04/20/22 19:18	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/19/22 09:11	04/20/22 19:18	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/19/22 09:11	04/20/22 19:18	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/19/22 09:11	04/20/22 19:18	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/19/22 09:11	04/20/22 19:18	1
2-Nitrophenol	ND		9.7	5.0	ug/L		04/19/22 09:11	04/20/22 19:18	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/19/22 09:11	04/20/22 19:18	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/19/22 09:11	04/20/22 19:18	1
N-Nitrosodi-n-propylamine	ND	UJ	9.7	3.2	ug/L		04/19/22 09:11	04/20/22 19:18	1

Client Sample ID: ROST4PZG-ROX-041522

Date Collected: 04/15/22 09:05
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/19/22 09:11	04/20/22 19:18	1
Pentachlorophenol	ND		19	1.4	ug/L		04/19/22 09:11	04/20/22 19:18	1
Phenol	ND	UJ	9.7	2.5	ug/L		04/19/22 09:11	04/20/22 19:18	1
Pyridine	ND	UJ	9.7	3.1	ug/L		04/19/22 09:11	04/20/22 19:18	1
Quinoline	ND		9.7	4.4	ug/L		04/19/22 09:11	04/20/22 19:18	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/19/22 09:11	04/20/22 19:18	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/19/22 09:11	04/20/22 19:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*46 - 124*	*04/19/22 09:11*	*04/20/22 19:18*	*1*
2-Fluorophenol	*23*		*13 - 113*	*04/19/22 09:11*	*04/20/22 19:18*	*1*
Nitrobenzene-d5	*62*		*36 - 126*	*04/19/22 09:11*	*04/20/22 19:18*	*1*
Phenol-d5	*48*		*17 - 127*	*04/19/22 09:11*	*04/20/22 19:18*	*1*
Terphenyl-d14	*98*		*44 - 149*	*04/19/22 09:11*	*04/20/22 19:18*	*1*
2,4,6-Tribromophenol	*104*		*26 - 150*	*04/19/22 09:11*	*04/20/22 19:18*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzenethiol	ND	*- UJ	9.7	1.6	ug/L		04/19/22 09:11	04/21/22 15:30	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.035	0.020	ug/L		04/25/22 14:06	04/26/22 19:22	1
1,2-Dibromoethane	ND		0.023	0.018	ug/L		04/25/22 14:06	04/26/22 19:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*127*		*51 - 149*	*04/25/22 14:06*	*04/26/22 19:22*	*1*

Client Sample ID: ROST4PZG-ROX-041522-DUP

Lab Sample ID: 400-218564-4

Date Collected: 04/15/22 09:05
Matrix: Water
Date Received: 04/16/22 09:30

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 18:14	1
Acrolein	ND		20	3.3	ug/L			04/20/22 18:14	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 18:14	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 18:14	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 18:14	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 18:14	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 18:14	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 18:14	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 18:14	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 18:14	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 18:14	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 18:14	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 18:14	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 18:14	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 18:14	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 18:14	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 18:14	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 18:14	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 18:14	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 18:14	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 18:14	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 18:14	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 18:14	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 18:14	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 18:14	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 18:14	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 18:14	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 18:14	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 18:14	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 18:14	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 18:14	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 18:14	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 18:14	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 18:14	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 18:14	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 18:14	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 18:14	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 18:14	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 18:14	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 18:14	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 18:14	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 18:14	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 18:14	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 18:14	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 18:14	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 18:14	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 18:14	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 18:14	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 18:14	1

Client Sample ID: ROST4PZG-ROX-041522-DUP

Lab Sample ID: 400-218564-4

Date Collected: 04/15/22 09:05
Matrix: Water
Date Received: 04/16/22 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 18:14	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 18:14	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 18:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 18:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 18:14	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 18:14	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 18:14	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 18:14	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 18:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 18:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 18:14	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 18:14	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 18:14	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 18:14	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 18:14	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 18:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 18:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 18:14	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 18:14	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 18:14	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/20/22 18:14*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*04/20/22 18:14*	*1*
Toluene-d8 (Surr)	*88*		*64 - 132*		*04/20/22 18:14*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/19/22 09:11	04/28/22 00:39	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/19/22 09:11	04/28/22 00:39	1
Anthracene	ND		0.19	0.031	ug/L		04/19/22 09:11	04/28/22 00:39	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/19/22 09:11	04/28/22 00:39	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/19/22 09:11	04/28/22 00:39	1
Benzo[b]fluoranthene	**0.057**	**J**	0.19	0.032	ug/L		04/19/22 09:11	04/28/22 00:39	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/19/22 09:11	04/28/22 00:39	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/19/22 09:11	04/28/22 00:39	1
Chrysene	ND		0.19	0.071	ug/L		04/19/22 09:11	04/28/22 00:39	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/19/22 09:11	04/28/22 00:39	1
Fluoranthene	ND		0.19	0.065	ug/L		04/19/22 09:11	04/28/22 00:39	1
Fluorene	ND		0.19	0.10	ug/L		04/19/22 09:11	04/28/22 00:39	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/19/22 09:11	04/28/22 00:39	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/19/22 09:11	04/28/22 00:39	1
2-Methylnaphthalene	**0.063**	**J**	0.19	0.057	ug/L		04/19/22 09:11	04/28/22 00:39	1
Phenanthrene	**0.055**	**J**	0.19	0.034	ug/L		04/19/22 09:11	04/28/22 00:39	1
Pyrene	ND		0.19	0.038	ug/L		04/19/22 09:11	04/28/22 00:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*122*		*15 - 122*	*04/19/22 09:11*	*04/28/22 00:39*	*1*
Nitrobenzene-d5	*112*		*19 - 130*	*04/19/22 09:11*	*04/28/22 00:39*	*1*

Client Sample ID: ROST4PZG-ROX-041522-DUP

Date Collected: 04/15/22 09:05
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	114		33 - 138	04/19/22 09:11	04/28/22 00:39	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/19/22 09:11	04/20/22 19:43	1
Benzoic acid	ND		29	7.0	ug/L		04/19/22 09:11	04/20/22 19:43	1
Benzyl alcohol	ND	UJ	9.5	1.9	ug/L		04/19/22 09:11	04/20/22 19:43	1
Bis(2-chloroethoxy)methane	ND	UJ	9.5	0.15	ug/L		04/19/22 09:11	04/20/22 19:43	1
Bis(2-chloroethyl)ether	ND	UJ	9.5	2.6	ug/L		04/19/22 09:11	04/20/22 19:43	1
bis (2-chloroisopropyl) ether	ND	UJ	9.5	0.15	ug/L		04/19/22 09:11	04/20/22 19:43	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/19/22 09:11	04/20/22 19:43	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/19/22 09:11	04/20/22 19:43	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/19/22 09:11	04/20/22 19:43	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/19/22 09:11	04/20/22 19:43	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/19/22 09:11	04/20/22 19:43	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/19/22 09:11	04/20/22 19:43	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/19/22 09:11	04/20/22 19:43	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/19/22 09:11	04/20/22 19:43	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		04/19/22 09:11	04/20/22 19:43	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/19/22 09:11	04/20/22 19:43	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		04/19/22 09:11	04/20/22 19:43	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/19/22 09:11	04/20/22 19:43	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/19/22 09:11	04/20/22 19:43	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/19/22 09:11	04/20/22 19:43	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/19/22 09:11	04/20/22 19:43	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/19/22 09:11	04/20/22 19:43	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.5	1.5	ug/L		04/19/22 09:11	04/20/22 19:43	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/19/22 09:11	04/20/22 19:43	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/19/22 09:11	04/20/22 19:43	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/19/22 09:11	04/20/22 19:43	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/19/22 09:11	04/20/22 19:43	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		04/19/22 09:11	04/20/22 19:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.5	0.95	ug/L		04/19/22 09:11	04/20/22 19:43	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/19/22 09:11	04/20/22 19:43	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/19/22 09:11	04/20/22 19:43	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/19/22 09:11	04/20/22 19:43	1
Indene	ND		9.5	0.95	ug/L		04/19/22 09:11	04/20/22 19:43	1
Isophorone	ND	UJ	9.5	0.13	ug/L		04/19/22 09:11	04/20/22 19:43	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/19/22 09:11	04/20/22 19:43	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/19/22 09:11	04/20/22 19:43	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/19/22 09:11	04/20/22 19:43	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/19/22 09:11	04/20/22 19:43	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/19/22 09:11	04/20/22 19:43	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/19/22 09:11	04/20/22 19:43	1
2-Nitrophenol	ND		9.5	5.0	ug/L		04/19/22 09:11	04/20/22 19:43	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/19/22 09:11	04/20/22 19:43	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/19/22 09:11	04/20/22 19:43	1
N-Nitrosodi-n-propylamine	ND	UJ	9.5	3.1	ug/L		04/19/22 09:11	04/20/22 19:43	1

Client Sample ID: ROST4PZG-ROX-041522-DUP
Date Collected: 04/15/22 09:05
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/19/22 09:11	04/20/22 19:43	1
Pentachlorophenol	ND		19	1.3	ug/L		04/19/22 09:11	04/20/22 19:43	1
Phenol	ND	UJ	9.5	2.5	ug/L		04/19/22 09:11	04/20/22 19:43	1
Pyridine	ND	UJ	9.5	3.1	ug/L		04/19/22 09:11	04/20/22 19:43	1
Quinoline	ND		9.5	4.3	ug/L		04/19/22 09:11	04/20/22 19:43	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/19/22 09:11	04/20/22 19:43	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/19/22 09:11	04/20/22 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*04/19/22 09:11*	*04/20/22 19:43*	*1*
2-Fluorophenol	*14*		*13 - 113*	*04/19/22 09:11*	*04/20/22 19:43*	*1*
Nitrobenzene-d5	*60*		*36 - 126*	*04/19/22 09:11*	*04/20/22 19:43*	*1*
Phenol-d5	*35*		*17 - 127*	*04/19/22 09:11*	*04/20/22 19:43*	*1*
Terphenyl-d14	*100*		*44 - 149*	*04/19/22 09:11*	*04/20/22 19:43*	*1*
2,4,6-Tribromophenol	*88*		*26 - 150*	*04/19/22 09:11*	*04/20/22 19:43*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzenethiol	ND	*- UJ	9.5	1.6	ug/L		04/19/22 09:11	04/21/22 15:51	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.031	0.018	ug/L		04/25/22 14:06	04/26/22 19:43	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/25/22 14:06	04/26/22 19:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*128*		*51 - 149*	*04/25/22 14:06*	*04/26/22 19:43*	*1*

Client Sample ID: MW22-ROX-041522
Date Collected: 04/15/22 09:55
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 18:38	1
Acrolein	ND		20	3.3	ug/L			04/20/22 18:38	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 18:38	1
Benzene	**3.1**		1.0	0.13	ug/L			04/20/22 18:38	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 18:38	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 18:38	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 18:38	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 18:38	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 18:38	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 18:38	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 18:38	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 18:38	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 18:38	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 18:38	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 18:38	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 18:38	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 18:38	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 18:38	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 18:38	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 18:38	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 18:38	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 18:38	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 18:38	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 18:38	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 18:38	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 18:38	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 18:38	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 18:38	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 18:38	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 18:38	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 18:38	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 18:38	1
Ethylbenzene	**25**		1.0	0.50	ug/L			04/20/22 18:38	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 18:38	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 18:38	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 18:38	1
Isopropylbenzene	**7.8**		1.0	0.53	ug/L			04/20/22 18:38	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 18:38	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 18:38	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 18:38	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 18:38	1
m-Xylene & p-Xylene	**32**		5.0	0.63	ug/L			04/20/22 18:38	1
Naphthalene	**16**		5.0	3.0	ug/L			04/20/22 18:38	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 18:38	1
N-Propylbenzene	**14**		1.0	0.69	ug/L			04/20/22 18:38	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 18:38	1
o-Xylene	**2.9**	**J**	5.0	0.60	ug/L			04/20/22 18:38	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 18:38	1
p-Isopropyltoluene	**1.2**		1.0	0.71	ug/L			04/20/22 18:38	1

Client Sample ID: MW22-ROX-041522
Date Collected: 04/15/22 09:55
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	0.90	J	1.0	0.70	ug/L			04/20/22 18:38	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 18:38	1
tert-Butylbenzene	2.5		1.0	0.63	ug/L			04/20/22 18:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 18:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 18:38	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 18:38	1
Toluene	2.7		1.0	0.41	ug/L			04/20/22 18:38	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 18:38	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 18:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 18:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 18:38	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 18:38	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 18:38	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 18:38	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 18:38	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 18:38	1
1,2,4-Trimethylbenzene	100		1.0	0.82	ug/L			04/20/22 18:38	1
1,3,5-Trimethylbenzene	19		1.0	0.56	ug/L			04/20/22 18:38	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 18:38	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 18:38	1
Xylenes, Total	35		10	1.6	ug/L			04/20/22 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/20/22 18:38*	*1*
Dibromofluoromethane	*94*		*75 - 126*		*04/20/22 18:38*	*1*
Toluene-d8 (Surr)	*89*		*64 - 132*		*04/20/22 18:38*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/19/22 09:11	04/28/22 00:56	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/19/22 09:11	04/28/22 00:56	1
Anthracene	ND		0.19	0.031	ug/L		04/19/22 09:11	04/28/22 00:56	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/19/22 09:11	04/28/22 00:56	1
Benzo[a]pyrene	0.058	J	0.19	0.041	ug/L		04/19/22 09:11	04/28/22 00:56	1
Benzo[b]fluoranthene	0.11	J	0.19	0.033	ug/L		04/19/22 09:11	04/28/22 00:56	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/19/22 09:11	04/28/22 00:56	1
Benzo[k]fluoranthene	0.11	J	0.19	0.097	ug/L		04/19/22 09:11	04/28/22 00:56	1
Chrysene	ND		0.19	0.072	ug/L		04/19/22 09:11	04/28/22 00:56	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		04/19/22 09:11	04/28/22 00:56	1
Fluoranthene	0.14	J	0.19	0.066	ug/L		04/19/22 09:11	04/28/22 00:56	1
Fluorene	ND		0.19	0.11	ug/L		04/19/22 09:11	04/28/22 00:56	1
Indeno[1,2,3-cd]pyrene	0.10	J	0.19	0.042	ug/L		04/19/22 09:11	04/28/22 00:56	1
1-Methylnaphthalene	4.4		0.19	0.072	ug/L		04/19/22 09:11	04/28/22 00:56	1
Phenanthrene	ND		0.19	0.035	ug/L		04/19/22 09:11	04/28/22 00:56	1
Pyrene	0.073	J	0.19	0.039	ug/L		04/19/22 09:11	04/28/22 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*112*		*15 - 122*	*04/19/22 09:11*	*04/28/22 00:56*	*1*
Nitrobenzene-d5	*108*		*19 - 130*	*04/19/22 09:11*	*04/28/22 00:56*	*1*
Terphenyl-d14	*102*		*33 - 138*	*04/19/22 09:11*	*04/28/22 00:56*	*1*

Client Sample ID: MW22-ROX-041522

Date Collected: 04/15/22 09:55
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-5

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	5.1		0.19	0.058	ug/L		04/19/22 09:11	05/02/22 17:56	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/19/22 09:11	04/20/22 20:08	1
Benzoic acid	ND		29	7.1	ug/L		04/19/22 09:11	04/20/22 20:08	1
Benzyl alcohol	ND	UJ	9.7	1.9	ug/L		04/19/22 09:11	04/20/22 20:08	1
Bis(2-chloroethoxy)methane	ND	UJ	9.7	0.16	ug/L		04/19/22 09:11	04/20/22 20:08	1
Bis(2-chloroethyl)ether	ND	UJ	9.7	2.6	ug/L		04/19/22 09:11	04/20/22 20:08	1
bis (2-chloroisopropyl) ether	ND	UJ	9.7	0.16	ug/L		04/19/22 09:11	04/20/22 20:08	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/19/22 09:11	04/20/22 20:08	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/19/22 09:11	04/20/22 20:08	1
Butyl benzyl phthalate	ND		9.7	0.19	ug/L		04/19/22 09:11	04/20/22 20:08	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/19/22 09:11	04/20/22 20:08	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/19/22 09:11	04/20/22 20:08	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/19/22 09:11	04/20/22 20:08	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/19/22 09:11	04/20/22 20:08	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/19/22 09:11	04/20/22 20:08	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/19/22 09:11	04/20/22 20:08	1
Dibenzofuran	ND		9.7	0.17	ug/L		04/19/22 09:11	04/20/22 20:08	1
3,3'-Dichlorobenzidine	ND	*+	9.7	2.5	ug/L		04/19/22 09:11	04/20/22 20:08	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/19/22 09:11	04/20/22 20:08	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/19/22 09:11	04/20/22 20:08	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/19/22 09:11	04/20/22 20:08	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		04/19/22 09:11	04/20/22 20:08	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/19/22 09:11	04/20/22 20:08	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.7	1.6	ug/L		04/19/22 09:11	04/20/22 20:08	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/22 09:11	04/20/22 20:08	1
2,4-Dinitrotoluene	ND		9.7	1.9	ug/L		04/19/22 09:11	04/20/22 20:08	1
2,6-Dinitrotoluene	ND		9.7	1.9	ug/L		04/19/22 09:11	04/20/22 20:08	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		04/19/22 09:11	04/20/22 20:08	1
1,4-Dioxane	ND	UJ	9.7	0.97	ug/L		04/19/22 09:11	04/20/22 20:08	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.7	0.97	ug/L		04/19/22 09:11	04/20/22 20:08	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		04/19/22 09:11	04/20/22 20:08	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/19/22 09:11	04/20/22 20:08	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/19/22 09:11	04/20/22 20:08	1
Indene	ND		9.7	0.97	ug/L		04/19/22 09:11	04/20/22 20:08	1
Isophorone	ND	UJ	9.7	0.14	ug/L		04/19/22 09:11	04/20/22 20:08	1
2-Methylphenol	ND		9.7	1.8	ug/L		04/19/22 09:11	04/20/22 20:08	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/19/22 09:11	04/20/22 20:08	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/19/22 09:11	04/20/22 20:08	1
3-Nitroaniline	ND		9.7	1.8	ug/L		04/19/22 09:11	04/20/22 20:08	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/19/22 09:11	04/20/22 20:08	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/19/22 09:11	04/20/22 20:08	1
2-Nitrophenol	ND		9.7	5.1	ug/L		04/19/22 09:11	04/20/22 20:08	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/19/22 09:11	04/20/22 20:08	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/19/22 09:11	04/20/22 20:08	1
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/19/22 09:11	04/20/22 20:08	1
N-Nitrosodiphenylamine	ND	UJ	9.7	0.18	ug/L		04/19/22 09:11	04/20/22 20:08	1

Client Sample ID: MW22-ROX-041522
Date Collected: 04/15/22 09:55
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		19	1.4	ug/L		04/19/22 09:11	04/20/22 20:08	1
Phenol	ND		9.7	2.5	ug/L		04/19/22 09:11	04/20/22 20:08	1
Pyridine	ND	UJ	9.7	3.1	ug/L		04/19/22 09:11	04/20/22 20:08	1
Quinoline	ND	UJ	9.7	4.4	ug/L		04/19/22 09:11	04/20/22 20:08	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/19/22 09:11	04/20/22 20:08	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/19/22 09:11	04/20/22 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*04/19/22 09:11*	*04/20/22 20:08*	*1*
2-Fluorophenol	*19*		*13 - 113*	*04/19/22 09:11*	*04/20/22 20:08*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*04/19/22 09:11*	*04/20/22 20:08*	*1*
Phenol-d5	*42*		*17 - 127*	*04/19/22 09:11*	*04/20/22 20:08*	*1*
Terphenyl-d14	*94*		*44 - 149*	*04/19/22 09:11*	*04/20/22 20:08*	*1*
2,4,6-Tribromophenol	*116*		*26 - 150*	*04/19/22 09:11*	*04/20/22 20:08*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzenethiol	ND	*- UJ	9.7	1.7	ug/L		04/19/22 09:11	04/21/22 16:52	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.033	0.019	ug/L		04/25/22 14:06	04/26/22 20:03	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		04/25/22 14:06	04/26/22 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*123*		*51 - 149*	*04/25/22 14:06*	*04/26/22 20:03*	*1*

Client Sample ID: ROST4PZC-ROX-041522
Date Collected: 04/15/22 11:00
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 19:03	1
Acrolein	ND		20	3.3	ug/L			04/20/22 19:03	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 19:03	1
Benzene	**0.23**	**J**	1.0	0.13	ug/L			04/20/22 19:03	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 19:03	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 19:03	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 19:03	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 19:03	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 19:03	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 19:03	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 19:03	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 19:03	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 19:03	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 19:03	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 19:03	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 19:03	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 19:03	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 19:03	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 19:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 19:03	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 19:03	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 19:03	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 19:03	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 19:03	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 19:03	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 19:03	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 19:03	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 19:03	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 19:03	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 19:03	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 19:03	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 19:03	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 19:03	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 19:03	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 19:03	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 19:03	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 19:03	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 19:03	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 19:03	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 19:03	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 19:03	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 19:03	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 19:03	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 19:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 19:03	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 19:03	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 19:03	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 19:03	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 19:03	1

Client Sample ID: ROST4PZC-ROX-041522
Date Collected: 04/15/22 11:00
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 19:03	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 19:03	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 19:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 19:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 19:03	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 19:03	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 19:03	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 19:03	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 19:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 19:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 19:03	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 19:03	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 19:03	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 19:03	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 19:03	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 19:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 19:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 19:03	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 19:03	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 19:03	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 19:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/20/22 19:03*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*04/20/22 19:03*	*1*
Toluene-d8 (Surr)	*87*		*64 - 132*		*04/20/22 19:03*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**1.0**		0.19	0.031	ug/L		04/19/22 09:11	04/28/22 01:13	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/19/22 09:11	04/28/22 01:13	1
Anthracene	ND		0.19	0.031	ug/L		04/19/22 09:11	04/28/22 01:13	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/19/22 09:11	04/28/22 01:13	1
Benzo[a]pyrene	**0.059**	**J**	0.19	0.040	ug/L		04/19/22 09:11	04/28/22 01:13	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		04/19/22 09:11	04/28/22 01:13	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/19/22 09:11	04/28/22 01:13	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/19/22 09:11	04/28/22 01:13	1
Chrysene	ND		0.19	0.071	ug/L		04/19/22 09:11	04/28/22 01:13	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/19/22 09:11	04/28/22 01:13	1
Fluoranthene	**0.12**	**J**	0.19	0.065	ug/L		04/19/22 09:11	04/28/22 01:13	1
Fluorene	**1.0**		0.19	0.10	ug/L		04/19/22 09:11	04/28/22 01:13	1
Indeno[1,2,3-cd]pyrene	**0.050**	**J**	0.19	0.041	ug/L		04/19/22 09:11	04/28/22 01:13	1
1-Methylnaphthalene	**5.6**		0.19	0.071	ug/L		04/19/22 09:11	04/28/22 01:13	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/19/22 09:11	04/28/22 01:13	1
Phenanthrene	**2.8**		0.19	0.034	ug/L		04/19/22 09:11	04/28/22 01:13	1
Pyrene	**0.098**	**J**	0.19	0.038	ug/L		04/19/22 09:11	04/28/22 01:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*128*	*S1+*	*15 - 122*	*04/19/22 09:11*	*04/28/22 01:13*	*1*
Nitrobenzene-d5	*122*		*19 - 130*	*04/19/22 09:11*	*04/28/22 01:13*	*1*

Client Sample ID: ROST4PZC-ROX-041522

Date Collected: 04/15/22 11:00
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	114		33 - 138	04/19/22 09:11	04/28/22 01:13	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/19/22 09:11	04/20/22 20:33	1
Benzoic acid	ND		29	7.0	ug/L		04/19/22 09:11	04/20/22 20:33	1
Benzyl alcohol	ND	UJ	9.5	1.9	ug/L		04/19/22 09:11	04/20/22 20:33	1
Bis(2-chloroethoxy)methane	ND	UJ	9.5	0.15	ug/L		04/19/22 09:11	04/20/22 20:33	1
Bis(2-chloroethyl)ether	ND	UJ	9.5	2.6	ug/L		04/19/22 09:11	04/20/22 20:33	1
bis (2-chloroisopropyl) ether	ND	UJ	9.5	0.15	ug/L		04/19/22 09:11	04/20/22 20:33	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/19/22 09:11	04/20/22 20:33	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/19/22 09:11	04/20/22 20:33	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/19/22 09:11	04/20/22 20:33	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/19/22 09:11	04/20/22 20:33	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/19/22 09:11	04/20/22 20:33	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/19/22 09:11	04/20/22 20:33	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/19/22 09:11	04/20/22 20:33	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/19/22 09:11	04/20/22 20:33	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		04/19/22 09:11	04/20/22 20:33	1
Dibenzofuran	0.82	J	9.5	0.16	ug/L		04/19/22 09:11	04/20/22 20:33	1
3,3'-Dichlorobenzidine	ND	*+	9.5	2.5	ug/L		04/19/22 09:11	04/20/22 20:33	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/19/22 09:11	04/20/22 20:33	1
Diethyl phthalate	~~0.60~~	~~J~~ B U	9.5	0.23	ug/L		04/19/22 09:11	04/20/22 20:33	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/19/22 09:11	04/20/22 20:33	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/19/22 09:11	04/20/22 20:33	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/19/22 09:11	04/20/22 20:33	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.5	1.5	ug/L		04/19/22 09:11	04/20/22 20:33	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/19/22 09:11	04/20/22 20:33	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/19/22 09:11	04/20/22 20:33	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/19/22 09:11	04/20/22 20:33	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/19/22 09:11	04/20/22 20:33	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		04/19/22 09:11	04/20/22 20:33	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.5	0.95	ug/L		04/19/22 09:11	04/20/22 20:33	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/19/22 09:11	04/20/22 20:33	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/19/22 09:11	04/20/22 20:33	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/19/22 09:11	04/20/22 20:33	1
Indene	ND		9.5	0.95	ug/L		04/19/22 09:11	04/20/22 20:33	1
Isophorone	ND	UJ	9.5	0.13	ug/L		04/19/22 09:11	04/20/22 20:33	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/19/22 09:11	04/20/22 20:33	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/19/22 09:11	04/20/22 20:33	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/19/22 09:11	04/20/22 20:33	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/19/22 09:11	04/20/22 20:33	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/19/22 09:11	04/20/22 20:33	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/19/22 09:11	04/20/22 20:33	1
2-Nitrophenol	ND		9.5	5.0	ug/L		04/19/22 09:11	04/20/22 20:33	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/19/22 09:11	04/20/22 20:33	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/19/22 09:11	04/20/22 20:33	1
N-Nitrosodi-n-propylamine	ND	UJ	9.5	3.1	ug/L		04/19/22 09:11	04/20/22 20:33	1

Client Sample ID: ROST4PZC-ROX-041522
Date Collected: 04/15/22 11:00
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/19/22 09:11	04/20/22 20:33	1
Pentachlorophenol	ND		19	1.3	ug/L		04/19/22 09:11	04/20/22 20:33	1
Phenol	ND	UJ	9.5	2.5	ug/L		04/19/22 09:11	04/20/22 20:33	1
Pyridine	ND	UJ	9.5	3.1	ug/L		04/19/22 09:11	04/20/22 20:33	1
Quinoline	ND		9.5	4.3	ug/L		04/19/22 09:11	04/20/22 20:33	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/19/22 09:11	04/20/22 20:33	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/19/22 09:11	04/20/22 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*46 - 124*	*04/19/22 09:11*	*04/20/22 20:33*	*1*
2-Fluorophenol	*21*		*13 - 113*	*04/19/22 09:11*	*04/20/22 20:33*	*1*
Nitrobenzene-d5	*66*		*36 - 126*	*04/19/22 09:11*	*04/20/22 20:33*	*1*
Phenol-d5	*43*		*17 - 127*	*04/19/22 09:11*	*04/20/22 20:33*	*1*
Terphenyl-d14	*101*		*44 - 149*	*04/19/22 09:11*	*04/20/22 20:33*	*1*
2,4,6-Tribromophenol	*102*		*26 - 150*	*04/19/22 09:11*	*04/20/22 20:33*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzenethiol	ND	*- UJ	9.5	1.6	ug/L		04/19/22 09:11	04/21/22 17:13	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.033	0.019	ug/L		04/25/22 14:06	04/26/22 20:24	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/25/22 14:06	04/26/22 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*129*		*51 - 149*	*04/25/22 14:06*	*04/26/22 20:24*	*1*

Client Sample ID: P57-ROX-041522
Date Collected: 04/15/22 12:30
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 19:27	1
Acrolein	ND		20	3.3	ug/L			04/20/22 19:27	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 19:27	1
Benzene	**48**		1.0	0.13	ug/L			04/20/22 19:27	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 19:27	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 19:27	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 19:27	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 19:27	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 19:27	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 19:27	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 19:27	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 19:27	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 19:27	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 19:27	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 19:27	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 19:27	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 19:27	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 19:27	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 19:27	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 19:27	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 19:27	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 19:27	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 19:27	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 19:27	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 19:27	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 19:27	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 19:27	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 19:27	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 19:27	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 19:27	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 19:27	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 19:27	1
Ethylbenzene	**0.52**	**J**	1.0	0.50	ug/L			04/20/22 19:27	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 19:27	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 19:27	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 19:27	1
Isopropylbenzene	**6.7**		1.0	0.53	ug/L			04/20/22 19:27	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 19:27	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 19:27	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 19:27	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 19:27	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 19:27	1
Naphthalene	**9.5**		5.0	3.0	ug/L			04/20/22 19:27	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 19:27	1
N-Propylbenzene	**5.3**		1.0	0.69	ug/L			04/20/22 19:27	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 19:27	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 19:27	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 19:27	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 19:27	1

Client Sample ID: P57-ROX-041522
Date Collected: 04/15/22 12:30
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**0.80**	J	1.0	0.70	ug/L			04/20/22 19:27	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 19:27	1
tert-Butylbenzene	**1.7**		1.0	0.63	ug/L			04/20/22 19:27	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 19:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 19:27	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 19:27	1
Toluene	**2.3**		1.0	0.41	ug/L			04/20/22 19:27	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 19:27	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 19:27	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 19:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 19:27	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 19:27	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 19:27	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 19:27	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 19:27	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 19:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 19:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 19:27	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 19:27	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 19:27	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 19:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/20/22 19:27*	*1*
Dibromofluoromethane	*92*		*75 - 126*		*04/20/22 19:27*	*1*
Toluene-d8 (Surr)	*86*		*64 - 132*		*04/20/22 19:27*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.34**		0.19	0.031	ug/L		04/19/22 09:11	04/28/22 01:30	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/19/22 09:11	04/28/22 01:30	1
Anthracene	ND		0.19	0.031	ug/L		04/19/22 09:11	04/28/22 01:30	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/19/22 09:11	04/28/22 01:30	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/19/22 09:11	04/28/22 01:30	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/19/22 09:11	04/28/22 01:30	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/19/22 09:11	04/28/22 01:30	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/19/22 09:11	04/28/22 01:30	1
Chrysene	ND		0.19	0.071	ug/L		04/19/22 09:11	04/28/22 01:30	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/19/22 09:11	04/28/22 01:30	1
Fluoranthene	**0.099**	J	0.19	0.065	ug/L		04/19/22 09:11	04/28/22 01:30	1
Fluorene	**0.52**		0.19	0.11	ug/L		04/19/22 09:11	04/28/22 01:30	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/19/22 09:11	04/28/22 01:30	1
1-Methylnaphthalene	**28**		0.19	0.071	ug/L		04/19/22 09:11	04/28/22 01:30	1
Phenanthrene	**0.36**		0.19	0.034	ug/L		04/19/22 09:11	04/28/22 01:30	1
Pyrene	ND		0.19	0.038	ug/L		04/19/22 09:11	04/28/22 01:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*117*		*15 - 122*	*04/19/22 09:11*	*04/28/22 01:30*	*1*
Nitrobenzene-d5	*116*		*19 - 130*	*04/19/22 09:11*	*04/28/22 01:30*	*1*
Terphenyl-d14	*75*		*33 - 138*	*04/19/22 09:11*	*04/28/22 01:30*	*1*

Client Sample ID: P57-ROX-041522
Date Collected: 04/15/22 12:30
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-7
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	29		0.19	0.057	ug/L		04/19/22 09:11	05/02/22 18:13	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		04/19/22 09:11	04/20/22 20:58	1
Benzoic acid	ND		29	7.0	ug/L		04/19/22 09:11	04/20/22 20:58	1
Benzyl alcohol	ND	UJ	9.6	1.9	ug/L		04/19/22 09:11	04/20/22 20:58	1
Bis(2-chloroethoxy)methane	ND	UJ	9.6	0.15	ug/L		04/19/22 09:11	04/20/22 20:58	1
Bis(2-chloroethyl)ether	ND	UJ	9.6	2.6	ug/L		04/19/22 09:11	04/20/22 20:58	1
bis (2-chloroisopropyl) ether	ND	UJ	9.6	0.15	ug/L		04/19/22 09:11	04/20/22 20:58	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/19/22 09:11	04/20/22 20:58	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/19/22 09:11	04/20/22 20:58	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/19/22 09:11	04/20/22 20:58	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/19/22 09:11	04/20/22 20:58	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		04/19/22 09:11	04/20/22 20:58	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/19/22 09:11	04/20/22 20:58	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/19/22 09:11	04/20/22 20:58	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/19/22 09:11	04/20/22 20:58	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/19/22 09:11	04/20/22 20:58	1
Dibenzofuran	0.55	J	9.6	0.16	ug/L		04/19/22 09:11	04/20/22 20:58	1
3,3'-Dichlorobenzidine	ND	*+	9.6	2.5	ug/L		04/19/22 09:11	04/20/22 20:58	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/19/22 09:11	04/20/22 20:58	1
Diethyl phthalate	ND		9.6	0.23	ug/L		04/19/22 09:11	04/20/22 20:58	1
2,4-Dimethylphenol	ND		9.6	3.3	ug/L		04/19/22 09:11	04/20/22 20:58	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/19/22 09:11	04/20/22 20:58	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/19/22 09:11	04/20/22 20:58	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.6	1.5	ug/L		04/19/22 09:11	04/20/22 20:58	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/19/22 09:11	04/20/22 20:58	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/19/22 09:11	04/20/22 20:58	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/19/22 09:11	04/20/22 20:58	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/19/22 09:11	04/20/22 20:58	1
1,4-Dioxane	ND	UJ	9.6	0.96	ug/L		04/19/22 09:11	04/20/22 20:58	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.6	0.96	ug/L		04/19/22 09:11	04/20/22 20:58	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/19/22 09:11	04/20/22 20:58	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/19/22 09:11	04/20/22 20:58	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/19/22 09:11	04/20/22 20:58	1
Indene	ND		9.6	0.96	ug/L		04/19/22 09:11	04/20/22 20:58	1
Isophorone	ND	UJ	9.6	0.13	ug/L		04/19/22 09:11	04/20/22 20:58	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/19/22 09:11	04/20/22 20:58	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/19/22 09:11	04/20/22 20:58	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/19/22 09:11	04/20/22 20:58	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/19/22 09:11	04/20/22 20:58	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/19/22 09:11	04/20/22 20:58	1
Nitrobenzene	ND		9.6	0.12	ug/L		04/19/22 09:11	04/20/22 20:58	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/19/22 09:11	04/20/22 20:58	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/19/22 09:11	04/20/22 20:58	1
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L		04/19/22 09:11	04/20/22 20:58	1
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/19/22 09:11	04/20/22 20:58	1
N-Nitrosodiphenylamine	ND	UJ	9.6	0.17	ug/L		04/19/22 09:11	04/20/22 20:58	1

Client Sample ID: P57-ROX-041522
Date Collected: 04/15/22 12:30
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218564-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		19	1.3	ug/L		04/19/22 09:11	04/20/22 20:58	1
Phenol	ND		9.6	2.5	ug/L		04/19/22 09:11	04/20/22 20:58	1
Pyridine	ND	UJ	9.6	3.1	ug/L		04/19/22 09:11	04/20/22 20:58	1
Quinoline	ND	UJ	9.6	4.3	ug/L		04/19/22 09:11	04/20/22 20:58	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		04/19/22 09:11	04/20/22 20:58	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		04/19/22 09:11	04/20/22 20:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*04/19/22 09:11*	*04/20/22 20:58*	*1*
2-Fluorophenol	*20*		*13 - 113*	*04/19/22 09:11*	*04/20/22 20:58*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*04/19/22 09:11*	*04/20/22 20:58*	*1*
Phenol-d5	*36*		*17 - 127*	*04/19/22 09:11*	*04/20/22 20:58*	*1*
Terphenyl-d14	*59*		*44 - 149*	*04/19/22 09:11*	*04/20/22 20:58*	*1*
2,4,6-Tribromophenol	*113*		*26 - 150*	*04/19/22 09:11*	*04/20/22 20:58*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzenethiol	ND	*- UJ	9.6	1.6	ug/L		04/19/22 09:11	04/21/22 17:33	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.031	0.018	ug/L		04/25/22 14:06	04/26/22 20:44	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/25/22 14:06	04/26/22 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*121*		*51 - 149*	*04/25/22 14:06*	*04/26/22 20:44*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc. Job ID: 400-218564-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218564-1	TB-ROX-041522-8260	97	98	91
400-218564-3	ROST4PZG-ROX-041522	94	94	86
400-218564-4	ROST4PZG-ROX-041522-DUP	95	94	88
400-218564-5	MW22-ROX-041522	99	94	89
400-218564-6	ROST4PZC-ROX-041522	97	98	87
400-218564-7	P57-ROX-041522	95	92	86
LCS 400-574533/1002	Lab Control Sample	108	89	90
MB 400-574533/16	Method Blank	95	102	86

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218564-3	ROST4PZG-ROX-041522	91	23	62	48	98	104
400-218564-4	ROST4PZG-ROX-041522-DUP	87	14	60	35	100	88
400-218564-5	MW22-ROX-041522	87	19	63	42	94	116
400-218564-6	ROST4PZC-ROX-041522	92	21	66	43	101	102
400-218564-7	P57-ROX-041522	88	20	63	36	59	113
LCS 400-574212/2-A	Lab Control Sample	91	44	91	75	95	112
LCS 400-574212/4-A	Lab Control Sample	94	37	86	65	95	73
LCSD 400-574212/3-A	Lab Control Sample Dup	93	34	89	73	94	113
LCSD 400-574212/5-A	Lab Control Sample Dup	87	25	78	52	88	76
MB 400-574212/1-A	Method Blank	88	20	78	57	89	86

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218564-3	ROST4PZG-ROX-041522	128 S1+	108	124
400-218564-4	ROST4PZG-ROX-041522-DUP	122	112	114
400-218564-5	MW22-ROX-041522	112	108	102
400-218564-6	ROST4PZC-ROX-041522	128 S1+	122	114
400-218564-7	P57-ROX-041522	117	116	75
LCS 400-574212/2-A	Lab Control Sample	98	80	97

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-218564-1
Project/Site: ROXANA QUARTERLY GW

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
LCSD 400-574212/3-A	Lab Control Sample Dup	92	74	91
MB 400-574212/1-A	Method Blank	134 S1+	110	173 S1+

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-218564-2	TB-ROX-041522-8011	130
400-218564-3	ROST4PZG-ROX-041522	127
400-218564-4	ROST4PZG-ROX-041522-DUP	128
400-218564-5	MW22-ROX-041522	123
400-218564-6	ROST4PZC-ROX-041522	129
400-218564-7	P57-ROX-041522	121
LCS 400-575192/2-A	Lab Control Sample	117
LCSD 400-575192/3-A	Lab Control Sample Dup	135
MB 400-575192/1-A	Method Blank	118

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Client Sample ID: TB-ROX-041522-8260

Lab Sample ID: 400-218564-1
Matrix: Water
Date Collected: 04/15/22 00:01
Date Received: 04/16/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 14:58	NTH	TAL PEN

Client Sample ID: TB-ROX-041522-8011

Lab Sample ID: 400-218564-2
Matrix: Water
Date Collected: 04/15/22 00:01
Date Received: 04/16/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			32 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 18:41	DS	TAL PEN

Client Sample ID: ROST4PZG-ROX-041522

Lab Sample ID: 400-218564-3
Matrix: Water
Date Collected: 04/15/22 09:05
Date Received: 04/16/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 17:49	NTH	TAL PEN
Total/NA	Prep	3520C	RA		258.6 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D	RA	1			574706	04/21/22 15:30	S1B	TAL PEN
Total/NA	Prep	3520C			258.6 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574600	04/20/22 19:18	S1B	TAL PEN
Total/NA	Prep	3520C			258.6 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575511	04/28/22 00:21	PP1	TAL PEN
Total/NA	Prep	8011			29.8 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 19:22	DS	TAL PEN

Client Sample ID: ROST4PZG-ROX-041522-DUP

Lab Sample ID: 400-218564-4
Matrix: Water
Date Collected: 04/15/22 09:05
Date Received: 04/16/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 18:14	NTH	TAL PEN
Total/NA	Prep	3520C	RA		262.2 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D	RA	1			574706	04/21/22 15:51	S1B	TAL PEN
Total/NA	Prep	3520C			262.2 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574600	04/20/22 19:43	S1B	TAL PEN
Total/NA	Prep	3520C			262.2 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575511	04/28/22 00:39	PP1	TAL PEN
Total/NA	Prep	8011			33.7 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 19:43	DS	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Client Sample ID: MW22-ROX-041522

Lab Sample ID: 400-218564-5

Date Collected: 04/15/22 09:55
Matrix: Water
Date Received: 04/16/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 18:38	NTH	TAL PEN
Total/NA	Prep	3520C	RA		256.6 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D	RA	1			574706	04/21/22 16:52	S1B	TAL PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574600	04/20/22 20:08	S1B	TAL PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575511	04/28/22 00:56	PP1	TAL PEN
Total/NA	Prep	3520C	RA		256.6 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL	RA	1			576004	05/02/22 17:56	KJA	TAL PEN
Total/NA	Prep	8011			31.9 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 20:03	DS	TAL PEN

Client Sample ID: ROST4PZC-ROX-041522

Lab Sample ID: 400-218564-6

Date Collected: 04/15/22 11:00
Matrix: Water
Date Received: 04/16/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 19:03	NTH	TAL PEN
Total/NA	Prep	3520C	RA		262 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D	RA	1			574706	04/21/22 17:13	S1B	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574600	04/20/22 20:33	S1B	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575511	04/28/22 01:13	PP1	TAL PEN
Total/NA	Prep	8011			31.8 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 20:24	DS	TAL PEN

Client Sample ID: P57-ROX-041522

Lab Sample ID: 400-218564-7

Date Collected: 04/15/22 12:30
Matrix: Water
Date Received: 04/16/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 19:27	NTH	TAL PEN
Total/NA	Prep	3520C	RA		261.4 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D	RA	1			574706	04/21/22 17:33	S1B	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574600	04/20/22 20:58	S1B	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575511	04/28/22 01:30	PP1	TAL PEN
Total/NA	Prep	3520C	RA		261.4 mL	1 mL	574212	04/19/22 09:11	KWS	TAL PEN
Total/NA	Analysis	8270D LL	RA	1			576004	05/02/22 18:13	KJA	TAL PEN
Total/NA	Prep	8011			33.6 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 20:44	DS	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-574212/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 17:25	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			574718	04/21/22 17:41	KJA	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-574533/16

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 12:07	NTH	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-575192/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 11:49	DS	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574212/2-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 17:46	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575786	04/30/22 14:03	PP1	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574212/4-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 18:30	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574533/1002

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 10:58	NTH	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-575192/2-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 12:09	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574212/3-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 18:08	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575786	04/30/22 14:20	PP1	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574212/5-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574212	04/18/22 10:03	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574392	04/19/22 18:51	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-575192/3-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 12:30	DS	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

GC/MS VOA

Analysis Batch: 574533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218564-1	TB-ROX-041522-8260	Total/NA	Water	8260B	
400-218564-3	ROST4PZG-ROX-041522	Total/NA	Water	8260B	
400-218564-4	ROST4PZG-ROX-041522-DUP	Total/NA	Water	8260B	
400-218564-5	MW22-ROX-041522	Total/NA	Water	8260B	
400-218564-6	ROST4PZC-ROX-041522	Total/NA	Water	8260B	
400-218564-7	P57-ROX-041522	Total/NA	Water	8260B	
MB 400-574533/16	Method Blank	Total/NA	Water	8260B	
LCS 400-574533/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 574212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218564-3	ROST4PZG-ROX-041522	Total/NA	Water	3520C	
400-218564-3 - RA	ROST4PZG-ROX-041522	Total/NA	Water	3520C	
400-218564-4	ROST4PZG-ROX-041522-DUP	Total/NA	Water	3520C	
400-218564-4 - RA	ROST4PZG-ROX-041522-DUP	Total/NA	Water	3520C	
400-218564-5	MW22-ROX-041522	Total/NA	Water	3520C	
400-218564-5 - RA	MW22-ROX-041522	Total/NA	Water	3520C	
400-218564-6	ROST4PZC-ROX-041522	Total/NA	Water	3520C	
400-218564-6 - RA	ROST4PZC-ROX-041522	Total/NA	Water	3520C	
400-218564-7 - RA	P57-ROX-041522	Total/NA	Water	3520C	
400-218564-7	P57-ROX-041522	Total/NA	Water	3520C	
MB 400-574212/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-574212/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-574212/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-574212/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-574212/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 574392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-574212/1-A	Method Blank	Total/NA	Water	8270D	574212
LCS 400-574212/2-A	Lab Control Sample	Total/NA	Water	8270D	574212
LCS 400-574212/4-A	Lab Control Sample	Total/NA	Water	8270D	574212
LCSD 400-574212/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	574212
LCSD 400-574212/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	574212

Analysis Batch: 574600

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218564-3	ROST4PZG-ROX-041522	Total/NA	Water	8270D	574212
400-218564-4	ROST4PZG-ROX-041522-DUP	Total/NA	Water	8270D	574212
400-218564-5	MW22-ROX-041522	Total/NA	Water	8270D	574212
400-218564-6	ROST4PZC-ROX-041522	Total/NA	Water	8270D	574212
400-218564-7	P57-ROX-041522	Total/NA	Water	8270D	574212

Analysis Batch: 574706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218564-3 - RA	ROST4PZG-ROX-041522	Total/NA	Water	8270D	574212
400-218564-4 - RA	ROST4PZG-ROX-041522-DUP	Total/NA	Water	8270D	574212
400-218564-5 - RA	MW22-ROX-041522	Total/NA	Water	8270D	574212
400-218564-6 - RA	ROST4PZC-ROX-041522	Total/NA	Water	8270D	574212

GC/MS Semi VOA (Continued)

Analysis Batch: 574706 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218564-7 - RA	P57-ROX-041522	Total/NA	Water	8270D	574212

Analysis Batch: 574718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-574212/1-A	Method Blank	Total/NA	Water	8270D LL	574212

Analysis Batch: 575511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218564-3	ROST4PZG-ROX-041522	Total/NA	Water	8270D LL	574212
400-218564-4	ROST4PZG-ROX-041522-DUP	Total/NA	Water	8270D LL	574212
400-218564-5	MW22-ROX-041522	Total/NA	Water	8270D LL	574212
400-218564-6	ROST4PZC-ROX-041522	Total/NA	Water	8270D LL	574212
400-218564-7	P57-ROX-041522	Total/NA	Water	8270D LL	574212

Analysis Batch: 575786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-574212/2-A	Lab Control Sample	Total/NA	Water	8270D LL	574212
LCSD 400-574212/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	574212

Analysis Batch: 576004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218564-5 - RA	MW22-ROX-041522	Total/NA	Water	8270D LL	574212
400-218564-7 - RA	P57-ROX-041522	Total/NA	Water	8270D LL	574212

GC Semi VOA

Prep Batch: 575192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218564-2	TB-ROX-041522-8011	Total/NA	Water	8011	
400-218564-3	ROST4PZG-ROX-041522	Total/NA	Water	8011	
400-218564-4	ROST4PZG-ROX-041522-DUP	Total/NA	Water	8011	
400-218564-5	MW22-ROX-041522	Total/NA	Water	8011	
400-218564-6	ROST4PZC-ROX-041522	Total/NA	Water	8011	
400-218564-7	P57-ROX-041522	Total/NA	Water	8011	
MB 400-575192/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-575192/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-575192/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 575299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218564-2	TB-ROX-041522-8011	Total/NA	Water	8011	575192
400-218564-3	ROST4PZG-ROX-041522	Total/NA	Water	8011	575192
400-218564-4	ROST4PZG-ROX-041522-DUP	Total/NA	Water	8011	575192
400-218564-5	MW22-ROX-041522	Total/NA	Water	8011	575192
400-218564-6	ROST4PZC-ROX-041522	Total/NA	Water	8011	575192
400-218564-7	P57-ROX-041522	Total/NA	Water	8011	575192
MB 400-575192/1-A	Method Blank	Total/NA	Water	8011	575192
LCS 400-575192/2-A	Lab Control Sample	Total/NA	Water	8011	575192
LCSD 400-575192/3-A	Lab Control Sample Dup	Total/NA	Water	8011	575192

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574533/16
Matrix: Water
Analysis Batch: 574533

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 12:07	1
Acrolein	ND		20	3.3	ug/L			04/20/22 12:07	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 12:07	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 12:07	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 12:07	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 12:07	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 12:07	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 12:07	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 12:07	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 12:07	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 12:07	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 12:07	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 12:07	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 12:07	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 12:07	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 12:07	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 12:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 12:07	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 12:07	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 12:07	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 12:07	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 12:07	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 12:07	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 12:07	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 12:07	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 12:07	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 12:07	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 12:07	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 12:07	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 12:07	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 12:07	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 12:07	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 12:07	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 12:07	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 12:07	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 12:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 12:07	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 12:07	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 12:07	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 12:07	1

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

Lab Sample ID: MB 400-574533/16
Matrix: Water
Analysis Batch: 574533

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 12:07	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 12:07	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 12:07	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 12:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 12:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 12:07	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 12:07	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 12:07	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 12:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 12:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 12:07	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 12:07	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 12:07	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 12:07	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 12:07	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 12:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 12:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 12:07	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 12:07	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 12:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/20/22 12:07*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/20/22 12:07*	*1*
Toluene-d8 (Surr)	*86*		*64 - 132*		*04/20/22 12:07*	*1*

Lab Sample ID: LCS 400-574533/1002
Matrix: Water
Analysis Batch: 574533

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	229		ug/L		115	43 - 160
Acrolein	500	603		ug/L		121	38 - 160
Acrylonitrile	500	495		ug/L		99	64 - 142
Benzene	50.0	56.6		ug/L		113	70 - 130
Bromobenzene	50.0	42.3		ug/L		85	70 - 132
Bromochloromethane	50.0	50.9		ug/L		102	70 - 130
Bromodichloromethane	50.0	53.4		ug/L		107	67 - 133
Bromoform	50.0	41.6		ug/L		83	57 - 140
Bromomethane	50.0	44.3		ug/L		89	10 - 160
2-Butanone (MEK)	200	232		ug/L		116	61 - 145
Carbon disulfide	50.0	57.5		ug/L		115	61 - 137
Carbon tetrachloride	50.0	55.9		ug/L		112	61 - 137
Chlorobenzene	50.0	50.7		ug/L		101	70 - 130
Dibromochloromethane	50.0	45.0		ug/L		90	67 - 135
Chloroethane	50.0	43.7		ug/L		87	55 - 141

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

Lab Sample ID: LCS 400-574533/1002
Matrix: Water
Analysis Batch: 574533

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	52.1		ug/L		104	10 - 160
Chloroform	50.0	58.9		ug/L		118	69 - 130
1-Chlorohexane	50.0	41.9		ug/L		84	69 - 130
Chloromethane	50.0	41.7		ug/L		83	58 - 137
cis-1,2-Dichloroethene	50.0	51.8		ug/L		104	68 - 130
cis-1,3-Dichloropropene	50.0	57.3		ug/L		115	69 - 132
1,2-Dichlorobenzene	50.0	41.7		ug/L		83	67 - 130
1,3-Dichlorobenzene	50.0	42.8		ug/L		86	70 - 130
1,4-Dichlorobenzene	50.0	47.0		ug/L		94	70 - 130
Dichlorodifluoromethane	50.0	51.0		ug/L		102	41 - 146
1,1-Dichloroethane	50.0	54.6		ug/L		109	70 - 130
1,2-Dichloroethane	50.0	52.7		ug/L		105	69 - 130
1,1-Dichloroethene	50.0	59.3		ug/L		119	63 - 134
1,2-Dichloropropane	50.0	49.2		ug/L		98	70 - 130
1,3-Dichloropropane	50.0	49.7		ug/L		99	70 - 130
2,2-Dichloropropane	50.0	55.4		ug/L		111	52 - 135
1,1-Dichloropropene	50.0	59.5		ug/L		119	70 - 130
Ethylbenzene	50.0	47.3		ug/L		95	70 - 130
Ethyl methacrylate	50.0	49.5		ug/L		99	68 - 130
Hexachlorobutadiene	50.0	47.9		ug/L		96	53 - 140
2-Hexanone	200	151		ug/L		75	65 - 137
Isopropylbenzene	50.0	48.5		ug/L		97	70 - 130
Methylene bromide	50.0	54.2		ug/L		108	70 - 130
Methylene Chloride	50.0	54.9		ug/L		110	66 - 135
4-Methyl-2-pentanone (MIBK)	200	173		ug/L		86	69 - 138
Methyl tert-butyl ether	50.0	55.6		ug/L		111	66 - 130
m-Xylene & p-Xylene	50.0	47.7		ug/L		95	70 - 130
Naphthalene	50.0	37.6		ug/L		75	47 - 149
n-Butylbenzene	50.0	48.2		ug/L		96	67 - 130
N-Propylbenzene	50.0	46.2		ug/L		92	70 - 130
o-Chlorotoluene	50.0	47.0		ug/L		94	70 - 130
o-Xylene	50.0	49.3		ug/L		99	70 - 130
p-Chlorotoluene	50.0	47.2		ug/L		94	70 - 130
p-Isopropyltoluene	50.0	45.9		ug/L		92	65 - 130
sec-Butylbenzene	50.0	46.7		ug/L		93	66 - 130
Styrene	50.0	45.4		ug/L		91	70 - 130
tert-Butylbenzene	50.0	44.6		ug/L		89	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.6		ug/L		93	67 - 131
1,1,2,2-Tetrachloroethane	50.0	45.5		ug/L		91	70 - 131
Tetrachloroethene	50.0	42.7		ug/L		85	65 - 130
Toluene	50.0	53.0		ug/L		106	70 - 130
trans-1,2-Dichloroethene	50.0	55.2		ug/L		110	70 - 130
trans-1,3-Dichloropropene	50.0	51.5		ug/L		103	63 - 130
1,2,3-Trichlorobenzene	50.0	44.0		ug/L		88	60 - 138
1,2,4-Trichlorobenzene	50.0	42.0		ug/L		84	60 - 140
1,1,1-Trichloroethane	50.0	58.7		ug/L		117	68 - 130
1,1,2-Trichloroethane	50.0	47.7		ug/L		95	70 - 130
Trichloroethene	50.0	53.5		ug/L		107	70 - 130
Trichlorofluoromethane	50.0	52.9		ug/L		106	65 - 138

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

Lab Sample ID: LCS 400-574533/1002
Matrix: Water
Analysis Batch: 574533

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	43.9		ug/L		88	70 - 130
1,2,4-Trimethylbenzene	50.0	45.6		ug/L		91	70 - 130
1,3,5-Trimethylbenzene	50.0	46.9		ug/L		94	69 - 130
Vinyl acetate	100	108		ug/L		108	26 - 160
Vinyl chloride	50.0	57.1		ug/L		114	59 - 136
Xylenes, Total	100	97.0		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*72 - 119*
Dibromofluoromethane	*89*		*75 - 126*
Toluene-d8 (Surr)	*90*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574212/1-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/18/22 10:03	04/19/22 17:25	1
Benzenethiol	ND		10	1.7	ug/L		04/18/22 10:03	04/19/22 17:25	1
Benzoic acid	ND		30	7.3	ug/L		04/18/22 10:03	04/19/22 17:25	1
Benzyl alcohol	ND		10	2.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/18/22 10:03	04/19/22 17:25	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/18/22 10:03	04/19/22 17:25	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/18/22 10:03	04/19/22 17:25	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/18/22 10:03	04/19/22 17:25	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Chloroaniline	ND		10	3.4	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/18/22 10:03	04/19/22 17:25	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/18/22 10:03	04/19/22 17:25	1
2-Chlorophenol	ND		10	2.2	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Dibenzofuran	ND		10	0.17	ug/L		04/18/22 10:03	04/19/22 17:25	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Diethyl phthalate	0.469	J	10	0.24	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/18/22 10:03	04/19/22 17:25	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/18/22 10:03	04/19/22 17:25	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/18/22 10:03	04/19/22 17:25	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/18/22 10:03	04/19/22 17:25	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/18/22 10:03	04/19/22 17:25	1
1,4-Dioxane	ND		10	1.0	ug/L		04/18/22 10:03	04/19/22 17:25	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574212/1-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/18/22 10:03	04/19/22 17:25	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/18/22 10:03	04/19/22 17:25	1
Hexachloroethane	ND		10	4.2	ug/L		04/18/22 10:03	04/19/22 17:25	1
Indene	ND		10	1.0	ug/L		04/18/22 10:03	04/19/22 17:25	1
Isophorone	ND		10	0.14	ug/L		04/18/22 10:03	04/19/22 17:25	1
2-Methylphenol	ND		10	1.8	ug/L		04/18/22 10:03	04/19/22 17:25	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/18/22 10:03	04/19/22 17:25	1
2-Nitroaniline	ND		10	2.2	ug/L		04/18/22 10:03	04/19/22 17:25	1
3-Nitroaniline	ND		10	1.8	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Nitroaniline	ND		10	1.5	ug/L		04/18/22 10:03	04/19/22 17:25	1
Nitrobenzene	ND		10	0.13	ug/L		04/18/22 10:03	04/19/22 17:25	1
2-Nitrophenol	ND		10	5.2	ug/L		04/18/22 10:03	04/19/22 17:25	1
4-Nitrophenol	ND		10	2.1	ug/L		04/18/22 10:03	04/19/22 17:25	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/18/22 10:03	04/19/22 17:25	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/18/22 10:03	04/19/22 17:25	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/18/22 10:03	04/19/22 17:25	1
Pentachlorophenol	ND		20	1.4	ug/L		04/18/22 10:03	04/19/22 17:25	1
Phenol	ND		10	2.6	ug/L		04/18/22 10:03	04/19/22 17:25	1
Pyridine	ND		10	3.2	ug/L		04/18/22 10:03	04/19/22 17:25	1
Quinoline	ND		10	4.5	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/18/22 10:03	04/19/22 17:25	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/18/22 10:03	04/19/22 17:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*04/18/22 10:03*	*04/19/22 17:25*	*1*
2-Fluorophenol	*20*		*13 - 113*	*04/18/22 10:03*	*04/19/22 17:25*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*04/18/22 10:03*	*04/19/22 17:25*	*1*
Phenol-d5	*57*		*17 - 127*	*04/18/22 10:03*	*04/19/22 17:25*	*1*
Terphenyl-d14	*89*		*44 - 149*	*04/18/22 10:03*	*04/19/22 17:25*	*1*
2,4,6-Tribromophenol	*86*		*26 - 150*	*04/18/22 10:03*	*04/19/22 17:25*	*1*

Lab Sample ID: LCS 400-574212/2-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	72.5		ug/L		60	21 - 120
Benzoic acid	498	241		ug/L		48	10 - 144
Benzyl alcohol	120	91.2		ug/L		76	28 - 120
Bis(2-chloroethoxy)methane	120	97.7		ug/L		81	47 - 120
Bis(2-chloroethyl)ether	120	105		ug/L		87	44 - 120
bis (2-chloroisopropyl) ether	120	99.4		ug/L		83	33 - 121
Bis(2-ethylhexyl) phthalate	120	108		ug/L		90	52 - 147
4-Bromophenyl phenyl ether	120	118		ug/L		98	54 - 122
Butyl benzyl phthalate	120	111		ug/L		93	54 - 133
4-Chloroaniline	120	67.4		ug/L		56	26 - 120
4-Chloro-3-methylphenol	120	106		ug/L		89	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574212/2-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	113		ug/L		94	52 - 121
2-Chlorophenol	120	85.7		ug/L		71	40 - 120
4-Chlorophenyl phenyl ether	120	117		ug/L		98	56 - 125
Dibenz[a,h]acridine	120	150		ug/L		125	31 - 150
Dibenzofuran	120	116		ug/L		97	56 - 122
3,3'-Dichlorobenzidine	160	219	*+	ug/L		137	36 - 132
2,4-Dichlorophenol	120	99.0		ug/L		83	49 - 120
Diethyl phthalate	120	124		ug/L		104	50 - 137
2,4-Dimethylphenol	120	106		ug/L		88	48 - 120
Dimethyl phthalate	120	117		ug/L		97	57 - 124
Di-n-butyl phthalate	120	134		ug/L		112	58 - 126
4,6-Dinitro-ortho-cresol	240	299		ug/L		124	23 - 148
2,4-Dinitrophenol	240	287		ug/L		120	10 - 150
2,4-Dinitrotoluene	120	122		ug/L		102	54 - 142
2,6-Dinitrotoluene	120	112		ug/L		94	55 - 130
Di-n-octyl phthalate	120	114		ug/L		95	57 - 138
1,4-Dioxane	120	83.3		ug/L		69	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	107		ug/L		89	45 - 124
Hexachlorobenzene	120	128		ug/L		107	52 - 129
Hexachlorocyclopentadiene	120	84.4		ug/L		70	10 - 134
Hexachloroethane	120	104		ug/L		87	20 - 120
Indene	120	104		ug/L		86	49 - 120
Isophorone	120	100		ug/L		83	48 - 120
2-Methylphenol	120	114		ug/L		95	46 - 124
3 & 4 Methylphenol	120	106		ug/L		89	45 - 120
2-Nitroaniline	120	102		ug/L		85	51 - 145
3-Nitroaniline	120	89.8		ug/L		75	37 - 127
4-Nitroaniline	120	129		ug/L		108	36 - 137
Nitrobenzene	120	96.9		ug/L		81	45 - 120
2-Nitrophenol	120	107		ug/L		89	40 - 124
4-Nitrophenol	240	222		ug/L		92	23 - 146
N-Nitrosodimethylamine	120	113		ug/L		94	29 - 137
N-Nitrosodi-n-propylamine	120	110		ug/L		92	45 - 120
N-Nitrosodiphenylamine	119	110		ug/L		92	54 - 120
Pentachlorophenol	240	248		ug/L		103	31 - 130
Phenol	120	96.8		ug/L		81	11 - 120
Pyridine	240	166		ug/L		69	16 - 120
Quinoline	120	119		ug/L		99	49 - 130
2,4,5-Trichlorophenol	120	108		ug/L		90	51 - 136
2,4,6-Trichlorophenol	120	105		ug/L		88	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*44*		*13 - 113*
Nitrobenzene-d5	*91*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574212/2-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574212

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*112*		*26 - 150*

Lab Sample ID: LCS 400-574212/4-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	8.03	J *-	ug/L		7	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*94*		*46 - 124*
2-Fluorophenol	*37*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*
Phenol-d5	*65*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*73*		*26 - 150*

Lab Sample ID: LCSD 400-574212/3-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	64.7		ug/L		54	21 - 120	11	30
Benzoic acid	498	300		ug/L		60	10 - 144	22	30
Benzyl alcohol	120	91.0		ug/L		76	28 - 120	0	30
Bis(2-chloroethoxy)methane	120	102		ug/L		85	47 - 120	4	30
Bis(2-chloroethyl)ether	120	113		ug/L		94	44 - 120	7	30
bis (2-chloroisopropyl) ether	120	102		ug/L		85	33 - 121	3	30
Bis(2-ethylhexyl) phthalate	120	118		ug/L		98	52 - 147	9	30
4-Bromophenyl phenyl ether	120	126		ug/L		105	54 - 122	7	30
Butyl benzyl phthalate	120	116		ug/L		96	54 - 133	4	30
4-Chloroaniline	120	67.1		ug/L		56	26 - 120	0	30
4-Chloro-3-methylphenol	120	114		ug/L		95	48 - 131	7	30
2-Chloronaphthalene	120	118		ug/L		98	52 - 121	4	30
2-Chlorophenol	120	83.6		ug/L		70	40 - 120	3	30
4-Chlorophenyl phenyl ether	120	124		ug/L		103	56 - 125	5	30
Dibenz[a,h]acridine	120	160		ug/L		134	31 - 150	6	30
Dibenzofuran	120	121		ug/L		101	56 - 122	4	30
3,3'-Dichlorobenzidine	160	227	*+	ug/L		142	36 - 132	3	30
2,4-Dichlorophenol	120	107		ug/L		89	49 - 120	8	30
Diethyl phthalate	120	130		ug/L		108	50 - 137	5	30
2,4-Dimethylphenol	120	112		ug/L		93	48 - 120	5	30
Dimethyl phthalate	120	124		ug/L		104	57 - 124	7	30
Di-n-butyl phthalate	120	145		ug/L		121	58 - 126	8	30
4,6-Dinitro-ortho-cresol	240	320		ug/L		134	23 - 148	7	30
2,4-Dinitrophenol	240	304		ug/L		127	10 - 150	6	30
2,4-Dinitrotoluene	120	129		ug/L		107	54 - 142	5	30
2,6-Dinitrotoluene	120	118		ug/L		98	55 - 130	5	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574212/3-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate	120	125		ug/L		105	57 - 138	9	30
1,4-Dioxane	120	88.5		ug/L		74	31 - 120	6	30
1,2-Diphenylhydrazine (as Azobenzene)	120	114		ug/L		95	45 - 124	7	30
Hexachlorobenzene	120	135		ug/L		112	52 - 129	5	30
Hexachlorocyclopentadiene	120	89.0		ug/L		74	10 - 134	5	30
Hexachloroethane	120	106		ug/L		88	20 - 120	1	30
Indene	120	106		ug/L		88	49 - 120	2	30
Isophorone	120	105		ug/L		87	48 - 120	4	30
2-Methylphenol	120	122		ug/L		102	46 - 124	7	30
3 & 4 Methylphenol	120	113		ug/L		94	45 - 120	6	30
2-Nitroaniline	120	107		ug/L		89	51 - 145	5	30
3-Nitroaniline	120	91.3		ug/L		76	37 - 127	2	30
4-Nitroaniline	120	132		ug/L		110	36 - 137	2	30
Nitrobenzene	120	98.8		ug/L		82	45 - 120	2	30
2-Nitrophenol	120	113		ug/L		94	40 - 124	5	30
4-Nitrophenol	240	235		ug/L		98	23 - 146	6	30
N-Nitrosodimethylamine	120	110		ug/L		92	29 - 137	2	30
N-Nitrosodi-n-propylamine	120	113		ug/L		94	45 - 120	2	30
N-Nitrosodiphenylamine	119	116		ug/L		97	54 - 120	5	30
Pentachlorophenol	240	258		ug/L		108	31 - 130	4	30
Phenol	120	97.8		ug/L		82	11 - 120	1	30
Pyridine	240	169		ug/L		70	16 - 120	2	30
Quinoline	120	124		ug/L		103	49 - 130	4	30
2,4,5-Trichlorophenol	120	117		ug/L		97	51 - 136	8	30
2,4,6-Trichlorophenol	120	112		ug/L		93	50 - 127	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*93*		*46 - 124*
2-Fluorophenol	*34*		*13 - 113*
Nitrobenzene-d5	*89*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*94*		*44 - 149*
2,4,6-Tribromophenol	*113*		*26 - 150*

Lab Sample ID: LCSD 400-574212/5-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	6.03	J *-	ug/L		5	10 - 120	28	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*87*		*46 - 124*
2-Fluorophenol	*25*		*13 - 113*
Nitrobenzene-d5	*78*		*36 - 126*
Phenol-d5	*52*		*17 - 127*
Terphenyl-d14	*88*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574212/5-A
Matrix: Water
Analysis Batch: 574392

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574212

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*76*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-574212/1-A
Matrix: Water
Analysis Batch: 574718

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/18/22 10:03	04/21/22 17:41	1
Acenaphthylene	0.0649	J	0.20	0.045	ug/L		04/18/22 10:03	04/21/22 17:41	1
Anthracene	ND		0.20	0.032	ug/L		04/18/22 10:03	04/21/22 17:41	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/18/22 10:03	04/21/22 17:41	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/18/22 10:03	04/21/22 17:41	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/18/22 10:03	04/21/22 17:41	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/18/22 10:03	04/21/22 17:41	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/18/22 10:03	04/21/22 17:41	1
Chrysene	ND		0.20	0.074	ug/L		04/18/22 10:03	04/21/22 17:41	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/18/22 10:03	04/21/22 17:41	1
Fluoranthene	ND		0.20	0.068	ug/L		04/18/22 10:03	04/21/22 17:41	1
Fluorene	ND		0.20	0.11	ug/L		04/18/22 10:03	04/21/22 17:41	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/18/22 10:03	04/21/22 17:41	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/18/22 10:03	04/21/22 17:41	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/18/22 10:03	04/21/22 17:41	1
Phenanthrene	ND		0.20	0.036	ug/L		04/18/22 10:03	04/21/22 17:41	1
Pyrene	ND		0.20	0.040	ug/L		04/18/22 10:03	04/21/22 17:41	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*134*	*S1+*	*15 - 122*	*04/18/22 10:03*	*04/21/22 17:41*	*1*
Nitrobenzene-d5	*110*		*19 - 130*	*04/18/22 10:03*	*04/21/22 17:41*	*1*
Terphenyl-d14	*173*	*S1+*	*33 - 138*	*04/18/22 10:03*	*04/21/22 17:41*	*1*

Lab Sample ID: LCS 400-574212/2-A
Matrix: Water
Analysis Batch: 575786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	120		ug/L		100	41 - 120
Acenaphthylene	120	129		ug/L		107	44 - 120
Anthracene	120	123		ug/L		102	49 - 120
Benzo[a]anthracene	120	120	B	ug/L		100	61 - 135
Benzo[a]pyrene	120	130	B	ug/L		108	52 - 120
Benzo[b]fluoranthene	120	135	B	ug/L		112	53 - 134
Benzo[g,h,i]perylene	120	118		ug/L		99	47 - 133
Benzo[k]fluoranthene	120	127		ug/L		106	57 - 134
Chrysene	120	121	B	ug/L		101	55 - 122
Dibenz(a,h)anthracene	120	124		ug/L		103	48 - 146
Fluoranthene	120	112	B	ug/L		93	54 - 128

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-574212/2-A
Matrix: Water
Analysis Batch: 575786

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	120	124		ug/L		103	45 - 125
Indeno[1,2,3-cd]pyrene	120	120		ug/L		100	43 - 142
1-Methylnaphthalene	120	106		ug/L		88	41 - 120
2-Methylnaphthalene	120	116		ug/L		97	32 - 124
Phenanthrene	120	126		ug/L		105	48 - 120
Pyrene	120	114	B	ug/L		95	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*15 - 122*
Nitrobenzene-d5	*80*		*19 - 130*
Terphenyl-d14	*97*		*33 - 138*

Lab Sample ID: LCSD 400-574212/3-A
Matrix: Water
Analysis Batch: 575786

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574212

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	115		ug/L		96	41 - 120	4	56
Acenaphthylene	120	124		ug/L		104	44 - 120	3	56
Anthracene	120	121		ug/L		101	49 - 120	2	51
Benzo[a]anthracene	120	117	B	ug/L		97	61 - 135	3	49
Benzo[a]pyrene	120	125	B	ug/L		105	52 - 120	4	50
Benzo[b]fluoranthene	120	134	B	ug/L		112	53 - 134	1	54
Benzo[g,h,i]perylene	120	116		ug/L		97	47 - 133	2	50
Benzo[k]fluoranthene	120	115		ug/L		96	57 - 134	10	52
Chrysene	120	116	B	ug/L		97	55 - 122	4	50
Dibenz(a,h)anthracene	120	124		ug/L		104	48 - 146	0	50
Fluoranthene	120	109	B	ug/L		91	54 - 128	3	52
Fluorene	120	119		ug/L		99	45 - 125	4	56
Indeno[1,2,3-cd]pyrene	120	120		ug/L		100	43 - 142	0	51
1-Methylnaphthalene	120	106		ug/L		89	41 - 120	0	55
2-Methylnaphthalene	120	112		ug/L		93	32 - 124	4	57
Phenanthrene	120	123		ug/L		102	48 - 120	3	56
Pyrene	120	109	B	ug/L		91	48 - 132	4	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*15 - 122*
Nitrobenzene-d5	*74*		*19 - 130*
Terphenyl-d14	*91*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-575192/1-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575192

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/25/22 14:06	04/26/22 11:49	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-575192/1-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575192

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/25/22 14:06	04/26/22 11:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*118*		*51 - 149*	*04/25/22 14:06*	*04/26/22 11:49*	*1*

Lab Sample ID: LCS 400-575192/2-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575192

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.143	*+	ug/L		143	60 - 140
1,2-Dibromoethane	0.101	0.111		ug/L		110	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*117*		*51 - 149*

Lab Sample ID: LCSD 400-575192/3-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 575192

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.154	*+	ug/L		153	60 - 140	7	30
1,2-Dibromoethane	0.101	0.117		ug/L		117	60 - 140	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*135*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

- ☐ ACCUTEST (_____)
- ☐ CALSCIENCE (_____)
- ☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
- ☐ Other (_____)

Please Check Appropriate Box:

- ☐ SGW FDG
- ☐ CHEMICALS
- ☐ TRANSPORTATION
- ☐ PIPELINE
- ☐ CONSULTANT
- ☑ OTHER _ENV. SERVICES_____
- ☐ RETAIL
- ☐ LUBES

Print Bill To Contact Name:	PlaNet Site or Project ID
Melissa Remiger	25278
PO #	**GSAP Project ID**
60674381 – 3.2.2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 4/15/2022

PAGE: 1 of 1

SAMPLING COMPANY: AECOM

LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA

State: IL

AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.2.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions

PHONE NO.: 314-802-1207; 314-802-1122

E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com

AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger

TELEPHONE: 314-429-0100

FAX: 314-429-0462

Bill To Contact E-MAIL: melissa.remiger@aecom.com

SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@secomshell.com; andrei.zamfir@aecom.com

REQUESTED ANALYSIS 60674381 – 3.2.2

400-218564 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 3.1°C IR9 0.0°C

Container PID Readings or Laboratory Notes:

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041522-8260	4/15/2022	0000	Water	2					2	X			
	TB-ROX-041522-8011	4/15/2022	0000	Water	2					2		X		
	ROST4PZG-ROX-041522	4/15/2022	0905	Water	6			2		8	X	X	X	X
	ROST4PZG-ROX-041522-DUP	4/15/2022	0905	Water	6			2		8	X	X	X	X
	MW22-ROX-041522	4/15/2022	0955	Water	6			2		8	X	X	X	X
	ROST4PZC-ROX-041522	4/15/2022	1100	Water	6			2		8	X	X	X	X
	P57-ROX-041522	4/15/2022	1230	Water	6			2		8	X	X	X	X

4/15/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 1482 3813 0973, 1482 3813 0995, 1482 3813 0984	4/15/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4.16.22	Time: 09:30

CUSTODY SEALS: 1892133, 1892132, 1892131, 1892130, 1892129, 1892128

Version: 1Apr22

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218564-1

Login Number: 218564
List Number: 1
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 3.1°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218564-1

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218568-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Zachary Neigh

Date Reviewed: 6/14/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041422-8260	TB-ROX-041422-8011
MW2-ROX-041422-EB	MW2-ROX-041422
MW2-ROX-041422-DUP	MW13-ROX-041422
P114R-ROX-041422	MW10-ROX-041422-EB
MW10-ROX-041422	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated chlorobenzene was detected in trip blank TB-ROX-041422-8260, and several PAHs were detected in the equipment blanks and method blank. Several SVOC, PAH, and VOC by 8011 LCS/LCSD recoveries were outside evaluation criteria. Several PAH surrogate recoveries were outside criteria in several investigative and quality control samples. The continuing calibration verifications for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-041422-8260	VOCs	Chlorobenzene	0.27 µg/L
MW2-ROX-041422-EB	PAHs	Benzo[b]fluoranthene	0.071 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
MW2-ROX-041422-EB	PAHs	Fluoranthene	0.072 µg/L
MW2-ROX-041422-EB	PAHs	Pyrene	0.039 µg/L
MW10-ROX-041422-EB	PAHs	Benzo[b]fluoranthene	0.070 µg/L
MB 400-574548/1-A	PAHs	Benzo[b]fluoranthene	0.0949 µg/L
MB 400-574548/1-A	PAHs	Benzo[k]fluoranthene	0.109 µg/L

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-574548/2-A/3-A	SVOCs	Hexachlorobenzene	**134**/129	4	52-129/30
LCS/LCSD 400-574548/6-A/7-A	SVOCs	Benzenethiol	**5/6**	25	10-120/30
LCS/LCSD 400-574548/2-A/3-A	PAHs	Acenaphthylene	**121**/116	4	44-120/56
LCS/LCSD 400-575192/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**143/153**	7	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW2-ROX-041422	SVOCs	Benzenethiol	**UJ**
MW2-ROX-041422-DUP	SVOCs	Benzenethiol	**UJ**
MW13-ROX-041422	SVOCs	Benzenethiol	**UJ**
P114R-ROX-041422	SVOCs	Benzenethiol	**UJ**
MW10-ROX-041422	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW2-ROX-041422-EB	PAHs	2-Fluorobiphenyl	**134**	15-122

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW2-ROX-041422	PAHs	Nitrobenzene-d_5	**144**	19-130
MW13-ROX-041422	PAHs	2-Fluorobiphenyl	**123**	15-122
MW10-ROX-041422	PAHs	2-Fluorobiphenyl	**130**	15-122
MB 400-574548/1-A	PAHs	2-Fluorobiphenyl	**130**	15-122

Qualifications due to surrogate recoveries were not required if only one of three base/neutral surrogate recoveries were outside evaluation criteria. Method blanks are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
MW2-ROX-041422	MW2-ROX-041422-DUP

Were field duplicates within evaluation criteria?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside evaluation criteria, biased low, in CCV 400-574865/3. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW2-ROX-041422	SVOCs	Aniline	**UJ**
MW2-ROX-041422	SVOCs	Benzyl alcohol	**UJ**
MW2-ROX-041422	SVOCs	bis(2-Chloroethoxy) methane	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW2-ROX-041422	SVOCs	bis(2-Chloroethyl) ether	UJ
MW2-ROX-041422	SVOCs	bis(2-Chloroisopropyl) ether	UJ
MW2-ROX-041422	SVOCs	1,4-Dioxane	UJ
MW2-ROX-041422	SVOCs	1,2-Diphenylhydrazine (as Azobenzene	UJ
MW2-ROX-041422	SVOCs	Hexachlorocyclopentadiene	UJ
MW2-ROX-041422	SVOCs	Isophorone	UJ
MW2-ROX-041422	SVOCs	Nitrobenzene	UJ
MW2-ROX-041422	SVOCs	N-Nitrosodi-n-propylamine	UJ
MW2-ROX-041422	SVOCs	Phenol	UJ
MW2-ROX-041422	SVOCs	Pyridine	UJ
MW2-ROX-041422-DUP	SVOCs	Aniline	UJ
MW2-ROX-041422-DUP	SVOCs	Benzyl alcohol	UJ
MW2-ROX-041422-DUP	SVOCs	bis(2-Chloroethoxy) methane	UJ
MW2-ROX-041422-DUP	SVOCs	bis(2-Chloroethyl) ether	UJ
MW2-ROX-041422-DUP	SVOCs	bis(2-Chloroisopropyl) ether	UJ
MW2-ROX-041422-DUP	SVOCs	1,4-Dioxane	UJ
MW2-ROX-041422-DUP	SVOCs	1,2-Diphenylhydrazine (as Azobenzene	UJ
MW2-ROX-041422-DUP	SVOCs	Hexachlorocyclopentadiene	UJ
MW2-ROX-041422-DUP	SVOCs	Isophorone	UJ
MW2-ROX-041422-DUP	SVOCs	Nitrobenzene	UJ
MW2-ROX-041422-DUP	SVOCs	N-Nitrosodi-n-propylamine	UJ
MW2-ROX-041422-DUP	SVOCs	Phenol	UJ
MW2-ROX-041422-DUP	SVOCs	Pyridine	UJ
MW13-ROX-041422	SVOCs	Aniline	UJ
MW13-ROX-041422	SVOCs	Benzyl alcohol	UJ
MW13-ROX-041422	SVOCs	bis(2-Chloroethoxy) methane	UJ
MW13-ROX-041422	SVOCs	bis(2-Chloroethyl) ether	UJ
MW13-ROX-041422	SVOCs	bis(2-Chloroisopropyl) ether	UJ
MW13-ROX-041422	SVOCs	1,4-Dioxane	UJ
MW13-ROX-041422	SVOCs	1,2-Diphenylhydrazine (as Azobenzene	UJ
MW13-ROX-041422	SVOCs	Hexachlorocyclopentadiene	UJ
MW13-ROX-041422	SVOCs	Isophorone	UJ
MW13-ROX-041422	SVOCs	Nitrobenzene	UJ
MW13-ROX-041422	SVOCs	N-Nitrosodi-n-propylamine	UJ
MW13-ROX-041422	SVOCs	Phenol	UJ
MW13-ROX-041422	SVOCs	Pyridine	UJ
P114R-ROX-041422	SVOCs	Aniline	UJ
P114R-ROX-041422	SVOCs	Benzyl alcohol	UJ
P114R-ROX-041422	SVOCs	bis(2-Chloroethoxy) methane	UJ
P114R-ROX-041422	SVOCs	bis(2-Chloroethyl) ether	UJ
P114R-ROX-041422	SVOCs	bis(2-Chloroisopropyl) ether	UJ
P114R-ROX-041422	SVOCs	1,4-Dioxane	UJ

Sample ID	Parameter	Analyte	Qualification
P114R-ROX-041422	SVOCs	1,2-Diphenylhydrazine (as Azobenzene	UJ
P114R-ROX-041422	SVOCs	Hexachlorocyclopentadiene	UJ
P114R-ROX-041422	SVOCs	Isophorone	UJ
P114R-ROX-041422	SVOCs	Nitrobenzene	UJ
P114R-ROX-041422	SVOCs	N-Nitrosodi-n-propylamine	UJ
P114R-ROX-041422	SVOCs	Phenol	UJ
P114R-ROX-041422	SVOCs	Pyridine	UJ
MW10-ROX-041422	SVOCs	Aniline	UJ
MW10-ROX-041422	SVOCs	Benzyl alcohol	UJ
MW10-ROX-041422	SVOCs	bis(2-Chloroethoxy) methane	UJ
MW10-ROX-041422	SVOCs	bis(2-Chloroethyl) ether	UJ
MW10-ROX-041422	SVOCs	bis(2-Chloroisopropyl) ether	UJ
MW10-ROX-041422	SVOCs	1,4-Dioxane	UJ
MW10-ROX-041422	SVOCs	1,2-Diphenylhydrazine (as Azobenzene	UJ
MW10-ROX-041422	SVOCs	Hexachlorocyclopentadiene	UJ
MW10-ROX-041422	SVOCs	Isophorone	UJ
MW10-ROX-041422	SVOCs	Nitrobenzene	UJ
MW10-ROX-041422	SVOCs	N-Nitrosodi-n-propylamine	UJ
MW10-ROX-041422	SVOCs	Phenol	UJ
MW10-ROX-041422	SVOCs	Pyridine	UJ



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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218568-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
5/3/2022 1:26:34 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

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Reviewed 6/14/2022 MR

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

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

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

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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Job ID: 400-218568-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218568-1

Comments
No additional comments.

Receipt
The samples were received on 4/16/2022 9:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.0° C, 3.9° C and 4.0° C.

GC/MS VOA
Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041422-8260 (400-218568-1), MW2-ROX-041422-EB (400-218568-3), MW2-ROX-041422 (400-218568-4), MW2-ROX-041422-DUP (400-218568-5), MW13-ROX-041422 (400-218568-6), P114R-ROX-041422 (400-218568-7), MW10-ROX-041422-EB (400-218568-8) and MW10-ROX-041422 (400-218568-9). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

Method 8260B: The following sample TB-ROX-041422-8260 (400-218568-1) contained Chlorobenzene between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample (LCS) for preparation batch 400-574548 and analytical batch 400-574706 recovered outside control limits for the following analytes: Hexachlorobenzene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-574548 and analytical batch 400-574706 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574706 recovered above the upper control limit for N-Nitrosodimethylamine, 1,4-Dioxane, 4-Nitrophenol and Hexachlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574706 recovered outside acceptance criteria, low biased, for Bis(2-chloroethyl)ether, Quinoline, Phenol, 2,4-Dinitrotoluene, Aniline, Bis(2-chloroethoxy)methane and Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574865 recovered outside acceptance criteria, low biased, for N-Nitrosodi-n-propylamine, 1,4-Dioxane, Nitrobenzene, Bis(2-chloroethyl)ether, Phenol, Isophorone, 2;2'-oxybis[1-chloropropane], 1,2-Diphenylhydrazine (as Azobenzene), Hexachlorocyclopentadiene, Pyridine, Aniline, Bis(2-chloroethoxy)methane and Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW2-ROX-041422-EB (400-218568-3) and MW2-ROX-041422 (400-218568-4). These results have been reported and qualified.

Method 8270D LL: The method blank for preparation batch 400-574548 and analytical batch 400-575511 contained Benzo[b]fluoranthene and Benzo[k]fluoranthene above the method detection limit. This target analyte concentration was less than the reporting limit (RL);

Job ID: 400-218568-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: The laboratory control sample (LCS) for preparation batch 400-574548 and analytical batch 400-575511 recovered outside control limits for the following analytes: Acenaphthylene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW13-ROX-041422 (400-218568-6) and MW10-ROX-041422 (400-218568-9). These results have been reported and qualified.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-575299 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-575192 and analytical batch 400-575299 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218568-1	TB-ROX-041422-8260	Water	04/14/22 00:01	04/16/22 09:30
400-218568-2	TB-ROX-041422-8011	Water	04/14/22 00:01	04/16/22 09:30
400-218568-3	MW2-ROX-041422-EB	Water	04/14/22 08:30	04/16/22 09:30
400-218568-4	MW2-ROX-041422	Water	04/14/22 09:25	04/16/22 09:30
400-218568-5	MW2-ROX-041422-DUP	Water	04/14/22 09:25	04/16/22 09:30
400-218568-6	MW13-ROX-041422	Water	04/14/22 10:40	04/16/22 09:30
400-218568-7	P114R-ROX-041422	Water	04/14/22 11:35	04/16/22 09:30
400-218568-8	MW10-ROX-041422-EB	Water	04/14/22 13:10	04/16/22 09:30
400-218568-9	MW10-ROX-041422	Water	04/14/22 13:50	04/16/22 09:30

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Client Sample ID: TB-ROX-041422-8260

Lab Sample ID: 400-218568-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.27	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-041422-8011

Lab Sample ID: 400-218568-2

No Detections.

Client Sample ID: MW2-ROX-041422-EB

Lab Sample ID: 400-218568-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.071	J B	0.19	0.032	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.072	J	0.19	0.063	ug/L	1		8270D LL	Total/NA
Pyrene	0.039	J	0.19	0.037	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW2-ROX-041422

Lab Sample ID: 400-218568-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	72		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropylbenzene	32		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	32		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	12		5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	1.3		1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	45		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	3.5	J	5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	2.8		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	3.1		1.0	0.70	ug/L	1		8260B	Total/NA
Toluene	3.3		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	11		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	15		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	35		10	1.6	ug/L	1		8260B	Total/NA
1-Methylnaphthalene	11		0.19	0.071	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene - RA	17		0.19	0.058	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW2-ROX-041422-DUP

Lab Sample ID: 400-218568-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.3		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	82		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropylbenzene	36		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	38		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	14		5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	1.7		1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	54		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	4.2	J	5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	3.9		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	3.8		1.0	0.70	ug/L	1		8260B	Total/NA
Toluene	3.6		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	13		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	18		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	42		10	1.6	ug/L	1		8260B	Total/NA
1-Methylnaphthalene	13		0.19	0.071	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	18		0.19	0.057	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Client Sample ID: MW13-ROX-041422

Lab Sample ID: 400-218568-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.83	J	1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: P114R-ROX-041422

Lab Sample ID: 400-218568-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.93	J	1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: MW10-ROX-041422-EB

Lab Sample ID: 400-218568-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.070	J B	0.19	0.032	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW10-ROX-041422

Lab Sample ID: 400-218568-9

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Client Sample ID: TB-ROX-041422-8260
Date Collected: 04/14/22 00:01
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 15:23	1
Acrolein	ND		20	3.3	ug/L			04/20/22 15:23	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 15:23	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 15:23	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 15:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 15:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 15:23	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 15:23	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 15:23	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 15:23	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 15:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 15:23	1
Chlorobenzene	0.27	J	1.0	0.15	ug/L			04/20/22 15:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 15:23	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 15:23	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 15:23	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 15:23	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 15:23	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 15:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 15:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 15:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 15:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 15:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 15:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 15:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 15:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 15:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 15:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 15:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 15:23	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 15:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 15:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 15:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 15:23	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 15:23	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 15:23	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 15:23	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 15:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 15:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 15:23	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 15:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 15:23	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 15:23	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 15:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 15:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 15:23	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 15:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 15:23	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 15:23	1

Client Sample ID: TB-ROX-041422-8260
Date Collected: 04/14/22 00:01
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 15:23	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 15:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 15:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 15:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 15:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 15:23	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 15:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 15:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 15:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 15:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 15:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 15:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 15:23	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 15:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 15:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 15:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 15:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 15:23	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 15:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 15:23	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/20/22 15:23*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/20/22 15:23*	*1*
Toluene-d8 (Surr)	*92*		*64 - 132*		*04/20/22 15:23*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Client Sample ID: TB-ROX-041422-8011
Date Collected: 04/14/22 00:01
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.031	0.018	ug/L		04/25/22 14:06	04/26/22 12:51	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/25/22 14:06	04/26/22 12:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*139*		*51 - 149*	*04/25/22 14:06*	*04/26/22 12:51*	*1*

Client Sample ID: MW2-ROX-041422-EB
Date Collected: 04/14/22 08:30
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 15:47	1
Acrolein	ND		20	3.3	ug/L			04/20/22 15:47	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 15:47	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 15:47	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 15:47	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 15:47	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 15:47	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 15:47	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 15:47	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 15:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 15:47	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 15:47	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 15:47	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 15:47	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 15:47	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 15:47	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 15:47	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 15:47	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 15:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 15:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 15:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 15:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 15:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 15:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 15:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 15:47	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 15:47	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 15:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 15:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 15:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 15:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 15:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 15:47	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 15:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 15:47	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 15:47	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 15:47	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 15:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 15:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 15:47	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 15:47	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 15:47	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 15:47	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 15:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 15:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 15:47	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 15:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 15:47	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 15:47	1

Client Sample ID: MW2-ROX-041422-EB
Date Collected: 04/14/22 08:30
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 15:47	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 15:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 15:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 15:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 15:47	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 15:47	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 15:47	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 15:47	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 15:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 15:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 15:47	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 15:47	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 15:47	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 15:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 15:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 15:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 15:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 15:47	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 15:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 15:47	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 15:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/20/22 15:47*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/20/22 15:47*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*04/20/22 15:47*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		04/20/22 10:34	04/28/22 04:37	1
Acenaphthylene	ND	*+	0.19	0.042	ug/L		04/20/22 10:34	04/28/22 04:37	1
Anthracene	ND		0.19	0.030	ug/L		04/20/22 10:34	04/28/22 04:37	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		04/20/22 10:34	04/28/22 04:37	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		04/20/22 10:34	04/28/22 04:37	1
Benzo[b]fluoranthene	**0.071**	J B	0.19	0.032	ug/L		04/20/22 10:34	04/28/22 04:37	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/20/22 10:34	04/28/22 04:37	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		04/20/22 10:34	04/28/22 04:37	1
Chrysene	ND		0.19	0.069	ug/L		04/20/22 10:34	04/28/22 04:37	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		04/20/22 10:34	04/28/22 04:37	1
Fluoranthene	**0.072**	J	0.19	0.063	ug/L		04/20/22 10:34	04/28/22 04:37	1
Fluorene	ND		0.19	0.10	ug/L		04/20/22 10:34	04/28/22 04:37	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		04/20/22 10:34	04/28/22 04:37	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		04/20/22 10:34	04/28/22 04:37	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		04/20/22 10:34	04/28/22 04:37	1
Phenanthrene	ND		0.19	0.033	ug/L		04/20/22 10:34	04/28/22 04:37	1
Pyrene	**0.039**	J	0.19	0.037	ug/L		04/20/22 10:34	04/28/22 04:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*134*	*S1+*	*15 - 122*	*04/20/22 10:34*	*04/28/22 04:37*	*1*
Nitrobenzene-d5	*123*		*19 - 130*	*04/20/22 10:34*	*04/28/22 04:37*	*1*

Client Sample ID: MW2-ROX-041422-EB
Date Collected: 04/14/22 08:30
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	125		33 - 138	04/20/22 10:34	04/28/22 04:37	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.3	3.5	ug/L		04/20/22 10:34	04/21/22 22:24	1
Benzenethiol	ND	*-	9.3	1.6	ug/L		04/20/22 10:34	04/21/22 22:24	1
Benzoic acid	ND		28	6.8	ug/L		04/20/22 10:34	04/21/22 22:24	1
Benzyl alcohol	ND		9.3	1.9	ug/L		04/20/22 10:34	04/21/22 22:24	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		04/20/22 10:34	04/21/22 22:24	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		04/20/22 10:34	04/21/22 22:24	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		04/20/22 10:34	04/21/22 22:24	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.6	ug/L		04/20/22 10:34	04/21/22 22:24	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		04/20/22 10:34	04/21/22 22:24	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		04/20/22 10:34	04/21/22 22:24	1
4-Chloroaniline	ND		9.3	3.2	ug/L		04/20/22 10:34	04/21/22 22:24	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		04/20/22 10:34	04/21/22 22:24	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		04/20/22 10:34	04/21/22 22:24	1
2-Chlorophenol	ND		9.3	2.0	ug/L		04/20/22 10:34	04/21/22 22:24	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		04/20/22 10:34	04/21/22 22:24	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		04/20/22 10:34	04/21/22 22:24	1
Dibenzofuran	ND		9.3	0.16	ug/L		04/20/22 10:34	04/21/22 22:24	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		04/20/22 10:34	04/21/22 22:24	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		04/20/22 10:34	04/21/22 22:24	1
Diethyl phthalate	ND		9.3	0.22	ug/L		04/20/22 10:34	04/21/22 22:24	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		04/20/22 10:34	04/21/22 22:24	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		04/20/22 10:34	04/21/22 22:24	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		04/20/22 10:34	04/21/22 22:24	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		04/20/22 10:34	04/21/22 22:24	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		04/20/22 10:34	04/21/22 22:24	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		04/20/22 10:34	04/21/22 22:24	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		04/20/22 10:34	04/21/22 22:24	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		04/20/22 10:34	04/21/22 22:24	1
1,4-Dioxane	ND		9.3	0.93	ug/L		04/20/22 10:34	04/21/22 22:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		04/20/22 10:34	04/21/22 22:24	1
Hexachlorobenzene	ND	*+	9.3	0.16	ug/L		04/20/22 10:34	04/21/22 22:24	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		04/20/22 10:34	04/21/22 22:24	1
Hexachloroethane	ND		9.3	3.9	ug/L		04/20/22 10:34	04/21/22 22:24	1
Indene	ND		9.3	0.93	ug/L		04/20/22 10:34	04/21/22 22:24	1
Isophorone	ND		9.3	0.13	ug/L		04/20/22 10:34	04/21/22 22:24	1
2-Methylphenol	ND		9.3	1.7	ug/L		04/20/22 10:34	04/21/22 22:24	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		04/20/22 10:34	04/21/22 22:24	1
2-Nitroaniline	ND		9.3	2.0	ug/L		04/20/22 10:34	04/21/22 22:24	1
3-Nitroaniline	ND		9.3	1.7	ug/L		04/20/22 10:34	04/21/22 22:24	1
4-Nitroaniline	ND		9.3	1.4	ug/L		04/20/22 10:34	04/21/22 22:24	1
Nitrobenzene	ND		9.3	0.12	ug/L		04/20/22 10:34	04/21/22 22:24	1
2-Nitrophenol	ND		9.3	4.8	ug/L		04/20/22 10:34	04/21/22 22:24	1
4-Nitrophenol	ND		9.3	2.0	ug/L		04/20/22 10:34	04/21/22 22:24	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		04/20/22 10:34	04/21/22 22:24	1

Client Sample ID: MW2-ROX-041422-EB

Date Collected: 04/14/22 08:30
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-3

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		04/20/22 10:34	04/21/22 22:24	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		04/20/22 10:34	04/21/22 22:24	1
Pentachlorophenol	ND		19	1.3	ug/L		04/20/22 10:34	04/21/22 22:24	1
Phenol	ND		9.3	2.4	ug/L		04/20/22 10:34	04/21/22 22:24	1
Pyridine	ND		9.3	3.0	ug/L		04/20/22 10:34	04/21/22 22:24	1
Quinoline	ND		9.3	4.2	ug/L		04/20/22 10:34	04/21/22 22:24	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		04/20/22 10:34	04/21/22 22:24	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		04/20/22 10:34	04/21/22 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*04/20/22 10:34*	*04/21/22 22:24*	*1*
2-Fluorophenol	*34*		*13 - 113*	*04/20/22 10:34*	*04/21/22 22:24*	*1*
Nitrobenzene-d5	*77*		*36 - 126*	*04/20/22 10:34*	*04/21/22 22:24*	*1*
Phenol-d5	*57*		*17 - 127*	*04/20/22 10:34*	*04/21/22 22:24*	*1*
Terphenyl-d14	*104*		*44 - 149*	*04/20/22 10:34*	*04/21/22 22:24*	*1*
2,4,6-Tribromophenol	*91*		*26 - 150*	*04/20/22 10:34*	*04/21/22 22:24*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.032	0.018	ug/L		04/25/22 14:06	04/26/22 13:11	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		04/25/22 14:06	04/26/22 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*131*		*51 - 149*	*04/25/22 14:06*	*04/26/22 13:11*	*1*

Client Sample ID: MW2-ROX-041422
Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 19:52	1
Acrolein	ND		20	3.3	ug/L			04/20/22 19:52	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 19:52	1
Benzene	**1.3**		1.0	0.13	ug/L			04/20/22 19:52	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 19:52	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 19:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 19:52	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 19:52	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 19:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 19:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 19:52	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 19:52	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 19:52	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 19:52	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 19:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 19:52	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 19:52	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 19:52	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 19:52	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 19:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 19:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 19:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 19:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 19:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 19:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 19:52	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 19:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 19:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 19:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 19:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 19:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 19:52	1
Ethylbenzene	**72**		1.0	0.50	ug/L			04/20/22 19:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 19:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 19:52	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 19:52	1
Isopropylbenzene	**32**		1.0	0.53	ug/L			04/20/22 19:52	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 19:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 19:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 19:52	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 19:52	1
m-Xylene & p-Xylene	**32**		5.0	0.63	ug/L			04/20/22 19:52	1
Naphthalene	**12**		5.0	3.0	ug/L			04/20/22 19:52	1
n-Butylbenzene	**1.3**		1.0	0.76	ug/L			04/20/22 19:52	1
N-Propylbenzene	**45**		1.0	0.69	ug/L			04/20/22 19:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 19:52	1
o-Xylene	**3.5**	J	5.0	0.60	ug/L			04/20/22 19:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 19:52	1
p-Isopropyltoluene	**2.8**		1.0	0.71	ug/L			04/20/22 19:52	1

Client Sample ID: MW2-ROX-041422
Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**3.1**		1.0	0.70	ug/L			04/20/22 19:52	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 19:52	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 19:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 19:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 19:52	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 19:52	1
Toluene	**3.3**		1.0	0.41	ug/L			04/20/22 19:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 19:52	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 19:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 19:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 19:52	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 19:52	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 19:52	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 19:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 19:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 19:52	1
1,2,4-Trimethylbenzene	**11**		1.0	0.82	ug/L			04/20/22 19:52	1
1,3,5-Trimethylbenzene	**15**		1.0	0.56	ug/L			04/20/22 19:52	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 19:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 19:52	1
Xylenes, Total	**35**		10	1.6	ug/L			04/20/22 19:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/20/22 19:52*	*1*
Dibromofluoromethane	*88*		*75 - 126*		*04/20/22 19:52*	*1*
Toluene-d8 (Surr)	*87*		*64 - 132*		*04/20/22 19:52*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/20/22 10:34	04/28/22 04:54	1
Acenaphthylene	ND	*+	0.19	0.043	ug/L		04/20/22 10:34	04/28/22 04:54	1
Anthracene	ND		0.19	0.031	ug/L		04/20/22 10:34	04/28/22 04:54	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/20/22 10:34	04/28/22 04:54	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/20/22 10:34	04/28/22 04:54	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/20/22 10:34	04/28/22 04:54	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/20/22 10:34	04/28/22 04:54	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/20/22 10:34	04/28/22 04:54	1
Chrysene	ND		0.19	0.071	ug/L		04/20/22 10:34	04/28/22 04:54	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/20/22 10:34	04/28/22 04:54	1
Fluoranthene	ND		0.19	0.065	ug/L		04/20/22 10:34	04/28/22 04:54	1
Fluorene	ND		0.19	0.11	ug/L		04/20/22 10:34	04/28/22 04:54	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/20/22 10:34	04/28/22 04:54	1
1-Methylnaphthalene	**11**		0.19	0.071	ug/L		04/20/22 10:34	04/28/22 04:54	1
Phenanthrene	ND		0.19	0.035	ug/L		04/20/22 10:34	04/28/22 04:54	1
Pyrene	ND		0.19	0.038	ug/L		04/20/22 10:34	04/28/22 04:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*122*		*15 - 122*	*04/20/22 10:34*	*04/28/22 04:54*	*1*
Nitrobenzene-d5	*144*	*S1+*	*19 - 130*	*04/20/22 10:34*	*04/28/22 04:54*	*1*
Terphenyl-d14	*102*		*33 - 138*	*04/20/22 10:34*	*04/28/22 04:54*	*1*

Client Sample ID: MW2-ROX-041422
Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	17		0.19	0.058	ug/L		04/20/22 10:34	04/30/22 15:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*15 - 122*	*04/20/22 10:34*	*04/30/22 15:12*	*1*
Nitrobenzene-d5	*100*		*19 - 130*	*04/20/22 10:34*	*04/30/22 15:12*	*1*
Terphenyl-d14	*74*		*33 - 138*	*04/20/22 10:34*	*04/30/22 15:12*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.6	3.7	ug/L		04/20/22 10:34	04/22/22 14:15	1
Benzenethiol	ND	*- UJ	9.6	1.6	ug/L		04/20/22 10:34	04/22/22 14:15	1
Benzoic acid	ND		29	7.0	ug/L		04/20/22 10:34	04/22/22 14:15	1
Benzyl alcohol	ND	UJ	9.6	1.9	ug/L		04/20/22 10:34	04/22/22 14:15	1
Bis(2-chloroethoxy)methane	ND	UJ	9.6	0.15	ug/L		04/20/22 10:34	04/22/22 14:15	1
Bis(2-chloroethyl)ether	ND	UJ	9.6	2.6	ug/L		04/20/22 10:34	04/22/22 14:15	1
bis (2-chloroisopropyl) ether	ND	UJ	9.6	0.15	ug/L		04/20/22 10:34	04/22/22 14:15	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/20/22 10:34	04/22/22 14:15	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/20/22 10:34	04/22/22 14:15	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/20/22 10:34	04/22/22 14:15	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/20/22 10:34	04/22/22 14:15	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		04/20/22 10:34	04/22/22 14:15	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/20/22 10:34	04/22/22 14:15	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/20/22 10:34	04/22/22 14:15	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/20/22 10:34	04/22/22 14:15	1
Dibenz[a,h]acridine	ND	*+	9.6	0.96	ug/L		04/20/22 10:34	04/22/22 14:15	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/20/22 10:34	04/22/22 14:15	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		04/20/22 10:34	04/22/22 14:15	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/20/22 10:34	04/22/22 14:15	1
Diethyl phthalate	ND		9.6	0.23	ug/L		04/20/22 10:34	04/22/22 14:15	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		04/20/22 10:34	04/22/22 14:15	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/20/22 10:34	04/22/22 14:15	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/20/22 10:34	04/22/22 14:15	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/20/22 10:34	04/22/22 14:15	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/20/22 10:34	04/22/22 14:15	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/20/22 10:34	04/22/22 14:15	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/20/22 10:34	04/22/22 14:15	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/20/22 10:34	04/22/22 14:15	1
1,4-Dioxane	ND	UJ	9.6	0.96	ug/L		04/20/22 10:34	04/22/22 14:15	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.6	0.96	ug/L		04/20/22 10:34	04/22/22 14:15	1
Hexachlorobenzene	ND	*+	9.6	0.16	ug/L		04/20/22 10:34	04/22/22 14:15	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/20/22 10:34	04/22/22 14:15	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/20/22 10:34	04/22/22 14:15	1
Indene	ND		9.6	0.96	ug/L		04/20/22 10:34	04/22/22 14:15	1
Isophorone	ND	UJ	9.6	0.13	ug/L		04/20/22 10:34	04/22/22 14:15	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/20/22 10:34	04/22/22 14:15	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/20/22 10:34	04/22/22 14:15	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/20/22 10:34	04/22/22 14:15	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/20/22 10:34	04/22/22 14:15	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/20/22 10:34	04/22/22 14:15	1

Client Sample ID: MW2-ROX-041422
Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND	UJ	9.6	0.13	ug/L		04/20/22 10:34	04/22/22 14:15	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/20/22 10:34	04/22/22 14:15	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/20/22 10:34	04/22/22 14:15	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		04/20/22 10:34	04/22/22 14:15	1
N-Nitrosodi-n-propylamine	ND	UJ	9.6	3.2	ug/L		04/20/22 10:34	04/22/22 14:15	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/20/22 10:34	04/22/22 14:15	1
Pentachlorophenol	ND		19	1.3	ug/L		04/20/22 10:34	04/22/22 14:15	1
Phenol	ND	UJ	9.6	2.5	ug/L		04/20/22 10:34	04/22/22 14:15	1
Pyridine	ND	UJ	9.6	3.1	ug/L		04/20/22 10:34	04/22/22 14:15	1
Quinoline	ND		9.6	4.3	ug/L		04/20/22 10:34	04/22/22 14:15	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		04/20/22 10:34	04/22/22 14:15	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		04/20/22 10:34	04/22/22 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*04/20/22 10:34*	*04/22/22 14:15*	*1*
2-Fluorophenol	*21*		*13 - 113*	*04/20/22 10:34*	*04/22/22 14:15*	*1*
Nitrobenzene-d5	*65*		*36 - 126*	*04/20/22 10:34*	*04/22/22 14:15*	*1*
Phenol-d5	*46*		*17 - 127*	*04/20/22 10:34*	*04/22/22 14:15*	*1*
Terphenyl-d14	*86*		*44 - 149*	*04/20/22 10:34*	*04/22/22 14:15*	*1*
2,4,6-Tribromophenol	*112*		*26 - 150*	*04/20/22 10:34*	*04/22/22 14:15*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.031	0.018	ug/L		04/25/22 14:06	04/26/22 13:32	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		04/25/22 14:06	04/26/22 13:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*127*		*51 - 149*	*04/25/22 14:06*	*04/26/22 13:32*	*1*

Client Sample ID: MW2-ROX-041422-DUP
Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 20:16	1
Acrolein	ND		20	3.3	ug/L			04/20/22 20:16	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 20:16	1
Benzene	**1.3**		1.0	0.13	ug/L			04/20/22 20:16	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 20:16	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 20:16	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 20:16	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 20:16	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 20:16	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 20:16	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 20:16	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 20:16	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 20:16	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 20:16	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 20:16	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 20:16	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 20:16	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 20:16	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 20:16	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 20:16	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 20:16	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 20:16	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 20:16	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 20:16	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 20:16	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 20:16	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 20:16	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 20:16	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 20:16	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 20:16	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 20:16	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 20:16	1
Ethylbenzene	**82**		1.0	0.50	ug/L			04/20/22 20:16	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 20:16	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 20:16	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 20:16	1
Isopropylbenzene	**36**		1.0	0.53	ug/L			04/20/22 20:16	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 20:16	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 20:16	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 20:16	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 20:16	1
m-Xylene & p-Xylene	**38**		5.0	0.63	ug/L			04/20/22 20:16	1
Naphthalene	**14**		5.0	3.0	ug/L			04/20/22 20:16	1
n-Butylbenzene	**1.7**		1.0	0.76	ug/L			04/20/22 20:16	1
N-Propylbenzene	**54**		1.0	0.69	ug/L			04/20/22 20:16	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 20:16	1
o-Xylene	**4.2**	J	5.0	0.60	ug/L			04/20/22 20:16	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 20:16	1
p-Isopropyltoluene	**3.9**		1.0	0.71	ug/L			04/20/22 20:16	1

Client Sample ID: MW2-ROX-041422-DUP
Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**3.8**		1.0	0.70	ug/L			04/20/22 20:16	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 20:16	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 20:16	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 20:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 20:16	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 20:16	1
Toluene	**3.6**		1.0	0.41	ug/L			04/20/22 20:16	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 20:16	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 20:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 20:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 20:16	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 20:16	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 20:16	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 20:16	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 20:16	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 20:16	1
1,2,4-Trimethylbenzene	**13**		1.0	0.82	ug/L			04/20/22 20:16	1
1,3,5-Trimethylbenzene	**18**		1.0	0.56	ug/L			04/20/22 20:16	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 20:16	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 20:16	1
Xylenes, Total	**42**		10	1.6	ug/L			04/20/22 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/20/22 20:16*	*1*
Dibromofluoromethane	*90*		*75 - 126*		*04/20/22 20:16*	*1*
Toluene-d8 (Surr)	*87*		*64 - 132*		*04/20/22 20:16*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/20/22 10:34	04/28/22 05:11	1
Acenaphthylene	ND	*+	0.19	0.043	ug/L		04/20/22 10:34	04/28/22 05:11	1
Anthracene	ND		0.19	0.031	ug/L		04/20/22 10:34	04/28/22 05:11	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/20/22 10:34	04/28/22 05:11	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/20/22 10:34	04/28/22 05:11	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		04/20/22 10:34	04/28/22 05:11	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/20/22 10:34	04/28/22 05:11	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/20/22 10:34	04/28/22 05:11	1
Chrysene	ND		0.19	0.071	ug/L		04/20/22 10:34	04/28/22 05:11	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/20/22 10:34	04/28/22 05:11	1
Fluoranthene	ND		0.19	0.065	ug/L		04/20/22 10:34	04/28/22 05:11	1
Fluorene	ND		0.19	0.11	ug/L		04/20/22 10:34	04/28/22 05:11	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/20/22 10:34	04/28/22 05:11	1
1-Methylnaphthalene	**13**		0.19	0.071	ug/L		04/20/22 10:34	04/28/22 05:11	1
2-Methylnaphthalene	**18**		0.19	0.057	ug/L		04/20/22 10:34	05/02/22 18:47	1
Phenanthrene	ND		0.19	0.034	ug/L		04/20/22 10:34	04/28/22 05:11	1
Pyrene	ND		0.19	0.038	ug/L		04/20/22 10:34	04/28/22 05:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*100*		*15 - 122*	*04/20/22 10:34*	*05/02/22 18:47*	*1*
Nitrobenzene-d5	*104*		*19 - 130*	*04/20/22 10:34*	*05/02/22 18:47*	*1*

Client Sample ID: MW2-ROX-041422-DUP
Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	106		33 - 138	04/20/22 10:34	05/02/22 18:47	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.5	3.6	ug/L		04/20/22 10:34	04/22/22 14:40	1
Benzenethiol	ND	*- UJ	9.5	1.6	ug/L		04/20/22 10:34	04/22/22 14:40	1
Benzoic acid	ND		29	7.0	ug/L		04/20/22 10:34	04/22/22 14:40	1
Benzyl alcohol	ND	UJ	9.5	1.9	ug/L		04/20/22 10:34	04/22/22 14:40	1
Bis(2-chloroethoxy)methane	ND	UJ	9.5	0.15	ug/L		04/20/22 10:34	04/22/22 14:40	1
Bis(2-chloroethyl)ether	ND	UJ	9.5	2.6	ug/L		04/20/22 10:34	04/22/22 14:40	1
bis (2-chloroisopropyl) ether	ND	UJ	9.5	0.15	ug/L		04/20/22 10:34	04/22/22 14:40	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/20/22 10:34	04/22/22 14:40	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/20/22 10:34	04/22/22 14:40	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/20/22 10:34	04/22/22 14:40	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/20/22 10:34	04/22/22 14:40	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/20/22 10:34	04/22/22 14:40	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/20/22 10:34	04/22/22 14:40	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/20/22 10:34	04/22/22 14:40	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/20/22 10:34	04/22/22 14:40	1
Dibenz[a,h]acridine	ND	*+	9.5	0.95	ug/L		04/20/22 10:34	04/22/22 14:40	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 14:40	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		04/20/22 10:34	04/22/22 14:40	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/20/22 10:34	04/22/22 14:40	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/20/22 10:34	04/22/22 14:40	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 14:40	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 14:40	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/20/22 10:34	04/22/22 14:40	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/20/22 10:34	04/22/22 14:40	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/20/22 10:34	04/22/22 14:40	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/20/22 10:34	04/22/22 14:40	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/20/22 10:34	04/22/22 14:40	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 14:40	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		04/20/22 10:34	04/22/22 14:40	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.5	0.95	ug/L		04/20/22 10:34	04/22/22 14:40	1
Hexachlorobenzene	ND	*+	9.5	0.16	ug/L		04/20/22 10:34	04/22/22 14:40	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/20/22 10:34	04/22/22 14:40	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/20/22 10:34	04/22/22 14:40	1
Indene	ND		9.5	0.95	ug/L		04/20/22 10:34	04/22/22 14:40	1
Isophorone	ND	UJ	9.5	0.13	ug/L		04/20/22 10:34	04/22/22 14:40	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/20/22 10:34	04/22/22 14:40	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/20/22 10:34	04/22/22 14:40	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/20/22 10:34	04/22/22 14:40	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/20/22 10:34	04/22/22 14:40	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/20/22 10:34	04/22/22 14:40	1
Nitrobenzene	ND	UJ	9.5	0.12	ug/L		04/20/22 10:34	04/22/22 14:40	1
2-Nitrophenol	ND		9.5	5.0	ug/L		04/20/22 10:34	04/22/22 14:40	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/20/22 10:34	04/22/22 14:40	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 14:40	1

Client Sample ID: MW2-ROX-041422-DUP
Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND	UJ	9.5	3.2	ug/L		04/20/22 10:34	04/22/22 14:40	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/20/22 10:34	04/22/22 14:40	1
Pentachlorophenol	ND		19	1.3	ug/L		04/20/22 10:34	04/22/22 14:40	1
Phenol	ND	UJ	9.5	2.5	ug/L		04/20/22 10:34	04/22/22 14:40	1
Pyridine	ND	UJ	9.5	3.1	ug/L		04/20/22 10:34	04/22/22 14:40	1
Quinoline	ND		9.5	4.3	ug/L		04/20/22 10:34	04/22/22 14:40	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/20/22 10:34	04/22/22 14:40	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 14:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*100*		*46 - 124*	*04/20/22 10:34*	*04/22/22 14:40*	*1*
2-Fluorophenol	*31*		*13 - 113*	*04/20/22 10:34*	*04/22/22 14:40*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*04/20/22 10:34*	*04/22/22 14:40*	*1*
Phenol-d5	*54*		*17 - 127*	*04/20/22 10:34*	*04/22/22 14:40*	*1*
Terphenyl-d14	*104*		*44 - 149*	*04/20/22 10:34*	*04/22/22 14:40*	*1*
2,4,6-Tribromophenol	*126*		*26 - 150*	*04/20/22 10:34*	*04/22/22 14:40*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.033	0.019	ug/L		04/25/22 14:06	04/26/22 13:52	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/25/22 14:06	04/26/22 13:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*135*		*51 - 149*	*04/25/22 14:06*	*04/26/22 13:52*	*1*

Client Sample ID: MW13-ROX-041422
Date Collected: 04/14/22 10:40
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 20:41	1
Acrolein	ND		20	3.3	ug/L			04/20/22 20:41	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 20:41	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 20:41	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 20:41	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 20:41	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 20:41	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 20:41	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 20:41	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 20:41	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 20:41	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 20:41	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 20:41	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 20:41	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 20:41	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 20:41	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 20:41	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 20:41	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 20:41	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 20:41	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 20:41	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 20:41	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 20:41	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 20:41	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 20:41	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 20:41	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 20:41	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 20:41	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 20:41	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 20:41	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 20:41	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 20:41	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 20:41	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 20:41	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 20:41	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 20:41	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 20:41	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 20:41	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 20:41	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 20:41	1
Methyl tert-butyl ether	**0.83**	**J**	1.0	0.22	ug/L			04/20/22 20:41	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 20:41	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 20:41	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 20:41	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 20:41	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 20:41	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 20:41	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 20:41	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 20:41	1

Client Sample ID: MW13-ROX-041422
Date Collected: 04/14/22 10:40
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 20:41	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 20:41	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 20:41	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 20:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 20:41	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 20:41	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 20:41	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 20:41	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 20:41	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 20:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 20:41	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 20:41	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 20:41	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 20:41	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 20:41	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 20:41	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 20:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 20:41	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 20:41	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 20:41	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 20:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*04/20/22 20:41*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*04/20/22 20:41*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/20/22 20:41*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/20/22 10:34	04/28/22 06:20	1
Acenaphthylene	ND	*+	0.19	0.044	ug/L		04/20/22 10:34	04/28/22 06:20	1
Anthracene	ND		0.19	0.031	ug/L		04/20/22 10:34	04/28/22 06:20	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/20/22 10:34	04/28/22 06:20	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/20/22 10:34	04/28/22 06:20	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/20/22 10:34	04/28/22 06:20	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/20/22 10:34	04/28/22 06:20	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/20/22 10:34	04/28/22 06:20	1
Chrysene	ND		0.19	0.072	ug/L		04/20/22 10:34	04/28/22 06:20	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		04/20/22 10:34	04/28/22 06:20	1
Fluoranthene	ND		0.19	0.066	ug/L		04/20/22 10:34	04/28/22 06:20	1
Fluorene	ND		0.19	0.11	ug/L		04/20/22 10:34	04/28/22 06:20	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/20/22 10:34	04/28/22 06:20	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/20/22 10:34	04/28/22 06:20	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/20/22 10:34	04/28/22 06:20	1
Phenanthrene	ND		0.19	0.035	ug/L		04/20/22 10:34	04/28/22 06:20	1
Pyrene	ND		0.19	0.039	ug/L		04/20/22 10:34	04/28/22 06:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*123*	*S1+*	*15 - 122*	*04/20/22 10:34*	*04/28/22 06:20*	*1*
Nitrobenzene-d5	*116*		*19 - 130*	*04/20/22 10:34*	*04/28/22 06:20*	*1*

Client Sample ID: MW13-ROX-041422
Date Collected: 04/14/22 10:40
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*77*		*33 - 138*	*04/20/22 10:34*	*04/28/22 06:20*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.7	3.7	ug/L		04/20/22 10:34	04/22/22 15:06	1
Benzenethiol	ND	*- UJ	9.7	1.6	ug/L		04/20/22 10:34	04/22/22 15:06	1
Benzoic acid	ND		29	7.1	ug/L		04/20/22 10:34	04/22/22 15:06	1
Benzyl alcohol	ND	UJ	9.7	1.9	ug/L		04/20/22 10:34	04/22/22 15:06	1
Bis(2-chloroethoxy)methane	ND	UJ	9.7	0.16	ug/L		04/20/22 10:34	04/22/22 15:06	1
Bis(2-chloroethyl)ether	ND	UJ	9.7	2.6	ug/L		04/20/22 10:34	04/22/22 15:06	1
bis (2-chloroisopropyl) ether	ND	UJ	9.7	0.16	ug/L		04/20/22 10:34	04/22/22 15:06	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/20/22 10:34	04/22/22 15:06	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/20/22 10:34	04/22/22 15:06	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/20/22 10:34	04/22/22 15:06	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/20/22 10:34	04/22/22 15:06	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/20/22 10:34	04/22/22 15:06	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/20/22 10:34	04/22/22 15:06	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/20/22 10:34	04/22/22 15:06	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/20/22 10:34	04/22/22 15:06	1
Dibenz[a,h]acridine	ND	*+	9.7	0.97	ug/L		04/20/22 10:34	04/22/22 15:06	1
Dibenzofuran	ND		9.7	0.16	ug/L		04/20/22 10:34	04/22/22 15:06	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/20/22 10:34	04/22/22 15:06	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/20/22 10:34	04/22/22 15:06	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/20/22 10:34	04/22/22 15:06	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/20/22 10:34	04/22/22 15:06	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		04/20/22 10:34	04/22/22 15:06	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/20/22 10:34	04/22/22 15:06	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		04/20/22 10:34	04/22/22 15:06	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/20/22 10:34	04/22/22 15:06	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/20/22 10:34	04/22/22 15:06	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/20/22 10:34	04/22/22 15:06	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		04/20/22 10:34	04/22/22 15:06	1
1,4-Dioxane	ND	UJ	9.7	0.97	ug/L		04/20/22 10:34	04/22/22 15:06	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.7	0.97	ug/L		04/20/22 10:34	04/22/22 15:06	1
Hexachlorobenzene	ND	*+	9.7	0.16	ug/L		04/20/22 10:34	04/22/22 15:06	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/20/22 10:34	04/22/22 15:06	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/20/22 10:34	04/22/22 15:06	1
Indene	ND		9.7	0.97	ug/L		04/20/22 10:34	04/22/22 15:06	1
Isophorone	ND	UJ	9.7	0.14	ug/L		04/20/22 10:34	04/22/22 15:06	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/20/22 10:34	04/22/22 15:06	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/20/22 10:34	04/22/22 15:06	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/20/22 10:34	04/22/22 15:06	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/20/22 10:34	04/22/22 15:06	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/20/22 10:34	04/22/22 15:06	1
Nitrobenzene	ND	UJ	9.7	0.13	ug/L		04/20/22 10:34	04/22/22 15:06	1
2-Nitrophenol	ND		9.7	5.0	ug/L		04/20/22 10:34	04/22/22 15:06	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/20/22 10:34	04/22/22 15:06	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/20/22 10:34	04/22/22 15:06	1

Client Sample ID: MW13-ROX-041422
Date Collected: 04/14/22 10:40
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND	UJ	9.7	3.2	ug/L		04/20/22 10:34	04/22/22 15:06	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/20/22 10:34	04/22/22 15:06	1
Pentachlorophenol	ND		19	1.4	ug/L		04/20/22 10:34	04/22/22 15:06	1
Phenol	ND	UJ	9.7	2.5	ug/L		04/20/22 10:34	04/22/22 15:06	1
Pyridine	ND	UJ	9.7	3.1	ug/L		04/20/22 10:34	04/22/22 15:06	1
Quinoline	ND		9.7	4.4	ug/L		04/20/22 10:34	04/22/22 15:06	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/20/22 10:34	04/22/22 15:06	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/20/22 10:34	04/22/22 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*46 - 124*	*04/20/22 10:34*	*04/22/22 15:06*	*1*
2-Fluorophenol	*29*		*13 - 113*	*04/20/22 10:34*	*04/22/22 15:06*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*04/20/22 10:34*	*04/22/22 15:06*	*1*
Phenol-d5	*50*		*17 - 127*	*04/20/22 10:34*	*04/22/22 15:06*	*1*
Terphenyl-d14	*60*		*44 - 149*	*04/20/22 10:34*	*04/22/22 15:06*	*1*
2,4,6-Tribromophenol	*118*		*26 - 150*	*04/20/22 10:34*	*04/22/22 15:06*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.031	0.018	ug/L		04/25/22 14:06	04/26/22 14:13	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/25/22 14:06	04/26/22 14:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*131*		*51 - 149*	*04/25/22 14:06*	*04/26/22 14:13*	*1*

Client Sample ID: P114R-ROX-041422
Date Collected: 04/14/22 11:35
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 21:05	1
Acrolein	ND		20	3.3	ug/L			04/20/22 21:05	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 21:05	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 21:05	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 21:05	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 21:05	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 21:05	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 21:05	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 21:05	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 21:05	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 21:05	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 21:05	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 21:05	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 21:05	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 21:05	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 21:05	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 21:05	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 21:05	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 21:05	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 21:05	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 21:05	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 21:05	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 21:05	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 21:05	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 21:05	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 21:05	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 21:05	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 21:05	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 21:05	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 21:05	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 21:05	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 21:05	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 21:05	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 21:05	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 21:05	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 21:05	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 21:05	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 21:05	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 21:05	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 21:05	1
Methyl tert-butyl ether	**0.93**	**J**	1.0	0.22	ug/L			04/20/22 21:05	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 21:05	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 21:05	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 21:05	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 21:05	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 21:05	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 21:05	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 21:05	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 21:05	1

Client Sample ID: P114R-ROX-041422
Date Collected: 04/14/22 11:35
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 21:05	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 21:05	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 21:05	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 21:05	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 21:05	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 21:05	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 21:05	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 21:05	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 21:05	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 21:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 21:05	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 21:05	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 21:05	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 21:05	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 21:05	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 21:05	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 21:05	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 21:05	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 21:05	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 21:05	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/20/22 21:05*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*04/20/22 21:05*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/20/22 21:05*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		04/20/22 10:34	04/28/22 06:37	1
Acenaphthylene	ND	*+	0.19	0.043	ug/L		04/20/22 10:34	04/28/22 06:37	1
Anthracene	ND		0.19	0.030	ug/L		04/20/22 10:34	04/28/22 06:37	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/20/22 10:34	04/28/22 06:37	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/20/22 10:34	04/28/22 06:37	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		04/20/22 10:34	04/28/22 06:37	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/20/22 10:34	04/28/22 06:37	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/20/22 10:34	04/28/22 06:37	1
Chrysene	ND		0.19	0.070	ug/L		04/20/22 10:34	04/28/22 06:37	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/20/22 10:34	04/28/22 06:37	1
Fluoranthene	ND		0.19	0.065	ug/L		04/20/22 10:34	04/28/22 06:37	1
Fluorene	ND		0.19	0.10	ug/L		04/20/22 10:34	04/28/22 06:37	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/20/22 10:34	04/28/22 06:37	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		04/20/22 10:34	04/28/22 06:37	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/20/22 10:34	04/28/22 06:37	1
Phenanthrene	ND		0.19	0.034	ug/L		04/20/22 10:34	04/28/22 06:37	1
Pyrene	ND		0.19	0.038	ug/L		04/20/22 10:34	04/28/22 06:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*119*		*15 - 122*	*04/20/22 10:34*	*04/28/22 06:37*	*1*
Nitrobenzene-d5	*104*		*19 - 130*	*04/20/22 10:34*	*04/28/22 06:37*	*1*

Client Sample ID: P114R-ROX-041422

Date Collected: 04/14/22 11:35
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-7

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	105		33 - 138	04/20/22 10:34	04/28/22 06:37	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.5	3.6	ug/L		04/20/22 10:34	04/22/22 15:31	1
Benzenethiol	ND	UJ	9.5	1.6	ug/L		04/20/22 10:34	04/22/22 15:31	1
Benzoic acid	ND		29	6.9	ug/L		04/20/22 10:34	04/22/22 15:31	1
Benzyl alcohol	ND	UJ	9.5	1.9	ug/L		04/20/22 10:34	04/22/22 15:31	1
Bis(2-chloroethoxy)methane	ND	UJ	9.5	0.15	ug/L		04/20/22 10:34	04/22/22 15:31	1
Bis(2-chloroethyl)ether	ND	UJ	9.5	2.6	ug/L		04/20/22 10:34	04/22/22 15:31	1
bis (2-chloroisopropyl) ether	ND	UJ	9.5	0.15	ug/L		04/20/22 10:34	04/22/22 15:31	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/20/22 10:34	04/22/22 15:31	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/20/22 10:34	04/22/22 15:31	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/20/22 10:34	04/22/22 15:31	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/20/22 10:34	04/22/22 15:31	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/20/22 10:34	04/22/22 15:31	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/20/22 10:34	04/22/22 15:31	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/20/22 10:34	04/22/22 15:31	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/20/22 10:34	04/22/22 15:31	1
Dibenz[a,h]acridine	ND	*+	9.5	0.95	ug/L		04/20/22 10:34	04/22/22 15:31	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 15:31	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		04/20/22 10:34	04/22/22 15:31	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/20/22 10:34	04/22/22 15:31	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/20/22 10:34	04/22/22 15:31	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 15:31	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 15:31	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/20/22 10:34	04/22/22 15:31	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/20/22 10:34	04/22/22 15:31	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/20/22 10:34	04/22/22 15:31	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/20/22 10:34	04/22/22 15:31	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/20/22 10:34	04/22/22 15:31	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 15:31	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		04/20/22 10:34	04/22/22 15:31	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.5	0.95	ug/L		04/20/22 10:34	04/22/22 15:31	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 15:31	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/20/22 10:34	04/22/22 15:31	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/20/22 10:34	04/22/22 15:31	1
Indene	ND		9.5	0.95	ug/L		04/20/22 10:34	04/22/22 15:31	1
Isophorone	ND	UJ	9.5	0.13	ug/L		04/20/22 10:34	04/22/22 15:31	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/20/22 10:34	04/22/22 15:31	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/20/22 10:34	04/22/22 15:31	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/20/22 10:34	04/22/22 15:31	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/20/22 10:34	04/22/22 15:31	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/20/22 10:34	04/22/22 15:31	1
Nitrobenzene	ND	UJ	9.5	0.12	ug/L		04/20/22 10:34	04/22/22 15:31	1
2-Nitrophenol	ND		9.5	4.9	ug/L		04/20/22 10:34	04/22/22 15:31	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/20/22 10:34	04/22/22 15:31	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 15:31	1

Client Sample ID: P114R-ROX-041422
Date Collected: 04/14/22 11:35
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND	UJ	9.5	3.1	ug/L		04/20/22 10:34	04/22/22 15:31	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/20/22 10:34	04/22/22 15:31	1
Pentachlorophenol	ND		19	1.3	ug/L		04/20/22 10:34	04/22/22 15:31	1
Phenol	ND	UJ	9.5	2.5	ug/L		04/20/22 10:34	04/22/22 15:31	1
Pyridine	ND	UJ	9.5	3.0	ug/L		04/20/22 10:34	04/22/22 15:31	1
Quinoline	ND		9.5	4.3	ug/L		04/20/22 10:34	04/22/22 15:31	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/20/22 10:34	04/22/22 15:31	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 15:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*99*		*46 - 124*	*04/20/22 10:34*	*04/22/22 15:31*	*1*
2-Fluorophenol	*14*		*13 - 113*	*04/20/22 10:34*	*04/22/22 15:31*	*1*
Nitrobenzene-d5	*64*		*36 - 126*	*04/20/22 10:34*	*04/22/22 15:31*	*1*
Phenol-d5	*43*		*17 - 127*	*04/20/22 10:34*	*04/22/22 15:31*	*1*
Terphenyl-d14	*99*		*44 - 149*	*04/20/22 10:34*	*04/22/22 15:31*	*1*
2,4,6-Tribromophenol	*135*		*26 - 150*	*04/20/22 10:34*	*04/22/22 15:31*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.031	0.018	ug/L		04/25/22 14:06	04/26/22 14:33	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/25/22 14:06	04/26/22 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*122*		*51 - 149*	*04/25/22 14:06*	*04/26/22 14:33*	*1*

Client Sample ID: MW10-ROX-041422-EB

Date Collected: 04/14/22 13:10
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-8

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 16:12	1
Acrolein	ND		20	3.3	ug/L			04/20/22 16:12	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 16:12	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 16:12	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 16:12	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 16:12	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 16:12	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 16:12	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 16:12	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 16:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 16:12	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 16:12	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 16:12	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 16:12	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 16:12	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 16:12	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 16:12	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 16:12	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 16:12	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 16:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 16:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 16:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 16:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 16:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 16:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 16:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 16:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 16:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 16:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 16:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 16:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 16:12	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 16:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 16:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 16:12	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 16:12	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 16:12	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 16:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 16:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 16:12	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 16:12	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 16:12	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 16:12	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 16:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 16:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 16:12	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 16:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 16:12	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 16:12	1

Client Sample ID: MW10-ROX-041422-EB
Date Collected: 04/14/22 13:10
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 16:12	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 16:12	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 16:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 16:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 16:12	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 16:12	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 16:12	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 16:12	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 16:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 16:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 16:12	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 16:12	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 16:12	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 16:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 16:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 16:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 16:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 16:12	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 16:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 16:12	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*04/20/22 16:12*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/20/22 16:12*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*04/20/22 16:12*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		04/20/22 10:34	04/28/22 06:54	1
Acenaphthylene	ND	*+	0.19	0.043	ug/L		04/20/22 10:34	04/28/22 06:54	1
Anthracene	ND		0.19	0.030	ug/L		04/20/22 10:34	04/28/22 06:54	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/20/22 10:34	04/28/22 06:54	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/20/22 10:34	04/28/22 06:54	1
Benzo[b]fluoranthene	0.070	J B	0.19	0.032	ug/L		04/20/22 10:34	04/28/22 06:54	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/20/22 10:34	04/28/22 06:54	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/20/22 10:34	04/28/22 06:54	1
Chrysene	ND		0.19	0.070	ug/L		04/20/22 10:34	04/28/22 06:54	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/20/22 10:34	04/28/22 06:54	1
Fluoranthene	ND		0.19	0.065	ug/L		04/20/22 10:34	04/28/22 06:54	1
Fluorene	ND		0.19	0.10	ug/L		04/20/22 10:34	04/28/22 06:54	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/20/22 10:34	04/28/22 06:54	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		04/20/22 10:34	04/28/22 06:54	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/20/22 10:34	04/28/22 06:54	1
Phenanthrene	ND		0.19	0.034	ug/L		04/20/22 10:34	04/28/22 06:54	1
Pyrene	ND		0.19	0.038	ug/L		04/20/22 10:34	04/28/22 06:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*121*		*15 - 122*	*04/20/22 10:34*	*04/28/22 06:54*	*1*
Nitrobenzene-d5	*106*		*19 - 130*	*04/20/22 10:34*	*04/28/22 06:54*	*1*

Client Sample ID: MW10-ROX-041422-EB
Date Collected: 04/14/22 13:10
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-8
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	113		33 - 138	04/20/22 10:34	04/28/22 06:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/20/22 10:34	04/22/22 16:46	1
Benzenethiol	ND	*-	9.5	1.6	ug/L		04/20/22 10:34	04/22/22 16:46	1
Benzoic acid	ND		29	6.9	ug/L		04/20/22 10:34	04/22/22 16:46	1
Benzyl alcohol	ND		9.5	1.9	ug/L		04/20/22 10:34	04/22/22 16:46	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		04/20/22 10:34	04/22/22 16:46	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		04/20/22 10:34	04/22/22 16:46	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		04/20/22 10:34	04/22/22 16:46	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/20/22 10:34	04/22/22 16:46	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/20/22 10:34	04/22/22 16:46	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/20/22 10:34	04/22/22 16:46	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/20/22 10:34	04/22/22 16:46	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/20/22 10:34	04/22/22 16:46	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/20/22 10:34	04/22/22 16:46	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/20/22 10:34	04/22/22 16:46	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/20/22 10:34	04/22/22 16:46	1
Dibenz[a,h]acridine	ND	*+	9.5	0.95	ug/L		04/20/22 10:34	04/22/22 16:46	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 16:46	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		04/20/22 10:34	04/22/22 16:46	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/20/22 10:34	04/22/22 16:46	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/20/22 10:34	04/22/22 16:46	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 16:46	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 16:46	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/20/22 10:34	04/22/22 16:46	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/20/22 10:34	04/22/22 16:46	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/20/22 10:34	04/22/22 16:46	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/20/22 10:34	04/22/22 16:46	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/20/22 10:34	04/22/22 16:46	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 16:46	1
1,4-Dioxane	ND		9.5	0.95	ug/L		04/20/22 10:34	04/22/22 16:46	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		04/20/22 10:34	04/22/22 16:46	1
Hexachlorobenzene	ND	*+	9.5	0.16	ug/L		04/20/22 10:34	04/22/22 16:46	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/20/22 10:34	04/22/22 16:46	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/20/22 10:34	04/22/22 16:46	1
Indene	ND		9.5	0.95	ug/L		04/20/22 10:34	04/22/22 16:46	1
Isophorone	ND		9.5	0.13	ug/L		04/20/22 10:34	04/22/22 16:46	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/20/22 10:34	04/22/22 16:46	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/20/22 10:34	04/22/22 16:46	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/20/22 10:34	04/22/22 16:46	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/20/22 10:34	04/22/22 16:46	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/20/22 10:34	04/22/22 16:46	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/20/22 10:34	04/22/22 16:46	1
2-Nitrophenol	ND		9.5	4.9	ug/L		04/20/22 10:34	04/22/22 16:46	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/20/22 10:34	04/22/22 16:46	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 16:46	1

Client Sample ID: MW10-ROX-041422-EB

Lab Sample ID: 400-218568-8

Date Collected: 04/14/22 13:10
Matrix: Water
Date Received: 04/16/22 09:30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		04/20/22 10:34	04/22/22 16:46	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/20/22 10:34	04/22/22 16:46	1
Pentachlorophenol	ND		19	1.3	ug/L		04/20/22 10:34	04/22/22 16:46	1
Phenol	ND		9.5	2.5	ug/L		04/20/22 10:34	04/22/22 16:46	1
Pyridine	ND		9.5	3.0	ug/L		04/20/22 10:34	04/22/22 16:46	1
Quinoline	ND		9.5	4.3	ug/L		04/20/22 10:34	04/22/22 16:46	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/20/22 10:34	04/22/22 16:46	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*93*		*46 - 124*	*04/20/22 10:34*	*04/22/22 16:46*	*1*
2-Fluorophenol	*28*		*13 - 113*	*04/20/22 10:34*	*04/22/22 16:46*	*1*
Nitrobenzene-d5	*68*		*36 - 126*	*04/20/22 10:34*	*04/22/22 16:46*	*1*
Phenol-d5	*51*		*17 - 127*	*04/20/22 10:34*	*04/22/22 16:46*	*1*
Terphenyl-d14	*101*		*44 - 149*	*04/20/22 10:34*	*04/22/22 16:46*	*1*
2,4,6-Tribromophenol	*112*		*26 - 150*	*04/20/22 10:34*	*04/22/22 16:46*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.033	0.019	ug/L		04/25/22 14:06	04/26/22 14:54	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		04/25/22 14:06	04/26/22 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*128*		*51 - 149*	*04/25/22 14:06*	*04/26/22 14:54*	*1*

Client Sample ID: MW10-ROX-041422

Date Collected: 04/14/22 13:50
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-9

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 21:29	1
Acrolein	ND		20	3.3	ug/L			04/20/22 21:29	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 21:29	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 21:29	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 21:29	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 21:29	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 21:29	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 21:29	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 21:29	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 21:29	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 21:29	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 21:29	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 21:29	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 21:29	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 21:29	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 21:29	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 21:29	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 21:29	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 21:29	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 21:29	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 21:29	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 21:29	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 21:29	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 21:29	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 21:29	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 21:29	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 21:29	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 21:29	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 21:29	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 21:29	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 21:29	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 21:29	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 21:29	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 21:29	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 21:29	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 21:29	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 21:29	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 21:29	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 21:29	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 21:29	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 21:29	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 21:29	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 21:29	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 21:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 21:29	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 21:29	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 21:29	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 21:29	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 21:29	1

Client Sample ID: MW10-ROX-041422
Date Collected: 04/14/22 13:50
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-9
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 21:29	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 21:29	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 21:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 21:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 21:29	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 21:29	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 21:29	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 21:29	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 21:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 21:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 21:29	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 21:29	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 21:29	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 21:29	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 21:29	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 21:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 21:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 21:29	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 21:29	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 21:29	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 21:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/20/22 21:29*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*04/20/22 21:29*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/20/22 21:29*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		04/20/22 10:34	04/28/22 07:57	1
Acenaphthylene	ND	*+	0.19	0.043	ug/L		04/20/22 10:34	04/28/22 07:57	1
Anthracene	ND		0.19	0.030	ug/L		04/20/22 10:34	04/28/22 07:57	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/20/22 10:34	04/28/22 07:57	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/20/22 10:34	04/28/22 07:57	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		04/20/22 10:34	04/28/22 07:57	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/20/22 10:34	04/28/22 07:57	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/20/22 10:34	04/28/22 07:57	1
Chrysene	ND		0.19	0.071	ug/L		04/20/22 10:34	04/28/22 07:57	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/20/22 10:34	04/28/22 07:57	1
Fluoranthene	ND		0.19	0.065	ug/L		04/20/22 10:34	04/28/22 07:57	1
Fluorene	ND		0.19	0.10	ug/L		04/20/22 10:34	04/28/22 07:57	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/20/22 10:34	04/28/22 07:57	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/20/22 10:34	04/28/22 07:57	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/20/22 10:34	04/28/22 07:57	1
Phenanthrene	ND		0.19	0.034	ug/L		04/20/22 10:34	04/28/22 07:57	1
Pyrene	ND		0.19	0.038	ug/L		04/20/22 10:34	04/28/22 07:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*130*	*S1+*	*15 - 122*	*04/20/22 10:34*	*04/28/22 07:57*	*1*
Nitrobenzene-d5	*114*		*19 - 130*	*04/20/22 10:34*	*04/28/22 07:57*	*1*

Client Sample ID: MW10-ROX-041422
Date Collected: 04/14/22 13:50
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-9
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	131		33 - 138	04/20/22 10:34	04/28/22 07:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.5	3.6	ug/L		04/20/22 10:34	04/22/22 17:11	1
Benzenethiol	ND	*- UJ	9.5	1.6	ug/L		04/20/22 10:34	04/22/22 17:11	1
Benzoic acid	ND		29	7.0	ug/L		04/20/22 10:34	04/22/22 17:11	1
Benzyl alcohol	ND	UJ	9.5	1.9	ug/L		04/20/22 10:34	04/22/22 17:11	1
Bis(2-chloroethoxy)methane	ND	UJ	9.5	0.15	ug/L		04/20/22 10:34	04/22/22 17:11	1
Bis(2-chloroethyl)ether	ND	UJ	9.5	2.6	ug/L		04/20/22 10:34	04/22/22 17:11	1
bis (2-chloroisopropyl) ether	ND	UJ	9.5	0.15	ug/L		04/20/22 10:34	04/22/22 17:11	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/20/22 10:34	04/22/22 17:11	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/20/22 10:34	04/22/22 17:11	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/20/22 10:34	04/22/22 17:11	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/20/22 10:34	04/22/22 17:11	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/20/22 10:34	04/22/22 17:11	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/20/22 10:34	04/22/22 17:11	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/20/22 10:34	04/22/22 17:11	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/20/22 10:34	04/22/22 17:11	1
Dibenz[a,h]acridine	ND	*+	9.5	0.95	ug/L		04/20/22 10:34	04/22/22 17:11	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 17:11	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		04/20/22 10:34	04/22/22 17:11	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/20/22 10:34	04/22/22 17:11	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/20/22 10:34	04/22/22 17:11	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 17:11	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 17:11	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/20/22 10:34	04/22/22 17:11	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/20/22 10:34	04/22/22 17:11	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/20/22 10:34	04/22/22 17:11	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/20/22 10:34	04/22/22 17:11	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/20/22 10:34	04/22/22 17:11	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/20/22 10:34	04/22/22 17:11	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		04/20/22 10:34	04/22/22 17:11	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.5	0.95	ug/L		04/20/22 10:34	04/22/22 17:11	1
Hexachlorobenzene	ND	*+	9.5	0.16	ug/L		04/20/22 10:34	04/22/22 17:11	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		04/20/22 10:34	04/22/22 17:11	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/20/22 10:34	04/22/22 17:11	1
Indene	ND		9.5	0.95	ug/L		04/20/22 10:34	04/22/22 17:11	1
Isophorone	ND	UJ	9.5	0.13	ug/L		04/20/22 10:34	04/22/22 17:11	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/20/22 10:34	04/22/22 17:11	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/20/22 10:34	04/22/22 17:11	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/20/22 10:34	04/22/22 17:11	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/20/22 10:34	04/22/22 17:11	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/20/22 10:34	04/22/22 17:11	1
Nitrobenzene	ND	UJ	9.5	0.12	ug/L		04/20/22 10:34	04/22/22 17:11	1
2-Nitrophenol	ND		9.5	5.0	ug/L		04/20/22 10:34	04/22/22 17:11	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/20/22 10:34	04/22/22 17:11	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 17:11	1

Client Sample ID: MW10-ROX-041422
Date Collected: 04/14/22 13:50
Date Received: 04/16/22 09:30

Lab Sample ID: 400-218568-9
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND	UJ	9.5	3.1	ug/L		04/20/22 10:34	04/22/22 17:11	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/20/22 10:34	04/22/22 17:11	1
Pentachlorophenol	ND		19	1.3	ug/L		04/20/22 10:34	04/22/22 17:11	1
Phenol	ND	UJ	9.5	2.5	ug/L		04/20/22 10:34	04/22/22 17:11	1
Pyridine	ND	UJ	9.5	3.0	ug/L		04/20/22 10:34	04/22/22 17:11	1
Quinoline	ND		9.5	4.3	ug/L		04/20/22 10:34	04/22/22 17:11	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/20/22 10:34	04/22/22 17:11	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/20/22 10:34	04/22/22 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*46 - 124*	*04/20/22 10:34*	*04/22/22 17:11*	*1*
2-Fluorophenol	*14*		*13 - 113*	*04/20/22 10:34*	*04/22/22 17:11*	*1*
Nitrobenzene-d5	*66*		*36 - 126*	*04/20/22 10:34*	*04/22/22 17:11*	*1*
Phenol-d5	*31*		*17 - 127*	*04/20/22 10:34*	*04/22/22 17:11*	*1*
Terphenyl-d14	*101*		*44 - 149*	*04/20/22 10:34*	*04/22/22 17:11*	*1*
2,4,6-Tribromophenol	*96*		*26 - 150*	*04/20/22 10:34*	*04/22/22 17:11*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+ *1	0.032	0.018	ug/L		04/25/22 14:06	04/26/22 15:35	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/25/22 14:06	04/26/22 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*120*		*51 - 149*	*04/25/22 14:06*	*04/26/22 15:35*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc. Job ID: 400-218568-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218568-1	TB-ROX-041422-8260	95	100	92
400-218568-3	MW2-ROX-041422-EB	97	101	91
400-218568-4	MW2-ROX-041422	97	88	87
400-218568-5	MW2-ROX-041422-DUP	97	90	87
400-218568-6	MW13-ROX-041422	96	98	94
400-218568-7	P114R-ROX-041422	95	98	95
400-218568-8	MW10-ROX-041422-EB	96	101	91
400-218568-9	MW10-ROX-041422	98	98	94
LCS 400-574533/1002	Lab Control Sample	108	89	90
MB 400-574533/16	Method Blank	95	102	86

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218568-3	MW2-ROX-041422-EB	70	34	77	57	104	91
400-218568-4	MW2-ROX-041422	87	21	65	46	86	112
400-218568-5	MW2-ROX-041422-DUP	100	31	75	54	104	126
400-218568-6	MW13-ROX-041422	92	29	68	50	60	118
400-218568-7	P114R-ROX-041422	99	14	64	43	99	135
400-218568-8	MW10-ROX-041422-EB	93	28	68	51	101	112
400-218568-9	MW10-ROX-041422	91	14	66	31	101	96
LCS 400-574548/2-A	Lab Control Sample	85	48	72	74	103	140
LCS 400-574548/6-A	Lab Control Sample	74	49	80	65	98	95
LCSD 400-574548/3-A	Lab Control Sample Dup	79	32	69	61	99	123
LCSD 400-574548/7-A	Lab Control Sample Dup	74	46	81	63	107	83
MB 400-574548/1-A	Method Blank	70	21	75	53	100	95

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218568-3	MW2-ROX-041422-EB	134 S1+	123	125
400-218568-4	MW2-ROX-041422	122	144 S1+	102

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-218568-1
Project/Site: ROXANA QUARTERLY GW

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218568-4 - RA	MW2-ROX-041422	90	100	74
400-218568-5	MW2-ROX-041422-DUP	100	104	106
400-218568-6	MW13-ROX-041422	123 S1+	116	77
400-218568-7	P114R-ROX-041422	119	104	105
400-218568-8	MW10-ROX-041422-EB	121	106	113
400-218568-9	MW10-ROX-041422	130 S1+	114	131
LCS 400-574548/2-A	Lab Control Sample	118	93	116
LCSD 400-574548/3-A	Lab Control Sample Dup	104	79	105
MB 400-574548/1-A	Method Blank	130 S1+	121	125

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-218568-2	TB-ROX-041422-8011	139
400-218568-3	MW2-ROX-041422-EB	131
400-218568-4	MW2-ROX-041422	127
400-218568-5	MW2-ROX-041422-DUP	135
400-218568-6	MW13-ROX-041422	131
400-218568-7	P114R-ROX-041422	122
400-218568-8	MW10-ROX-041422-EB	128
400-218568-9	MW10-ROX-041422	120
LCS 400-575192/2-A	Lab Control Sample	117
LCSD 400-575192/3-A	Lab Control Sample Dup	135
MB 400-575192/1-A	Method Blank	118

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Client Sample ID: TB-ROX-041422-8260

Lab Sample ID: 400-218568-1

Date Collected: 04/14/22 00:01
Date Received: 04/16/22 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 15:23	NTH	TAL PEN

Client Sample ID: TB-ROX-041422-8011

Lab Sample ID: 400-218568-2

Date Collected: 04/14/22 00:01
Date Received: 04/16/22 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.4 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 12:51	DS	TAL PEN

Client Sample ID: MW2-ROX-041422-EB

Lab Sample ID: 400-218568-3

Date Collected: 04/14/22 08:30
Date Received: 04/16/22 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 15:47	NTH	TAL PEN
Total/NA	Prep	3520C			269.2 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574706	04/21/22 22:24	S1B	TAL PEN
Total/NA	Prep	3520C			269.2 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575511	04/28/22 04:37	PP1	TAL PEN
Total/NA	Prep	8011			32.5 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 13:11	DS	TAL PEN

Client Sample ID: MW2-ROX-041422

Lab Sample ID: 400-218568-4

Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 19:52	NTH	TAL PEN
Total/NA	Prep	3520C			260 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574865	04/22/22 14:15	VC1	TAL PEN
Total/NA	Prep	3520C			260 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575511	04/28/22 04:54	PP1	TAL PEN
Total/NA	Prep	3520C	RA		260 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL	RA	1			575786	04/30/22 15:12	PP1	TAL PEN
Total/NA	Prep	8011			33.9 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 13:32	DS	TAL PEN

Client Sample ID: MW2-ROX-041422-DUP

Lab Sample ID: 400-218568-5

Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 20:16	NTH	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Client Sample ID: MW2-ROX-041422-DUP

Lab Sample ID: 400-218568-5

Date Collected: 04/14/22 09:25
Date Received: 04/16/22 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			261.8 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574865	04/22/22 14:40	VC1	TAL PEN
Total/NA	Prep	3520C			261.8 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575511	04/28/22 05:11	PP1	TAL PEN
Total/NA	Prep	3520C			261.8 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			576004	05/02/22 18:47	KJA	TAL PEN
Total/NA	Prep	8011			31.7 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 13:52	DS	TAL PEN

Client Sample ID: MW13-ROX-041422

Lab Sample ID: 400-218568-6

Date Collected: 04/14/22 10:40
Date Received: 04/16/22 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 20:41	NTH	TAL PEN
Total/NA	Prep	3520C			257.6 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574865	04/22/22 15:06	VC1	TAL PEN
Total/NA	Prep	3520C			257.6 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 06:20	KJA	TAL PEN
Total/NA	Prep	8011			33.8 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 14:13	DS	TAL PEN

Client Sample ID: P114R-ROX-041422

Lab Sample ID: 400-218568-7

Date Collected: 04/14/22 11:35
Date Received: 04/16/22 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 21:05	NTH	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574865	04/22/22 15:31	VC1	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 06:37	KJA	TAL PEN
Total/NA	Prep	8011			33.5 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 14:33	DS	TAL PEN

Client Sample ID: MW10-ROX-041422-EB

Lab Sample ID: 400-218568-8

Date Collected: 04/14/22 13:10
Date Received: 04/16/22 09:30

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 16:12	NTH	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574865	04/22/22 16:46	VC1	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 06:54	KJA	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Client Sample ID: MW10-ROX-041422-EB

Lab Sample ID: 400-218568-8

Date Collected: 04/14/22 13:10
Matrix: Water
Date Received: 04/16/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			32.1 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 14:54	DS	TAL PEN

Client Sample ID: MW10-ROX-041422

Lab Sample ID: 400-218568-9

Date Collected: 04/14/22 13:50
Matrix: Water
Date Received: 04/16/22 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 21:29	NTH	TAL PEN
Total/NA	Prep	3520C			262.4 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574865	04/22/22 17:11	VC1	TAL PEN
Total/NA	Prep	3520C			262.4 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 07:57	KJA	TAL PEN
Total/NA	Prep	8011			32.6 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 15:35	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574533/16

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 12:07	NTH	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574548/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574706	04/21/22 17:54	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575511	04/28/22 01:47	PP1	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-575192/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 11:49	DS	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574533/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574533	04/20/22 10:58	NTH	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574548/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574706	04/21/22 18:15	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575511	04/28/22 02:04	PP1	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574548/6-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574706	04/21/22 18:56	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-575192/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 12:09	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-574548/3-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574706	04/21/22 18:36	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575511	04/28/22 02:21	PP1	TAL PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-574548/7-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574548	04/20/22 10:34	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574706	04/21/22 19:17	S1B	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218568-1

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-575192/3-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575192	04/25/22 14:06	RS	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 12:30	DS	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 574533

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-1	TB-ROX-041422-8260	Total/NA	Water	8260B	
400-218568-3	MW2-ROX-041422-EB	Total/NA	Water	8260B	
400-218568-4	MW2-ROX-041422	Total/NA	Water	8260B	
400-218568-5	MW2-ROX-041422-DUP	Total/NA	Water	8260B	
400-218568-6	MW13-ROX-041422	Total/NA	Water	8260B	
400-218568-7	P114R-ROX-041422	Total/NA	Water	8260B	
400-218568-8	MW10-ROX-041422-EB	Total/NA	Water	8260B	
400-218568-9	MW10-ROX-041422	Total/NA	Water	8260B	
MB 400-574533/16	Method Blank	Total/NA	Water	8260B	
LCS 400-574533/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 574548

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-3	MW2-ROX-041422-EB	Total/NA	Water	3520C	
400-218568-4	MW2-ROX-041422	Total/NA	Water	3520C	
400-218568-4 - RA	MW2-ROX-041422	Total/NA	Water	3520C	
400-218568-5	MW2-ROX-041422-DUP	Total/NA	Water	3520C	
400-218568-6	MW13-ROX-041422	Total/NA	Water	3520C	
400-218568-7	P114R-ROX-041422	Total/NA	Water	3520C	
400-218568-8	MW10-ROX-041422-EB	Total/NA	Water	3520C	
400-218568-9	MW10-ROX-041422	Total/NA	Water	3520C	
MB 400-574548/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-574548/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-574548/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-574548/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-574548/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 574706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-3	MW2-ROX-041422-EB	Total/NA	Water	8270D	574548
MB 400-574548/1-A	Method Blank	Total/NA	Water	8270D	574548
LCS 400-574548/2-A	Lab Control Sample	Total/NA	Water	8270D	574548
LCS 400-574548/6-A	Lab Control Sample	Total/NA	Water	8270D	574548
LCSD 400-574548/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	574548
LCSD 400-574548/7-A	Lab Control Sample Dup	Total/NA	Water	8270D	574548

Analysis Batch: 574865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-4	MW2-ROX-041422	Total/NA	Water	8270D	574548
400-218568-5	MW2-ROX-041422-DUP	Total/NA	Water	8270D	574548
400-218568-6	MW13-ROX-041422	Total/NA	Water	8270D	574548
400-218568-7	P114R-ROX-041422	Total/NA	Water	8270D	574548
400-218568-8	MW10-ROX-041422-EB	Total/NA	Water	8270D	574548
400-218568-9	MW10-ROX-041422	Total/NA	Water	8270D	574548

Analysis Batch: 575511

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-3	MW2-ROX-041422-EB	Total/NA	Water	8270D LL	574548
400-218568-4	MW2-ROX-041422	Total/NA	Water	8270D LL	574548

GC/MS Semi VOA (Continued)

Analysis Batch: 575511 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-5	MW2-ROX-041422-DUP	Total/NA	Water	8270D LL	574548
MB 400-574548/1-A	Method Blank	Total/NA	Water	8270D LL	574548
LCS 400-574548/2-A	Lab Control Sample	Total/NA	Water	8270D LL	574548
LCSD 400-574548/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	574548

Analysis Batch: 575577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-6	MW13-ROX-041422	Total/NA	Water	8270D LL	574548
400-218568-7	P114R-ROX-041422	Total/NA	Water	8270D LL	574548
400-218568-8	MW10-ROX-041422-EB	Total/NA	Water	8270D LL	574548
400-218568-9	MW10-ROX-041422	Total/NA	Water	8270D LL	574548

Analysis Batch: 575786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-4 - RA	MW2-ROX-041422	Total/NA	Water	8270D LL	574548

Analysis Batch: 576004

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-5	MW2-ROX-041422-DUP	Total/NA	Water	8270D LL	574548

GC Semi VOA

Prep Batch: 575192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-2	TB-ROX-041422-8011	Total/NA	Water	8011	
400-218568-3	MW2-ROX-041422-EB	Total/NA	Water	8011	
400-218568-4	MW2-ROX-041422	Total/NA	Water	8011	
400-218568-5	MW2-ROX-041422-DUP	Total/NA	Water	8011	
400-218568-6	MW13-ROX-041422	Total/NA	Water	8011	
400-218568-7	P114R-ROX-041422	Total/NA	Water	8011	
400-218568-8	MW10-ROX-041422-EB	Total/NA	Water	8011	
400-218568-9	MW10-ROX-041422	Total/NA	Water	8011	
MB 400-575192/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-575192/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-575192/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 575299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218568-2	TB-ROX-041422-8011	Total/NA	Water	8011	575192
400-218568-3	MW2-ROX-041422-EB	Total/NA	Water	8011	575192
400-218568-4	MW2-ROX-041422	Total/NA	Water	8011	575192
400-218568-5	MW2-ROX-041422-DUP	Total/NA	Water	8011	575192
400-218568-6	MW13-ROX-041422	Total/NA	Water	8011	575192
400-218568-7	P114R-ROX-041422	Total/NA	Water	8011	575192
400-218568-8	MW10-ROX-041422-EB	Total/NA	Water	8011	575192
400-218568-9	MW10-ROX-041422	Total/NA	Water	8011	575192
MB 400-575192/1-A	Method Blank	Total/NA	Water	8011	575192
LCS 400-575192/2-A	Lab Control Sample	Total/NA	Water	8011	575192
LCSD 400-575192/3-A	Lab Control Sample Dup	Total/NA	Water	8011	575192

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574533/16
Matrix: Water
Analysis Batch: 574533

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 12:07	1
Acrolein	ND		20	3.3	ug/L			04/20/22 12:07	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 12:07	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 12:07	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 12:07	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 12:07	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 12:07	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 12:07	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 12:07	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 12:07	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 12:07	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 12:07	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 12:07	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 12:07	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 12:07	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 12:07	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 12:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 12:07	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 12:07	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 12:07	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 12:07	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 12:07	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 12:07	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 12:07	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 12:07	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 12:07	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 12:07	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 12:07	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 12:07	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 12:07	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 12:07	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 12:07	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 12:07	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 12:07	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 12:07	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 12:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 12:07	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 12:07	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 12:07	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 12:07	1

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

Lab Sample ID: MB 400-574533/16
Matrix: Water
Analysis Batch: 574533

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 12:07	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 12:07	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 12:07	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 12:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 12:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 12:07	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 12:07	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 12:07	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 12:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 12:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 12:07	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 12:07	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 12:07	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 12:07	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 12:07	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 12:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 12:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 12:07	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 12:07	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 12:07	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 12:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/20/22 12:07*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/20/22 12:07*	*1*
Toluene-d8 (Surr)	*86*		*64 - 132*		*04/20/22 12:07*	*1*

Lab Sample ID: LCS 400-574533/1002
Matrix: Water
Analysis Batch: 574533

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	229		ug/L		115	43 - 160
Acrolein	500	603		ug/L		121	38 - 160
Acrylonitrile	500	495		ug/L		99	64 - 142
Benzene	50.0	56.6		ug/L		113	70 - 130
Bromobenzene	50.0	42.3		ug/L		85	70 - 132
Bromochloromethane	50.0	50.9		ug/L		102	70 - 130
Bromodichloromethane	50.0	53.4		ug/L		107	67 - 133
Bromoform	50.0	41.6		ug/L		83	57 - 140
Bromomethane	50.0	44.3		ug/L		89	10 - 160
2-Butanone (MEK)	200	232		ug/L		116	61 - 145
Carbon disulfide	50.0	57.5		ug/L		115	61 - 137
Carbon tetrachloride	50.0	55.9		ug/L		112	61 - 137
Chlorobenzene	50.0	50.7		ug/L		101	70 - 130
Dibromochloromethane	50.0	45.0		ug/L		90	67 - 135
Chloroethane	50.0	43.7		ug/L		87	55 - 141

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

Lab Sample ID: LCS 400-574533/1002
Matrix: Water
Analysis Batch: 574533

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	52.1		ug/L		104	10 - 160
Chloroform	50.0	58.9		ug/L		118	69 - 130
1-Chlorohexane	50.0	41.9		ug/L		84	69 - 130
Chloromethane	50.0	41.7		ug/L		83	58 - 137
cis-1,2-Dichloroethene	50.0	51.8		ug/L		104	68 - 130
cis-1,3-Dichloropropene	50.0	57.3		ug/L		115	69 - 132
1,2-Dichlorobenzene	50.0	41.7		ug/L		83	67 - 130
1,3-Dichlorobenzene	50.0	42.8		ug/L		86	70 - 130
1,4-Dichlorobenzene	50.0	47.0		ug/L		94	70 - 130
Dichlorodifluoromethane	50.0	51.0		ug/L		102	41 - 146
1,1-Dichloroethane	50.0	54.6		ug/L		109	70 - 130
1,2-Dichloroethane	50.0	52.7		ug/L		105	69 - 130
1,1-Dichloroethene	50.0	59.3		ug/L		119	63 - 134
1,2-Dichloropropane	50.0	49.2		ug/L		98	70 - 130
1,3-Dichloropropane	50.0	49.7		ug/L		99	70 - 130
2,2-Dichloropropane	50.0	55.4		ug/L		111	52 - 135
1,1-Dichloropropene	50.0	59.5		ug/L		119	70 - 130
Ethylbenzene	50.0	47.3		ug/L		95	70 - 130
Ethyl methacrylate	50.0	49.5		ug/L		99	68 - 130
Hexachlorobutadiene	50.0	47.9		ug/L		96	53 - 140
2-Hexanone	200	151		ug/L		75	65 - 137
Isopropylbenzene	50.0	48.5		ug/L		97	70 - 130
Methylene bromide	50.0	54.2		ug/L		108	70 - 130
Methylene Chloride	50.0	54.9		ug/L		110	66 - 135
4-Methyl-2-pentanone (MIBK)	200	173		ug/L		86	69 - 138
Methyl tert-butyl ether	50.0	55.6		ug/L		111	66 - 130
m-Xylene & p-Xylene	50.0	47.7		ug/L		95	70 - 130
Naphthalene	50.0	37.6		ug/L		75	47 - 149
n-Butylbenzene	50.0	48.2		ug/L		96	67 - 130
N-Propylbenzene	50.0	46.2		ug/L		92	70 - 130
o-Chlorotoluene	50.0	47.0		ug/L		94	70 - 130
o-Xylene	50.0	49.3		ug/L		99	70 - 130
p-Chlorotoluene	50.0	47.2		ug/L		94	70 - 130
p-Isopropyltoluene	50.0	45.9		ug/L		92	65 - 130
sec-Butylbenzene	50.0	46.7		ug/L		93	66 - 130
Styrene	50.0	45.4		ug/L		91	70 - 130
tert-Butylbenzene	50.0	44.6		ug/L		89	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.6		ug/L		93	67 - 131
1,1,2,2-Tetrachloroethane	50.0	45.5		ug/L		91	70 - 131
Tetrachloroethene	50.0	42.7		ug/L		85	65 - 130
Toluene	50.0	53.0		ug/L		106	70 - 130
trans-1,2-Dichloroethene	50.0	55.2		ug/L		110	70 - 130
trans-1,3-Dichloropropene	50.0	51.5		ug/L		103	63 - 130
1,2,3-Trichlorobenzene	50.0	44.0		ug/L		88	60 - 138
1,2,4-Trichlorobenzene	50.0	42.0		ug/L		84	60 - 140
1,1,1-Trichloroethane	50.0	58.7		ug/L		117	68 - 130
1,1,2-Trichloroethane	50.0	47.7		ug/L		95	70 - 130
Trichloroethene	50.0	53.5		ug/L		107	70 - 130
Trichlorofluoromethane	50.0	52.9		ug/L		106	65 - 138

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

Lab Sample ID: LCS 400-574533/1002
Matrix: Water
Analysis Batch: 574533

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	43.9		ug/L		88	70 - 130
1,2,4-Trimethylbenzene	50.0	45.6		ug/L		91	70 - 130
1,3,5-Trimethylbenzene	50.0	46.9		ug/L		94	69 - 130
Vinyl acetate	100	108		ug/L		108	26 - 160
Vinyl chloride	50.0	57.1		ug/L		114	59 - 136
Xylenes, Total	100	97.0		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*108*		*72 - 119*
Dibromofluoromethane	*89*		*75 - 126*
Toluene-d8 (Surr)	*90*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574548/1-A
Matrix: Water
Analysis Batch: 574706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574548

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/20/22 10:34	04/21/22 17:54	1
Benzenethiol	ND		10	1.7	ug/L		04/20/22 10:34	04/21/22 17:54	1
Benzoic acid	ND		30	7.3	ug/L		04/20/22 10:34	04/21/22 17:54	1
Benzyl alcohol	ND		10	2.0	ug/L		04/20/22 10:34	04/21/22 17:54	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/20/22 10:34	04/21/22 17:54	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/20/22 10:34	04/21/22 17:54	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/20/22 10:34	04/21/22 17:54	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/20/22 10:34	04/21/22 17:54	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/20/22 10:34	04/21/22 17:54	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/20/22 10:34	04/21/22 17:54	1
4-Chloroaniline	ND		10	3.4	ug/L		04/20/22 10:34	04/21/22 17:54	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/20/22 10:34	04/21/22 17:54	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/20/22 10:34	04/21/22 17:54	1
2-Chlorophenol	ND		10	2.2	ug/L		04/20/22 10:34	04/21/22 17:54	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/20/22 10:34	04/21/22 17:54	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/20/22 10:34	04/21/22 17:54	1
Dibenzofuran	ND		10	0.17	ug/L		04/20/22 10:34	04/21/22 17:54	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/20/22 10:34	04/21/22 17:54	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/20/22 10:34	04/21/22 17:54	1
Diethyl phthalate	ND		10	0.24	ug/L		04/20/22 10:34	04/21/22 17:54	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/20/22 10:34	04/21/22 17:54	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/20/22 10:34	04/21/22 17:54	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/20/22 10:34	04/21/22 17:54	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/20/22 10:34	04/21/22 17:54	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/20/22 10:34	04/21/22 17:54	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/20/22 10:34	04/21/22 17:54	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/20/22 10:34	04/21/22 17:54	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/20/22 10:34	04/21/22 17:54	1
1,4-Dioxane	ND		10	1.0	ug/L		04/20/22 10:34	04/21/22 17:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574548/1-A
Matrix: Water
Analysis Batch: 574706

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574548

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/20/22 10:34	04/21/22 17:54	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/20/22 10:34	04/21/22 17:54	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/20/22 10:34	04/21/22 17:54	1
Hexachloroethane	ND		10	4.2	ug/L		04/20/22 10:34	04/21/22 17:54	1
Indene	ND		10	1.0	ug/L		04/20/22 10:34	04/21/22 17:54	1
Isophorone	ND		10	0.14	ug/L		04/20/22 10:34	04/21/22 17:54	1
2-Methylphenol	ND		10	1.8	ug/L		04/20/22 10:34	04/21/22 17:54	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/20/22 10:34	04/21/22 17:54	1
2-Nitroaniline	ND		10	2.2	ug/L		04/20/22 10:34	04/21/22 17:54	1
3-Nitroaniline	ND		10	1.8	ug/L		04/20/22 10:34	04/21/22 17:54	1
4-Nitroaniline	ND		10	1.5	ug/L		04/20/22 10:34	04/21/22 17:54	1
Nitrobenzene	ND		10	0.13	ug/L		04/20/22 10:34	04/21/22 17:54	1
2-Nitrophenol	ND		10	5.2	ug/L		04/20/22 10:34	04/21/22 17:54	1
4-Nitrophenol	ND		10	2.1	ug/L		04/20/22 10:34	04/21/22 17:54	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/20/22 10:34	04/21/22 17:54	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/20/22 10:34	04/21/22 17:54	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/20/22 10:34	04/21/22 17:54	1
Pentachlorophenol	ND		20	1.4	ug/L		04/20/22 10:34	04/21/22 17:54	1
Phenol	ND		10	2.6	ug/L		04/20/22 10:34	04/21/22 17:54	1
Pyridine	ND		10	3.2	ug/L		04/20/22 10:34	04/21/22 17:54	1
Quinoline	ND		10	4.5	ug/L		04/20/22 10:34	04/21/22 17:54	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/20/22 10:34	04/21/22 17:54	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/20/22 10:34	04/21/22 17:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*04/20/22 10:34*	*04/21/22 17:54*	*1*
2-Fluorophenol	*21*		*13 - 113*	*04/20/22 10:34*	*04/21/22 17:54*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*04/20/22 10:34*	*04/21/22 17:54*	*1*
Phenol-d5	*53*		*17 - 127*	*04/20/22 10:34*	*04/21/22 17:54*	*1*
Terphenyl-d14	*100*		*44 - 149*	*04/20/22 10:34*	*04/21/22 17:54*	*1*
2,4,6-Tribromophenol	*95*		*26 - 150*	*04/20/22 10:34*	*04/21/22 17:54*	*1*

Lab Sample ID: LCS 400-574548/2-A
Matrix: Water
Analysis Batch: 574706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574548

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	82.8		ug/L		69	21 - 120
Benzoic acid	498	181		ug/L		36	10 - 144
Benzyl alcohol	120	78.7		ug/L		66	28 - 120
Bis(2-chloroethoxy)methane	120	72.6		ug/L		61	47 - 120
Bis(2-chloroethyl)ether	120	79.9		ug/L		67	44 - 120
bis (2-chloroisopropyl) ether	120	109		ug/L		91	33 - 121
Bis(2-ethylhexyl) phthalate	120	99.4		ug/L		83	52 - 147
4-Bromophenyl phenyl ether	120	131		ug/L		109	54 - 122
Butyl benzyl phthalate	120	97.0		ug/L		81	54 - 133
4-Chloroaniline	120	83.7		ug/L		70	26 - 120
4-Chloro-3-methylphenol	120	95.1		ug/L		79	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574548/2-A
Matrix: Water
Analysis Batch: 574706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574548

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	102		ug/L		85	52 - 121
2-Chlorophenol	120	89.2		ug/L		74	40 - 120
4-Chlorophenyl phenyl ether	120	109		ug/L		91	56 - 125
Dibenz[a,h]acridine	120	146		ug/L		122	31 - 150
Dibenzofuran	120	104		ug/L		86	56 - 122
3,3'-Dichlorobenzidine	160	196		ug/L		123	36 - 132
2,4-Dichlorophenol	120	86.3		ug/L		72	49 - 120
Diethyl phthalate	120	120		ug/L		100	50 - 137
2,4-Dimethylphenol	120	85.4		ug/L		71	48 - 120
Dimethyl phthalate	120	107		ug/L		89	57 - 124
Di-n-butyl phthalate	120	122		ug/L		102	58 - 126
4,6-Dinitro-ortho-cresol	240	227		ug/L		95	23 - 148
2,4-Dinitrophenol	240	211		ug/L		88	10 - 150
2,4-Dinitrotoluene	120	102		ug/L		85	54 - 142
2,6-Dinitrotoluene	120	95.9		ug/L		80	55 - 130
Di-n-octyl phthalate	120	104		ug/L		87	57 - 138
1,4-Dioxane	120	88.8		ug/L		74	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	105		ug/L		87	45 - 124
Hexachlorobenzene	120	161	*+	ug/L		134	52 - 129
Hexachlorocyclopentadiene	120	107		ug/L		89	10 - 134
Hexachloroethane	120	94.9		ug/L		79	20 - 120
Indene	120	104		ug/L		86	49 - 120
Isophorone	120	76.1		ug/L		63	48 - 120
2-Methylphenol	120	102		ug/L		85	46 - 124
3 & 4 Methylphenol	120	103		ug/L		86	45 - 120
2-Nitroaniline	120	108		ug/L		90	51 - 145
3-Nitroaniline	120	84.7		ug/L		71	37 - 127
4-Nitroaniline	120	126		ug/L		105	36 - 137
Nitrobenzene	120	81.8		ug/L		68	45 - 120
2-Nitrophenol	120	82.5		ug/L		69	40 - 124
4-Nitrophenol	240	312		ug/L		130	23 - 146
N-Nitrosodimethylamine	120	128		ug/L		106	29 - 137
N-Nitrosodi-n-propylamine	120	108		ug/L		90	45 - 120
N-Nitrosodiphenylamine	119	103		ug/L		86	54 - 120
Pentachlorophenol	240	240		ug/L		100	31 - 130
Phenol	120	92.0		ug/L		77	11 - 120
Pyridine	240	149		ug/L		62	16 - 120
Quinoline	120	104		ug/L		87	49 - 130
2,4,5-Trichlorophenol	120	110		ug/L		91	51 - 136
2,4,6-Trichlorophenol	120	111		ug/L		92	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*46 - 124*
2-Fluorophenol	*48*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*103*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574548/2-A
Matrix: Water
Analysis Batch: 574706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574548

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	140		26 - 150

Lab Sample ID: LCS 400-574548/6-A
Matrix: Water
Analysis Batch: 574706

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574548

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	5.90	J *-	ug/L		5	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	74		46 - 124
2-Fluorophenol	49		13 - 113
Nitrobenzene-d5	80		36 - 126
Phenol-d5	65		17 - 127
Terphenyl-d14	98		44 - 149
2,4,6-Tribromophenol	95		26 - 150

Lab Sample ID: LCSD 400-574548/3-A
Matrix: Water
Analysis Batch: 574706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574548

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	71.9		ug/L		60	21 - 120	14	30
Benzoic acid	498	159		ug/L		32	10 - 144	13	30
Benzyl alcohol	120	65.1		ug/L		54	28 - 120	19	30
Bis(2-chloroethoxy)methane	120	70.1		ug/L		58	47 - 120	3	30
Bis(2-chloroethyl)ether	120	79.1		ug/L		66	44 - 120	1	30
bis (2-chloroisopropyl) ether	120	103		ug/L		86	33 - 121	5	30
Bis(2-ethylhexyl) phthalate	120	99.8		ug/L		83	52 - 147	0	30
4-Bromophenyl phenyl ether	120	128		ug/L		107	54 - 122	2	30
Butyl benzyl phthalate	120	96.1		ug/L		80	54 - 133	1	30
4-Chloroaniline	120	73.6		ug/L		61	26 - 120	13	30
4-Chloro-3-methylphenol	120	89.9		ug/L		75	48 - 131	6	30
2-Chloronaphthalene	120	97.7		ug/L		81	52 - 121	4	30
2-Chlorophenol	120	74.9		ug/L		62	40 - 120	17	30
4-Chlorophenyl phenyl ether	120	107		ug/L		89	56 - 125	3	30
Dibenz[a,h]acridine	120	147		ug/L		123	31 - 150	1	30
Dibenzofuran	120	98.7		ug/L		82	56 - 122	5	30
3,3'-Dichlorobenzidine	160	187		ug/L		117	36 - 132	5	30
2,4-Dichlorophenol	120	82.6		ug/L		69	49 - 120	4	30
Diethyl phthalate	120	116		ug/L		96	50 - 137	4	30
2,4-Dimethylphenol	120	80.6		ug/L		67	48 - 120	6	30
Dimethyl phthalate	120	104		ug/L		87	57 - 124	3	30
Di-n-butyl phthalate	120	122		ug/L		101	58 - 126	0	30
4,6-Dinitro-ortho-cresol	240	195		ug/L		81	23 - 148	15	30
2,4-Dinitrophenol	240	177		ug/L		74	10 - 150	18	30
2,4-Dinitrotoluene	120	101		ug/L		85	54 - 142	0	30
2,6-Dinitrotoluene	120	95.4		ug/L		80	55 - 130	0	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574548/3-A
Matrix: Water
Analysis Batch: 574706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574548

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate	120	101		ug/L		84	57 - 138	3	30
1,4-Dioxane	120	89.3		ug/L		74	31 - 120	1	30
1,2-Diphenylhydrazine (as Azobenzene)	120	104		ug/L		87	45 - 124	0	30
Hexachlorobenzene	120	154		ug/L		129	52 - 129	4	30
Hexachlorocyclopentadiene	120	88.1		ug/L		73	10 - 134	19	30
Hexachloroethane	120	89.2		ug/L		74	20 - 120	6	30
Indene	120	96.4		ug/L		80	49 - 120	7	30
Isophorone	120	76.0		ug/L		63	48 - 120	0	30
2-Methylphenol	120	97.6		ug/L		81	46 - 124	5	30
3 & 4 Methylphenol	120	94.7		ug/L		79	45 - 120	8	30
2-Nitroaniline	120	104		ug/L		86	51 - 145	4	30
3-Nitroaniline	120	77.3		ug/L		64	37 - 127	9	30
4-Nitroaniline	120	111		ug/L		93	36 - 137	12	30
Nitrobenzene	120	77.8		ug/L		65	45 - 120	5	30
2-Nitrophenol	120	78.4		ug/L		65	40 - 124	5	30
4-Nitrophenol	240	264		ug/L		110	23 - 146	17	30
N-Nitrosodimethylamine	120	121		ug/L		101	29 - 137	6	30
N-Nitrosodi-n-propylamine	120	100		ug/L		84	45 - 120	8	30
N-Nitrosodiphenylamine	119	101		ug/L		85	54 - 120	2	30
Pentachlorophenol	240	202		ug/L		84	31 - 130	17	30
Phenol	120	78.7		ug/L		66	11 - 120	16	30
Pyridine	240	134		ug/L		56	16 - 120	11	30
Quinoline	120	100		ug/L		84	49 - 130	4	30
2,4,5-Trichlorophenol	120	107		ug/L		89	51 - 136	3	30
2,4,6-Trichlorophenol	120	104		ug/L		87	50 - 127	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*79*		*46 - 124*
2-Fluorophenol	*32*		*13 - 113*
Nitrobenzene-d5	*69*		*36 - 126*
Phenol-d5	*61*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*123*		*26 - 150*

Lab Sample ID: LCSD 400-574548/7-A
Matrix: Water
Analysis Batch: 574706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574548

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	7.57	J *-	ug/L		6	10 - 120	25	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*46 - 124*
2-Fluorophenol	*46*		*13 - 113*
Nitrobenzene-d5	*81*		*36 - 126*
Phenol-d5	*63*		*17 - 127*
Terphenyl-d14	*107*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574548/7-A
Matrix: Water
Analysis Batch: 574706

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574548

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*83*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-574548/1-A
Matrix: Water
Analysis Batch: 575511

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574548

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/20/22 10:34	04/28/22 01:47	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/20/22 10:34	04/28/22 01:47	1
Anthracene	ND		0.20	0.032	ug/L		04/20/22 10:34	04/28/22 01:47	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/20/22 10:34	04/28/22 01:47	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/20/22 10:34	04/28/22 01:47	1
Benzo[b]fluoranthene	0.0949	J	0.20	0.034	ug/L		04/20/22 10:34	04/28/22 01:47	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/20/22 10:34	04/28/22 01:47	1
Benzo[k]fluoranthene	0.109	J	0.20	0.10	ug/L		04/20/22 10:34	04/28/22 01:47	1
Chrysene	ND		0.20	0.074	ug/L		04/20/22 10:34	04/28/22 01:47	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/20/22 10:34	04/28/22 01:47	1
Fluoranthene	ND		0.20	0.068	ug/L		04/20/22 10:34	04/28/22 01:47	1
Fluorene	ND		0.20	0.11	ug/L		04/20/22 10:34	04/28/22 01:47	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/20/22 10:34	04/28/22 01:47	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/20/22 10:34	04/28/22 01:47	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/20/22 10:34	04/28/22 01:47	1
Phenanthrene	ND		0.20	0.036	ug/L		04/20/22 10:34	04/28/22 01:47	1
Pyrene	ND		0.20	0.040	ug/L		04/20/22 10:34	04/28/22 01:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*130*	*S1+*	*15 - 122*	*04/20/22 10:34*	*04/28/22 01:47*	*1*
Nitrobenzene-d5	*121*		*19 - 130*	*04/20/22 10:34*	*04/28/22 01:47*	*1*
Terphenyl-d14	*125*		*33 - 138*	*04/20/22 10:34*	*04/28/22 01:47*	*1*

Lab Sample ID: LCS 400-574548/2-A
Matrix: Water
Analysis Batch: 575511

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574548

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	131		ug/L		109	41 - 120
Acenaphthylene	120	146	*+	ug/L		121	44 - 120
Anthracene	120	135		ug/L		113	49 - 120
Benzo[a]anthracene	120	130		ug/L		108	61 - 135
Benzo[a]pyrene	120	133		ug/L		111	52 - 120
Benzo[b]fluoranthene	120	136		ug/L		114	53 - 134
Benzo[g,h,i]perylene	120	119		ug/L		99	47 - 133
Benzo[k]fluoranthene	120	133		ug/L		111	57 - 134
Chrysene	120	129		ug/L		107	55 - 122
Dibenz(a,h)anthracene	120	132		ug/L		110	48 - 146
Fluoranthene	120	139		ug/L		116	54 - 128

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-574548/2-A
Matrix: Water
Analysis Batch: 575511

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574548

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	120	147		ug/L		123	45 - 125
Indeno[1,2,3-cd]pyrene	120	129		ug/L		107	43 - 142
1-Methylnaphthalene	120	100		ug/L		83	41 - 120
2-Methylnaphthalene	120	102		ug/L		85	32 - 124
Phenanthrene	120	135		ug/L		113	48 - 120
Pyrene	120	123		ug/L		103	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*118*		*15 - 122*
Nitrobenzene-d5	*93*		*19 - 130*
Terphenyl-d14	*116*		*33 - 138*

Lab Sample ID: LCSD 400-574548/3-A
Matrix: Water
Analysis Batch: 575511

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574548

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	125		ug/L		104	41 - 120	4	56
Acenaphthylene	120	139		ug/L		116	44 - 120	4	56
Anthracene	120	129		ug/L		107	49 - 120	5	51
Benzo[a]anthracene	120	129		ug/L		108	61 - 135	1	49
Benzo[a]pyrene	120	128		ug/L		107	52 - 120	3	50
Benzo[b]fluoranthene	120	132		ug/L		110	53 - 134	3	54
Benzo[g,h,i]perylene	120	108		ug/L		90	47 - 133	10	50
Benzo[k]fluoranthene	120	129		ug/L		108	57 - 134	3	52
Chrysene	120	128		ug/L		107	55 - 122	0	50
Dibenz(a,h)anthracene	120	120		ug/L		100	48 - 146	10	50
Fluoranthene	120	134		ug/L		112	54 - 128	4	52
Fluorene	120	143		ug/L		119	45 - 125	3	56
Indeno[1,2,3-cd]pyrene	120	116		ug/L		97	43 - 142	10	51
1-Methylnaphthalene	120	103		ug/L		86	41 - 120	3	55
2-Methylnaphthalene	120	94.7		ug/L		79	32 - 124	7	57
Phenanthrene	120	131		ug/L		109	48 - 120	3	56
Pyrene	120	124		ug/L		103	48 - 132	0	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*104*		*15 - 122*
Nitrobenzene-d5	*79*		*19 - 130*
Terphenyl-d14	*105*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-575192/1-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575192

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/25/22 14:06	04/26/22 11:49	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-575192/1-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575192

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/25/22 14:06	04/26/22 11:49	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*118*		*51 - 149*	*04/25/22 14:06*	*04/26/22 11:49*	*1*

Lab Sample ID: LCS 400-575192/2-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575192

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.143	*+	ug/L		143	60 - 140
1,2-Dibromoethane	0.101	0.111		ug/L		110	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*117*		*51 - 149*

Lab Sample ID: LCSD 400-575192/3-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 575192

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.154	*+	ug/L		153	60 - 140	7	30
1,2-Dibromoethane	0.101	0.117		ug/L		117	60 - 140	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*135*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

- ☐ ACCUTEST (_____)
- ☐ CALSCIENCE (_____)
- ☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
- ☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL	
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES	
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES		

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/14/2022
PO #	GSAP Project ID	PAGE: 1 of 1
60674381 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM

LOG CODE:

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA

State: IL

AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.2.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions

PHONE NO: 314-802-1207; 314-802-1122

E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com

AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger

TELEPHONE: 314-429-0100

FAX: 314-429-0462

Bill To Contact E-MAIL: melissa.remiger@aecom.com

SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols

LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.2.2

400-218568 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
0.0°C 3.9°C
4.0°C IR9

Container PID Readings or Laboratory Notes:

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041422-8260	4/14/2022	0000	Water	2					2	X			
	TB-ROX-041422-8011	4/14/2022	0000	Water	2					2		X		
	MW2-ROX-041422-EB	4/14/2022	0830	Water	6			2		8	X	X	X	X
	MW2-ROX-041422	4/14/2022	0925	Water	6			2		8	X	X	X	X
	MW2-ROX-041422-DUP	4/14/2022	0925	Water	6			2		8	X	X	X	X
	MW13-ROX-041422	4/14/2022	1040	Water	6			2		8	X	X	X	X
	P114R-ROX-041422	4/14/2022	1135	Water	6			2		8	X	X	X	X
	MW10-ROX-041422-EB	4/14/2022	1310	Water	6			2		8	X	X	X	X
	MW10-ROX-041422	4/14/2022	1350	Water	6			2		8	X	X	X	X

Relinquished by: (Signature) MARY MASSA	Received by: (Signature) FEDEX: 1482 3813 1730, 1482 3813 1720, 1482 3813 1719	Date: 4/14/2022	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4.16.22	Time: 09:30

CUSTODY SEALS: 1892139, 1892138, 1892137, 1892136, 1892135, 1892134

Version: 1Apr22

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5/3/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218568-1

Login Number: 218568
List Number: 1
Creator: Roberts, Alexis J

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C, 3.9°C, 4.0°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-218568-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218624-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Zachary Neigh

Date Reviewed: 6/14/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041822-8260	TB-ROX-041822-8011
P74-ROX-041822-EB	P74-ROX-041822
P74-ROX-041822-DUP	P58-ROX-041822
P58-ROX-041822-DUP	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated chlorobenzene was detected in trip blank TB-ROX-041822-8260, and several PAHs were detected in equipment blank P74-ROX-041822-EB. LCS/LCSD recoveries for benzenethiol and 1,2-dibromo-3-chloropropane were outside evaluation criteria. Several PAH surrogate recoveries were outside criteria in several investigative and quality control samples. VOCs and phenol in field duplicate pair P58-ROX-041822/P58-ROX-041822-Dup were diluted to bring target analytes into calibration range of the instrument. The continuing calibration verification for benzyl alcohol was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-041822-8260	VOCs	Chlorobenzene	0.30 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
P74-ROX-041822-EB	PAHs	Benzo[a]anthracene	0.044 µg/L
P74-ROX-041822-EB	PAHs	Indeno[1,2,3-cd]pyrene	0.063 µg/L
P74-ROX-041822-EB	PAHs	Pyrene	0.065 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P74-ROX-041822-DUP	PAHs	Pyrene	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-574677/4-A/5-A	SVOCs	Benzenethiol	**5/5**	0	10-120/30
LCS/LCSD 400-574592//2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**151**/133	13	60-140/30
LCS 400-574945/2-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**158**	NA	60-140

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P74-ROX-041822	SVOCs	Benzenethiol	**UJ**
P74-ROX-041822-DUP	SVOCs	Benzenethiol	**UJ**
P58-ROX-041822	SVOCs	Benzenethiol	**UJ**
P58-ROX-041822-DUP	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW2-ROX-041422-EB	PAHs	2-Fluorobiphenyl	**134**	15-122
MW2-ROX-041422	PAHs	Nitrobenzene-d_5	**144**	19-130

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW13-ROX-041422	PAHs	2-Fluorobiphenyl	**123**	15-122
MW10-ROX-041422	PAHs	2-Fluorobiphenyl	**130**	15-122
MB 400-574548/1-A	PAHs	2-Fluorobiphenyl	**130**	15-122

Qualifications due to surrogate recoveries were not required if only one of three base/neutral surrogate recoveries were outside evaluation criteria. Method blanks are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
P74-ROX-041822	P74-ROX-041822-DUP
P58-ROX-041822	P58-ROX-041822-DUP

Were field duplicates within evaluation criteria?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification for benzyl alcohol was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P74-ROX-041822	SVOCs	Benzyl alcohol	**UJ**
P74-ROX-041822-DUP	SVOCs	Benzyl alcohol	**UJ**
P58-ROX-041822	SVOCs	Benzyl alcohol	**UJ**

Sample ID	Parameter	Analyte	Qualification
P58-ROX-041822-DUP	SVOCs	Benzyl alcohol	**UJ**

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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218624-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
4/29/2022 10:44:45 AM

Leah Klingensmith, Senior Project Manager
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Reviewed 6/14/2022
LR

LINKS

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

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

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

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Job ID: 400-218624-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218624-1

Comments
No additional comments.

Receipt
The samples were received on 4/19/2022 9:11 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.0° C and 2.6° C.

GC/MS VOA
Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: P58-ROX-041822 (400-218624-6) and P58-ROX-041822-DUP (400-218624-7). Elevated reporting limits (RLs) are provided.

Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041822-8260 (400-218624-1), P74-ROX-041822-EB (400-218624-3), P74-ROX-041822 (400-218624-4), P74-ROX-041822-DUP (400-218624-5), P58-ROX-041822 (400-218624-6) and P58-ROX-041822-DUP (400-218624-7). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

Method 8260B: The following sample TB-ROX-041822-8260 (400-218624-1) contained Chlorobenzene between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-574677 and analytical batch 400-574934 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered above the upper control limit for N-Nitrosodimethylamine, 1,4-Dioxane, 4-Nitrophenol, Hexachlorobenzene and 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered above the upper control limit for Dibenz[a,h]acridine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered outside acceptance criteria, low biased, for Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

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

GC Semi VOA
Method 8011: The continuing calibration verification (CCV) associated with batch 400-574723 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) for preparation batch 400-574592 and analytical batch 400-574723 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-574996 recovered above the upper control limit for

Job ID: 400-218624-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) for preparation batch 400-574945 and analytical batch 400-574996 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

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

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218624-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218624-1	TB-ROX-041822-8260	Water	04/18/22 00:01	04/19/22 09:11
400-218624-2	TB-ROX-041822-8011	Water	04/18/22 00:01	04/19/22 09:11
400-218624-3	P74-ROX-041822-EB	Water	04/18/22 08:15	04/19/22 09:11
400-218624-4	P74-ROX-041822	Water	04/18/22 10:30	04/19/22 09:11
400-218624-5	P74-ROX-041822-DUP	Water	04/18/22 10:30	04/19/22 09:11
400-218624-6	P58-ROX-041822	Water	04/18/22 12:50	04/19/22 09:11
400-218624-7	P58-ROX-041822-DUP	Water	04/18/22 12:50	04/19/22 09:11

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218624-1

Client Sample ID: TB-ROX-041822-8260

Lab Sample ID: 400-218624-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.30	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-041822-8011

Lab Sample ID: 400-218624-2

No Detections.

Client Sample ID: P74-ROX-041822-EB

Lab Sample ID: 400-218624-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.044	J	0.19	0.044	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.063	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Pyrene	0.065	J	0.19	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: P74-ROX-041822

Lab Sample ID: 400-218624-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diethyl phthalate	0.33	J	9.7	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: P74-ROX-041822-DUP

Lab Sample ID: 400-218624-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.052	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.037	J	0.19	0.035	ug/L	1		8270D LL	Total/NA
Pyrene	0.040	J	0.19	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: P58-ROX-041822

Lab Sample ID: 400-218624-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	340	J	500	250	ug/L	500		8260B	Total/NA
Benzene - DL	190000		2000	260	ug/L	2000		8260B	Total/NA
Acenaphthene	0.87		0.19	0.031	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.42		0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.23		0.19	0.045	ug/L	1		8270D LL	Total/NA
Chrysene	0.28		0.19	0.072	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.26		0.19	0.066	ug/L	1		8270D LL	Total/NA
Fluorene	2.0		0.19	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	81		0.19	0.072	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	36		0.19	0.058	ug/L	1		8270D LL	Total/NA
Phenanthrene	1.6		0.19	0.035	ug/L	1		8270D LL	Total/NA
Pyrene	0.58		0.19	0.039	ug/L	1		8270D LL	Total/NA
Dibenzofuran	1.4	J	9.7	0.17	ug/L	1		8270D	Total/NA
Phenol - DL	600		49	13	ug/L	5		8270D	Total/NA

Client Sample ID: P58-ROX-041822-DUP

Lab Sample ID: 400-218624-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	430	J	500	250	ug/L	500		8260B	Total/NA
Benzene - DL	210000		2000	260	ug/L	2000		8260B	Total/NA
Acenaphthene	0.70		0.19	0.031	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.39		0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.19		0.19	0.045	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.21		0.19	0.041	ug/L	1		8270D LL	Total/NA
Chrysene	0.24		0.19	0.072	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.22		0.19	0.066	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: P58-ROX-041822-DUP (Continued)

Lab Sample ID: 400-218624-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	1.6		0.19	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	81		0.19	0.072	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	35		0.19	0.058	ug/L	1		8270D LL	Total/NA
Phenanthrene	1.4		0.19	0.035	ug/L	1		8270D LL	Total/NA
Pyrene	0.53		0.19	0.039	ug/L	1		8270D LL	Total/NA
Dibenzofuran	1.6	J	9.7	0.16	ug/L	1		8270D	Total/NA
Phenol - DL	670		48	13	ug/L	5		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-ROX-041822-8260
Date Collected: 04/18/22 00:01
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 15:35	1
Acrolein	ND		20	3.3	ug/L			04/20/22 15:35	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 15:35	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 15:35	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 15:35	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 15:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 15:35	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 15:35	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 15:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 15:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 15:35	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 15:35	1
Chlorobenzene	0.30	J	1.0	0.15	ug/L			04/20/22 15:35	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 15:35	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 15:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 15:35	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 15:35	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 15:35	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 15:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 15:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 15:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 15:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 15:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 15:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 15:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 15:35	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 15:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 15:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 15:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 15:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 15:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 15:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 15:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 15:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 15:35	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 15:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 15:35	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 15:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 15:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 15:35	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 15:35	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 15:35	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 15:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 15:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 15:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 15:35	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 15:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 15:35	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 15:35	1

Client Sample ID: TB-ROX-041822-8260
Date Collected: 04/18/22 00:01
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 15:35	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 15:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 15:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 15:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 15:35	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 15:35	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 15:35	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 15:35	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 15:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 15:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 15:35	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 15:35	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 15:35	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 15:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 15:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 15:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 15:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 15:35	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 15:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 15:35	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*04/20/22 15:35*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/20/22 15:35*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/20/22 15:35*	*1*

Client Sample ID: TB-ROX-041822-8011
Date Collected: 04/18/22 00:01
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/22/22 13:54	04/23/22 01:02	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/22/22 13:54	04/23/22 01:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*51 - 149*	*04/22/22 13:54*	*04/23/22 01:02*	*1*

Client Sample ID: P74-ROX-041822-EB
Date Collected: 04/18/22 08:15
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 16:01	1
Acrolein	ND		20	3.3	ug/L			04/20/22 16:01	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 16:01	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 16:01	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 16:01	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 16:01	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 16:01	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 16:01	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 16:01	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 16:01	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 16:01	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 16:01	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 16:01	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 16:01	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 16:01	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 16:01	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 16:01	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 16:01	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 16:01	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 16:01	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 16:01	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 16:01	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 16:01	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 16:01	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 16:01	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 16:01	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 16:01	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 16:01	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 16:01	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 16:01	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 16:01	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 16:01	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 16:01	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 16:01	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 16:01	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 16:01	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 16:01	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 16:01	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 16:01	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 16:01	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 16:01	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 16:01	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 16:01	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 16:01	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 16:01	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 16:01	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 16:01	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 16:01	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 16:01	1

Client Sample ID: P74-ROX-041822-EB

Date Collected: 04/18/22 08:15
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 16:01	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 16:01	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 16:01	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 16:01	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 16:01	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 16:01	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 16:01	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 16:01	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 16:01	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 16:01	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 16:01	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 16:01	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 16:01	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 16:01	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 16:01	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 16:01	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 16:01	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 16:01	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 16:01	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 16:01	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*04/20/22 16:01*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/20/22 16:01*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/20/22 16:01*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		04/21/22 09:16	04/28/22 12:48	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/21/22 09:16	04/28/22 12:48	1
Anthracene	ND		0.19	0.030	ug/L		04/21/22 09:16	04/28/22 12:48	1
Benzo[a]anthracene	0.044	J	0.19	0.044	ug/L		04/21/22 09:16	04/28/22 12:48	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/21/22 09:16	04/28/22 12:48	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		04/21/22 09:16	04/28/22 12:48	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/21/22 09:16	04/28/22 12:48	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/21/22 09:16	04/28/22 12:48	1
Chrysene	ND		0.19	0.071	ug/L		04/21/22 09:16	04/28/22 12:48	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/21/22 09:16	04/28/22 12:48	1
Fluoranthene	ND		0.19	0.065	ug/L		04/21/22 09:16	04/28/22 12:48	1
Fluorene	ND		0.19	0.10	ug/L		04/21/22 09:16	04/28/22 12:48	1
Indeno[1,2,3-cd]pyrene	0.063	J	0.19	0.041	ug/L		04/21/22 09:16	04/28/22 12:48	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/21/22 09:16	04/28/22 12:48	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		04/21/22 09:16	04/28/22 12:48	1
Phenanthrene	ND		0.19	0.034	ug/L		04/21/22 09:16	04/28/22 12:48	1
Pyrene	0.065	J	0.19	0.038	ug/L		04/21/22 09:16	04/28/22 12:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*113*		*15 - 122*	*04/21/22 09:16*	*04/28/22 12:48*	*1*
Nitrobenzene-d5	*96*		*19 - 130*	*04/21/22 09:16*	*04/28/22 12:48*	*1*

Client Sample ID: P74-ROX-041822-EB

Date Collected: 04/18/22 08:15
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-3

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*97*		*33 - 138*	*04/21/22 09:16*	*04/28/22 12:48*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		04/21/22 09:16	04/22/22 21:05	1
Benzenethiol	ND	*-	9.5	1.6	ug/L		04/21/22 09:16	04/22/22 21:05	1
Benzoic acid	ND		29	7.0	ug/L		04/21/22 09:16	04/22/22 21:05	1
Benzyl alcohol	ND		9.5	1.9	ug/L		04/21/22 09:16	04/22/22 21:05	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		04/21/22 09:16	04/22/22 21:05	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		04/21/22 09:16	04/22/22 21:05	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		04/21/22 09:16	04/22/22 21:05	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		04/21/22 09:16	04/22/22 21:05	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		04/21/22 09:16	04/22/22 21:05	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		04/21/22 09:16	04/22/22 21:05	1
4-Chloroaniline	ND		9.5	3.2	ug/L		04/21/22 09:16	04/22/22 21:05	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		04/21/22 09:16	04/22/22 21:05	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		04/21/22 09:16	04/22/22 21:05	1
2-Chlorophenol	ND		9.5	2.1	ug/L		04/21/22 09:16	04/22/22 21:05	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		04/21/22 09:16	04/22/22 21:05	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		04/21/22 09:16	04/22/22 21:05	1
Dibenzofuran	ND		9.5	0.16	ug/L		04/21/22 09:16	04/22/22 21:05	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		04/21/22 09:16	04/22/22 21:05	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		04/21/22 09:16	04/22/22 21:05	1
Diethyl phthalate	ND		9.5	0.23	ug/L		04/21/22 09:16	04/22/22 21:05	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		04/21/22 09:16	04/22/22 21:05	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		04/21/22 09:16	04/22/22 21:05	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		04/21/22 09:16	04/22/22 21:05	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		04/21/22 09:16	04/22/22 21:05	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		04/21/22 09:16	04/22/22 21:05	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		04/21/22 09:16	04/22/22 21:05	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		04/21/22 09:16	04/22/22 21:05	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		04/21/22 09:16	04/22/22 21:05	1
1,4-Dioxane	ND		9.5	0.95	ug/L		04/21/22 09:16	04/22/22 21:05	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		04/21/22 09:16	04/22/22 21:05	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		04/21/22 09:16	04/22/22 21:05	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/21/22 09:16	04/22/22 21:05	1
Hexachloroethane	ND		9.5	4.0	ug/L		04/21/22 09:16	04/22/22 21:05	1
Indene	ND		9.5	0.95	ug/L		04/21/22 09:16	04/22/22 21:05	1
Isophorone	ND		9.5	0.13	ug/L		04/21/22 09:16	04/22/22 21:05	1
2-Methylphenol	ND		9.5	1.7	ug/L		04/21/22 09:16	04/22/22 21:05	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/21/22 09:16	04/22/22 21:05	1
2-Nitroaniline	ND		9.5	2.1	ug/L		04/21/22 09:16	04/22/22 21:05	1
3-Nitroaniline	ND		9.5	1.7	ug/L		04/21/22 09:16	04/22/22 21:05	1
4-Nitroaniline	ND		9.5	1.4	ug/L		04/21/22 09:16	04/22/22 21:05	1
Nitrobenzene	ND		9.5	0.12	ug/L		04/21/22 09:16	04/22/22 21:05	1
2-Nitrophenol	ND		9.5	5.0	ug/L		04/21/22 09:16	04/22/22 21:05	1
4-Nitrophenol	ND		9.5	2.0	ug/L		04/21/22 09:16	04/22/22 21:05	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		04/21/22 09:16	04/22/22 21:05	1

Client Sample ID: P74-ROX-041822-EB
Date Collected: 04/18/22 08:15
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		04/21/22 09:16	04/22/22 21:05	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		04/21/22 09:16	04/22/22 21:05	1
Pentachlorophenol	ND		19	1.3	ug/L		04/21/22 09:16	04/22/22 21:05	1
Phenol	ND		9.5	2.5	ug/L		04/21/22 09:16	04/22/22 21:05	1
Pyridine	ND		9.5	3.0	ug/L		04/21/22 09:16	04/22/22 21:05	1
Quinoline	ND		9.5	4.3	ug/L		04/21/22 09:16	04/22/22 21:05	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		04/21/22 09:16	04/22/22 21:05	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		04/21/22 09:16	04/22/22 21:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*04/21/22 09:16*	*04/22/22 21:05*	*1*
2-Fluorophenol	*36*		*13 - 113*	*04/21/22 09:16*	*04/22/22 21:05*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*04/21/22 09:16*	*04/22/22 21:05*	*1*
Phenol-d5	*59*		*17 - 127*	*04/21/22 09:16*	*04/22/22 21:05*	*1*
Terphenyl-d14	*97*		*44 - 149*	*04/21/22 09:16*	*04/22/22 21:05*	*1*
2,4,6-Tribromophenol	*96*		*26 - 150*	*04/21/22 09:16*	*04/22/22 21:05*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.029	0.017	ug/L		04/22/22 13:54	04/23/22 01:22	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/22/22 13:54	04/23/22 01:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*132*		*51 - 149*	*04/22/22 13:54*	*04/23/22 01:22*	*1*

Client Sample ID: P74-ROX-041822
Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 17:19	1
Acrolein	ND		20	3.3	ug/L			04/20/22 17:19	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 17:19	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 17:19	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 17:19	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 17:19	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 17:19	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 17:19	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 17:19	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 17:19	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 17:19	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 17:19	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 17:19	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 17:19	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 17:19	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 17:19	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 17:19	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 17:19	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 17:19	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 17:19	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 17:19	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 17:19	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 17:19	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 17:19	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 17:19	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 17:19	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 17:19	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 17:19	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 17:19	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 17:19	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 17:19	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 17:19	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 17:19	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 17:19	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 17:19	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 17:19	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 17:19	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 17:19	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 17:19	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 17:19	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 17:19	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 17:19	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 17:19	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 17:19	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 17:19	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 17:19	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 17:19	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 17:19	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 17:19	1

Client Sample ID: P74-ROX-041822
Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 17:19	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 17:19	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 17:19	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 17:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 17:19	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 17:19	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 17:19	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 17:19	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 17:19	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 17:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 17:19	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 17:19	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 17:19	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 17:19	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 17:19	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 17:19	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 17:19	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 17:19	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 17:19	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 17:19	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 17:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*04/20/22 17:19*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/20/22 17:19*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/20/22 17:19*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 13:05	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/21/22 09:16	04/28/22 13:05	1
Anthracene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 13:05	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/21/22 09:16	04/28/22 13:05	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/21/22 09:16	04/28/22 13:05	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/21/22 09:16	04/28/22 13:05	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/21/22 09:16	04/28/22 13:05	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/21/22 09:16	04/28/22 13:05	1
Chrysene	ND		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 13:05	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/21/22 09:16	04/28/22 13:05	1
Fluoranthene	ND		0.19	0.066	ug/L		04/21/22 09:16	04/28/22 13:05	1
Fluorene	ND		0.19	0.11	ug/L		04/21/22 09:16	04/28/22 13:05	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/21/22 09:16	04/28/22 13:05	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 13:05	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/21/22 09:16	04/28/22 13:05	1
Phenanthrene	ND		0.19	0.035	ug/L		04/21/22 09:16	04/28/22 13:05	1
Pyrene	ND		0.19	0.039	ug/L		04/21/22 09:16	04/28/22 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*116*		*15 - 122*	*04/21/22 09:16*	*04/28/22 13:05*	*1*
Nitrobenzene-d5	*98*		*19 - 130*	*04/21/22 09:16*	*04/28/22 13:05*	*1*

Client Sample ID: P74-ROX-041822
Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*99*		*33 - 138*	*04/21/22 09:16*	*04/28/22 13:05*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/21/22 09:16	04/22/22 21:26	1
Benzenethiol	ND	*- UJ	9.7	1.6	ug/L		04/21/22 09:16	04/22/22 21:26	1
Benzoic acid	ND		29	7.1	ug/L		04/21/22 09:16	04/22/22 21:26	1
Benzyl alcohol	ND	UJ	9.7	1.9	ug/L		04/21/22 09:16	04/22/22 21:26	1
Bis(2-chloroethoxy)methane	ND		9.7	0.15	ug/L		04/21/22 09:16	04/22/22 21:26	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/21/22 09:16	04/22/22 21:26	1
bis (2-chloroisopropyl) ether	ND		9.7	0.15	ug/L		04/21/22 09:16	04/22/22 21:26	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		04/21/22 09:16	04/22/22 21:26	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/21/22 09:16	04/22/22 21:26	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/21/22 09:16	04/22/22 21:26	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/21/22 09:16	04/22/22 21:26	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/21/22 09:16	04/22/22 21:26	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/21/22 09:16	04/22/22 21:26	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/21/22 09:16	04/22/22 21:26	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/21/22 09:16	04/22/22 21:26	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 21:26	1
Dibenzofuran	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 21:26	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/21/22 09:16	04/22/22 21:26	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/21/22 09:16	04/22/22 21:26	1
Diethyl phthalate	**0.33**	J	9.7	0.23	ug/L		04/21/22 09:16	04/22/22 21:26	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 21:26	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 21:26	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/21/22 09:16	04/22/22 21:26	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.5	ug/L		04/21/22 09:16	04/22/22 21:26	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/21/22 09:16	04/22/22 21:26	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 21:26	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 21:26	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 21:26	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 21:26	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 21:26	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 21:26	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/21/22 09:16	04/22/22 21:26	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/21/22 09:16	04/22/22 21:26	1
Indene	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 21:26	1
Isophorone	ND		9.7	0.14	ug/L		04/21/22 09:16	04/22/22 21:26	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/21/22 09:16	04/22/22 21:26	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/21/22 09:16	04/22/22 21:26	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/21/22 09:16	04/22/22 21:26	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/21/22 09:16	04/22/22 21:26	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/21/22 09:16	04/22/22 21:26	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/21/22 09:16	04/22/22 21:26	1
2-Nitrophenol	ND		9.7	5.0	ug/L		04/21/22 09:16	04/22/22 21:26	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/21/22 09:16	04/22/22 21:26	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 21:26	1

Client Sample ID: P74-ROX-041822
Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/21/22 09:16	04/22/22 21:26	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 21:26	1
Pentachlorophenol	ND		19	1.4	ug/L		04/21/22 09:16	04/22/22 21:26	1
Phenol	ND		9.7	2.5	ug/L		04/21/22 09:16	04/22/22 21:26	1
Pyridine	ND		9.7	3.1	ug/L		04/21/22 09:16	04/22/22 21:26	1
Quinoline	ND		9.7	4.4	ug/L		04/21/22 09:16	04/22/22 21:26	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/21/22 09:16	04/22/22 21:26	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 21:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*70*		*46 - 124*	*04/21/22 09:16*	*04/22/22 21:26*	*1*
2-Fluorophenol	*40*		*13 - 113*	*04/21/22 09:16*	*04/22/22 21:26*	*1*
Nitrobenzene-d5	*77*		*36 - 126*	*04/21/22 09:16*	*04/22/22 21:26*	*1*
Phenol-d5	*56*		*17 - 127*	*04/21/22 09:16*	*04/22/22 21:26*	*1*
Terphenyl-d14	*94*		*44 - 149*	*04/21/22 09:16*	*04/22/22 21:26*	*1*
2,4,6-Tribromophenol	*94*		*26 - 150*	*04/21/22 09:16*	*04/22/22 21:26*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/22/22 13:54	04/23/22 01:42	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/22/22 13:54	04/23/22 01:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*51 - 149*	*04/22/22 13:54*	*04/23/22 01:42*	*1*

Client Sample ID: P74-ROX-041822-DUP

Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 17:44	1
Acrolein	ND		20	3.3	ug/L			04/20/22 17:44	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 17:44	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 17:44	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 17:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 17:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 17:44	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 17:44	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 17:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 17:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 17:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 17:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 17:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 17:44	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 17:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 17:44	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 17:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 17:44	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 17:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 17:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 17:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 17:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 17:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 17:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 17:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 17:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 17:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 17:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 17:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 17:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 17:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 17:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 17:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 17:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 17:44	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 17:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 17:44	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 17:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 17:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 17:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 17:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 17:44	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 17:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 17:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 17:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 17:44	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 17:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 17:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 17:44	1

Client Sample ID: P74-ROX-041822-DUP

Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 17:44	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 17:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 17:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 17:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 17:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 17:44	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 17:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 17:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 17:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 17:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 17:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 17:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 17:44	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 17:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 17:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 17:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 17:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 17:44	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 17:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 17:44	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/20/22 17:44*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*04/20/22 17:44*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/20/22 17:44*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 13:22	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/21/22 09:16	04/28/22 13:22	1
Anthracene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 13:22	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/21/22 09:16	04/28/22 13:22	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/21/22 09:16	04/28/22 13:22	1
Benzo[b]fluoranthene	**0.052**	**J**	0.19	0.033	ug/L		04/21/22 09:16	04/28/22 13:22	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/21/22 09:16	04/28/22 13:22	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		04/21/22 09:16	04/28/22 13:22	1
Chrysene	ND		0.19	0.071	ug/L		04/21/22 09:16	04/28/22 13:22	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/21/22 09:16	04/28/22 13:22	1
Fluoranthene	ND		0.19	0.065	ug/L		04/21/22 09:16	04/28/22 13:22	1
Fluorene	ND		0.19	0.11	ug/L		04/21/22 09:16	04/28/22 13:22	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/21/22 09:16	04/28/22 13:22	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		04/21/22 09:16	04/28/22 13:22	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/21/22 09:16	04/28/22 13:22	1
Phenanthrene	**0.037**	**J**	0.19	0.035	ug/L		04/21/22 09:16	04/28/22 13:22	1
Pyrene	**0.040**	**J U**	0.19	0.038	ug/L		04/21/22 09:16	04/28/22 13:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*112*		*15 - 122*	*04/21/22 09:16*	*04/28/22 13:22*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*04/21/22 09:16*	*04/28/22 13:22*	*1*

Client Sample ID: P74-ROX-041822-DUP

Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-5

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	97		33 - 138	04/21/22 09:16	04/28/22 13:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		04/21/22 09:16	04/22/22 21:46	1
Benzenethiol	ND	*- us	9.6	1.6	ug/L		04/21/22 09:16	04/22/22 21:46	1
Benzoic acid	ND		29	7.0	ug/L		04/21/22 09:16	04/22/22 21:46	1
Benzyl alcohol	ND	us	9.6	1.9	ug/L		04/21/22 09:16	04/22/22 21:46	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		04/21/22 09:16	04/22/22 21:46	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		04/21/22 09:16	04/22/22 21:46	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		04/21/22 09:16	04/22/22 21:46	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		04/21/22 09:16	04/22/22 21:46	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		04/21/22 09:16	04/22/22 21:46	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		04/21/22 09:16	04/22/22 21:46	1
4-Chloroaniline	ND		9.6	3.3	ug/L		04/21/22 09:16	04/22/22 21:46	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		04/21/22 09:16	04/22/22 21:46	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		04/21/22 09:16	04/22/22 21:46	1
2-Chlorophenol	ND		9.6	2.1	ug/L		04/21/22 09:16	04/22/22 21:46	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		04/21/22 09:16	04/22/22 21:46	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		04/21/22 09:16	04/22/22 21:46	1
Dibenzofuran	ND		9.6	0.16	ug/L		04/21/22 09:16	04/22/22 21:46	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		04/21/22 09:16	04/22/22 21:46	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		04/21/22 09:16	04/22/22 21:46	1
Diethyl phthalate	ND		9.6	0.23	ug/L		04/21/22 09:16	04/22/22 21:46	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		04/21/22 09:16	04/22/22 21:46	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		04/21/22 09:16	04/22/22 21:46	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		04/21/22 09:16	04/22/22 21:46	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		04/21/22 09:16	04/22/22 21:46	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/21/22 09:16	04/22/22 21:46	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		04/21/22 09:16	04/22/22 21:46	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		04/21/22 09:16	04/22/22 21:46	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		04/21/22 09:16	04/22/22 21:46	1
1,4-Dioxane	ND		9.6	0.96	ug/L		04/21/22 09:16	04/22/22 21:46	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		04/21/22 09:16	04/22/22 21:46	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		04/21/22 09:16	04/22/22 21:46	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/21/22 09:16	04/22/22 21:46	1
Hexachloroethane	ND		9.6	4.0	ug/L		04/21/22 09:16	04/22/22 21:46	1
Indene	ND		9.6	0.96	ug/L		04/21/22 09:16	04/22/22 21:46	1
Isophorone	ND		9.6	0.13	ug/L		04/21/22 09:16	04/22/22 21:46	1
2-Methylphenol	ND		9.6	1.7	ug/L		04/21/22 09:16	04/22/22 21:46	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		04/21/22 09:16	04/22/22 21:46	1
2-Nitroaniline	ND		9.6	2.1	ug/L		04/21/22 09:16	04/22/22 21:46	1
3-Nitroaniline	ND		9.6	1.7	ug/L		04/21/22 09:16	04/22/22 21:46	1
4-Nitroaniline	ND		9.6	1.4	ug/L		04/21/22 09:16	04/22/22 21:46	1
Nitrobenzene	ND		9.6	0.12	ug/L		04/21/22 09:16	04/22/22 21:46	1
2-Nitrophenol	ND		9.6	5.0	ug/L		04/21/22 09:16	04/22/22 21:46	1
4-Nitrophenol	ND		9.6	2.0	ug/L		04/21/22 09:16	04/22/22 21:46	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		04/21/22 09:16	04/22/22 21:46	1

Client Sample ID: P74-ROX-041822-DUP
Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		04/21/22 09:16	04/22/22 21:46	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		04/21/22 09:16	04/22/22 21:46	1
Pentachlorophenol	ND		19	1.3	ug/L		04/21/22 09:16	04/22/22 21:46	1
Phenol	ND		9.6	2.5	ug/L		04/21/22 09:16	04/22/22 21:46	1
Pyridine	ND		9.6	3.1	ug/L		04/21/22 09:16	04/22/22 21:46	1
Quinoline	ND		9.6	4.3	ug/L		04/21/22 09:16	04/22/22 21:46	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		04/21/22 09:16	04/22/22 21:46	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		04/21/22 09:16	04/22/22 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*61*		*46 - 124*	*04/21/22 09:16*	*04/22/22 21:46*	*1*
2-Fluorophenol	*24*		*13 - 113*	*04/21/22 09:16*	*04/22/22 21:46*	*1*
Nitrobenzene-d5	*66*		*36 - 126*	*04/21/22 09:16*	*04/22/22 21:46*	*1*
Phenol-d5	*49*		*17 - 127*	*04/21/22 09:16*	*04/22/22 21:46*	*1*
Terphenyl-d14	*93*		*44 - 149*	*04/21/22 09:16*	*04/22/22 21:46*	*1*
2,4,6-Tribromophenol	*74*		*26 - 150*	*04/21/22 09:16*	*04/22/22 21:46*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/22/22 13:54	04/23/22 02:23	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/22/22 13:54	04/23/22 02:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*106*		*51 - 149*	*04/22/22 13:54*	*04/23/22 02:23*	*1*

Client Sample ID: P58-ROX-041822
Date Collected: 04/18/22 12:50
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		13000	5000	ug/L			04/20/22 19:02	500
Acrolein	ND		10000	1700	ug/L			04/20/22 19:02	500
Acrylonitrile	ND		5000	1400	ug/L			04/20/22 19:02	500
Bromobenzene	ND		500	270	ug/L			04/20/22 19:02	500
Bromochloromethane	ND		500	110	ug/L			04/20/22 19:02	500
Bromodichloromethane	ND		500	250	ug/L			04/20/22 19:02	500
Bromoform	ND		2500	130	ug/L			04/20/22 19:02	500
Bromomethane	ND		500	490	ug/L			04/20/22 19:02	500
2-Butanone (MEK)	ND		13000	1300	ug/L			04/20/22 19:02	500
Carbon disulfide	ND		500	250	ug/L			04/20/22 19:02	500
Carbon tetrachloride	ND		500	95	ug/L			04/20/22 19:02	500
Chlorobenzene	ND		500	75	ug/L			04/20/22 19:02	500
Dibromochloromethane	ND		500	120	ug/L			04/20/22 19:02	500
Chloroethane	ND		500	380	ug/L			04/20/22 19:02	500
2-Chloroethyl vinyl ether	ND		2500	1000	ug/L			04/20/22 19:02	500
Chloroform	ND		500	500	ug/L			04/20/22 19:02	500
1-Chlorohexane	ND		500	160	ug/L			04/20/22 19:02	500
Chloromethane	ND		500	160	ug/L			04/20/22 19:02	500
cis-1,2-Dichloroethene	ND		500	100	ug/L			04/20/22 19:02	500
cis-1,3-Dichloropropene	ND		2500	250	ug/L			04/20/22 19:02	500
1,2-Dichlorobenzene	ND		500	250	ug/L			04/20/22 19:02	500
1,3-Dichlorobenzene	ND		500	270	ug/L			04/20/22 19:02	500
1,4-Dichlorobenzene	ND		500	320	ug/L			04/20/22 19:02	500
Dichlorodifluoromethane	ND		500	430	ug/L			04/20/22 19:02	500
1,1-Dichloroethane	ND		500	250	ug/L			04/20/22 19:02	500
1,2-Dichloroethane	ND		500	95	ug/L			04/20/22 19:02	500
1,1-Dichloroethene	ND		500	250	ug/L			04/20/22 19:02	500
1,2-Dichloropropane	ND		500	250	ug/L			04/20/22 19:02	500
1,3-Dichloropropane	ND		500	250	ug/L			04/20/22 19:02	500
2,2-Dichloropropane	ND		500	250	ug/L			04/20/22 19:02	500
1,1-Dichloropropene	ND		500	250	ug/L			04/20/22 19:02	500
Ethylbenzene	340	J	500	250	ug/L			04/20/22 19:02	500
Ethyl methacrylate	ND		500	300	ug/L			04/20/22 19:02	500
Hexachlorobutadiene	ND		2500	450	ug/L			04/20/22 19:02	500
2-Hexanone	ND		13000	700	ug/L			04/20/22 19:02	500
Isopropylbenzene	ND		500	270	ug/L			04/20/22 19:02	500
Methylene bromide	ND		2500	110	ug/L			04/20/22 19:02	500
Methylene Chloride	ND		2500	1500	ug/L			04/20/22 19:02	500
4-Methyl-2-pentanone (MIBK)	ND		13000	900	ug/L			04/20/22 19:02	500
Methyl tert-butyl ether	ND		500	110	ug/L			04/20/22 19:02	500
m-Xylene & p-Xylene	ND		2500	320	ug/L			04/20/22 19:02	500
Naphthalene	ND		2500	1500	ug/L			04/20/22 19:02	500
n-Butylbenzene	ND		500	380	ug/L			04/20/22 19:02	500
N-Propylbenzene	ND		500	350	ug/L			04/20/22 19:02	500
o-Chlorotoluene	ND		500	290	ug/L			04/20/22 19:02	500
o-Xylene	ND		2500	300	ug/L			04/20/22 19:02	500
p-Chlorotoluene	ND		500	280	ug/L			04/20/22 19:02	500
p-Isopropyltoluene	ND		500	360	ug/L			04/20/22 19:02	500
sec-Butylbenzene	ND		500	350	ug/L			04/20/22 19:02	500

Client Sample ID: P58-ROX-041822
Date Collected: 04/18/22 12:50
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		500	500	ug/L			04/20/22 19:02	500
tert-Butylbenzene	ND		500	320	ug/L			04/20/22 19:02	500
1,1,1,2-Tetrachloroethane	ND		500	80	ug/L			04/20/22 19:02	500
1,1,2,2-Tetrachloroethane	ND		500	250	ug/L			04/20/22 19:02	500
Tetrachloroethene	ND		500	450	ug/L			04/20/22 19:02	500
Toluene	ND		500	210	ug/L			04/20/22 19:02	500
trans-1,2-Dichloroethene	ND		500	250	ug/L			04/20/22 19:02	500
trans-1,3-Dichloropropene	ND		2500	100	ug/L			04/20/22 19:02	500
1,2,3-Trichlorobenzene	ND		500	450	ug/L			04/20/22 19:02	500
1,2,4-Trichlorobenzene	ND		500	410	ug/L			04/20/22 19:02	500
1,1,1-Trichloroethane	ND		500	90	ug/L			04/20/22 19:02	500
1,1,2-Trichloroethane	ND		2500	110	ug/L			04/20/22 19:02	500
Trichloroethene	ND		500	75	ug/L			04/20/22 19:02	500
Trichlorofluoromethane	ND		500	260	ug/L			04/20/22 19:02	500
1,2,3-Trichloropropane	ND		2500	420	ug/L			04/20/22 19:02	500
1,2,4-Trimethylbenzene	ND		500	410	ug/L			04/20/22 19:02	500
1,3,5-Trimethylbenzene	ND		500	280	ug/L			04/20/22 19:02	500
Vinyl acetate	ND		13000	470	ug/L			04/20/22 19:02	500
Vinyl chloride	ND		500	250	ug/L			04/20/22 19:02	500
Xylenes, Total	ND		5000	800	ug/L			04/20/22 19:02	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 119*		*04/20/22 19:02*	*500*
Dibromofluoromethane	*94*		*75 - 126*		*04/20/22 19:02*	*500*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/20/22 19:02*	*500*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**190000**		2000	260	ug/L			04/21/22 20:09	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/21/22 20:09*	*2000*
Dibromofluoromethane	*97*		*75 - 126*		*04/21/22 20:09*	*2000*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/21/22 20:09*	*2000*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.87**		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 13:40	1
Acenaphthylene	**0.42**		0.19	0.044	ug/L		04/21/22 09:16	04/28/22 13:40	1
Anthracene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 13:40	1
Benzo[a]anthracene	**0.23**		0.19	0.045	ug/L		04/21/22 09:16	04/28/22 13:40	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/21/22 09:16	04/28/22 13:40	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/21/22 09:16	04/28/22 13:40	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/21/22 09:16	04/28/22 13:40	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/21/22 09:16	04/28/22 13:40	1
Chrysene	**0.28**		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 13:40	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		04/21/22 09:16	04/28/22 13:40	1
Fluoranthene	**0.26**		0.19	0.066	ug/L		04/21/22 09:16	04/28/22 13:40	1
Fluorene	**2.0**		0.19	0.11	ug/L		04/21/22 09:16	04/28/22 13:40	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/21/22 09:16	04/28/22 13:40	1

Client Sample ID: P58-ROX-041822
Date Collected: 04/18/22 12:50
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	81		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 13:40	1
2-Methylnaphthalene	36		0.19	0.058	ug/L		04/21/22 09:16	04/28/22 13:40	1
Phenanthrene	1.6		0.19	0.035	ug/L		04/21/22 09:16	04/28/22 13:40	1
Pyrene	0.58		0.19	0.039	ug/L		04/21/22 09:16	04/28/22 13:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*104*		*15 - 122*	*04/21/22 09:16*	*04/28/22 13:40*	*1*
Nitrobenzene-d5	*90*		*19 - 130*	*04/21/22 09:16*	*04/28/22 13:40*	*1*
Terphenyl-d14	*91*		*33 - 138*	*04/21/22 09:16*	*04/28/22 13:40*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/21/22 09:16	04/22/22 22:07	1
Benzenethiol	ND	*- us	9.7	1.7	ug/L		04/21/22 09:16	04/22/22 22:07	1
Benzoic acid	ND		29	7.1	ug/L		04/21/22 09:16	04/22/22 22:07	1
Benzyl alcohol	ND	us	9.7	1.9	ug/L		04/21/22 09:16	04/22/22 22:07	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 22:07	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/21/22 09:16	04/22/22 22:07	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 22:07	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/21/22 09:16	04/22/22 22:07	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/21/22 09:16	04/22/22 22:07	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/21/22 09:16	04/22/22 22:07	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/21/22 09:16	04/22/22 22:07	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/21/22 09:16	04/22/22 22:07	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/21/22 09:16	04/22/22 22:07	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/21/22 09:16	04/22/22 22:07	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/21/22 09:16	04/22/22 22:07	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 22:07	1
Dibenzofuran	1.4	J	9.7	0.17	ug/L		04/21/22 09:16	04/22/22 22:07	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/21/22 09:16	04/22/22 22:07	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/21/22 09:16	04/22/22 22:07	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/21/22 09:16	04/22/22 22:07	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 22:07	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 22:07	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/21/22 09:16	04/22/22 22:07	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		04/21/22 09:16	04/22/22 22:07	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/21/22 09:16	04/22/22 22:07	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 22:07	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 22:07	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 22:07	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 22:07	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 22:07	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 22:07	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/21/22 09:16	04/22/22 22:07	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/21/22 09:16	04/22/22 22:07	1
Indene	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 22:07	1
Isophorone	ND		9.7	0.14	ug/L		04/21/22 09:16	04/22/22 22:07	1
2-Methylphenol	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 22:07	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/21/22 09:16	04/22/22 22:07	1

Client Sample ID: P58-ROX-041822
Date Collected: 04/18/22 12:50
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.7	2.1	ug/L		04/21/22 09:16	04/22/22 22:07	1
3-Nitroaniline	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 22:07	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/21/22 09:16	04/22/22 22:07	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/21/22 09:16	04/22/22 22:07	1
2-Nitrophenol	ND		9.7	5.1	ug/L		04/21/22 09:16	04/22/22 22:07	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/21/22 09:16	04/22/22 22:07	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 22:07	1
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/21/22 09:16	04/22/22 22:07	1
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L		04/21/22 09:16	04/22/22 22:07	1
Pentachlorophenol	ND		19	1.4	ug/L		04/21/22 09:16	04/22/22 22:07	1
Pyridine	ND		9.7	3.1	ug/L		04/21/22 09:16	04/22/22 22:07	1
Quinoline	ND		9.7	4.4	ug/L		04/21/22 09:16	04/22/22 22:07	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/21/22 09:16	04/22/22 22:07	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*46 - 124*	*04/21/22 09:16*	*04/22/22 22:07*	*1*
2-Fluorophenol	*25*		*13 - 113*	*04/21/22 09:16*	*04/22/22 22:07*	*1*
Nitrobenzene-d5	*70*		*36 - 126*	*04/21/22 09:16*	*04/22/22 22:07*	*1*
Phenol-d5	*57*		*17 - 127*	*04/21/22 09:16*	*04/22/22 22:07*	*1*
Terphenyl-d14	*74*		*44 - 149*	*04/21/22 09:16*	*04/22/22 22:07*	*1*
2,4,6-Tribromophenol	*120*		*26 - 150*	*04/21/22 09:16*	*04/22/22 22:07*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	600		49	13	ug/L		04/21/22 09:16	04/26/22 14:53	5

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/22/22 13:54	04/23/22 02:43	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/22/22 13:54	04/23/22 02:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*111*		*51 - 149*	*04/22/22 13:54*	*04/23/22 02:43*	*1*

Client Sample ID: P58-ROX-041822-DUP
Date Collected: 04/18/22 12:50
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		13000	5000	ug/L			04/20/22 19:28	500
Acrolein	ND		10000	1700	ug/L			04/20/22 19:28	500
Acrylonitrile	ND		5000	1400	ug/L			04/20/22 19:28	500
Bromobenzene	ND		500	270	ug/L			04/20/22 19:28	500
Bromochloromethane	ND		500	110	ug/L			04/20/22 19:28	500
Bromodichloromethane	ND		500	250	ug/L			04/20/22 19:28	500
Bromoform	ND		2500	130	ug/L			04/20/22 19:28	500
Bromomethane	ND		500	490	ug/L			04/20/22 19:28	500
2-Butanone (MEK)	ND		13000	1300	ug/L			04/20/22 19:28	500
Carbon disulfide	ND		500	250	ug/L			04/20/22 19:28	500
Carbon tetrachloride	ND		500	95	ug/L			04/20/22 19:28	500
Chlorobenzene	ND		500	75	ug/L			04/20/22 19:28	500
Dibromochloromethane	ND		500	120	ug/L			04/20/22 19:28	500
Chloroethane	ND		500	380	ug/L			04/20/22 19:28	500
2-Chloroethyl vinyl ether	ND		2500	1000	ug/L			04/20/22 19:28	500
Chloroform	ND		500	500	ug/L			04/20/22 19:28	500
1-Chlorohexane	ND		500	160	ug/L			04/20/22 19:28	500
Chloromethane	ND		500	160	ug/L			04/20/22 19:28	500
cis-1,2-Dichloroethene	ND		500	100	ug/L			04/20/22 19:28	500
cis-1,3-Dichloropropene	ND		2500	250	ug/L			04/20/22 19:28	500
1,2-Dichlorobenzene	ND		500	250	ug/L			04/20/22 19:28	500
1,3-Dichlorobenzene	ND		500	270	ug/L			04/20/22 19:28	500
1,4-Dichlorobenzene	ND		500	320	ug/L			04/20/22 19:28	500
Dichlorodifluoromethane	ND		500	430	ug/L			04/20/22 19:28	500
1,1-Dichloroethane	ND		500	250	ug/L			04/20/22 19:28	500
1,2-Dichloroethane	ND		500	95	ug/L			04/20/22 19:28	500
1,1-Dichloroethene	ND		500	250	ug/L			04/20/22 19:28	500
1,2-Dichloropropane	ND		500	250	ug/L			04/20/22 19:28	500
1,3-Dichloropropane	ND		500	250	ug/L			04/20/22 19:28	500
2,2-Dichloropropane	ND		500	250	ug/L			04/20/22 19:28	500
1,1-Dichloropropene	ND		500	250	ug/L			04/20/22 19:28	500
Ethylbenzene	430	J	500	250	ug/L			04/20/22 19:28	500
Ethyl methacrylate	ND		500	300	ug/L			04/20/22 19:28	500
Hexachlorobutadiene	ND		2500	450	ug/L			04/20/22 19:28	500
2-Hexanone	ND		13000	700	ug/L			04/20/22 19:28	500
Isopropylbenzene	ND		500	270	ug/L			04/20/22 19:28	500
Methylene bromide	ND		2500	110	ug/L			04/20/22 19:28	500
Methylene Chloride	ND		2500	1500	ug/L			04/20/22 19:28	500
4-Methyl-2-pentanone (MIBK)	ND		13000	900	ug/L			04/20/22 19:28	500
Methyl tert-butyl ether	ND		500	110	ug/L			04/20/22 19:28	500
m-Xylene & p-Xylene	ND		2500	320	ug/L			04/20/22 19:28	500
Naphthalene	ND		2500	1500	ug/L			04/20/22 19:28	500
n-Butylbenzene	ND		500	380	ug/L			04/20/22 19:28	500
N-Propylbenzene	ND		500	350	ug/L			04/20/22 19:28	500
o-Chlorotoluene	ND		500	290	ug/L			04/20/22 19:28	500
o-Xylene	ND		2500	300	ug/L			04/20/22 19:28	500
p-Chlorotoluene	ND		500	280	ug/L			04/20/22 19:28	500
p-Isopropyltoluene	ND		500	360	ug/L			04/20/22 19:28	500
sec-Butylbenzene	ND		500	350	ug/L			04/20/22 19:28	500

Client Sample ID: P58-ROX-041822-DUP
Date Collected: 04/18/22 12:50
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		500	500	ug/L			04/20/22 19:28	500
tert-Butylbenzene	ND		500	320	ug/L			04/20/22 19:28	500
1,1,1,2-Tetrachloroethane	ND		500	80	ug/L			04/20/22 19:28	500
1,1,2,2-Tetrachloroethane	ND		500	250	ug/L			04/20/22 19:28	500
Tetrachloroethene	ND		500	450	ug/L			04/20/22 19:28	500
Toluene	ND		500	210	ug/L			04/20/22 19:28	500
trans-1,2-Dichloroethene	ND		500	250	ug/L			04/20/22 19:28	500
trans-1,3-Dichloropropene	ND		2500	100	ug/L			04/20/22 19:28	500
1,2,3-Trichlorobenzene	ND		500	450	ug/L			04/20/22 19:28	500
1,2,4-Trichlorobenzene	ND		500	410	ug/L			04/20/22 19:28	500
1,1,1-Trichloroethane	ND		500	90	ug/L			04/20/22 19:28	500
1,1,2-Trichloroethane	ND		2500	110	ug/L			04/20/22 19:28	500
Trichloroethene	ND		500	75	ug/L			04/20/22 19:28	500
Trichlorofluoromethane	ND		500	260	ug/L			04/20/22 19:28	500
1,2,3-Trichloropropane	ND		2500	420	ug/L			04/20/22 19:28	500
1,2,4-Trimethylbenzene	ND		500	410	ug/L			04/20/22 19:28	500
1,3,5-Trimethylbenzene	ND		500	280	ug/L			04/20/22 19:28	500
Vinyl acetate	ND		13000	470	ug/L			04/20/22 19:28	500
Vinyl chloride	ND		500	250	ug/L			04/20/22 19:28	500
Xylenes, Total	ND		5000	800	ug/L			04/20/22 19:28	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 119*		*04/20/22 19:28*	*500*
Dibromofluoromethane	*97*		*75 - 126*		*04/20/22 19:28*	*500*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/20/22 19:28*	*500*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**210000**		2000	260	ug/L			04/21/22 20:36	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/21/22 20:36*	*2000*
Dibromofluoromethane	*97*		*75 - 126*		*04/21/22 20:36*	*2000*
Toluene-d8 (Surr)	*99*		*64 - 132*		*04/21/22 20:36*	*2000*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.70**		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 13:57	1
Acenaphthylene	**0.39**		0.19	0.044	ug/L		04/21/22 09:16	04/28/22 13:57	1
Anthracene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 13:57	1
Benzo[a]anthracene	**0.19**		0.19	0.045	ug/L		04/21/22 09:16	04/28/22 13:57	1
Benzo[a]pyrene	**0.21**		0.19	0.041	ug/L		04/21/22 09:16	04/28/22 13:57	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/21/22 09:16	04/28/22 13:57	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/21/22 09:16	04/28/22 13:57	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/21/22 09:16	04/28/22 13:57	1
Chrysene	**0.24**		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 13:57	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/21/22 09:16	04/28/22 13:57	1
Fluoranthene	**0.22**		0.19	0.066	ug/L		04/21/22 09:16	04/28/22 13:57	1
Fluorene	**1.6**		0.19	0.11	ug/L		04/21/22 09:16	04/28/22 13:57	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/21/22 09:16	04/28/22 13:57	1

Client Sample ID: P58-ROX-041822-DUP
Date Collected: 04/18/22 12:50
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-7
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	81		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 13:57	1
2-Methylnaphthalene	35		0.19	0.058	ug/L		04/21/22 09:16	04/28/22 13:57	1
Phenanthrene	1.4		0.19	0.035	ug/L		04/21/22 09:16	04/28/22 13:57	1
Pyrene	0.53		0.19	0.039	ug/L		04/21/22 09:16	04/28/22 13:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*103*		*15 - 122*	*04/21/22 09:16*	*04/28/22 13:57*	*1*
Nitrobenzene-d5	*87*		*19 - 130*	*04/21/22 09:16*	*04/28/22 13:57*	*1*
Terphenyl-d14	*88*		*33 - 138*	*04/21/22 09:16*	*04/28/22 13:57*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/21/22 09:16	04/22/22 22:27	1
Benzenethiol	ND	*- UJ	9.7	1.6	ug/L		04/21/22 09:16	04/22/22 22:27	1
Benzoic acid	ND		29	7.1	ug/L		04/21/22 09:16	04/22/22 22:27	1
Benzyl alcohol	ND	UJ	9.7	1.9	ug/L		04/21/22 09:16	04/22/22 22:27	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 22:27	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/21/22 09:16	04/22/22 22:27	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 22:27	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		04/21/22 09:16	04/22/22 22:27	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/21/22 09:16	04/22/22 22:27	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/21/22 09:16	04/22/22 22:27	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/21/22 09:16	04/22/22 22:27	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/21/22 09:16	04/22/22 22:27	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/21/22 09:16	04/22/22 22:27	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/21/22 09:16	04/22/22 22:27	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/21/22 09:16	04/22/22 22:27	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 22:27	1
Dibenzofuran	1.6	J	9.7	0.16	ug/L		04/21/22 09:16	04/22/22 22:27	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/21/22 09:16	04/22/22 22:27	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/21/22 09:16	04/22/22 22:27	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/21/22 09:16	04/22/22 22:27	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 22:27	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 22:27	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/21/22 09:16	04/22/22 22:27	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		04/21/22 09:16	04/22/22 22:27	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/21/22 09:16	04/22/22 22:27	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 22:27	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 22:27	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 22:27	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 22:27	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 22:27	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 22:27	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/21/22 09:16	04/22/22 22:27	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/21/22 09:16	04/22/22 22:27	1
Indene	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 22:27	1
Isophorone	ND		9.7	0.14	ug/L		04/21/22 09:16	04/22/22 22:27	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/21/22 09:16	04/22/22 22:27	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/21/22 09:16	04/22/22 22:27	1

Client Sample ID: P58-ROX-041822-DUP
Date Collected: 04/18/22 12:50
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.7	2.1	ug/L		04/21/22 09:16	04/22/22 22:27	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/21/22 09:16	04/22/22 22:27	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/21/22 09:16	04/22/22 22:27	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/21/22 09:16	04/22/22 22:27	1
2-Nitrophenol	ND		9.7	5.0	ug/L		04/21/22 09:16	04/22/22 22:27	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/21/22 09:16	04/22/22 22:27	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 22:27	1
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/21/22 09:16	04/22/22 22:27	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 22:27	1
Pentachlorophenol	ND		19	1.4	ug/L		04/21/22 09:16	04/22/22 22:27	1
Pyridine	ND		9.7	3.1	ug/L		04/21/22 09:16	04/22/22 22:27	1
Quinoline	ND		9.7	4.4	ug/L		04/21/22 09:16	04/22/22 22:27	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/21/22 09:16	04/22/22 22:27	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 22:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*04/21/22 09:16*	*04/22/22 22:27*	*1*
2-Fluorophenol	*37*		*13 - 113*	*04/21/22 09:16*	*04/22/22 22:27*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*04/21/22 09:16*	*04/22/22 22:27*	*1*
Phenol-d5	*66*		*17 - 127*	*04/21/22 09:16*	*04/22/22 22:27*	*1*
Terphenyl-d14	*77*		*44 - 149*	*04/21/22 09:16*	*04/22/22 22:27*	*1*
2,4,6-Tribromophenol	*126*		*26 - 150*	*04/21/22 09:16*	*04/22/22 22:27*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	670		48	13	ug/L		04/21/22 09:16	04/26/22 15:15	5

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		04/20/22 13:18	04/21/22 14:31	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/20/22 13:18	04/21/22 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*128*		*51 - 149*	*04/20/22 13:18*	*04/21/22 14:31*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218624-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218624-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218624-1	TB-ROX-041822-8260	102	101	95
400-218624-3	P74-ROX-041822-EB	104	100	94
400-218624-4	P74-ROX-041822	104	101	95
400-218624-5	P74-ROX-041822-DUP	107	103	95
400-218624-6	P58-ROX-041822	103	94	96
400-218624-6 - DL	P58-ROX-041822	98	97	97
400-218624-7	P58-ROX-041822-DUP	103	97	96
400-218624-7 - DL	P58-ROX-041822-DUP	98	97	99
LCS 400-574531/1002	Lab Control Sample	102	101	94
LCS 400-574675/1002	Lab Control Sample	97	100	97
MB 400-574531/4	Method Blank	107	102	95
MB 400-574675/4	Method Blank	99	105	98

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218624-3	P74-ROX-041822-EB	67	36	74	59	97	96
400-218624-4	P74-ROX-041822	70	40	77	56	94	94
400-218624-5	P74-ROX-041822-DUP	61	24	66	49	93	74
400-218624-6	P58-ROX-041822	64	25	70	57	74	120
400-218624-7	P58-ROX-041822-DUP	67	37	72	66	77	126
LCS 400-574677/2-A	Lab Control Sample	75	38	64	60	96	115
LCS 400-574677/4-A	Lab Control Sample	65	36	73	58	99	64
LCSD 400-574677/3-A	Lab Control Sample Dup	74	20	65	54	92	116
LCSD 400-574677/5-A	Lab Control Sample Dup	72	37	75	59	109	66
MB 400-574677/1-A	Method Blank	67	16	74	48	102	78

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218624-3	P74-ROX-041822-EB	113	96	97
400-218624-4	P74-ROX-041822	116	98	99

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218624-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218624-5	P74-ROX-041822-DUP	112	94	97
400-218624-6	P58-ROX-041822	104	90	91
400-218624-7	P58-ROX-041822-DUP	103	87	88
LCS 400-574677/2-A	Lab Control Sample	102	81	104
LCSD 400-574677/3-A	Lab Control Sample Dup	102	70	103
MB 400-574677/1-A	Method Blank	110	90	105

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-218624-2	TB-ROX-041822-8011	105
400-218624-3	P74-ROX-041822-EB	132
400-218624-4	P74-ROX-041822	112
400-218624-5	P74-ROX-041822-DUP	106
400-218624-6	P58-ROX-041822	111
400-218624-7	P58-ROX-041822-DUP	128
LCS 400-574592/2-A	Lab Control Sample	122
LCS 400-574945/2-A	Lab Control Sample	109
LCSD 400-574592/3-A	Lab Control Sample Dup	105
MB 400-574592/1-A	Method Blank	110
MB 400-574945/1-A	Method Blank	138

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218624-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218624-1

Client Sample ID: TB-ROX-041822-8260

Date Collected: 04/18/22 00:01
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 15:35	BPO	TAL PEN

Client Sample ID: TB-ROX-041822-8011

Date Collected: 04/18/22 00:01
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.1 mL	35 mL	574945	04/22/22 13:54	DS	TAL PEN
Total/NA	Analysis	8011		1			574996	04/23/22 01:02	DS	TAL PEN

Client Sample ID: P74-ROX-041822-EB

Date Collected: 04/18/22 08:15
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 16:01	BPO	TAL PEN
Total/NA	Prep	3520C			262.4 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 21:05	S1B	TAL PEN
Total/NA	Prep	3520C			262.4 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 12:48	KJA	TAL PEN
Total/NA	Prep	8011			35.6 mL	35 mL	574945	04/22/22 13:54	DS	TAL PEN
Total/NA	Analysis	8011		1			574996	04/23/22 01:22	DS	TAL PEN

Client Sample ID: P74-ROX-041822

Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 17:19	BPO	TAL PEN
Total/NA	Prep	3520C			258.6 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 21:26	S1B	TAL PEN
Total/NA	Prep	3520C			258.6 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 13:05	KJA	TAL PEN
Total/NA	Prep	8011			35.1 mL	35 mL	574945	04/22/22 13:54	DS	TAL PEN
Total/NA	Analysis	8011		1			574996	04/23/22 01:42	DS	TAL PEN

Client Sample ID: P74-ROX-041822-DUP

Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 17:44	BPO	TAL PEN
Total/NA	Prep	3520C			260.4 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 21:46	S1B	TAL PEN

Client Sample ID: P74-ROX-041822-DUP

Date Collected: 04/18/22 10:30
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			260.4 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 13:22	KJA	TAL PEN
Total/NA	Prep	8011			35 mL	35 mL	574945	04/22/22 13:54	DS	TAL PEN
Total/NA	Analysis	8011		1			574996	04/23/22 02:23	DS	TAL PEN

Client Sample ID: P58-ROX-041822

Date Collected: 04/18/22 12:50
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		500	5 mL	5 mL	574531	04/20/22 19:02	BPO	TAL PEN
Total/NA	Analysis	8260B	DL	2000	5 mL	5 mL	574675	04/21/22 20:09	AGW	TAL PEN
Total/NA	Prep	3520C			256.8 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 22:07	S1B	TAL PEN
Total/NA	Prep	3520C	DL		256.8 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D	DL	5			575278	04/26/22 14:53	VC1	TAL PEN
Total/NA	Prep	3520C			256.8 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 13:40	KJA	TAL PEN
Total/NA	Prep	8011			35.2 mL	35 mL	574945	04/22/22 13:54	DS	TAL PEN
Total/NA	Analysis	8011		1			574996	04/23/22 02:43	DS	TAL PEN

Client Sample ID: P58-ROX-041822-DUP

Date Collected: 04/18/22 12:50
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218624-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		500	5 mL	5 mL	574531	04/20/22 19:28	BPO	TAL PEN
Total/NA	Analysis	8260B	DL	2000	5 mL	5 mL	574675	04/21/22 20:36	AGW	TAL PEN
Total/NA	Prep	3520C			257.8 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 22:27	S1B	TAL PEN
Total/NA	Prep	3520C	DL		257.8 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D	DL	5			575278	04/26/22 15:15	VC1	TAL PEN
Total/NA	Prep	3520C			257.8 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 13:57	KJA	TAL PEN
Total/NA	Prep	8011			33.8 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 14:31	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574531/4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 10:50	BPO	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574592/1-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 12:28	DS	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574675/4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574675	04/21/22 10:30	AGW	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574677/1-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 17:59	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 11:57	KJA	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574945/1-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574945	04/22/22 13:54	DS	TAL PEN
Total/NA	Analysis	8011		1			574996	04/22/22 18:54	DS	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574531/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 09:48	BPO	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574592/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 12:49	DS	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574675/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574675	04/21/22 09:30	AGW	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574677/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 18:19	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575577	04/28/22 12:14	KJA	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574677/4-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 19:01	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574945/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574945	04/22/22 13:54	DS	TAL PEN
Total/NA	Analysis	8011		1			574996	04/22/22 19:14	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-574592/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 13:09	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-574677/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 18:40	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575577	04/28/22 12:31	KJA	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-574677/5-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 19:22	S1B	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218624-1

GC/MS VOA

Analysis Batch: 574531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218624-1	TB-ROX-041822-8260	Total/NA	Water	8260B	
400-218624-3	P74-ROX-041822-EB	Total/NA	Water	8260B	
400-218624-4	P74-ROX-041822	Total/NA	Water	8260B	
400-218624-5	P74-ROX-041822-DUP	Total/NA	Water	8260B	
400-218624-6	P58-ROX-041822	Total/NA	Water	8260B	
400-218624-7	P58-ROX-041822-DUP	Total/NA	Water	8260B	
MB 400-574531/4	Method Blank	Total/NA	Water	8260B	
LCS 400-574531/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 574675

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218624-6 - DL	P58-ROX-041822	Total/NA	Water	8260B	
400-218624-7 - DL	P58-ROX-041822-DUP	Total/NA	Water	8260B	
MB 400-574675/4	Method Blank	Total/NA	Water	8260B	
LCS 400-574675/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 574677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218624-3	P74-ROX-041822-EB	Total/NA	Water	3520C	
400-218624-4	P74-ROX-041822	Total/NA	Water	3520C	
400-218624-5	P74-ROX-041822-DUP	Total/NA	Water	3520C	
400-218624-6	P58-ROX-041822	Total/NA	Water	3520C	
400-218624-6 - DL	P58-ROX-041822	Total/NA	Water	3520C	
400-218624-7	P58-ROX-041822-DUP	Total/NA	Water	3520C	
400-218624-7 - DL	P58-ROX-041822-DUP	Total/NA	Water	3520C	
MB 400-574677/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-574677/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-574677/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 574934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218624-3	P74-ROX-041822-EB	Total/NA	Water	8270D	574677
400-218624-4	P74-ROX-041822	Total/NA	Water	8270D	574677
400-218624-5	P74-ROX-041822-DUP	Total/NA	Water	8270D	574677
400-218624-6	P58-ROX-041822	Total/NA	Water	8270D	574677
400-218624-7	P58-ROX-041822-DUP	Total/NA	Water	8270D	574677
MB 400-574677/1-A	Method Blank	Total/NA	Water	8270D	574677
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	8270D	574677
LCS 400-574677/4-A	Lab Control Sample	Total/NA	Water	8270D	574677
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	574677
LCSD 400-574677/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	574677

Analysis Batch: 575278

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218624-6 - DL	P58-ROX-041822	Total/NA	Water	8270D	574677
400-218624-7 - DL	P58-ROX-041822-DUP	Total/NA	Water	8270D	574677

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218624-1

GC/MS Semi VOA

Analysis Batch: 575577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218624-3	P74-ROX-041822-EB	Total/NA	Water	8270D LL	574677
400-218624-4	P74-ROX-041822	Total/NA	Water	8270D LL	574677
400-218624-5	P74-ROX-041822-DUP	Total/NA	Water	8270D LL	574677
400-218624-6	P58-ROX-041822	Total/NA	Water	8270D LL	574677
400-218624-7	P58-ROX-041822-DUP	Total/NA	Water	8270D LL	574677
MB 400-574677/1-A	Method Blank	Total/NA	Water	8270D LL	574677
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	8270D LL	574677
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	574677

GC Semi VOA

Prep Batch: 574592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218624-7	P58-ROX-041822-DUP	Total/NA	Water	8011	
MB 400-574592/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-574592/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-574592/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 574723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218624-7	P58-ROX-041822-DUP	Total/NA	Water	8011	574592
MB 400-574592/1-A	Method Blank	Total/NA	Water	8011	574592
LCS 400-574592/2-A	Lab Control Sample	Total/NA	Water	8011	574592
LCSD 400-574592/3-A	Lab Control Sample Dup	Total/NA	Water	8011	574592

Prep Batch: 574945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218624-2	TB-ROX-041822-8011	Total/NA	Water	8011	
400-218624-3	P74-ROX-041822-EB	Total/NA	Water	8011	
400-218624-4	P74-ROX-041822	Total/NA	Water	8011	
400-218624-5	P74-ROX-041822-DUP	Total/NA	Water	8011	
400-218624-6	P58-ROX-041822	Total/NA	Water	8011	
MB 400-574945/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-574945/2-A	Lab Control Sample	Total/NA	Water	8011	

Analysis Batch: 574996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218624-2	TB-ROX-041822-8011	Total/NA	Water	8011	574945
400-218624-3	P74-ROX-041822-EB	Total/NA	Water	8011	574945
400-218624-4	P74-ROX-041822	Total/NA	Water	8011	574945
400-218624-5	P74-ROX-041822-DUP	Total/NA	Water	8011	574945
400-218624-6	P58-ROX-041822	Total/NA	Water	8011	574945
MB 400-574945/1-A	Method Blank	Total/NA	Water	8011	574945
LCS 400-574945/2-A	Lab Control Sample	Total/NA	Water	8011	574945

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574531/4
Matrix: Water
Analysis Batch: 574531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 10:50	1
Acrolein	ND		20	3.3	ug/L			04/20/22 10:50	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 10:50	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 10:50	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 10:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 10:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 10:50	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 10:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 10:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 10:50	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 10:50	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 10:50	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 10:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 10:50	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 10:50	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 10:50	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 10:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 10:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 10:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 10:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 10:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 10:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 10:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 10:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 10:50	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 10:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 10:50	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 10:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 10:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 10:50	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 10:50	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 10:50	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 10:50	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 10:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 10:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 10:50	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 10:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 10:50	1

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

Lab Sample ID: MB 400-574531/4
Matrix: Water
Analysis Batch: 574531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 10:50	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 10:50	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 10:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 10:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 10:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 10:50	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 10:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 10:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 10:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 10:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 10:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 10:50	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 10:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 10:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 10:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 10:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 10:50	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 10:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/20/22 10:50*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/20/22 10:50*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/20/22 10:50*	*1*

Lab Sample ID: LCS 400-574531/1002
Matrix: Water
Analysis Batch: 574531

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	212		ug/L		106	43 - 160
Acrolein	500	484		ug/L		97	38 - 160
Acrylonitrile	500	556		ug/L		111	64 - 142
Benzene	50.0	53.2		ug/L		106	70 - 130
Bromobenzene	50.0	49.6		ug/L		99	70 - 132
Bromochloromethane	50.0	53.5		ug/L		107	70 - 130
Bromodichloromethane	50.0	48.9		ug/L		98	67 - 133
Bromoform	50.0	47.1		ug/L		94	57 - 140
Bromomethane	50.0	40.6		ug/L		81	10 - 160
2-Butanone (MEK)	200	204		ug/L		102	61 - 145
Carbon disulfide	50.0	55.8		ug/L		112	61 - 137
Carbon tetrachloride	50.0	45.5		ug/L		91	61 - 137
Chlorobenzene	50.0	50.4		ug/L		101	70 - 130
Dibromochloromethane	50.0	48.3		ug/L		97	67 - 135
Chloroethane	50.0	46.0		ug/L		92	55 - 141

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

Lab Sample ID: LCS 400-574531/1002
Matrix: Water
Analysis Batch: 574531

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	57.4		ug/L		115	10 - 160
Chloroform	50.0	49.4		ug/L		99	69 - 130
1-Chlorohexane	50.0	48.5		ug/L		97	69 - 130
Chloromethane	50.0	48.2		ug/L		96	58 - 137
cis-1,2-Dichloroethene	50.0	50.0		ug/L		100	68 - 130
cis-1,3-Dichloropropene	50.0	50.8		ug/L		102	69 - 132
1,2-Dichlorobenzene	50.0	46.9		ug/L		94	67 - 130
1,3-Dichlorobenzene	50.0	47.2		ug/L		94	70 - 130
1,4-Dichlorobenzene	50.0	48.0		ug/L		96	70 - 130
Dichlorodifluoromethane	50.0	32.7		ug/L		65	41 - 146
1,1-Dichloroethane	50.0	51.3		ug/L		103	70 - 130
1,2-Dichloroethane	50.0	42.9		ug/L		86	69 - 130
1,1-Dichloroethene	50.0	52.5		ug/L		105	63 - 134
1,2-Dichloropropane	50.0	50.9		ug/L		102	70 - 130
1,3-Dichloropropane	50.0	48.9		ug/L		98	70 - 130
2,2-Dichloropropane	50.0	37.7		ug/L		75	52 - 135
1,1-Dichloropropene	50.0	50.7		ug/L		101	70 - 130
Ethylbenzene	50.0	48.7		ug/L		97	70 - 130
Ethyl methacrylate	50.0	48.0		ug/L		96	68 - 130
Hexachlorobutadiene	50.0	56.2		ug/L		112	53 - 140
2-Hexanone	200	180		ug/L		90	65 - 137
Isopropylbenzene	50.0	48.8		ug/L		98	70 - 130
Methylene bromide	50.0	49.1		ug/L		98	70 - 130
Methylene Chloride	50.0	55.8		ug/L		112	66 - 135
4-Methyl-2-pentanone (MIBK)	200	191		ug/L		95	69 - 138
Methyl tert-butyl ether	50.0	46.2		ug/L		92	66 - 130
m-Xylene & p-Xylene	50.0	48.5		ug/L		97	70 - 130
Naphthalene	50.0	48.2		ug/L		96	47 - 149
n-Butylbenzene	50.0	47.0		ug/L		94	67 - 130
N-Propylbenzene	50.0	48.6		ug/L		97	70 - 130
o-Chlorotoluene	50.0	47.4		ug/L		95	70 - 130
o-Xylene	50.0	46.8		ug/L		94	70 - 130
p-Chlorotoluene	50.0	48.4		ug/L		97	70 - 130
p-Isopropyltoluene	50.0	46.4		ug/L		93	65 - 130
sec-Butylbenzene	50.0	48.0		ug/L		96	66 - 130
Styrene	50.0	48.7		ug/L		97	70 - 130
tert-Butylbenzene	50.0	43.7		ug/L		87	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.2		ug/L		92	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.5		ug/L		97	70 - 131
Tetrachloroethene	50.0	49.8		ug/L		100	65 - 130
Toluene	50.0	49.4		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	54.0		ug/L		108	70 - 130
trans-1,3-Dichloropropene	50.0	44.5		ug/L		89	63 - 130
1,2,3-Trichlorobenzene	50.0	51.3		ug/L		103	60 - 138
1,2,4-Trichlorobenzene	50.0	51.5		ug/L		103	60 - 140
1,1,1-Trichloroethane	50.0	45.6		ug/L		91	68 - 130
1,1,2-Trichloroethane	50.0	49.4		ug/L		99	70 - 130
Trichloroethene	50.0	54.1		ug/L		108	70 - 130
Trichlorofluoromethane	50.0	42.4		ug/L		85	65 - 138

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

Lab Sample ID: LCS 400-574531/1002
Matrix: Water
Analysis Batch: 574531

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	48.1		ug/L		96	70 - 130
1,2,4-Trimethylbenzene	50.0	47.0		ug/L		94	70 - 130
1,3,5-Trimethylbenzene	50.0	47.4		ug/L		95	69 - 130
Vinyl acetate	100	113		ug/L		113	26 - 160
Vinyl chloride	50.0	48.0		ug/L		96	59 - 136
Xylenes, Total	100	95.3		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*94*		*64 - 132*

Lab Sample ID: MB 400-574675/4
Matrix: Water
Analysis Batch: 574675

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.13	ug/L			04/21/22 10:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/21/22 10:30*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*04/21/22 10:30*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*04/21/22 10:30*	*1*

Lab Sample ID: LCS 400-574675/1002
Matrix: Water
Analysis Batch: 574675

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	50.0	56.0		ug/L		112	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 119*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzenethiol	ND		10	1.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzoic acid	ND		30	7.3	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzyl alcohol	ND		10	2.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/21/22 09:16	04/22/22 17:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/21/22 09:16	04/22/22 17:59	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chloroaniline	ND		10	3.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Chlorophenol	ND		10	2.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dibenzofuran	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Diethyl phthalate	ND		10	0.24	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/22/22 17:59	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
1,4-Dioxane	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachloroethane	ND		10	4.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
Indene	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Isophorone	ND		10	0.14	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Methylphenol	ND		10	1.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Nitroaniline	ND		10	2.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
3-Nitroaniline	ND		10	1.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Nitroaniline	ND		10	1.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
Nitrobenzene	ND		10	0.13	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Nitrophenol	ND		10	5.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Nitrophenol	ND		10	2.1	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/21/22 09:16	04/22/22 17:59	1
Pentachlorophenol	ND		20	1.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
Phenol	ND		10	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
Pyridine	ND		10	3.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
Quinoline	ND		10	4.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	67		46 - 124	04/21/22 09:16	04/22/22 17:59	1
2-Fluorophenol	16		13 - 113	04/21/22 09:16	04/22/22 17:59	1
Nitrobenzene-d5	74		36 - 126	04/21/22 09:16	04/22/22 17:59	1
Phenol-d5	48		17 - 127	04/21/22 09:16	04/22/22 17:59	1
Terphenyl-d14	102		44 - 149	04/21/22 09:16	04/22/22 17:59	1
2,4,6-Tribromophenol	78		26 - 150	04/21/22 09:16	04/22/22 17:59	1

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	79.3		ug/L		66	21 - 120
Benzoic acid	498	219		ug/L		44	10 - 144
Benzyl alcohol	120	64.5		ug/L		54	28 - 120
Bis(2-chloroethoxy)methane	120	65.2		ug/L		54	47 - 120
Bis(2-chloroethyl)ether	120	68.0		ug/L		57	44 - 120
bis (2-chloroisopropyl) ether	120	99.5		ug/L		83	33 - 121
Bis(2-ethylhexyl) phthalate	120	90.0		ug/L		75	52 - 147
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122
Butyl benzyl phthalate	120	90.7		ug/L		76	54 - 133
4-Chloroaniline	120	81.0		ug/L		67	26 - 120
4-Chloro-3-methylphenol	120	78.1		ug/L		65	48 - 131
2-Chloronaphthalene	120	89.7		ug/L		75	52 - 121
2-Chlorophenol	120	72.5		ug/L		60	40 - 120
4-Chlorophenyl phenyl ether	120	96.0		ug/L		80	56 - 125
Dibenz[a,h]acridine	120	119		ug/L		99	31 - 150
Dibenzofuran	120	91.0		ug/L		76	56 - 122
3,3'-Dichlorobenzidine	160	189		ug/L		118	36 - 132
2,4-Dichlorophenol	120	72.7		ug/L		61	49 - 120
Diethyl phthalate	120	101		ug/L		84	50 - 137
2,4-Dimethylphenol	120	73.6		ug/L		61	48 - 120
Dimethyl phthalate	120	92.5		ug/L		77	57 - 124
Di-n-butyl phthalate	120	108		ug/L		90	58 - 126
4,6-Dinitro-ortho-cresol	240	199		ug/L		83	23 - 148
2,4-Dinitrophenol	240	177		ug/L		74	10 - 150
2,4-Dinitrotoluene	120	88.8		ug/L		74	54 - 142
2,6-Dinitrotoluene	120	84.2		ug/L		70	55 - 130
Di-n-octyl phthalate	120	92.2		ug/L		77	57 - 138
1,4-Dioxane	120	67.5		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	98.9		ug/L		82	45 - 124
Hexachlorobenzene	120	144		ug/L		120	52 - 129
Hexachlorocyclopentadiene	120	73.4		ug/L		61	10 - 134
Hexachloroethane	120	85.5		ug/L		71	20 - 120
Indene	120	88.5		ug/L		74	49 - 120
Isophorone	120	69.8		ug/L		58	48 - 120
2-Methylphenol	120	84.1		ug/L		70	46 - 124
3 & 4 Methylphenol	120	84.0		ug/L		70	45 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitroaniline	120	94.1		ug/L		78	51 - 145
3-Nitroaniline	120	83.7		ug/L		70	37 - 127
4-Nitroaniline	120	115		ug/L		96	36 - 137
Nitrobenzene	120	72.3		ug/L		60	45 - 120
2-Nitrophenol	120	68.5		ug/L		57	40 - 124
4-Nitrophenol	240	243		ug/L		101	23 - 146
N-Nitrosodimethylamine	120	123		ug/L		103	29 - 137
N-Nitrosodi-n-propylamine	120	97.2		ug/L		81	45 - 120
N-Nitrosodiphenylamine	119	92.3		ug/L		77	54 - 120
Pentachlorophenol	240	191		ug/L		80	31 - 130
Phenol	120	73.0		ug/L		61	11 - 120
Pyridine	240	141		ug/L		59	16 - 120
Quinoline	120	93.1		ug/L		78	49 - 130
2,4,5-Trichlorophenol	120	93.3		ug/L		78	51 - 136
2,4,6-Trichlorophenol	120	92.3		ug/L		77	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*60*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*115*		*26 - 150*

Lab Sample ID: LCS 400-574677/4-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	6.05	J *-	ug/L		5	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*65*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*58*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*64*		*26 - 150*

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	76.8		ug/L		64	21 - 120	3	30
Benzoic acid	498	201		ug/L		40	10 - 144	8	30
Benzyl alcohol	120	60.3		ug/L		50	28 - 120	7	30
Bis(2-chloroethoxy)methane	120	66.8		ug/L		56	47 - 120	2	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-chloroethyl)ether	120	73.5		ug/L		61	44 - 120	8	30
bis (2-chloroisopropyl) ether	120	102		ug/L		85	33 - 121	2	30
Bis(2-ethylhexyl) phthalate	120	92.6		ug/L		77	52 - 147	3	30
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122	1	30
Butyl benzyl phthalate	120	90.1		ug/L		75	54 - 133	1	30
4-Chloroaniline	120	77.1		ug/L		64	26 - 120	5	30
4-Chloro-3-methylphenol	120	86.1		ug/L		72	48 - 131	10	30
2-Chloronaphthalene	120	91.5		ug/L		76	52 - 121	2	30
2-Chlorophenol	120	59.9		ug/L		50	40 - 120	19	30
4-Chlorophenyl phenyl ether	120	99.5		ug/L		83	56 - 125	4	30
Dibenz[a,h]acridine	120	127		ug/L		106	31 - 150	6	30
Dibenzofuran	120	93.4		ug/L		78	56 - 122	3	30
3,3'-Dichlorobenzidine	160	187		ug/L		117	36 - 132	1	30
2,4-Dichlorophenol	120	72.6		ug/L		60	49 - 120	0	30
Diethyl phthalate	120	108		ug/L		90	50 - 137	7	30
2,4-Dimethylphenol	120	74.7		ug/L		62	48 - 120	2	30
Dimethyl phthalate	120	97.9		ug/L		82	57 - 124	6	30
Di-n-butyl phthalate	120	112		ug/L		93	58 - 126	3	30
4,6-Dinitro-ortho-cresol	240	215		ug/L		90	23 - 148	8	30
2,4-Dinitrophenol	240	189		ug/L		79	10 - 150	6	30
2,4-Dinitrotoluene	120	90.0		ug/L		75	54 - 142	1	30
2,6-Dinitrotoluene	120	87.0		ug/L		72	55 - 130	3	30
Di-n-octyl phthalate	120	95.7		ug/L		80	57 - 138	4	30
1,4-Dioxane	120	79.7		ug/L		66	31 - 120	17	30
1,2-Diphenylhydrazine (as Azobenzene)	120	101		ug/L		84	45 - 124	2	30
Hexachlorobenzene	120	144		ug/L		120	52 - 129	0	30
Hexachlorocyclopentadiene	120	81.6		ug/L		68	10 - 134	11	30
Hexachloroethane	120	83.2		ug/L		69	20 - 120	3	30
Indene	120	94.4		ug/L		79	49 - 120	6	30
Isophorone	120	71.0		ug/L		59	48 - 120	2	30
2-Methylphenol	120	78.5		ug/L		65	46 - 124	7	30
3 & 4 Methylphenol	120	84.3		ug/L		70	45 - 120	0	30
2-Nitroaniline	120	98.2		ug/L		82	51 - 145	4	30
3-Nitroaniline	120	84.2		ug/L		70	37 - 127	1	30
4-Nitroaniline	120	114		ug/L		95	36 - 137	1	30
Nitrobenzene	120	75.0		ug/L		63	45 - 120	4	30
2-Nitrophenol	120	68.9		ug/L		57	40 - 124	0	30
4-Nitrophenol	240	257		ug/L		107	23 - 146	6	30
N-Nitrosodimethylamine	120	123		ug/L		102	29 - 137	0	30
N-Nitrosodi-n-propylamine	120	97.6		ug/L		81	45 - 120	0	30
N-Nitrosodiphenylamine	119	95.1		ug/L		80	54 - 120	3	30
Pentachlorophenol	240	194		ug/L		81	31 - 130	2	30
Phenol	120	70.1		ug/L		58	11 - 120	4	30
Pyridine	240	122		ug/L		51	16 - 120	14	30
Quinoline	120	93.6		ug/L		78	49 - 130	1	30
2,4,5-Trichlorophenol	120	101		ug/L		84	51 - 136	8	30
2,4,6-Trichlorophenol	120	95.1		ug/L		79	50 - 127	3	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*46 - 124*
2-Fluorophenol	*20*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*54*		*17 - 127*
Terphenyl-d14	*92*		*44 - 149*
2,4,6-Tribromophenol	*116*		*26 - 150*

Lab Sample ID: LCSD 400-574677/5-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	6.02	J *-	ug/L		5	10 - 120	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*37*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*59*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*66*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 11:57	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/21/22 09:16	04/28/22 11:57	1
Anthracene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/21/22 09:16	04/28/22 11:57	1
Chrysene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/28/22 11:57	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/21/22 09:16	04/28/22 11:57	1
Fluoranthene	ND		0.20	0.068	ug/L		04/21/22 09:16	04/28/22 11:57	1
Fluorene	ND		0.20	0.11	ug/L		04/21/22 09:16	04/28/22 11:57	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/21/22 09:16	04/28/22 11:57	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/28/22 11:57	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/21/22 09:16	04/28/22 11:57	1
Phenanthrene	ND		0.20	0.036	ug/L		04/21/22 09:16	04/28/22 11:57	1
Pyrene	ND		0.20	0.040	ug/L		04/21/22 09:16	04/28/22 11:57	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	110		15 - 122	04/21/22 09:16	04/28/22 11:57	1
Nitrobenzene-d5	90		19 - 130	04/21/22 09:16	04/28/22 11:57	1
Terphenyl-d14	105		33 - 138	04/21/22 09:16	04/28/22 11:57	1

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	116		ug/L		96	41 - 120
Acenaphthylene	120	134		ug/L		111	44 - 120
Anthracene	120	128		ug/L		107	49 - 120
Benzo[a]anthracene	120	125		ug/L		104	61 - 135
Benzo[a]pyrene	120	125		ug/L		104	52 - 120
Benzo[b]fluoranthene	120	125		ug/L		104	53 - 134
Benzo[g,h,i]perylene	120	93.0		ug/L		78	47 - 133
Benzo[k]fluoranthene	120	127		ug/L		106	57 - 134
Chrysene	120	122		ug/L		102	55 - 122
Dibenz(a,h)anthracene	120	110		ug/L		92	48 - 146
Fluoranthene	120	134		ug/L		111	54 - 128
Fluorene	120	138		ug/L		115	45 - 125
Indeno[1,2,3-cd]pyrene	120	105		ug/L		87	43 - 142
1-Methylnaphthalene	120	101		ug/L		84	41 - 120
2-Methylnaphthalene	120	93.1		ug/L		78	32 - 124
Phenanthrene	120	127		ug/L		106	48 - 120
Pyrene	120	119		ug/L		99	48 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	102		15 - 122
Nitrobenzene-d5	81		19 - 130
Terphenyl-d14	104		33 - 138

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	120		ug/L		100	41 - 120	4	56
Acenaphthylene	120	140		ug/L		116	44 - 120	4	56
Anthracene	120	128		ug/L		107	49 - 120	0	51
Benzo[a]anthracene	120	128		ug/L		107	61 - 135	2	49
Benzo[a]pyrene	120	130		ug/L		108	52 - 120	4	50
Benzo[b]fluoranthene	120	129		ug/L		107	53 - 134	3	54
Benzo[g,h,i]perylene	120	98.7		ug/L		82	47 - 133	6	50
Benzo[k]fluoranthene	120	131		ug/L		109	57 - 134	3	52
Chrysene	120	128		ug/L		107	55 - 122	5	50
Dibenz(a,h)anthracene	120	117		ug/L		97	48 - 146	6	50
Fluoranthene	120	133		ug/L		111	54 - 128	1	52

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluorene	120	142		ug/L		119	45 - 125	3	56
Indeno[1,2,3-cd]pyrene	120	111		ug/L		93	43 - 142	6	51
1-Methylnaphthalene	120	108		ug/L		90	41 - 120	6	55
2-Methylnaphthalene	120	96.8		ug/L		81	32 - 124	4	57
Phenanthrene	120	129		ug/L		107	48 - 120	1	56
Pyrene	120	118		ug/L		98	48 - 132	1	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*102*		*15 - 122*
Nitrobenzene-d5	*70*		*19 - 130*
Terphenyl-d14	*103*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-574592/1-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/20/22 13:18	04/21/22 12:28	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/20/22 13:18	04/21/22 12:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*51 - 149*	*04/20/22 13:18*	*04/21/22 12:28*	*1*

Lab Sample ID: LCS 400-574592/2-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574592

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.152	*+	ug/L		151	60 - 140
1,2-Dibromoethane	0.101	0.117		ug/L		116	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*122*		*51 - 149*

Lab Sample ID: LCSD 400-574592/3-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574592

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.134	p	ug/L		133	60 - 140	13	30
1,2-Dibromoethane	0.101	0.109		ug/L		108	60 - 140	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-574945/1-A
Matrix: Water
Analysis Batch: 574996

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574945

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/22/22 13:54	04/22/22 18:54	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/22/22 13:54	04/22/22 18:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*138*		*51 - 149*	*04/22/22 13:54*	*04/22/22 18:54*	*1*

Lab Sample ID: LCS 400-574945/2-A
Matrix: Water
Analysis Batch: 574996

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574945

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.158	*+	ug/L		158	60 - 140
1,2-Dibromoethane	0.101	0.113		ug/L		113	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*109*		*51 - 149*

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:

☐ SGW FDG ☐ PIPELINE ☐ RETAIL
☐ CHEMICALS ☐ CONSULTANT ☐ LUBES
☐ TRANSPORTATION ☑ OTHER _ENV. SERVICES_____

Print Bill To Contact Name:	PlaNet Site or Project ID
Melissa Remiger	25278
PO #	**GSAP Project ID**
60674381 – 3.2.2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/18/2022
PAGE: 1 of 1

SAMPLING COMPANY: AECOM
LOG CODE:
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com
TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) _EDD_____
TEMPERATURE ON RECEIPT C° Cooler #1 Cooler #2 Cooler #3

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project/ Task Number: Roxana Quarterly GW 60674381 – 3.2.2
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols
LAB USE ONLY

SPECIAL INSTRUCTIONS OR NOTES :

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

REQUESTED ANALYSIS 60674381 – 3.2.2

FIELD NOTES: 0-0.2.6°C

TEMPERATURE ON RECEIPT C°: 4R9.

Container PID Readings or Laboratory Notes:

Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
TB-ROX-041822-8260	4/18/2022	0000	Water	2					2	X			
TB-ROX-041822-8011	4/18/2022	0000	Water	2					2		X		
P74-ROX-041822-EB	4/18/2022	0815	Water	6			2		8	X	X	X	X
P74-ROX-041822	4/18/2022	1030	Water	6			2		8	X	X	X	X
P74-ROX-041822-DUP	4/18/2022	1030	Water	6			2		8	X	X	X	X
P58-ROX-041822	4/18/2022	1250	Water	6			2		8	X	X	X	X
P58-ROX-041822-DUP	4/18/2022	1250	Water	6			2		8	X	X	X	X

400-218624 COC

4/18/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 1482 3813 0940, 1482 3813 0951	4/18/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4-19-22	Time: 911

CUSTODY SEALS: 1892125, 1892124, 1892127, 1892126

Version: 1Apr22

4/29/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218624-1

Login Number: 218624
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0, 2.6°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218624-1

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218625-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Zachary Neigh

Date Reviewed: 6/14/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041822-8260-SS	TB-ROX-041822-8011-SS
P59-ROX-041822	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated chlorobenzene was detected in trip blank TB-ROX-041822-8260-SS. LCS/LCSD recoveries for benzenethiol and 1,2-dibromo-3-chloropropane were outside evaluation criteria. VOCs and phenol in sample P59-ROX-041822 were diluted to bring target analytes into calibration range of the instrument. The continuing calibration verification for benzyl alcohol was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-041822-8260-SS	VOCs	Chlorobenzene	0.61 µg/L

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-574677/4-A/5-A	SVOCs	Benzenethiol	**5/5**	0	10-120/30
LCS/LCSD 400-574592//2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**151**/133	13	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P59-ROX-041822	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification for benzyl alcohol was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P59-ROX-041822	SVOCs	Benzyl alcohol	**UJ**



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ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218625-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
5/3/2022 1:37:26 PM

Leah Klingensmith, Senior Project Manager
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Links

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Reviewed 6/14/2022 MR

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

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

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

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Job ID: 400-218625-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218625-1

Comments
No additional comments.

Receipt
The samples were received on 4/19/2022 9:11 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.0° C and 2.6° C.

GC/MS VOA
Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: P59-ROX-041822 (400-218625-3). Elevated reporting limits (RLs) are provided.

Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041822-8260-SS (400-218625-1) and P59-ROX-041822 (400-218625-3). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

Method 8260B: The following sample TB-ROX-041822-8260-SS (400-218625-1) contained Chlorobenzene between the method detection limit and the reporting limit. Reanalysis was performed with concurring results.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-574677 and analytical batch 400-574934 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered above the upper control limit for N-Nitrosodimethylamine, 1,4-Dioxane, 4-Nitrophenol, Hexachlorobenzene and 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered above the upper control limit for Dibenz[a,h]acridine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered outside acceptance criteria, low biased, for Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The following sample was diluted due to the nature of the sample matrix: P59-ROX-041822 (400-218625-3). Elevated reporting limits (RLs) are provided.

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

GC Semi VOA
Method 8011: The continuing calibration verification (CCV) associated with batch 400-574723 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) for preparation batch 400-574592 and analytical batch 400-574723 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Job ID: 400-218625-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

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

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

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218625-1	TB-ROX-041822-8260-SS	Water	04/18/22 00:01	04/19/22 09:11
400-218625-2	TB-ROX-041822-8011-SS	Water	04/18/22 00:01	04/19/22 09:11
400-218625-3	P59-ROX-041822	Water	04/18/22 11:25	04/19/22 09:11

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Client Sample ID: TB-ROX-041822-8260-SS

Lab Sample ID: 400-218625-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.61	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-041822-8011-SS

Lab Sample ID: 400-218625-2

No Detections.

Client Sample ID: P59-ROX-041822

Lab Sample ID: 400-218625-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3800		20	2.6	ug/L	20		8260B	Total/NA
Ethylbenzene	350		20	10	ug/L	20		8260B	Total/NA
Isopropylbenzene	54		20	11	ug/L	20		8260B	Total/NA
m-Xylene & p-Xylene	300		100	13	ug/L	20		8260B	Total/NA
Naphthalene	170		100	60	ug/L	20		8260B	Total/NA
N-Propylbenzene	96		20	14	ug/L	20		8260B	Total/NA
Toluene	170		20	8.2	ug/L	20		8260B	Total/NA
1,2,4-Trimethylbenzene	150		20	16	ug/L	20		8260B	Total/NA
1,3,5-Trimethylbenzene	63		20	11	ug/L	20		8260B	Total/NA
Xylenes, Total	310		200	32	ug/L	20		8260B	Total/NA
Acenaphthene	0.40		0.19	0.031	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	19		0.19	0.071	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	26		0.19	0.057	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.88		0.19	0.034	ug/L	1		8270D LL	Total/NA
Phenol	28		19	5.0	ug/L	2		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Client Sample ID: TB-ROX-041822-8260-SS
Date Collected: 04/18/22 00:01
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218625-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 14:17	1
Acrolein	ND		20	3.3	ug/L			04/20/22 14:17	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 14:17	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 14:17	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 14:17	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 14:17	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 14:17	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 14:17	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 14:17	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 14:17	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 14:17	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 14:17	1
Chlorobenzene	0.61	J	1.0	0.15	ug/L			04/20/22 14:17	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 14:17	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 14:17	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 14:17	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 14:17	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 14:17	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 14:17	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 14:17	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 14:17	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 14:17	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 14:17	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 14:17	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 14:17	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 14:17	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 14:17	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 14:17	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 14:17	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 14:17	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 14:17	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 14:17	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 14:17	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 14:17	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 14:17	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 14:17	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 14:17	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 14:17	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 14:17	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 14:17	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 14:17	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 14:17	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 14:17	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 14:17	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 14:17	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 14:17	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 14:17	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 14:17	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 14:17	1

Client Sample ID: TB-ROX-041822-8260-SS

Date Collected: 04/18/22 00:01
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218625-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 14:17	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 14:17	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 14:17	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 14:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 14:17	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 14:17	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 14:17	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 14:17	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 14:17	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 14:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 14:17	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 14:17	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 14:17	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 14:17	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 14:17	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 14:17	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 14:17	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 14:17	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 14:17	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 14:17	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 14:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*72 - 119*		*04/20/22 14:17*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/20/22 14:17*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/20/22 14:17*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Client Sample ID: TB-ROX-041822-8011-SS
Date Collected: 04/18/22 00:01
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218625-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		04/20/22 13:18	04/21/22 14:52	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/20/22 13:18	04/21/22 14:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*119*		*51 - 149*	*04/20/22 13:18*	*04/21/22 14:52*	*1*

Client Sample ID: P59-ROX-041822
Date Collected: 04/18/22 11:25
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218625-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		500	200	ug/L			04/20/22 12:07	20
Acrolein	ND		400	66	ug/L			04/20/22 12:07	20
Acrylonitrile	ND		200	56	ug/L			04/20/22 12:07	20
Benzene	**3800**		20	2.6	ug/L			04/20/22 12:07	20
Bromobenzene	ND		20	11	ug/L			04/20/22 12:07	20
Bromochloromethane	ND		20	4.2	ug/L			04/20/22 12:07	20
Bromodichloromethane	ND		20	10	ug/L			04/20/22 12:07	20
Bromoform	ND		100	5.0	ug/L			04/20/22 12:07	20
Bromomethane	ND		20	20	ug/L			04/20/22 12:07	20
2-Butanone (MEK)	ND		500	52	ug/L			04/20/22 12:07	20
Carbon disulfide	ND		20	10	ug/L			04/20/22 12:07	20
Carbon tetrachloride	ND		20	3.8	ug/L			04/20/22 12:07	20
Chlorobenzene	ND		20	3.0	ug/L			04/20/22 12:07	20
Dibromochloromethane	ND		20	4.8	ug/L			04/20/22 12:07	20
Chloroethane	ND		20	15	ug/L			04/20/22 12:07	20
2-Chloroethyl vinyl ether	ND		100	40	ug/L			04/20/22 12:07	20
Chloroform	ND		20	20	ug/L			04/20/22 12:07	20
1-Chlorohexane	ND		20	6.4	ug/L			04/20/22 12:07	20
Chloromethane	ND		20	6.4	ug/L			04/20/22 12:07	20
cis-1,2-Dichloroethene	ND		20	4.0	ug/L			04/20/22 12:07	20
cis-1,3-Dichloropropene	ND		100	10	ug/L			04/20/22 12:07	20
1,2-Dichlorobenzene	ND		20	10	ug/L			04/20/22 12:07	20
1,3-Dichlorobenzene	ND		20	11	ug/L			04/20/22 12:07	20
1,4-Dichlorobenzene	ND		20	13	ug/L			04/20/22 12:07	20
Dichlorodifluoromethane	ND		20	17	ug/L			04/20/22 12:07	20
1,1-Dichloroethane	ND		20	10	ug/L			04/20/22 12:07	20
1,2-Dichloroethane	ND		20	3.8	ug/L			04/20/22 12:07	20
1,1-Dichloroethene	ND		20	10	ug/L			04/20/22 12:07	20
1,2-Dichloropropane	ND		20	10	ug/L			04/20/22 12:07	20
1,3-Dichloropropane	ND		20	10	ug/L			04/20/22 12:07	20
2,2-Dichloropropane	ND		20	10	ug/L			04/20/22 12:07	20
1,1-Dichloropropene	ND		20	10	ug/L			04/20/22 12:07	20
Ethylbenzene	**350**		20	10	ug/L			04/20/22 12:07	20
Ethyl methacrylate	ND		20	12	ug/L			04/20/22 12:07	20
Hexachlorobutadiene	ND		100	18	ug/L			04/20/22 12:07	20
2-Hexanone	ND		500	28	ug/L			04/20/22 12:07	20
Isopropylbenzene	**54**		20	11	ug/L			04/20/22 12:07	20
Methylene bromide	ND		100	4.4	ug/L			04/20/22 12:07	20
Methylene Chloride	ND		100	60	ug/L			04/20/22 12:07	20
4-Methyl-2-pentanone (MIBK)	ND		500	36	ug/L			04/20/22 12:07	20
Methyl tert-butyl ether	ND		20	4.4	ug/L			04/20/22 12:07	20
m-Xylene & p-Xylene	**300**		100	13	ug/L			04/20/22 12:07	20
Naphthalene	**170**		100	60	ug/L			04/20/22 12:07	20
n-Butylbenzene	ND		20	15	ug/L			04/20/22 12:07	20
N-Propylbenzene	**96**		20	14	ug/L			04/20/22 12:07	20
o-Chlorotoluene	ND		20	11	ug/L			04/20/22 12:07	20
o-Xylene	ND		100	12	ug/L			04/20/22 12:07	20
p-Chlorotoluene	ND		20	11	ug/L			04/20/22 12:07	20
p-Isopropyltoluene	ND		20	14	ug/L			04/20/22 12:07	20

Client Sample ID: P59-ROX-041822

Date Collected: 04/18/22 11:25
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218625-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		20	14	ug/L			04/20/22 12:07	20
Styrene	ND		20	20	ug/L			04/20/22 12:07	20
tert-Butylbenzene	ND		20	13	ug/L			04/20/22 12:07	20
1,1,1,2-Tetrachloroethane	ND		20	3.2	ug/L			04/20/22 12:07	20
1,1,2,2-Tetrachloroethane	ND		20	10	ug/L			04/20/22 12:07	20
Tetrachloroethene	ND		20	18	ug/L			04/20/22 12:07	20
Toluene	**170**		20	8.2	ug/L			04/20/22 12:07	20
trans-1,2-Dichloroethene	ND		20	10	ug/L			04/20/22 12:07	20
trans-1,3-Dichloropropene	ND		100	4.0	ug/L			04/20/22 12:07	20
1,2,3-Trichlorobenzene	ND		20	18	ug/L			04/20/22 12:07	20
1,2,4-Trichlorobenzene	ND		20	16	ug/L			04/20/22 12:07	20
1,1,1-Trichloroethane	ND		20	3.6	ug/L			04/20/22 12:07	20
1,1,2-Trichloroethane	ND		100	4.2	ug/L			04/20/22 12:07	20
Trichloroethene	ND		20	3.0	ug/L			04/20/22 12:07	20
Trichlorofluoromethane	ND		20	10	ug/L			04/20/22 12:07	20
1,2,3-Trichloropropane	ND		100	17	ug/L			04/20/22 12:07	20
1,2,4-Trimethylbenzene	**150**		20	16	ug/L			04/20/22 12:07	20
1,3,5-Trimethylbenzene	**63**		20	11	ug/L			04/20/22 12:07	20
Vinyl acetate	ND		500	19	ug/L			04/20/22 12:07	20
Vinyl chloride	ND		20	10	ug/L			04/20/22 12:07	20
Xylenes, Total	**310**		200	32	ug/L			04/20/22 12:07	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 119*		*04/20/22 12:07*	*20*
Dibromofluoromethane	*98*		*75 - 126*		*04/20/22 12:07*	*20*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/20/22 12:07*	*20*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.40**		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 14:14	1
Acenaphthylene	ND		0.19	0.043	ug/L		04/21/22 09:16	04/28/22 14:14	1
Anthracene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 14:14	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		04/21/22 09:16	04/28/22 14:14	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		04/21/22 09:16	04/28/22 14:14	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		04/21/22 09:16	04/28/22 14:14	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		04/21/22 09:16	04/28/22 14:14	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		04/21/22 09:16	04/28/22 14:14	1
Chrysene	ND		0.19	0.071	ug/L		04/21/22 09:16	04/28/22 14:14	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/21/22 09:16	04/28/22 14:14	1
Fluoranthene	ND		0.19	0.065	ug/L		04/21/22 09:16	04/28/22 14:14	1
Fluorene	ND		0.19	0.10	ug/L		04/21/22 09:16	04/28/22 14:14	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		04/21/22 09:16	04/28/22 14:14	1
1-Methylnaphthalene	**19**		0.19	0.071	ug/L		04/21/22 09:16	04/28/22 14:14	1
2-Methylnaphthalene	**26**		0.19	0.057	ug/L		04/21/22 09:16	04/28/22 14:14	1
Phenanthrene	**0.88**		0.19	0.034	ug/L		04/21/22 09:16	04/28/22 14:14	1
Pyrene	ND		0.19	0.038	ug/L		04/21/22 09:16	04/28/22 14:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*101*		*15 - 122*	*04/21/22 09:16*	*04/28/22 14:14*	*1*
Nitrobenzene-d5	*95*		*19 - 130*	*04/21/22 09:16*	*04/28/22 14:14*	*1*

Client Sample ID: P59-ROX-041822
Date Collected: 04/18/22 11:25
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218625-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*98*		*33 - 138*	*04/21/22 09:16*	*04/28/22 14:14*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		19	7.3	ug/L		04/21/22 09:16	04/22/22 19:42	2
Benzenethiol	ND	*- UJ	19	3.2	ug/L		04/21/22 09:16	04/22/22 19:42	2
Benzoic acid	ND		57	14	ug/L		04/21/22 09:16	04/22/22 19:42	2
Benzyl alcohol	ND	UJ	19	3.8	ug/L		04/21/22 09:16	04/22/22 19:42	2
Bis(2-chloroethoxy)methane	ND		19	0.31	ug/L		04/21/22 09:16	04/22/22 19:42	2
Bis(2-chloroethyl)ether	ND		19	5.2	ug/L		04/21/22 09:16	04/22/22 19:42	2
bis (2-chloroisopropyl) ether	ND		19	0.31	ug/L		04/21/22 09:16	04/22/22 19:42	2
Bis(2-ethylhexyl) phthalate	ND		19	9.5	ug/L		04/21/22 09:16	04/22/22 19:42	2
4-Bromophenyl phenyl ether	ND		19	0.38	ug/L		04/21/22 09:16	04/22/22 19:42	2
Butyl benzyl phthalate	ND		19	0.36	ug/L		04/21/22 09:16	04/22/22 19:42	2
4-Chloroaniline	ND		19	6.5	ug/L		04/21/22 09:16	04/22/22 19:42	2
4-Chloro-3-methylphenol	ND		19	7.3	ug/L		04/21/22 09:16	04/22/22 19:42	2
2-Chloronaphthalene	ND		19	0.27	ug/L		04/21/22 09:16	04/22/22 19:42	2
2-Chlorophenol	ND		19	4.2	ug/L		04/21/22 09:16	04/22/22 19:42	2
4-Chlorophenyl phenyl ether	ND		19	3.8	ug/L		04/21/22 09:16	04/22/22 19:42	2
Dibenz[a,h]acridine	ND		19	1.9	ug/L		04/21/22 09:16	04/22/22 19:42	2
Dibenzofuran	ND		19	0.32	ug/L		04/21/22 09:16	04/22/22 19:42	2
3,3'-Dichlorobenzidine	ND		19	5.0	ug/L		04/21/22 09:16	04/22/22 19:42	2
2,4-Dichlorophenol	ND		19	5.7	ug/L		04/21/22 09:16	04/22/22 19:42	2
Diethyl phthalate	ND		19	0.46	ug/L		04/21/22 09:16	04/22/22 19:42	2
2,4-Dimethylphenol	ND		19	6.7	ug/L		04/21/22 09:16	04/22/22 19:42	2
Dimethyl phthalate	ND		19	0.32	ug/L		04/21/22 09:16	04/22/22 19:42	2
Di-n-butyl phthalate	ND		19	5.2	ug/L		04/21/22 09:16	04/22/22 19:42	2
4,6-Dinitro-ortho-cresol	ND		19	3.1	ug/L		04/21/22 09:16	04/22/22 19:42	2
2,4-Dinitrophenol	ND		57	6.5	ug/L		04/21/22 09:16	04/22/22 19:42	2
2,4-Dinitrotoluene	ND		19	3.6	ug/L		04/21/22 09:16	04/22/22 19:42	2
2,6-Dinitrotoluene	ND		19	3.6	ug/L		04/21/22 09:16	04/22/22 19:42	2
Di-n-octyl phthalate	ND		19	0.32	ug/L		04/21/22 09:16	04/22/22 19:42	2
1,4-Dioxane	ND		19	1.9	ug/L		04/21/22 09:16	04/22/22 19:42	2
1,2-Diphenylhydrazine (as Azobenzene)	ND		19	1.9	ug/L		04/21/22 09:16	04/22/22 19:42	2
Hexachlorobenzene	ND		19	0.32	ug/L		04/21/22 09:16	04/22/22 19:42	2
Hexachlorocyclopentadiene	ND		38	5.0	ug/L		04/21/22 09:16	04/22/22 19:42	2
Hexachloroethane	ND		19	8.0	ug/L		04/21/22 09:16	04/22/22 19:42	2
Indene	ND		19	1.9	ug/L		04/21/22 09:16	04/22/22 19:42	2
Isophorone	ND		19	0.27	ug/L		04/21/22 09:16	04/22/22 19:42	2
2-Methylphenol	ND		19	3.4	ug/L		04/21/22 09:16	04/22/22 19:42	2
3 & 4 Methylphenol	ND		38	0.74	ug/L		04/21/22 09:16	04/22/22 19:42	2
2-Nitroaniline	ND		19	4.2	ug/L		04/21/22 09:16	04/22/22 19:42	2
3-Nitroaniline	ND		19	3.4	ug/L		04/21/22 09:16	04/22/22 19:42	2
4-Nitroaniline	ND		19	2.9	ug/L		04/21/22 09:16	04/22/22 19:42	2
Nitrobenzene	ND		19	0.25	ug/L		04/21/22 09:16	04/22/22 19:42	2
2-Nitrophenol	ND		19	9.9	ug/L		04/21/22 09:16	04/22/22 19:42	2
4-Nitrophenol	ND		19	4.0	ug/L		04/21/22 09:16	04/22/22 19:42	2
N-Nitrosodimethylamine	ND		19	6.7	ug/L		04/21/22 09:16	04/22/22 19:42	2

Client Sample ID: P59-ROX-041822
Date Collected: 04/18/22 11:25
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218625-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		19	6.3	ug/L		04/21/22 09:16	04/22/22 19:42	2
N-Nitrosodiphenylamine	ND		19	0.34	ug/L		04/21/22 09:16	04/22/22 19:42	2
Pentachlorophenol	ND		38	2.7	ug/L		04/21/22 09:16	04/22/22 19:42	2
Phenol	28		19	5.0	ug/L		04/21/22 09:16	04/22/22 19:42	2
Pyridine	ND		19	6.1	ug/L		04/21/22 09:16	04/22/22 19:42	2
Quinoline	ND		19	8.6	ug/L		04/21/22 09:16	04/22/22 19:42	2
2,4,5-Trichlorophenol	ND		19	7.1	ug/L		04/21/22 09:16	04/22/22 19:42	2
2,4,6-Trichlorophenol	ND		19	6.7	ug/L		04/21/22 09:16	04/22/22 19:42	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*60*		*46 - 124*	*04/21/22 09:16*	*04/22/22 19:42*	*2*
2-Fluorophenol	*22*		*13 - 113*	*04/21/22 09:16*	*04/22/22 19:42*	*2*
Nitrobenzene-d5	*71*		*36 - 126*	*04/21/22 09:16*	*04/22/22 19:42*	*2*
Phenol-d5	*50*		*17 - 127*	*04/21/22 09:16*	*04/22/22 19:42*	*2*
Terphenyl-d14	*72*		*44 - 149*	*04/21/22 09:16*	*04/22/22 19:42*	*2*
2,4,6-Tribromophenol	*109*		*26 - 150*	*04/21/22 09:16*	*04/22/22 19:42*	*2*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		04/20/22 13:18	04/21/22 15:13	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/20/22 13:18	04/21/22 15:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*128*		*51 - 149*	*04/20/22 13:18*	*04/21/22 15:13*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

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

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218625-1	TB-ROX-041822-8260-SS	105	100	95
400-218625-3	P59-ROX-041822	103	98	96
LCS 400-574531/1002	Lab Control Sample	102	101	94
MB 400-574531/4	Method Blank	107	102	95

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218625-3	P59-ROX-041822	60	22	71	50	72	109
LCS 400-574677/2-A	Lab Control Sample	75	38	64	60	96	115
LCS 400-574677/4-A	Lab Control Sample	65	36	73	58	99	64
LCSD 400-574677/3-A	Lab Control Sample Dup	74	20	65	54	92	116
LCSD 400-574677/5-A	Lab Control Sample Dup	72	37	75	59	109	66
MB 400-574677/1-A	Method Blank	67	16	74	48	102	78

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218625-3	P59-ROX-041822	101	95	98
LCS 400-574677/2-A	Lab Control Sample	102	81	104
LCSD 400-574677/3-A	Lab Control Sample Dup	102	70	103
MB 400-574677/1-A	Method Blank	110	90	105

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	**Client Sample ID**	**(51-149)**
400-218625-2	TB-ROX-041822-8011-SS	119
400-218625-3	P59-ROX-041822	128
LCS 400-574592/2-A	Lab Control Sample	122
LCSD 400-574592/3-A	Lab Control Sample Dup	105
MB 400-574592/1-A	Method Blank	110

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Client Sample ID: TB-ROX-041822-8260-SS

Date Collected: 04/18/22 00:01
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218625-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 14:17	BPO	TAL PEN

Client Sample ID: TB-ROX-041822-8011-SS

Date Collected: 04/18/22 00:01
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218625-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.8 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 14:52	DS	TAL PEN

Client Sample ID: P59-ROX-041822

Date Collected: 04/18/22 11:25
Date Received: 04/19/22 09:11

Lab Sample ID: 400-218625-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	5 mL	5 mL	574531	04/20/22 12:07	BPO	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		2			574934	04/22/22 19:42	S1B	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 14:14	KJA	TAL PEN
Total/NA	Prep	8011			34.4 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 15:13	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574531/4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 10:50	BPO	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574592/1-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 12:28	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574677/1-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 17:59	S1B	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574677/1-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 11:57	KJA	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574531/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574531	04/20/22 09:48	BPO	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574592/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 12:49	DS	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 18:19	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575577	04/28/22 12:14	KJA	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574677/4-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 19:01	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-574592/3-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	574592	04/20/22 13:18	LHB	TAL PEN
Total/NA	Analysis	8011		1			574723	04/21/22 13:09	DS	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574677/3-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 18:40	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575577	04/28/22 12:31	KJA	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574677/5-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 19:22	S1B	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218625-1

GC/MS VOA

Analysis Batch: 574531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218625-1	TB-ROX-041822-8260-SS	Total/NA	Water	8260B	
400-218625-3	P59-ROX-041822	Total/NA	Water	8260B	
MB 400-574531/4	Method Blank	Total/NA	Water	8260B	
LCS 400-574531/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 574677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218625-3	P59-ROX-041822	Total/NA	Water	3520C	
MB 400-574677/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-574677/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-574677/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 574934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218625-3	P59-ROX-041822	Total/NA	Water	8270D	574677
MB 400-574677/1-A	Method Blank	Total/NA	Water	8270D	574677
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	8270D	574677
LCS 400-574677/4-A	Lab Control Sample	Total/NA	Water	8270D	574677
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	574677
LCSD 400-574677/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	574677

Analysis Batch: 575577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218625-3	P59-ROX-041822	Total/NA	Water	8270D LL	574677
MB 400-574677/1-A	Method Blank	Total/NA	Water	8270D LL	574677
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	8270D LL	574677
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	574677

GC Semi VOA

Prep Batch: 574592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218625-2	TB-ROX-041822-8011-SS	Total/NA	Water	8011	
400-218625-3	P59-ROX-041822	Total/NA	Water	8011	
MB 400-574592/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-574592/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-574592/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 574723

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218625-2	TB-ROX-041822-8011-SS	Total/NA	Water	8011	574592
400-218625-3	P59-ROX-041822	Total/NA	Water	8011	574592
MB 400-574592/1-A	Method Blank	Total/NA	Water	8011	574592
LCS 400-574592/2-A	Lab Control Sample	Total/NA	Water	8011	574592
LCSD 400-574592/3-A	Lab Control Sample Dup	Total/NA	Water	8011	574592

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574531/4
Matrix: Water
Analysis Batch: 574531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/20/22 10:50	1
Acrolein	ND		20	3.3	ug/L			04/20/22 10:50	1
Acrylonitrile	ND		10	2.8	ug/L			04/20/22 10:50	1
Benzene	ND		1.0	0.13	ug/L			04/20/22 10:50	1
Bromobenzene	ND		1.0	0.54	ug/L			04/20/22 10:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/20/22 10:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Bromoform	ND		5.0	0.25	ug/L			04/20/22 10:50	1
Bromomethane	ND		1.0	0.98	ug/L			04/20/22 10:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/20/22 10:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/20/22 10:50	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/20/22 10:50	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/20/22 10:50	1
Chloroethane	ND		1.0	0.76	ug/L			04/20/22 10:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/20/22 10:50	1
Chloroform	ND		1.0	1.0	ug/L			04/20/22 10:50	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/20/22 10:50	1
Chloromethane	ND		1.0	0.32	ug/L			04/20/22 10:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/20/22 10:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/20/22 10:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/20/22 10:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/20/22 10:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/20/22 10:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/20/22 10:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/20/22 10:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/20/22 10:50	1
2-Hexanone	ND		25	1.4	ug/L			04/20/22 10:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/20/22 10:50	1
Methylene bromide	ND		5.0	0.22	ug/L			04/20/22 10:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/20/22 10:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/20/22 10:50	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/20/22 10:50	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/20/22 10:50	1
Naphthalene	ND		5.0	3.0	ug/L			04/20/22 10:50	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/20/22 10:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/20/22 10:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/20/22 10:50	1
o-Xylene	ND		5.0	0.60	ug/L			04/20/22 10:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/20/22 10:50	1

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

Lab Sample ID: MB 400-574531/4
Matrix: Water
Analysis Batch: 574531

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/20/22 10:50	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/20/22 10:50	1
Styrene	ND		1.0	1.0	ug/L			04/20/22 10:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/20/22 10:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/20/22 10:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/20/22 10:50	1
Toluene	ND		1.0	0.41	ug/L			04/20/22 10:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/20/22 10:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/20/22 10:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/20/22 10:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/20/22 10:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/20/22 10:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/20/22 10:50	1
Trichloroethene	ND		1.0	0.15	ug/L			04/20/22 10:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/20/22 10:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/20/22 10:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/20/22 10:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/20/22 10:50	1
Vinyl acetate	ND		25	0.93	ug/L			04/20/22 10:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/20/22 10:50	1
Xylenes, Total	ND		10	1.6	ug/L			04/20/22 10:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*107*		*72 - 119*		*04/20/22 10:50*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/20/22 10:50*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/20/22 10:50*	*1*

Lab Sample ID: LCS 400-574531/1002
Matrix: Water
Analysis Batch: 574531

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	212		ug/L		106	43 - 160
Acrolein	500	484		ug/L		97	38 - 160
Acrylonitrile	500	556		ug/L		111	64 - 142
Benzene	50.0	53.2		ug/L		106	70 - 130
Bromobenzene	50.0	49.6		ug/L		99	70 - 132
Bromochloromethane	50.0	53.5		ug/L		107	70 - 130
Bromodichloromethane	50.0	48.9		ug/L		98	67 - 133
Bromoform	50.0	47.1		ug/L		94	57 - 140
Bromomethane	50.0	40.6		ug/L		81	10 - 160
2-Butanone (MEK)	200	204		ug/L		102	61 - 145
Carbon disulfide	50.0	55.8		ug/L		112	61 - 137
Carbon tetrachloride	50.0	45.5		ug/L		91	61 - 137
Chlorobenzene	50.0	50.4		ug/L		101	70 - 130
Dibromochloromethane	50.0	48.3		ug/L		97	67 - 135
Chloroethane	50.0	46.0		ug/L		92	55 - 141

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

Lab Sample ID: LCS 400-574531/1002
Matrix: Water
Analysis Batch: 574531

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	57.4		ug/L		115	10 - 160
Chloroform	50.0	49.4		ug/L		99	69 - 130
1-Chlorohexane	50.0	48.5		ug/L		97	69 - 130
Chloromethane	50.0	48.2		ug/L		96	58 - 137
cis-1,2-Dichloroethene	50.0	50.0		ug/L		100	68 - 130
cis-1,3-Dichloropropene	50.0	50.8		ug/L		102	69 - 132
1,2-Dichlorobenzene	50.0	46.9		ug/L		94	67 - 130
1,3-Dichlorobenzene	50.0	47.2		ug/L		94	70 - 130
1,4-Dichlorobenzene	50.0	48.0		ug/L		96	70 - 130
Dichlorodifluoromethane	50.0	32.7		ug/L		65	41 - 146
1,1-Dichloroethane	50.0	51.3		ug/L		103	70 - 130
1,2-Dichloroethane	50.0	42.9		ug/L		86	69 - 130
1,1-Dichloroethene	50.0	52.5		ug/L		105	63 - 134
1,2-Dichloropropane	50.0	50.9		ug/L		102	70 - 130
1,3-Dichloropropane	50.0	48.9		ug/L		98	70 - 130
2,2-Dichloropropane	50.0	37.7		ug/L		75	52 - 135
1,1-Dichloropropene	50.0	50.7		ug/L		101	70 - 130
Ethylbenzene	50.0	48.7		ug/L		97	70 - 130
Ethyl methacrylate	50.0	48.0		ug/L		96	68 - 130
Hexachlorobutadiene	50.0	56.2		ug/L		112	53 - 140
2-Hexanone	200	180		ug/L		90	65 - 137
Isopropylbenzene	50.0	48.8		ug/L		98	70 - 130
Methylene bromide	50.0	49.1		ug/L		98	70 - 130
Methylene Chloride	50.0	55.8		ug/L		112	66 - 135
4-Methyl-2-pentanone (MIBK)	200	191		ug/L		95	69 - 138
Methyl tert-butyl ether	50.0	46.2		ug/L		92	66 - 130
m-Xylene & p-Xylene	50.0	48.5		ug/L		97	70 - 130
Naphthalene	50.0	48.2		ug/L		96	47 - 149
n-Butylbenzene	50.0	47.0		ug/L		94	67 - 130
N-Propylbenzene	50.0	48.6		ug/L		97	70 - 130
o-Chlorotoluene	50.0	47.4		ug/L		95	70 - 130
o-Xylene	50.0	46.8		ug/L		94	70 - 130
p-Chlorotoluene	50.0	48.4		ug/L		97	70 - 130
p-Isopropyltoluene	50.0	46.4		ug/L		93	65 - 130
sec-Butylbenzene	50.0	48.0		ug/L		96	66 - 130
Styrene	50.0	48.7		ug/L		97	70 - 130
tert-Butylbenzene	50.0	43.7		ug/L		87	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.2		ug/L		92	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.5		ug/L		97	70 - 131
Tetrachloroethene	50.0	49.8		ug/L		100	65 - 130
Toluene	50.0	49.4		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	54.0		ug/L		108	70 - 130
trans-1,3-Dichloropropene	50.0	44.5		ug/L		89	63 - 130
1,2,3-Trichlorobenzene	50.0	51.3		ug/L		103	60 - 138
1,2,4-Trichlorobenzene	50.0	51.5		ug/L		103	60 - 140
1,1,1-Trichloroethane	50.0	45.6		ug/L		91	68 - 130
1,1,2-Trichloroethane	50.0	49.4		ug/L		99	70 - 130
Trichloroethene	50.0	54.1		ug/L		108	70 - 130
Trichlorofluoromethane	50.0	42.4		ug/L		85	65 - 138

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

Lab Sample ID: LCS 400-574531/1002
Matrix: Water
Analysis Batch: 574531

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	50.0	48.1		ug/L		96	70 - 130
1,2,4-Trimethylbenzene	50.0	47.0		ug/L		94	70 - 130
1,3,5-Trimethylbenzene	50.0	47.4		ug/L		95	69 - 130
Vinyl acetate	100	113		ug/L		113	26 - 160
Vinyl chloride	50.0	48.0		ug/L		96	59 - 136
Xylenes, Total	100	95.3		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*102*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*94*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzenethiol	ND		10	1.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzoic acid	ND		30	7.3	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzyl alcohol	ND		10	2.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/21/22 09:16	04/22/22 17:59	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chloroaniline	ND		10	3.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Chlorophenol	ND		10	2.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dibenzofuran	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Diethyl phthalate	ND		10	0.24	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/22/22 17:59	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
1,4-Dioxane	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachloroethane	ND		10	4.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
Indene	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Isophorone	ND		10	0.14	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Methylphenol	ND		10	1.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Nitroaniline	ND		10	2.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
3-Nitroaniline	ND		10	1.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Nitroaniline	ND		10	1.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
Nitrobenzene	ND		10	0.13	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Nitrophenol	ND		10	5.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Nitrophenol	ND		10	2.1	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/21/22 09:16	04/22/22 17:59	1
Pentachlorophenol	ND		20	1.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
Phenol	ND		10	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
Pyridine	ND		10	3.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
Quinoline	ND		10	4.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
2-Fluorophenol	*16*		*13 - 113*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
Phenol-d5	*48*		*17 - 127*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
Terphenyl-d14	*102*		*44 - 149*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
2,4,6-Tribromophenol	*78*		*26 - 150*	*04/21/22 09:16*	*04/22/22 17:59*	*1*

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	79.3		ug/L		66	21 - 120
Benzoic acid	498	219		ug/L		44	10 - 144
Benzyl alcohol	120	64.5		ug/L		54	28 - 120
Bis(2-chloroethoxy)methane	120	65.2		ug/L		54	47 - 120
Bis(2-chloroethyl)ether	120	68.0		ug/L		57	44 - 120
bis (2-chloroisopropyl) ether	120	99.5		ug/L		83	33 - 121
Bis(2-ethylhexyl) phthalate	120	90.0		ug/L		75	52 - 147
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122
Butyl benzyl phthalate	120	90.7		ug/L		76	54 - 133
4-Chloroaniline	120	81.0		ug/L		67	26 - 120
4-Chloro-3-methylphenol	120	78.1		ug/L		65	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	89.7		ug/L		75	52 - 121
2-Chlorophenol	120	72.5		ug/L		60	40 - 120
4-Chlorophenyl phenyl ether	120	96.0		ug/L		80	56 - 125
Dibenz[a,h]acridine	120	119		ug/L		99	31 - 150
Dibenzofuran	120	91.0		ug/L		76	56 - 122
3,3'-Dichlorobenzidine	160	189		ug/L		118	36 - 132
2,4-Dichlorophenol	120	72.7		ug/L		61	49 - 120
Diethyl phthalate	120	101		ug/L		84	50 - 137
2,4-Dimethylphenol	120	73.6		ug/L		61	48 - 120
Dimethyl phthalate	120	92.5		ug/L		77	57 - 124
Di-n-butyl phthalate	120	108		ug/L		90	58 - 126
4,6-Dinitro-ortho-cresol	240	199		ug/L		83	23 - 148
2,4-Dinitrophenol	240	177		ug/L		74	10 - 150
2,4-Dinitrotoluene	120	88.8		ug/L		74	54 - 142
2,6-Dinitrotoluene	120	84.2		ug/L		70	55 - 130
Di-n-octyl phthalate	120	92.2		ug/L		77	57 - 138
1,4-Dioxane	120	67.5		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	98.9		ug/L		82	45 - 124
Hexachlorobenzene	120	144		ug/L		120	52 - 129
Hexachlorocyclopentadiene	120	73.4		ug/L		61	10 - 134
Hexachloroethane	120	85.5		ug/L		71	20 - 120
Indene	120	88.5		ug/L		74	49 - 120
Isophorone	120	69.8		ug/L		58	48 - 120
2-Methylphenol	120	84.1		ug/L		70	46 - 124
3 & 4 Methylphenol	120	84.0		ug/L		70	45 - 120
2-Nitroaniline	120	94.1		ug/L		78	51 - 145
3-Nitroaniline	120	83.7		ug/L		70	37 - 127
4-Nitroaniline	120	115		ug/L		96	36 - 137
Nitrobenzene	120	72.3		ug/L		60	45 - 120
2-Nitrophenol	120	68.5		ug/L		57	40 - 124
4-Nitrophenol	240	243		ug/L		101	23 - 146
N-Nitrosodimethylamine	120	123		ug/L		103	29 - 137
N-Nitrosodi-n-propylamine	120	97.2		ug/L		81	45 - 120
N-Nitrosodiphenylamine	119	92.3		ug/L		77	54 - 120
Pentachlorophenol	240	191		ug/L		80	31 - 130
Phenol	120	73.0		ug/L		61	11 - 120
Pyridine	240	141		ug/L		59	16 - 120
Quinoline	120	93.1		ug/L		78	49 - 130
2,4,5-Trichlorophenol	120	93.3		ug/L		78	51 - 136
2,4,6-Trichlorophenol	120	92.3		ug/L		77	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*60*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	115		26 - 150

Lab Sample ID: LCS 400-574677/4-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	6.05	J *-	ug/L		5	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	65		46 - 124
2-Fluorophenol	36		13 - 113
Nitrobenzene-d5	73		36 - 126
Phenol-d5	58		17 - 127
Terphenyl-d14	99		44 - 149
2,4,6-Tribromophenol	64		26 - 150

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	76.8		ug/L		64	21 - 120	3	30
Benzoic acid	498	201		ug/L		40	10 - 144	8	30
Benzyl alcohol	120	60.3		ug/L		50	28 - 120	7	30
Bis(2-chloroethoxy)methane	120	66.8		ug/L		56	47 - 120	2	30
Bis(2-chloroethyl)ether	120	73.5		ug/L		61	44 - 120	8	30
bis (2-chloroisopropyl) ether	120	102		ug/L		85	33 - 121	2	30
Bis(2-ethylhexyl) phthalate	120	92.6		ug/L		77	52 - 147	3	30
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122	1	30
Butyl benzyl phthalate	120	90.1		ug/L		75	54 - 133	1	30
4-Chloroaniline	120	77.1		ug/L		64	26 - 120	5	30
4-Chloro-3-methylphenol	120	86.1		ug/L		72	48 - 131	10	30
2-Chloronaphthalene	120	91.5		ug/L		76	52 - 121	2	30
2-Chlorophenol	120	59.9		ug/L		50	40 - 120	19	30
4-Chlorophenyl phenyl ether	120	99.5		ug/L		83	56 - 125	4	30
Dibenz[a,h]acridine	120	127		ug/L		106	31 - 150	6	30
Dibenzofuran	120	93.4		ug/L		78	56 - 122	3	30
3,3'-Dichlorobenzidine	160	187		ug/L		117	36 - 132	1	30
2,4-Dichlorophenol	120	72.6		ug/L		60	49 - 120	0	30
Diethyl phthalate	120	108		ug/L		90	50 - 137	7	30
2,4-Dimethylphenol	120	74.7		ug/L		62	48 - 120	2	30
Dimethyl phthalate	120	97.9		ug/L		82	57 - 124	6	30
Di-n-butyl phthalate	120	112		ug/L		93	58 - 126	3	30
4,6-Dinitro-ortho-cresol	240	215		ug/L		90	23 - 148	8	30
2,4-Dinitrophenol	240	189		ug/L		79	10 - 150	6	30
2,4-Dinitrotoluene	120	90.0		ug/L		75	54 - 142	1	30
2,6-Dinitrotoluene	120	87.0		ug/L		72	55 - 130	3	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate	120	95.7		ug/L		80	57 - 138	4	30
1,4-Dioxane	120	79.7		ug/L		66	31 - 120	17	30
1,2-Diphenylhydrazine (as Azobenzene)	120	101		ug/L		84	45 - 124	2	30
Hexachlorobenzene	120	144		ug/L		120	52 - 129	0	30
Hexachlorocyclopentadiene	120	81.6		ug/L		68	10 - 134	11	30
Hexachloroethane	120	83.2		ug/L		69	20 - 120	3	30
Indene	120	94.4		ug/L		79	49 - 120	6	30
Isophorone	120	71.0		ug/L		59	48 - 120	2	30
2-Methylphenol	120	78.5		ug/L		65	46 - 124	7	30
3 & 4 Methylphenol	120	84.3		ug/L		70	45 - 120	0	30
2-Nitroaniline	120	98.2		ug/L		82	51 - 145	4	30
3-Nitroaniline	120	84.2		ug/L		70	37 - 127	1	30
4-Nitroaniline	120	114		ug/L		95	36 - 137	1	30
Nitrobenzene	120	75.0		ug/L		63	45 - 120	4	30
2-Nitrophenol	120	68.9		ug/L		57	40 - 124	0	30
4-Nitrophenol	240	257		ug/L		107	23 - 146	6	30
N-Nitrosodimethylamine	120	123		ug/L		102	29 - 137	0	30
N-Nitrosodi-n-propylamine	120	97.6		ug/L		81	45 - 120	0	30
N-Nitrosodiphenylamine	119	95.1		ug/L		80	54 - 120	3	30
Pentachlorophenol	240	194		ug/L		81	31 - 130	2	30
Phenol	120	70.1		ug/L		58	11 - 120	4	30
Pyridine	240	122		ug/L		51	16 - 120	14	30
Quinoline	120	93.6		ug/L		78	49 - 130	1	30
2,4,5-Trichlorophenol	120	101		ug/L		84	51 - 136	8	30
2,4,6-Trichlorophenol	120	95.1		ug/L		79	50 - 127	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*46 - 124*
2-Fluorophenol	*20*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*54*		*17 - 127*
Terphenyl-d14	*92*		*44 - 149*
2,4,6-Tribromophenol	*116*		*26 - 150*

Lab Sample ID: LCSD 400-574677/5-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	6.02	J *-	ug/L		5	10 - 120	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*37*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*59*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574677/5-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*66*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 11:57	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/21/22 09:16	04/28/22 11:57	1
Anthracene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/21/22 09:16	04/28/22 11:57	1
Chrysene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/28/22 11:57	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/21/22 09:16	04/28/22 11:57	1
Fluoranthene	ND		0.20	0.068	ug/L		04/21/22 09:16	04/28/22 11:57	1
Fluorene	ND		0.20	0.11	ug/L		04/21/22 09:16	04/28/22 11:57	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/21/22 09:16	04/28/22 11:57	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/28/22 11:57	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/21/22 09:16	04/28/22 11:57	1
Phenanthrene	ND		0.20	0.036	ug/L		04/21/22 09:16	04/28/22 11:57	1
Pyrene	ND		0.20	0.040	ug/L		04/21/22 09:16	04/28/22 11:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/21/22 09:16*	*04/28/22 11:57*	*1*
Nitrobenzene-d5	*90*		*19 - 130*	*04/21/22 09:16*	*04/28/22 11:57*	*1*
Terphenyl-d14	*105*		*33 - 138*	*04/21/22 09:16*	*04/28/22 11:57*	*1*

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	116		ug/L		96	41 - 120
Acenaphthylene	120	134		ug/L		111	44 - 120
Anthracene	120	128		ug/L		107	49 - 120
Benzo[a]anthracene	120	125		ug/L		104	61 - 135
Benzo[a]pyrene	120	125		ug/L		104	52 - 120
Benzo[b]fluoranthene	120	125		ug/L		104	53 - 134
Benzo[g,h,i]perylene	120	93.0		ug/L		78	47 - 133
Benzo[k]fluoranthene	120	127		ug/L		106	57 - 134
Chrysene	120	122		ug/L		102	55 - 122
Dibenz(a,h)anthracene	120	110		ug/L		92	48 - 146
Fluoranthene	120	134		ug/L		111	54 - 128

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	120	138		ug/L		115	45 - 125
Indeno[1,2,3-cd]pyrene	120	105		ug/L		87	43 - 142
1-Methylnaphthalene	120	101		ug/L		84	41 - 120
2-Methylnaphthalene	120	93.1		ug/L		78	32 - 124
Phenanthrene	120	127		ug/L		106	48 - 120
Pyrene	120	119		ug/L		99	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*102*		*15 - 122*
Nitrobenzene-d5	*81*		*19 - 130*
Terphenyl-d14	*104*		*33 - 138*

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	120		ug/L		100	41 - 120	4	56
Acenaphthylene	120	140		ug/L		116	44 - 120	4	56
Anthracene	120	128		ug/L		107	49 - 120	0	51
Benzo[a]anthracene	120	128		ug/L		107	61 - 135	2	49
Benzo[a]pyrene	120	130		ug/L		108	52 - 120	4	50
Benzo[b]fluoranthene	120	129		ug/L		107	53 - 134	3	54
Benzo[g,h,i]perylene	120	98.7		ug/L		82	47 - 133	6	50
Benzo[k]fluoranthene	120	131		ug/L		109	57 - 134	3	52
Chrysene	120	128		ug/L		107	55 - 122	5	50
Dibenz(a,h)anthracene	120	117		ug/L		97	48 - 146	6	50
Fluoranthene	120	133		ug/L		111	54 - 128	1	52
Fluorene	120	142		ug/L		119	45 - 125	3	56
Indeno[1,2,3-cd]pyrene	120	111		ug/L		93	43 - 142	6	51
1-Methylnaphthalene	120	108		ug/L		90	41 - 120	6	55
2-Methylnaphthalene	120	96.8		ug/L		81	32 - 124	4	57
Phenanthrene	120	129		ug/L		107	48 - 120	1	56
Pyrene	120	118		ug/L		98	48 - 132	1	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*102*		*15 - 122*
Nitrobenzene-d5	*70*		*19 - 130*
Terphenyl-d14	*103*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-574592/1-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/20/22 13:18	04/21/22 12:28	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-574592/1-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574592

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/20/22 13:18	04/21/22 12:28	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*51 - 149*	*04/20/22 13:18*	*04/21/22 12:28*	*1*

Lab Sample ID: LCS 400-574592/2-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574592

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.152	*+	ug/L		151	60 - 140
1,2-Dibromoethane	0.101	0.117		ug/L		116	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*122*		*51 - 149*

Lab Sample ID: LCSD 400-574592/3-A
Matrix: Water
Analysis Batch: 574723

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574592

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.134	p	ug/L		133	60 - 140	13	30
1,2-Dibromoethane	0.101	0.109		ug/L		108	60 - 140	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

- ☐ ACCUTEST (_____)
- ☐ CALSCIENCE (_____)
- ☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
- ☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES_____	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/18/22
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM

LOG CODE:

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger

TELEPHONE: 314-429-0100 | FAX: 314-429-0462 | Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) __EDD_____

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

SPLIT REPORT

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA | State: IL

AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.2.2

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions

PHONE NO.: 314-802-1207; 314-802-1122

E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com

AECOM Other ID:

SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols

LAB USE ONLY

REQUESTED ANALYSIS
60674381 – 3.2.2

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL	Container PID Readings or Laboratory Notes:
0535	TB-ROX-041822-8260-SS	4/18/2022	0000	Water	2					2	X				SPLIT REPORT
0535	TB-ROX-041822-8011-SS	4/18/2022	0000	Water	2					2		X			SPLIT REPORT
	P59-ROX-041822	4/18/2022	1125	Water	6			2		8	X	X	X	X	SPLIT REPORT

400-218625 COC

FIELD NOTES: 0.92-6C

TEMPERATURE ON RECEIPT C°: 1R9

Relinquished by: (Signature) MARY MASSA	Received by: (Signature) FEDEX: 1482 3813 0940, 1482 3813 0951	Date: 4/18/2022	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4-19-22	Time: 911

CUSTODY SEALS: 1892125, 1892124, 1892127, 1892126

Version 1Apr22

5/3/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218625-1

Login Number: 218625
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0, 2.6°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Job ID: 400-218625-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218719-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Zachary Neigh

Date Reviewed: 6/14/2022

Guidance: USEPA National Functional Guidelines for Organic Superfund Methods Data Review 2020

Sample Identification	Sample Identification
TB-ROX-041922-8260	TB-ROX-041922-8011
MW4-ROX-041922-EB	MW4-ROX-041922
MW25-ROX-041922	MW8-ROX-041922
MW7-ROX-041922	MW7-ROX-041922-DUP

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated chlorobenzene was detected in trip blank TB-ROX-041922-8260, and benzo[b]fluoranthene was detected in equipment blank MW4-ROX-041922-EB. LCS/LCSD recoveries for benzenethiol and 1,2-dibromo-3-chloropropane were outside evaluation criteria. The PAH surrogate recovery for 2-fluorophenol was outside criteria in samples MW4-ROX-041922 and MW25-ROX-041922. VOCs in samples MW8-ROX-041922 and MW7-ROX-041922 were diluted to bring target analytes into calibration range of the instrument. The continuing calibration verification for benzyl alcohol was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-041922-8260	VOCs	Chlorobenzene	0.65 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
MW4-ROX-041922-EB	PAHs	Benzo[b]fluoranthene	0.053 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW4-ROX-041922	PAHs	Benzo[b]fluoranthene	-	**U**

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-574677/4-A/5-A	SVOCs	Benzenethiol	**5/5**	0	10-120/30
LCS/LCSD 400-575297/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**166/160**	4	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-041922	SVOCs	Benzenethiol	**UJ**
MW25-ROX-041922	SVOCs	Benzenethiol	**UJ**
MW8-ROX-041922	SVOCs	Benzenethiol	**UJ**
MW7-ROX-041922	SVOCs	Benzenethiol	**UJ**
MW7-ROX-041922-DUP	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW4-ROX-041922	SVOCs	2-Fluorophenol	**4**	13-113
MW25-ROX-041922	SVOCs	2-Fluorophenol	**12**	13-113

Qualifications due to surrogate recoveries were not required if only one of three acid surrogate recoveries were outside evaluation criteria. No qualification of data was

required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

Yes

Field ID	Field Duplicate ID
MW7-ROX-041922	MW7-ROX-041922-DUP

Were field duplicates within evaluation criteria?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted with the exception of non-detect VOCs in samples MW8-ROX-041922 and MW7-ROX-041922 to bring benzene into calibration range of the instrument. VOCs were non-detect at a dilution factor of 500X, with raised reporting limits of between 500 and 13,000 µg/L. Due to historical detections, please see section 12.0 of the data review for additional qualifications.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification for benzyl alcohol was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW25-ROX-041922	SVOCs	Benzyl alcohol	**UJ**
MW8-ROX-041922	SVOCs	Benzyl alcohol	**UJ**
MW7-ROX-041922	SVOCs	Benzyl alcohol	**UJ**
MW7-ROX-041922-DUP	SVOCs	Benzyl alcohol	**UJ**

Additionally, analytes in samples MW8-ROX-041922 and MW7-ROX-041922 were qualified as estimated non-detect due to sample dilution and historical detections.

Sample ID	Parameter	Analyte	Qualification
MW8-ROX-041922	VOCs	All non-detects	**UJ**
MW7-ROX-041922	VOCs	All non-detects	**UJ**

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218719-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
4/29/2022 11:48:47 AM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

Reviewed 6/14/2022 MR

LINKS

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

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

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

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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Job ID: 400-218719-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218719-1

Comments
No additional comments.

Receipt
The samples were received on 4/20/2022 8:58 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.0° C and 0.0° C.

GC/MS VOA
Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW8-ROX-041922 (400-218719-6), MW7-ROX-041922 (400-218719-7) and MW7-ROX-041922-DUP (400-218719-8). Elevated reporting limits (RLs) are provided.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041922-8260 (400-218719-1), MW4-ROX-041922-EB (400-218719-3), MW4-ROX-041922 (400-218719-4), MW25-ROX-041922 (400-218719-5), MW8-ROX-041922 (400-218719-6), MW7-ROX-041922 (400-218719-7) and MW7-ROX-041922-DUP (400-218719-8). The requested target analyte list includes 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-574677 and analytical batch 400-574934 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered above the upper control limit for N-Nitrosodimethylamine, 1,4-Dioxane, 4-Nitrophenol, Hexachlorobenzene and 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered above the upper control limit for Dibenz[a,h]acridine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered outside acceptance criteria, low biased, for Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: MW4-ROX-041922 (400-218719-4), MW25-ROX-041922 (400-218719-5). These results have been reported and qualified.

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

GC Semi VOA
Method 8011: The continuing calibration verification (CCV) associated with batch 400-575299 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-575297 and analytical batch 400-575299 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Job ID: 400-218719-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

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

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

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218719-1	TB-ROX-041922-8260	Water	04/19/22 00:01	04/20/22 08:58
400-218719-2	TB-ROX-041922-8011	Water	04/19/22 00:01	04/20/22 08:58
400-218719-3	MW4-ROX-041922-EB	Water	04/19/22 08:30	04/20/22 08:58
400-218719-4	MW4-ROX-041922	Water	04/19/22 09:15	04/20/22 08:58
400-218719-5	MW25-ROX-041922	Water	04/19/22 10:10	04/20/22 08:58
400-218719-6	MW8-ROX-041922	Water	04/19/22 11:00	04/20/22 08:58
400-218719-7	MW7-ROX-041922	Water	04/19/22 12:05	04/20/22 08:58
400-218719-8	MW7-ROX-041922-DUP	Water	04/19/22 12:05	04/20/22 08:58

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Client Sample ID: TB-ROX-041922-8260

Lab Sample ID: 400-218719-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.65	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-041922-8011

Lab Sample ID: 400-218719-2

No Detections.

Client Sample ID: MW4-ROX-041922-EB

Lab Sample ID: 400-218719-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.053	J	0.19	0.033	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW4-ROX-041922

Lab Sample ID: 400-218719-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.90	J	1.0	0.22	ug/L	1		8260B	Total/NA
Toluene	0.82	J	1.0	0.41	ug/L	1		8260B	Total/NA
Benzo[b]fluoranthene	0.11	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.12	J	0.19	0.097	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.17	J	0.19	0.066	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.12	J	0.19	0.042	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	0.086	J	0.19	0.072	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.11	J	0.19	0.035	ug/L	1		8270D LL	Total/NA
Pyrene	0.098	J	0.19	0.039	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW25-ROX-041922

Lab Sample ID: 400-218719-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	13		1.0	0.13	ug/L	1		8260B	Total/NA
Carbon disulfide	3.4		1.0	0.50	ug/L	1		8260B	Total/NA
Benzo[b]fluoranthene	0.067	J	0.20	0.034	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.61	J	10	0.24	ug/L	1		8270D	Total/NA

Client Sample ID: MW8-ROX-041922

Lab Sample ID: 400-218719-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene - DL	350000		2000	260	ug/L	2000		8260B	Total/NA
1-Methylnaphthalene	12		0.19	0.072	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	4.8		0.19	0.058	ug/L	1		8270D LL	Total/NA
Phenol	260		9.7	2.5	ug/L	1		8270D	Total/NA

Client Sample ID: MW7-ROX-041922

Lab Sample ID: 400-218719-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene - DL	820000		10000	1300	ug/L	10000		8260B	Total/NA
Benzo[b]fluoranthene	0.087	J	0.20	0.034	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	1.5		0.20	0.073	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	2.3		0.20	0.059	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.21		0.20	0.036	ug/L	1		8270D LL	Total/NA
Pyrene	0.091	J	0.20	0.040	ug/L	1		8270D LL	Total/NA
Benzoic acid	22	J	30	7.2	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.69	J	9.9	0.24	ug/L	1		8270D	Total/NA
Phenol	82		9.9	2.6	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Client Sample ID: MW7-ROX-041922-DUP

Lab Sample ID: 400-218719-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	240	J	500	210	ug/L	500		8260B	Total/NA
Benzene - DL	950000		5000	650	ug/L	5000		8260B	Total/NA
1-Methylnaphthalene	1.6		0.20	0.073	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	2.1		0.20	0.059	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.24		0.20	0.036	ug/L	1		8270D LL	Total/NA
Benzoic acid	22	J	30	7.2	ug/L	1		8270D	Total/NA
Phenol	84		9.9	2.6	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Client Sample ID: TB-ROX-041922-8260
Date Collected: 04/19/22 00:01
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/22/22 14:48	1
Acrolein	ND		20	3.3	ug/L			04/22/22 14:48	1
Acrylonitrile	ND		10	2.8	ug/L			04/22/22 14:48	1
Benzene	ND		1.0	0.13	ug/L			04/22/22 14:48	1
Bromobenzene	ND		1.0	0.54	ug/L			04/22/22 14:48	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/22/22 14:48	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/22/22 14:48	1
Bromoform	ND		5.0	0.25	ug/L			04/22/22 14:48	1
Bromomethane	ND		1.0	0.98	ug/L			04/22/22 14:48	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/22/22 14:48	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/22/22 14:48	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/22/22 14:48	1
Chlorobenzene	0.65	J	1.0	0.15	ug/L			04/22/22 14:48	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/22/22 14:48	1
Chloroethane	ND		1.0	0.76	ug/L			04/22/22 14:48	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/22/22 14:48	1
Chloroform	ND		1.0	1.0	ug/L			04/22/22 14:48	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/22/22 14:48	1
Chloromethane	ND		1.0	0.32	ug/L			04/22/22 14:48	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/22/22 14:48	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/22/22 14:48	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/22/22 14:48	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/22/22 14:48	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/22/22 14:48	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/22/22 14:48	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/22/22 14:48	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/22/22 14:48	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 14:48	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 14:48	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 14:48	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 14:48	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/22/22 14:48	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/22/22 14:48	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/22/22 14:48	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/22/22 14:48	1
2-Hexanone	ND		25	1.4	ug/L			04/22/22 14:48	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/22/22 14:48	1
Methylene bromide	ND		5.0	0.22	ug/L			04/22/22 14:48	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/22/22 14:48	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/22/22 14:48	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/22/22 14:48	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/22/22 14:48	1
Naphthalene	ND		5.0	3.0	ug/L			04/22/22 14:48	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/22/22 14:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/22/22 14:48	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/22/22 14:48	1
o-Xylene	ND		5.0	0.60	ug/L			04/22/22 14:48	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/22/22 14:48	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/22/22 14:48	1

Client Sample ID: TB-ROX-041922-8260
Date Collected: 04/19/22 00:01
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/22/22 14:48	1
Styrene	ND		1.0	1.0	ug/L			04/22/22 14:48	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/22/22 14:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/22/22 14:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/22/22 14:48	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/22/22 14:48	1
Toluene	ND		1.0	0.41	ug/L			04/22/22 14:48	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 14:48	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/22/22 14:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/22/22 14:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/22/22 14:48	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/22/22 14:48	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/22/22 14:48	1
Trichloroethene	ND		1.0	0.15	ug/L			04/22/22 14:48	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/22/22 14:48	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/22/22 14:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/22/22 14:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/22/22 14:48	1
Vinyl acetate	ND		25	0.93	ug/L			04/22/22 14:48	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/22/22 14:48	1
Xylenes, Total	ND		10	1.6	ug/L			04/22/22 14:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/22/22 14:48*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*04/22/22 14:48*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*04/22/22 14:48*	*1*

Client Sample ID: TB-ROX-041922-8011
Date Collected: 04/19/22 00:01
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/26/22 09:26	04/27/22 00:30	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/26/22 09:26	04/27/22 00:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*120*		*51 - 149*	*04/26/22 09:26*	*04/27/22 00:30*	*1*

Client Sample ID: MW4-ROX-041922-EB
Date Collected: 04/19/22 08:30
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/22/22 15:14	1
Acrolein	ND		20	3.3	ug/L			04/22/22 15:14	1
Acrylonitrile	ND		10	2.8	ug/L			04/22/22 15:14	1
Benzene	ND		1.0	0.13	ug/L			04/22/22 15:14	1
Bromobenzene	ND		1.0	0.54	ug/L			04/22/22 15:14	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/22/22 15:14	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/22/22 15:14	1
Bromoform	ND		5.0	0.25	ug/L			04/22/22 15:14	1
Bromomethane	ND		1.0	0.98	ug/L			04/22/22 15:14	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/22/22 15:14	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/22/22 15:14	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/22/22 15:14	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/22/22 15:14	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/22/22 15:14	1
Chloroethane	ND		1.0	0.76	ug/L			04/22/22 15:14	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/22/22 15:14	1
Chloroform	ND		1.0	1.0	ug/L			04/22/22 15:14	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/22/22 15:14	1
Chloromethane	ND		1.0	0.32	ug/L			04/22/22 15:14	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/22/22 15:14	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/22/22 15:14	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/22/22 15:14	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/22/22 15:14	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/22/22 15:14	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/22/22 15:14	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/22/22 15:14	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/22/22 15:14	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 15:14	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 15:14	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 15:14	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 15:14	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/22/22 15:14	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/22/22 15:14	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/22/22 15:14	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/22/22 15:14	1
2-Hexanone	ND		25	1.4	ug/L			04/22/22 15:14	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/22/22 15:14	1
Methylene bromide	ND		5.0	0.22	ug/L			04/22/22 15:14	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/22/22 15:14	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/22/22 15:14	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/22/22 15:14	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/22/22 15:14	1
Naphthalene	ND		5.0	3.0	ug/L			04/22/22 15:14	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/22/22 15:14	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/22/22 15:14	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/22/22 15:14	1
o-Xylene	ND		5.0	0.60	ug/L			04/22/22 15:14	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/22/22 15:14	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/22/22 15:14	1

Client Sample ID: MW4-ROX-041922-EB
Date Collected: 04/19/22 08:30
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/22/22 15:14	1
Styrene	ND		1.0	1.0	ug/L			04/22/22 15:14	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/22/22 15:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/22/22 15:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/22/22 15:14	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/22/22 15:14	1
Toluene	ND		1.0	0.41	ug/L			04/22/22 15:14	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 15:14	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/22/22 15:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/22/22 15:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/22/22 15:14	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/22/22 15:14	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/22/22 15:14	1
Trichloroethene	ND		1.0	0.15	ug/L			04/22/22 15:14	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/22/22 15:14	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/22/22 15:14	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/22/22 15:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/22/22 15:14	1
Vinyl acetate	ND		25	0.93	ug/L			04/22/22 15:14	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/22/22 15:14	1
Xylenes, Total	ND		10	1.6	ug/L			04/22/22 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*04/22/22 15:14*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/22/22 15:14*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*04/22/22 15:14*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 15:23	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/21/22 09:16	04/28/22 15:23	1
Anthracene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 15:23	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/21/22 09:16	04/28/22 15:23	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/21/22 09:16	04/28/22 15:23	1
Benzo[b]fluoranthene	**0.053**	J	0.19	0.033	ug/L		04/21/22 09:16	04/28/22 15:23	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/21/22 09:16	04/28/22 15:23	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/21/22 09:16	04/28/22 15:23	1
Chrysene	ND		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 15:23	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		04/21/22 09:16	04/28/22 15:23	1
Fluoranthene	ND		0.19	0.066	ug/L		04/21/22 09:16	04/28/22 15:23	1
Fluorene	ND		0.19	0.11	ug/L		04/21/22 09:16	04/28/22 15:23	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/21/22 09:16	04/28/22 15:23	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 15:23	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/21/22 09:16	04/28/22 15:23	1
Phenanthrene	ND		0.19	0.035	ug/L		04/21/22 09:16	04/28/22 15:23	1
Pyrene	ND		0.19	0.039	ug/L		04/21/22 09:16	04/28/22 15:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*102*		*15 - 122*	*04/21/22 09:16*	*04/28/22 15:23*	*1*
Nitrobenzene-d5	*85*		*19 - 130*	*04/21/22 09:16*	*04/28/22 15:23*	*1*

Client Sample ID: MW4-ROX-041922-EB

Date Collected: 04/19/22 08:30
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-3

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*96*		*33 - 138*	*04/21/22 09:16*	*04/28/22 15:23*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/21/22 09:16	04/22/22 23:50	1
Benzenethiol	ND	*-	9.7	1.7	ug/L		04/21/22 09:16	04/22/22 23:50	1
Benzoic acid	ND		29	7.1	ug/L		04/21/22 09:16	04/22/22 23:50	1
Benzyl alcohol	ND		9.7	1.9	ug/L		04/21/22 09:16	04/22/22 23:50	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 23:50	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/21/22 09:16	04/22/22 23:50	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 23:50	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/21/22 09:16	04/22/22 23:50	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/21/22 09:16	04/22/22 23:50	1
Butyl benzyl phthalate	ND		9.7	0.19	ug/L		04/21/22 09:16	04/22/22 23:50	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/21/22 09:16	04/22/22 23:50	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/21/22 09:16	04/22/22 23:50	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/21/22 09:16	04/22/22 23:50	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/21/22 09:16	04/22/22 23:50	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/21/22 09:16	04/22/22 23:50	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 23:50	1
Dibenzofuran	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 23:50	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/21/22 09:16	04/22/22 23:50	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/21/22 09:16	04/22/22 23:50	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/21/22 09:16	04/22/22 23:50	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 23:50	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 23:50	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/21/22 09:16	04/22/22 23:50	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		04/21/22 09:16	04/22/22 23:50	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/21/22 09:16	04/22/22 23:50	1
2,4-Dinitrotoluene	ND		9.7	1.9	ug/L		04/21/22 09:16	04/22/22 23:50	1
2,6-Dinitrotoluene	ND		9.7	1.9	ug/L		04/21/22 09:16	04/22/22 23:50	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 23:50	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 23:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 23:50	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 23:50	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/21/22 09:16	04/22/22 23:50	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/21/22 09:16	04/22/22 23:50	1
Indene	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 23:50	1
Isophorone	ND		9.7	0.14	ug/L		04/21/22 09:16	04/22/22 23:50	1
2-Methylphenol	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 23:50	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/21/22 09:16	04/22/22 23:50	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/21/22 09:16	04/22/22 23:50	1
3-Nitroaniline	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 23:50	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/21/22 09:16	04/22/22 23:50	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/21/22 09:16	04/22/22 23:50	1
2-Nitrophenol	ND		9.7	5.1	ug/L		04/21/22 09:16	04/22/22 23:50	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/21/22 09:16	04/22/22 23:50	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 23:50	1

Client Sample ID: MW4-ROX-041922-EB
Date Collected: 04/19/22 08:30
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/21/22 09:16	04/22/22 23:50	1
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L		04/21/22 09:16	04/22/22 23:50	1
Pentachlorophenol	ND		19	1.4	ug/L		04/21/22 09:16	04/22/22 23:50	1
Phenol	ND		9.7	2.5	ug/L		04/21/22 09:16	04/22/22 23:50	1
Pyridine	ND		9.7	3.1	ug/L		04/21/22 09:16	04/22/22 23:50	1
Quinoline	ND		9.7	4.4	ug/L		04/21/22 09:16	04/22/22 23:50	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/21/22 09:16	04/22/22 23:50	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*58*		*46 - 124*	*04/21/22 09:16*	*04/22/22 23:50*	*1*
2-Fluorophenol	*15*		*13 - 113*	*04/21/22 09:16*	*04/22/22 23:50*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*04/21/22 09:16*	*04/22/22 23:50*	*1*
Phenol-d5	*35*		*17 - 127*	*04/21/22 09:16*	*04/22/22 23:50*	*1*
Terphenyl-d14	*93*		*44 - 149*	*04/21/22 09:16*	*04/22/22 23:50*	*1*
2,4,6-Tribromophenol	*67*		*26 - 150*	*04/21/22 09:16*	*04/22/22 23:50*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		04/26/22 09:26	04/27/22 01:11	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		04/26/22 09:26	04/27/22 01:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*118*		*51 - 149*	*04/26/22 09:26*	*04/27/22 01:11*	*1*

Client Sample ID: MW4-ROX-041922

Date Collected: 04/19/22 09:15
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/22/22 18:43	1
Acrolein	ND		20	3.3	ug/L			04/22/22 18:43	1
Acrylonitrile	ND		10	2.8	ug/L			04/22/22 18:43	1
Benzene	ND		1.0	0.13	ug/L			04/22/22 18:43	1
Bromobenzene	ND		1.0	0.54	ug/L			04/22/22 18:43	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/22/22 18:43	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/22/22 18:43	1
Bromoform	ND		5.0	0.25	ug/L			04/22/22 18:43	1
Bromomethane	ND		1.0	0.98	ug/L			04/22/22 18:43	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/22/22 18:43	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/22/22 18:43	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/22/22 18:43	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/22/22 18:43	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/22/22 18:43	1
Chloroethane	ND		1.0	0.76	ug/L			04/22/22 18:43	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/22/22 18:43	1
Chloroform	ND		1.0	1.0	ug/L			04/22/22 18:43	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/22/22 18:43	1
Chloromethane	ND		1.0	0.32	ug/L			04/22/22 18:43	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/22/22 18:43	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/22/22 18:43	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/22/22 18:43	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/22/22 18:43	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/22/22 18:43	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/22/22 18:43	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/22/22 18:43	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/22/22 18:43	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 18:43	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 18:43	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 18:43	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 18:43	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/22/22 18:43	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/22/22 18:43	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/22/22 18:43	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/22/22 18:43	1
2-Hexanone	ND		25	1.4	ug/L			04/22/22 18:43	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/22/22 18:43	1
Methylene bromide	ND		5.0	0.22	ug/L			04/22/22 18:43	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/22/22 18:43	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/22/22 18:43	1
Methyl tert-butyl ether	**0.90**	**J**	1.0	0.22	ug/L			04/22/22 18:43	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/22/22 18:43	1
Naphthalene	ND		5.0	3.0	ug/L			04/22/22 18:43	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/22/22 18:43	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/22/22 18:43	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/22/22 18:43	1
o-Xylene	ND		5.0	0.60	ug/L			04/22/22 18:43	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/22/22 18:43	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/22/22 18:43	1

Client Sample ID: MW4-ROX-041922

Date Collected: 04/19/22 09:15
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/22/22 18:43	1
Styrene	ND		1.0	1.0	ug/L			04/22/22 18:43	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/22/22 18:43	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/22/22 18:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/22/22 18:43	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/22/22 18:43	1
Toluene	**0.82**	**J**	1.0	0.41	ug/L			04/22/22 18:43	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 18:43	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/22/22 18:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/22/22 18:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/22/22 18:43	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/22/22 18:43	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/22/22 18:43	1
Trichloroethene	ND		1.0	0.15	ug/L			04/22/22 18:43	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/22/22 18:43	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/22/22 18:43	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/22/22 18:43	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/22/22 18:43	1
Vinyl acetate	ND		25	0.93	ug/L			04/22/22 18:43	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/22/22 18:43	1
Xylenes, Total	ND		10	1.6	ug/L			04/22/22 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/22/22 18:43*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*04/22/22 18:43*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/22/22 18:43*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 15:40	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/21/22 09:16	04/28/22 15:40	1
Anthracene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 15:40	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/21/22 09:16	04/28/22 15:40	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/21/22 09:16	04/28/22 15:40	1
Benzo[b]fluoranthene	**0.11**	**J U**	0.19	0.033	ug/L		04/21/22 09:16	04/28/22 15:40	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/21/22 09:16	04/28/22 15:40	1
Benzo[k]fluoranthene	**0.12**	**J**	0.19	0.097	ug/L		04/21/22 09:16	04/28/22 15:40	1
Chrysene	ND		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 15:40	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		04/21/22 09:16	04/28/22 15:40	1
Fluoranthene	**0.17**	**J**	0.19	0.066	ug/L		04/21/22 09:16	04/28/22 15:40	1
Fluorene	ND		0.19	0.11	ug/L		04/21/22 09:16	04/28/22 15:40	1
Indeno[1,2,3-cd]pyrene	**0.12**	**J**	0.19	0.042	ug/L		04/21/22 09:16	04/28/22 15:40	1
1-Methylnaphthalene	**0.086**	**J**	0.19	0.072	ug/L		04/21/22 09:16	04/28/22 15:40	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/21/22 09:16	04/28/22 15:40	1
Phenanthrene	**0.11**	**J**	0.19	0.035	ug/L		04/21/22 09:16	04/28/22 15:40	1
Pyrene	**0.098**	**J**	0.19	0.039	ug/L		04/21/22 09:16	04/28/22 15:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*104*		*15 - 122*	*04/21/22 09:16*	*04/28/22 15:40*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*04/21/22 09:16*	*04/28/22 15:40*	*1*

Client Sample ID: MW4-ROX-041922
Date Collected: 04/19/22 09:15
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*96*		*33 - 138*	*04/21/22 09:16*	*04/28/22 15:40*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/21/22 09:16	04/23/22 00:10	1
Benzenethiol	ND	*- UJ	9.7	1.7	ug/L		04/21/22 09:16	04/23/22 00:10	1
Benzoic acid	ND		29	7.1	ug/L		04/21/22 09:16	04/23/22 00:10	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		04/21/22 09:16	04/23/22 00:10	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/21/22 09:16	04/23/22 00:10	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		04/21/22 09:16	04/23/22 00:10	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/21/22 09:16	04/23/22 00:10	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/21/22 09:16	04/23/22 00:10	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/21/22 09:16	04/23/22 00:10	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/21/22 09:16	04/23/22 00:10	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/21/22 09:16	04/23/22 00:10	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/21/22 09:16	04/23/22 00:10	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/21/22 09:16	04/23/22 00:10	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/21/22 09:16	04/23/22 00:10	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/21/22 09:16	04/23/22 00:10	1
Dibenzofuran	ND		9.7	0.17	ug/L		04/21/22 09:16	04/23/22 00:10	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/21/22 09:16	04/23/22 00:10	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/21/22 09:16	04/23/22 00:10	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/21/22 09:16	04/23/22 00:10	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/23/22 00:10	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		04/21/22 09:16	04/23/22 00:10	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/21/22 09:16	04/23/22 00:10	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		04/21/22 09:16	04/23/22 00:10	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/21/22 09:16	04/23/22 00:10	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/23/22 00:10	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/23/22 00:10	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		04/21/22 09:16	04/23/22 00:10	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/21/22 09:16	04/23/22 00:10	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/21/22 09:16	04/23/22 00:10	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		04/21/22 09:16	04/23/22 00:10	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/21/22 09:16	04/23/22 00:10	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/21/22 09:16	04/23/22 00:10	1
Indene	ND		9.7	0.97	ug/L		04/21/22 09:16	04/23/22 00:10	1
Isophorone	ND		9.7	0.14	ug/L		04/21/22 09:16	04/23/22 00:10	1
2-Methylphenol	ND		9.7	1.8	ug/L		04/21/22 09:16	04/23/22 00:10	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/21/22 09:16	04/23/22 00:10	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/21/22 09:16	04/23/22 00:10	1
3-Nitroaniline	ND		9.7	1.8	ug/L		04/21/22 09:16	04/23/22 00:10	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/21/22 09:16	04/23/22 00:10	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/21/22 09:16	04/23/22 00:10	1
2-Nitrophenol	ND		9.7	5.1	ug/L		04/21/22 09:16	04/23/22 00:10	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/21/22 09:16	04/23/22 00:10	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/21/22 09:16	04/23/22 00:10	1
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/21/22 09:16	04/23/22 00:10	1

Client Sample ID: MW4-ROX-041922
Date Collected: 04/19/22 09:15
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L		04/21/22 09:16	04/23/22 00:10	1
Pentachlorophenol	ND		19	1.4	ug/L		04/21/22 09:16	04/23/22 00:10	1
Phenol	ND		9.7	2.5	ug/L		04/21/22 09:16	04/23/22 00:10	1
Pyridine	ND		9.7	3.1	ug/L		04/21/22 09:16	04/23/22 00:10	1
Quinoline	ND		9.7	4.4	ug/L		04/21/22 09:16	04/23/22 00:10	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/21/22 09:16	04/23/22 00:10	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/23/22 00:10	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl alcohol	ND		9.7	1.9	ug/L		04/21/22 09:16	04/25/22 23:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*04/21/22 09:16*	*04/25/22 23:26*	*1*
2-Fluorophenol	*4*	*S1-*	*13 - 113*	*04/21/22 09:16*	*04/25/22 23:26*	*1*
Nitrobenzene-d5	*78*		*36 - 126*	*04/21/22 09:16*	*04/25/22 23:26*	*1*
Phenol-d5	*20*		*17 - 127*	*04/21/22 09:16*	*04/25/22 23:26*	*1*
Terphenyl-d14	*94*		*44 - 149*	*04/21/22 09:16*	*04/25/22 23:26*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*04/21/22 09:16*	*04/25/22 23:26*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		04/26/22 09:26	04/27/22 01:31	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/26/22 09:26	04/27/22 01:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*122*		*51 - 149*	*04/26/22 09:26*	*04/27/22 01:31*	*1*

Client Sample ID: MW25-ROX-041922

Date Collected: 04/19/22 10:10
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/22/22 19:09	1
Acrolein	ND		20	3.3	ug/L			04/22/22 19:09	1
Acrylonitrile	ND		10	2.8	ug/L			04/22/22 19:09	1
Benzene	**13**		1.0	0.13	ug/L			04/22/22 19:09	1
Bromobenzene	ND		1.0	0.54	ug/L			04/22/22 19:09	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/22/22 19:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/22/22 19:09	1
Bromoform	ND		5.0	0.25	ug/L			04/22/22 19:09	1
Bromomethane	ND		1.0	0.98	ug/L			04/22/22 19:09	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/22/22 19:09	1
Carbon disulfide	**3.4**		1.0	0.50	ug/L			04/22/22 19:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/22/22 19:09	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/22/22 19:09	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/22/22 19:09	1
Chloroethane	ND		1.0	0.76	ug/L			04/22/22 19:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/22/22 19:09	1
Chloroform	ND		1.0	1.0	ug/L			04/22/22 19:09	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/22/22 19:09	1
Chloromethane	ND		1.0	0.32	ug/L			04/22/22 19:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/22/22 19:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/22/22 19:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/22/22 19:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/22/22 19:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/22/22 19:09	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/22/22 19:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/22/22 19:09	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/22/22 19:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 19:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 19:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 19:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 19:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/22/22 19:09	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/22/22 19:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/22/22 19:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/22/22 19:09	1
2-Hexanone	ND		25	1.4	ug/L			04/22/22 19:09	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/22/22 19:09	1
Methylene bromide	ND		5.0	0.22	ug/L			04/22/22 19:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/22/22 19:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/22/22 19:09	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/22/22 19:09	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/22/22 19:09	1
Naphthalene	ND		5.0	3.0	ug/L			04/22/22 19:09	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/22/22 19:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/22/22 19:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/22/22 19:09	1
o-Xylene	ND		5.0	0.60	ug/L			04/22/22 19:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/22/22 19:09	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/22/22 19:09	1

Client Sample ID: MW25-ROX-041922

Date Collected: 04/19/22 10:10
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/22/22 19:09	1
Styrene	ND		1.0	1.0	ug/L			04/22/22 19:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/22/22 19:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/22/22 19:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/22/22 19:09	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/22/22 19:09	1
Toluene	ND		1.0	0.41	ug/L			04/22/22 19:09	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 19:09	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/22/22 19:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/22/22 19:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/22/22 19:09	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/22/22 19:09	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/22/22 19:09	1
Trichloroethene	ND		1.0	0.15	ug/L			04/22/22 19:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/22/22 19:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/22/22 19:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/22/22 19:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/22/22 19:09	1
Vinyl acetate	ND		25	0.93	ug/L			04/22/22 19:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/22/22 19:09	1
Xylenes, Total	ND		10	1.6	ug/L			04/22/22 19:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/22/22 19:09*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*04/22/22 19:09*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/22/22 19:09*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 15:57	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/21/22 09:16	04/28/22 15:57	1
Anthracene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 15:57	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/21/22 09:16	04/28/22 15:57	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/21/22 09:16	04/28/22 15:57	1
Benzo[b]fluoranthene	**0.067**	**J**	0.20	0.034	ug/L		04/21/22 09:16	04/28/22 15:57	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/21/22 09:16	04/28/22 15:57	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/21/22 09:16	04/28/22 15:57	1
Chrysene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/28/22 15:57	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/21/22 09:16	04/28/22 15:57	1
Fluoranthene	ND		0.20	0.068	ug/L		04/21/22 09:16	04/28/22 15:57	1
Fluorene	ND		0.20	0.11	ug/L		04/21/22 09:16	04/28/22 15:57	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/21/22 09:16	04/28/22 15:57	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/28/22 15:57	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/21/22 09:16	04/28/22 15:57	1
Phenanthrene	ND		0.20	0.036	ug/L		04/21/22 09:16	04/28/22 15:57	1
Pyrene	ND		0.20	0.040	ug/L		04/21/22 09:16	04/28/22 15:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*111*		*15 - 122*	*04/21/22 09:16*	*04/28/22 15:57*	*1*
Nitrobenzene-d5	*95*		*19 - 130*	*04/21/22 09:16*	*04/28/22 15:57*	*1*

Client Sample ID: MW25-ROX-041922

Date Collected: 04/19/22 10:10
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-5

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*109*		*33 - 138*	*04/21/22 09:16*	*04/28/22 15:57*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/21/22 09:16	04/23/22 00:31	1
Benzenethiol	ND	*- UJ	10	1.7	ug/L		04/21/22 09:16	04/23/22 00:31	1
Benzoic acid	ND		30	7.3	ug/L		04/21/22 09:16	04/23/22 00:31	1
Benzyl alcohol	ND	UJ	10	2.0	ug/L		04/21/22 09:16	04/23/22 00:31	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/21/22 09:16	04/23/22 00:31	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/21/22 09:16	04/23/22 00:31	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/21/22 09:16	04/23/22 00:31	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/21/22 09:16	04/23/22 00:31	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/21/22 09:16	04/23/22 00:31	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/21/22 09:16	04/23/22 00:31	1
4-Chloroaniline	ND		10	3.4	ug/L		04/21/22 09:16	04/23/22 00:31	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/21/22 09:16	04/23/22 00:31	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/21/22 09:16	04/23/22 00:31	1
2-Chlorophenol	ND		10	2.2	ug/L		04/21/22 09:16	04/23/22 00:31	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/21/22 09:16	04/23/22 00:31	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/21/22 09:16	04/23/22 00:31	1
Dibenzofuran	ND		10	0.17	ug/L		04/21/22 09:16	04/23/22 00:31	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/21/22 09:16	04/23/22 00:31	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/21/22 09:16	04/23/22 00:31	1
Diethyl phthalate	0.61	J	10	0.24	ug/L		04/21/22 09:16	04/23/22 00:31	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/21/22 09:16	04/23/22 00:31	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/23/22 00:31	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/21/22 09:16	04/23/22 00:31	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/21/22 09:16	04/23/22 00:31	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/21/22 09:16	04/23/22 00:31	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/23/22 00:31	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/23/22 00:31	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/23/22 00:31	1
1,4-Dioxane	ND		10	1.0	ug/L		04/21/22 09:16	04/23/22 00:31	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/21/22 09:16	04/23/22 00:31	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/21/22 09:16	04/23/22 00:31	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/21/22 09:16	04/23/22 00:31	1
Hexachloroethane	ND		10	4.2	ug/L		04/21/22 09:16	04/23/22 00:31	1
Indene	ND		10	1.0	ug/L		04/21/22 09:16	04/23/22 00:31	1
Isophorone	ND		10	0.14	ug/L		04/21/22 09:16	04/23/22 00:31	1
2-Methylphenol	ND		10	1.8	ug/L		04/21/22 09:16	04/23/22 00:31	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/21/22 09:16	04/23/22 00:31	1
2-Nitroaniline	ND		10	2.2	ug/L		04/21/22 09:16	04/23/22 00:31	1
3-Nitroaniline	ND		10	1.8	ug/L		04/21/22 09:16	04/23/22 00:31	1
4-Nitroaniline	ND		10	1.5	ug/L		04/21/22 09:16	04/23/22 00:31	1
Nitrobenzene	ND		10	0.13	ug/L		04/21/22 09:16	04/23/22 00:31	1
2-Nitrophenol	ND		10	5.2	ug/L		04/21/22 09:16	04/23/22 00:31	1
4-Nitrophenol	ND		10	2.1	ug/L		04/21/22 09:16	04/23/22 00:31	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/21/22 09:16	04/23/22 00:31	1

Client Sample ID: MW25-ROX-041922

Date Collected: 04/19/22 10:10
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-5

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/21/22 09:16	04/23/22 00:31	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/21/22 09:16	04/23/22 00:31	1
Pentachlorophenol	ND		20	1.4	ug/L		04/21/22 09:16	04/23/22 00:31	1
Phenol	ND		10	2.6	ug/L		04/21/22 09:16	04/23/22 00:31	1
Pyridine	ND		10	3.2	ug/L		04/21/22 09:16	04/23/22 00:31	1
Quinoline	ND		10	4.5	ug/L		04/21/22 09:16	04/23/22 00:31	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/21/22 09:16	04/23/22 00:31	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/21/22 09:16	04/23/22 00:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*46 - 124*	*04/21/22 09:16*	*04/23/22 00:31*	*1*
2-Fluorophenol	*12*	*S1-*	*13 - 113*	*04/21/22 09:16*	*04/23/22 00:31*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*04/21/22 09:16*	*04/23/22 00:31*	*1*
Phenol-d5	*46*		*17 - 127*	*04/21/22 09:16*	*04/23/22 00:31*	*1*
Terphenyl-d14	*102*		*44 - 149*	*04/21/22 09:16*	*04/23/22 00:31*	*1*
2,4,6-Tribromophenol	*114*		*26 - 150*	*04/21/22 09:16*	*04/23/22 00:31*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		04/26/22 09:26	04/27/22 01:52	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/26/22 09:26	04/27/22 01:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*123*		*51 - 149*	*04/26/22 09:26*	*04/27/22 01:52*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Client Sample ID: MW8-ROX-041922
Date Collected: 04/19/22 11:00
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	U3	13000	5000	ug/L			04/22/22 20:02	500
Acrolein	ND		10000	1700	ug/L			04/22/22 20:02	500
Acrylonitrile	ND		5000	1400	ug/L			04/22/22 20:02	500
Bromobenzene	ND		500	270	ug/L			04/22/22 20:02	500
Bromochloromethane	ND		500	110	ug/L			04/22/22 20:02	500
Bromodichloromethane	ND		500	250	ug/L			04/22/22 20:02	500
Bromoform	ND		2500	130	ug/L			04/22/22 20:02	500
Bromomethane	ND		500	490	ug/L			04/22/22 20:02	500
2-Butanone (MEK)	ND		13000	1300	ug/L			04/22/22 20:02	500
Carbon disulfide	ND		500	250	ug/L			04/22/22 20:02	500
Carbon tetrachloride	ND		500	95	ug/L			04/22/22 20:02	500
Chlorobenzene	ND		500	75	ug/L			04/22/22 20:02	500
Dibromochloromethane	ND		500	120	ug/L			04/22/22 20:02	500
Chloroethane	ND		500	380	ug/L			04/22/22 20:02	500
2-Chloroethyl vinyl ether	ND		2500	1000	ug/L			04/22/22 20:02	500
Chloroform	ND		500	500	ug/L			04/22/22 20:02	500
1-Chlorohexane	ND		500	160	ug/L			04/22/22 20:02	500
Chloromethane	ND		500	160	ug/L			04/22/22 20:02	500
cis-1,2-Dichloroethene	ND		500	100	ug/L			04/22/22 20:02	500
cis-1,3-Dichloropropene	ND		2500	250	ug/L			04/22/22 20:02	500
1,2-Dichlorobenzene	ND		500	250	ug/L			04/22/22 20:02	500
1,3-Dichlorobenzene	ND		500	270	ug/L			04/22/22 20:02	500
1,4-Dichlorobenzene	ND		500	320	ug/L			04/22/22 20:02	500
Dichlorodifluoromethane	ND		500	430	ug/L			04/22/22 20:02	500
1,1-Dichloroethane	ND		500	250	ug/L			04/22/22 20:02	500
1,2-Dichloroethane	ND		500	95	ug/L			04/22/22 20:02	500
1,1-Dichloroethene	ND		500	250	ug/L			04/22/22 20:02	500
1,2-Dichloropropane	ND		500	250	ug/L			04/22/22 20:02	500
1,3-Dichloropropane	ND		500	250	ug/L			04/22/22 20:02	500
2,2-Dichloropropane	ND		500	250	ug/L			04/22/22 20:02	500
1,1-Dichloropropene	ND		500	250	ug/L			04/22/22 20:02	500
Ethylbenzene	ND		500	250	ug/L			04/22/22 20:02	500
Ethyl methacrylate	ND		500	300	ug/L			04/22/22 20:02	500
Hexachlorobutadiene	ND		2500	450	ug/L			04/22/22 20:02	500
2-Hexanone	ND		13000	700	ug/L			04/22/22 20:02	500
Isopropylbenzene	ND		500	270	ug/L			04/22/22 20:02	500
Methylene bromide	ND		2500	110	ug/L			04/22/22 20:02	500
Methylene Chloride	ND		2500	1500	ug/L			04/22/22 20:02	500
4-Methyl-2-pentanone (MIBK)	ND		13000	900	ug/L			04/22/22 20:02	500
Methyl tert-butyl ether	ND		500	110	ug/L			04/22/22 20:02	500
m-Xylene & p-Xylene	ND		2500	320	ug/L			04/22/22 20:02	500
Naphthalene	ND		2500	1500	ug/L			04/22/22 20:02	500
n-Butylbenzene	ND		500	380	ug/L			04/22/22 20:02	500
N-Propylbenzene	ND		500	350	ug/L			04/22/22 20:02	500
o-Chlorotoluene	ND		500	290	ug/L			04/22/22 20:02	500
o-Xylene	ND		2500	300	ug/L			04/22/22 20:02	500
p-Chlorotoluene	ND		500	280	ug/L			04/22/22 20:02	500
p-Isopropyltoluene	ND		500	360	ug/L			04/22/22 20:02	500
sec-Butylbenzene	ND		500	350	ug/L			04/22/22 20:02	500

Client Sample ID: MW8-ROX-041922

Date Collected: 04/19/22 11:00
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		500	500	ug/L			04/22/22 20:02	500
tert-Butylbenzene	ND		500	320	ug/L			04/22/22 20:02	500
1,1,1,2-Tetrachloroethane	ND		500	80	ug/L			04/22/22 20:02	500
1,1,2,2-Tetrachloroethane	ND		500	250	ug/L			04/22/22 20:02	500
Tetrachloroethene	ND		500	450	ug/L			04/22/22 20:02	500
Toluene	ND		500	210	ug/L			04/22/22 20:02	500
trans-1,2-Dichloroethene	ND		500	250	ug/L			04/22/22 20:02	500
trans-1,3-Dichloropropene	ND		2500	100	ug/L			04/22/22 20:02	500
1,2,3-Trichlorobenzene	ND		500	450	ug/L			04/22/22 20:02	500
1,2,4-Trichlorobenzene	ND		500	410	ug/L			04/22/22 20:02	500
1,1,1-Trichloroethane	ND		500	90	ug/L			04/22/22 20:02	500
1,1,2-Trichloroethane	ND		2500	110	ug/L			04/22/22 20:02	500
Trichloroethene	ND		500	75	ug/L			04/22/22 20:02	500
Trichlorofluoromethane	ND		500	260	ug/L			04/22/22 20:02	500
1,2,3-Trichloropropane	ND		2500	420	ug/L			04/22/22 20:02	500
1,2,4-Trimethylbenzene	ND		500	410	ug/L			04/22/22 20:02	500
1,3,5-Trimethylbenzene	ND		500	280	ug/L			04/22/22 20:02	500
Vinyl acetate	ND		13000	470	ug/L			04/22/22 20:02	500
Vinyl chloride	ND		500	250	ug/L			04/22/22 20:02	500
Xylenes, Total	ND		5000	800	ug/L			04/22/22 20:02	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/22/22 20:02*	*500*
Dibromofluoromethane	*106*		*75 - 126*		*04/22/22 20:02*	*500*
Toluene-d8 (Surr)	*99*		*64 - 132*		*04/22/22 20:02*	*500*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	350000		2000	260	ug/L			04/23/22 17:33	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/23/22 17:33*	*2000*
Dibromofluoromethane	*105*		*75 - 126*		*04/23/22 17:33*	*2000*
Toluene-d8 (Surr)	*102*		*64 - 132*		*04/23/22 17:33*	*2000*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 16:14	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/21/22 09:16	04/28/22 16:14	1
Anthracene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/28/22 16:14	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/21/22 09:16	04/28/22 16:14	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		04/21/22 09:16	04/28/22 16:14	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		04/21/22 09:16	04/28/22 16:14	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/21/22 09:16	04/28/22 16:14	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/21/22 09:16	04/28/22 16:14	1
Chrysene	ND		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 16:14	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		04/21/22 09:16	04/28/22 16:14	1
Fluoranthene	ND		0.19	0.066	ug/L		04/21/22 09:16	04/28/22 16:14	1
Fluorene	ND		0.19	0.11	ug/L		04/21/22 09:16	04/28/22 16:14	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		04/21/22 09:16	04/28/22 16:14	1

Client Sample ID: MW8-ROX-041922
Date Collected: 04/19/22 11:00
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	12		0.19	0.072	ug/L		04/21/22 09:16	04/28/22 16:14	1
2-Methylnaphthalene	4.8		0.19	0.058	ug/L		04/21/22 09:16	04/28/22 16:14	1
Phenanthrene	ND		0.19	0.035	ug/L		04/21/22 09:16	04/28/22 16:14	1
Pyrene	ND		0.19	0.039	ug/L		04/21/22 09:16	04/28/22 16:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*107*		*15 - 122*	*04/21/22 09:16*	*04/28/22 16:14*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*04/21/22 09:16*	*04/28/22 16:14*	*1*
Terphenyl-d14	*82*		*33 - 138*	*04/21/22 09:16*	*04/28/22 16:14*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/21/22 09:16	04/23/22 00:52	1
Benzenethiol	ND	*- UJ	9.7	1.6	ug/L		04/21/22 09:16	04/23/22 00:52	1
Benzoic acid	ND		29	7.1	ug/L		04/21/22 09:16	04/23/22 00:52	1
Benzyl alcohol	ND	UJ	9.7	1.9	ug/L		04/21/22 09:16	04/23/22 00:52	1
Bis(2-chloroethoxy)methane	ND		9.7	0.15	ug/L		04/21/22 09:16	04/23/22 00:52	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/21/22 09:16	04/23/22 00:52	1
bis (2-chloroisopropyl) ether	ND		9.7	0.15	ug/L		04/21/22 09:16	04/23/22 00:52	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L		04/21/22 09:16	04/23/22 00:52	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/21/22 09:16	04/23/22 00:52	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/21/22 09:16	04/23/22 00:52	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/21/22 09:16	04/23/22 00:52	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/21/22 09:16	04/23/22 00:52	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/21/22 09:16	04/23/22 00:52	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/21/22 09:16	04/23/22 00:52	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/21/22 09:16	04/23/22 00:52	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/21/22 09:16	04/23/22 00:52	1
Dibenzofuran	ND		9.7	0.16	ug/L		04/21/22 09:16	04/23/22 00:52	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/21/22 09:16	04/23/22 00:52	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/21/22 09:16	04/23/22 00:52	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/21/22 09:16	04/23/22 00:52	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/23/22 00:52	1
Dimethyl phthalate	ND		9.7	0.16	ug/L		04/21/22 09:16	04/23/22 00:52	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/21/22 09:16	04/23/22 00:52	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.5	ug/L		04/21/22 09:16	04/23/22 00:52	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/21/22 09:16	04/23/22 00:52	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/23/22 00:52	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/23/22 00:52	1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L		04/21/22 09:16	04/23/22 00:52	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/21/22 09:16	04/23/22 00:52	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/21/22 09:16	04/23/22 00:52	1
Hexachlorobenzene	ND		9.7	0.16	ug/L		04/21/22 09:16	04/23/22 00:52	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/21/22 09:16	04/23/22 00:52	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/21/22 09:16	04/23/22 00:52	1
Indene	ND		9.7	0.97	ug/L		04/21/22 09:16	04/23/22 00:52	1
Isophorone	ND		9.7	0.14	ug/L		04/21/22 09:16	04/23/22 00:52	1
2-Methylphenol	ND		9.7	1.7	ug/L		04/21/22 09:16	04/23/22 00:52	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/21/22 09:16	04/23/22 00:52	1

Client Sample ID: MW8-ROX-041922

Date Collected: 04/19/22 11:00
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-6

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.7	2.1	ug/L		04/21/22 09:16	04/23/22 00:52	1
3-Nitroaniline	ND		9.7	1.7	ug/L		04/21/22 09:16	04/23/22 00:52	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/21/22 09:16	04/23/22 00:52	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/21/22 09:16	04/23/22 00:52	1
2-Nitrophenol	ND		9.7	5.0	ug/L		04/21/22 09:16	04/23/22 00:52	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/21/22 09:16	04/23/22 00:52	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/21/22 09:16	04/23/22 00:52	1
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/21/22 09:16	04/23/22 00:52	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L		04/21/22 09:16	04/23/22 00:52	1
Pentachlorophenol	ND		19	1.4	ug/L		04/21/22 09:16	04/23/22 00:52	1
Phenol	260		9.7	2.5	ug/L		04/21/22 09:16	04/23/22 00:52	1
Pyridine	ND		9.7	3.1	ug/L		04/21/22 09:16	04/23/22 00:52	1
Quinoline	ND		9.7	4.4	ug/L		04/21/22 09:16	04/23/22 00:52	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/21/22 09:16	04/23/22 00:52	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/23/22 00:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*46 - 124*	*04/21/22 09:16*	*04/23/22 00:52*	*1*
2-Fluorophenol	*24*		*13 - 113*	*04/21/22 09:16*	*04/23/22 00:52*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*04/21/22 09:16*	*04/23/22 00:52*	*1*
Phenol-d5	*58*		*17 - 127*	*04/21/22 09:16*	*04/23/22 00:52*	*1*
Terphenyl-d14	*71*		*44 - 149*	*04/21/22 09:16*	*04/23/22 00:52*	*1*
2,4,6-Tribromophenol	*117*		*26 - 150*	*04/21/22 09:16*	*04/23/22 00:52*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		04/26/22 09:26	04/27/22 02:12	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/26/22 09:26	04/27/22 02:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*115*		*51 - 149*	*04/26/22 09:26*	*04/27/22 02:12*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Client Sample ID: MW7-ROX-041922
Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-7
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	U	13000	5000	ug/L			04/22/22 20:28	500
Acrolein	ND		10000	1700	ug/L			04/22/22 20:28	500
Acrylonitrile	ND		5000	1400	ug/L			04/22/22 20:28	500
Bromobenzene	ND		500	270	ug/L			04/22/22 20:28	500
Bromochloromethane	ND		500	110	ug/L			04/22/22 20:28	500
Bromodichloromethane	ND		500	250	ug/L			04/22/22 20:28	500
Bromoform	ND		2500	130	ug/L			04/22/22 20:28	500
Bromomethane	ND		500	490	ug/L			04/22/22 20:28	500
2-Butanone (MEK)	ND		13000	1300	ug/L			04/22/22 20:28	500
Carbon disulfide	ND		500	250	ug/L			04/22/22 20:28	500
Carbon tetrachloride	ND		500	95	ug/L			04/22/22 20:28	500
Chlorobenzene	ND		500	75	ug/L			04/22/22 20:28	500
Dibromochloromethane	ND		500	120	ug/L			04/22/22 20:28	500
Chloroethane	ND		500	380	ug/L			04/22/22 20:28	500
2-Chloroethyl vinyl ether	ND		2500	1000	ug/L			04/22/22 20:28	500
Chloroform	ND		500	500	ug/L			04/22/22 20:28	500
1-Chlorohexane	ND		500	160	ug/L			04/22/22 20:28	500
Chloromethane	ND		500	160	ug/L			04/22/22 20:28	500
cis-1,2-Dichloroethene	ND		500	100	ug/L			04/22/22 20:28	500
cis-1,3-Dichloropropene	ND		2500	250	ug/L			04/22/22 20:28	500
1,2-Dichlorobenzene	ND		500	250	ug/L			04/22/22 20:28	500
1,3-Dichlorobenzene	ND		500	270	ug/L			04/22/22 20:28	500
1,4-Dichlorobenzene	ND		500	320	ug/L			04/22/22 20:28	500
Dichlorodifluoromethane	ND		500	430	ug/L			04/22/22 20:28	500
1,1-Dichloroethane	ND		500	250	ug/L			04/22/22 20:28	500
1,2-Dichloroethane	ND		500	95	ug/L			04/22/22 20:28	500
1,1-Dichloroethene	ND		500	250	ug/L			04/22/22 20:28	500
1,2-Dichloropropane	ND		500	250	ug/L			04/22/22 20:28	500
1,3-Dichloropropane	ND		500	250	ug/L			04/22/22 20:28	500
2,2-Dichloropropane	ND		500	250	ug/L			04/22/22 20:28	500
1,1-Dichloropropene	ND		500	250	ug/L			04/22/22 20:28	500
Ethylbenzene	ND		500	250	ug/L			04/22/22 20:28	500
Ethyl methacrylate	ND		500	300	ug/L			04/22/22 20:28	500
Hexachlorobutadiene	ND		2500	450	ug/L			04/22/22 20:28	500
2-Hexanone	ND		13000	700	ug/L			04/22/22 20:28	500
Isopropylbenzene	ND		500	270	ug/L			04/22/22 20:28	500
Methylene bromide	ND		2500	110	ug/L			04/22/22 20:28	500
Methylene Chloride	ND		2500	1500	ug/L			04/22/22 20:28	500
4-Methyl-2-pentanone (MIBK)	ND		13000	900	ug/L			04/22/22 20:28	500
Methyl tert-butyl ether	ND		500	110	ug/L			04/22/22 20:28	500
m-Xylene & p-Xylene	ND		2500	320	ug/L			04/22/22 20:28	500
Naphthalene	ND		2500	1500	ug/L			04/22/22 20:28	500
n-Butylbenzene	ND		500	380	ug/L			04/22/22 20:28	500
N-Propylbenzene	ND		500	350	ug/L			04/22/22 20:28	500
o-Chlorotoluene	ND		500	290	ug/L			04/22/22 20:28	500
o-Xylene	ND		2500	300	ug/L			04/22/22 20:28	500
p-Chlorotoluene	ND		500	280	ug/L			04/22/22 20:28	500
p-Isopropyltoluene	ND		500	360	ug/L			04/22/22 20:28	500
sec-Butylbenzene	ND		500	350	ug/L			04/22/22 20:28	500

Client Sample ID: MW7-ROX-041922

Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		500	500	ug/L			04/22/22 20:28	500
tert-Butylbenzene	ND		500	320	ug/L			04/22/22 20:28	500
1,1,1,2-Tetrachloroethane	ND		500	80	ug/L			04/22/22 20:28	500
1,1,2,2-Tetrachloroethane	ND		500	250	ug/L			04/22/22 20:28	500
Tetrachloroethene	ND		500	450	ug/L			04/22/22 20:28	500
Toluene	ND		500	210	ug/L			04/22/22 20:28	500
trans-1,2-Dichloroethene	ND		500	250	ug/L			04/22/22 20:28	500
trans-1,3-Dichloropropene	ND		2500	100	ug/L			04/22/22 20:28	500
1,2,3-Trichlorobenzene	ND		500	450	ug/L			04/22/22 20:28	500
1,2,4-Trichlorobenzene	ND		500	410	ug/L			04/22/22 20:28	500
1,1,1-Trichloroethane	ND		500	90	ug/L			04/22/22 20:28	500
1,1,2-Trichloroethane	ND		2500	110	ug/L			04/22/22 20:28	500
Trichloroethene	ND		500	75	ug/L			04/22/22 20:28	500
Trichlorofluoromethane	ND		500	260	ug/L			04/22/22 20:28	500
1,2,3-Trichloropropane	ND		2500	420	ug/L			04/22/22 20:28	500
1,2,4-Trimethylbenzene	ND		500	410	ug/L			04/22/22 20:28	500
1,3,5-Trimethylbenzene	ND		500	280	ug/L			04/22/22 20:28	500
Vinyl acetate	ND		13000	470	ug/L			04/22/22 20:28	500
Vinyl chloride	ND		500	250	ug/L			04/22/22 20:28	500
Xylenes, Total	ND		5000	800	ug/L			04/22/22 20:28	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/22/22 20:28*	*500*
Dibromofluoromethane	*108*		*75 - 126*		*04/22/22 20:28*	*500*
Toluene-d8 (Surr)	*97*		*64 - 132*		*04/22/22 20:28*	*500*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	820000		10000	1300	ug/L			04/26/22 20:05	10000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*04/26/22 20:05*	*10000*
Dibromofluoromethane	*102*		*75 - 126*		*04/26/22 20:05*	*10000*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/26/22 20:05*	*10000*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 16:32	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/21/22 09:16	04/28/22 16:32	1
Anthracene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 16:32	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/21/22 09:16	04/28/22 16:32	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/21/22 09:16	04/28/22 16:32	1
Benzo[b]fluoranthene	0.087	J	0.20	0.034	ug/L		04/21/22 09:16	04/28/22 16:32	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/21/22 09:16	04/28/22 16:32	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/21/22 09:16	04/28/22 16:32	1
Chrysene	ND		0.20	0.073	ug/L		04/21/22 09:16	04/28/22 16:32	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/21/22 09:16	04/28/22 16:32	1
Fluoranthene	ND		0.20	0.067	ug/L		04/21/22 09:16	04/28/22 16:32	1
Fluorene	ND		0.20	0.11	ug/L		04/21/22 09:16	04/28/22 16:32	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/21/22 09:16	04/28/22 16:32	1

Client Sample ID: MW7-ROX-041922
Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-7
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	1.5		0.20	0.073	ug/L		04/21/22 09:16	04/28/22 16:32	1
2-Methylnaphthalene	2.3		0.20	0.059	ug/L		04/21/22 09:16	04/28/22 16:32	1
Phenanthrene	0.21		0.20	0.036	ug/L		04/21/22 09:16	04/28/22 16:32	1
Pyrene	0.091	J	0.20	0.040	ug/L		04/21/22 09:16	04/28/22 16:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*114*		*15 - 122*	*04/21/22 09:16*	*04/28/22 16:32*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*04/21/22 09:16*	*04/28/22 16:32*	*1*
Terphenyl-d14	*98*		*33 - 138*	*04/21/22 09:16*	*04/28/22 16:32*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		04/21/22 09:16	04/23/22 01:12	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		04/21/22 09:16	04/23/22 01:12	1
Benzoic acid	22	J	30	7.2	ug/L		04/21/22 09:16	04/23/22 01:12	1
Benzyl alcohol	ND	UJ	9.9	2.0	ug/L		04/21/22 09:16	04/23/22 01:12	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/21/22 09:16	04/23/22 01:12	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/21/22 09:16	04/23/22 01:12	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/21/22 09:16	04/23/22 01:12	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/21/22 09:16	04/23/22 01:12	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/21/22 09:16	04/23/22 01:12	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/21/22 09:16	04/23/22 01:12	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/21/22 09:16	04/23/22 01:12	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		04/21/22 09:16	04/23/22 01:12	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/21/22 09:16	04/23/22 01:12	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/21/22 09:16	04/23/22 01:12	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/21/22 09:16	04/23/22 01:12	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		04/21/22 09:16	04/23/22 01:12	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/21/22 09:16	04/23/22 01:12	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		04/21/22 09:16	04/23/22 01:12	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/21/22 09:16	04/23/22 01:12	1
Diethyl phthalate	0.69	J	9.9	0.24	ug/L		04/21/22 09:16	04/23/22 01:12	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/21/22 09:16	04/23/22 01:12	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/21/22 09:16	04/23/22 01:12	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/21/22 09:16	04/23/22 01:12	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/21/22 09:16	04/23/22 01:12	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/21/22 09:16	04/23/22 01:12	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/21/22 09:16	04/23/22 01:12	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/21/22 09:16	04/23/22 01:12	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/21/22 09:16	04/23/22 01:12	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/21/22 09:16	04/23/22 01:12	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/21/22 09:16	04/23/22 01:12	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/21/22 09:16	04/23/22 01:12	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/21/22 09:16	04/23/22 01:12	1
Hexachloroethane	ND		9.9	4.2	ug/L		04/21/22 09:16	04/23/22 01:12	1
Indene	ND		9.9	0.99	ug/L		04/21/22 09:16	04/23/22 01:12	1
Isophorone	ND		9.9	0.14	ug/L		04/21/22 09:16	04/23/22 01:12	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/21/22 09:16	04/23/22 01:12	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/21/22 09:16	04/23/22 01:12	1

Client Sample ID: MW7-ROX-041922
Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-7
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.9	2.2	ug/L		04/21/22 09:16	04/23/22 01:12	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/21/22 09:16	04/23/22 01:12	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/21/22 09:16	04/23/22 01:12	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/21/22 09:16	04/23/22 01:12	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/21/22 09:16	04/23/22 01:12	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/21/22 09:16	04/23/22 01:12	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/21/22 09:16	04/23/22 01:12	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/21/22 09:16	04/23/22 01:12	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/21/22 09:16	04/23/22 01:12	1
Pentachlorophenol	ND		20	1.4	ug/L		04/21/22 09:16	04/23/22 01:12	1
Phenol	82		9.9	2.6	ug/L		04/21/22 09:16	04/23/22 01:12	1
Pyridine	ND		9.9	3.2	ug/L		04/21/22 09:16	04/23/22 01:12	1
Quinoline	ND		9.9	4.5	ug/L		04/21/22 09:16	04/23/22 01:12	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		04/21/22 09:16	04/23/22 01:12	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/21/22 09:16	04/23/22 01:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*46 - 124*	*04/21/22 09:16*	*04/23/22 01:12*	*1*
2-Fluorophenol	*26*		*13 - 113*	*04/21/22 09:16*	*04/23/22 01:12*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*04/21/22 09:16*	*04/23/22 01:12*	*1*
Phenol-d5	*54*		*17 - 127*	*04/21/22 09:16*	*04/23/22 01:12*	*1*
Terphenyl-d14	*80*		*44 - 149*	*04/21/22 09:16*	*04/23/22 01:12*	*1*
2,4,6-Tribromophenol	*112*		*26 - 150*	*04/21/22 09:16*	*04/23/22 01:12*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.030	0.017	ug/L		04/26/22 09:26	04/27/22 02:33	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/26/22 09:26	04/27/22 02:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*132*		*51 - 149*	*04/26/22 09:26*	*04/27/22 02:33*	*1*

Client Sample ID: MW7-ROX-041922-DUP

Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-8

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		13000	5000	ug/L			04/22/22 20:54	500
Acrolein	ND		10000	1700	ug/L			04/22/22 20:54	500
Acrylonitrile	ND		5000	1400	ug/L			04/22/22 20:54	500
Bromobenzene	ND		500	270	ug/L			04/22/22 20:54	500
Bromochloromethane	ND		500	110	ug/L			04/22/22 20:54	500
Bromodichloromethane	ND		500	250	ug/L			04/22/22 20:54	500
Bromoform	ND		2500	130	ug/L			04/22/22 20:54	500
Bromomethane	ND		500	490	ug/L			04/22/22 20:54	500
2-Butanone (MEK)	ND		13000	1300	ug/L			04/22/22 20:54	500
Carbon disulfide	ND		500	250	ug/L			04/22/22 20:54	500
Carbon tetrachloride	ND		500	95	ug/L			04/22/22 20:54	500
Chlorobenzene	ND		500	75	ug/L			04/22/22 20:54	500
Dibromochloromethane	ND		500	120	ug/L			04/22/22 20:54	500
Chloroethane	ND		500	380	ug/L			04/22/22 20:54	500
2-Chloroethyl vinyl ether	ND		2500	1000	ug/L			04/22/22 20:54	500
Chloroform	ND		500	500	ug/L			04/22/22 20:54	500
1-Chlorohexane	ND		500	160	ug/L			04/22/22 20:54	500
Chloromethane	ND		500	160	ug/L			04/22/22 20:54	500
cis-1,2-Dichloroethene	ND		500	100	ug/L			04/22/22 20:54	500
cis-1,3-Dichloropropene	ND		2500	250	ug/L			04/22/22 20:54	500
1,2-Dichlorobenzene	ND		500	250	ug/L			04/22/22 20:54	500
1,3-Dichlorobenzene	ND		500	270	ug/L			04/22/22 20:54	500
1,4-Dichlorobenzene	ND		500	320	ug/L			04/22/22 20:54	500
Dichlorodifluoromethane	ND		500	430	ug/L			04/22/22 20:54	500
1,1-Dichloroethane	ND		500	250	ug/L			04/22/22 20:54	500
1,2-Dichloroethane	ND		500	95	ug/L			04/22/22 20:54	500
1,1-Dichloroethene	ND		500	250	ug/L			04/22/22 20:54	500
1,2-Dichloropropane	ND		500	250	ug/L			04/22/22 20:54	500
1,3-Dichloropropane	ND		500	250	ug/L			04/22/22 20:54	500
2,2-Dichloropropane	ND		500	250	ug/L			04/22/22 20:54	500
1,1-Dichloropropene	ND		500	250	ug/L			04/22/22 20:54	500
Ethylbenzene	ND		500	250	ug/L			04/22/22 20:54	500
Ethyl methacrylate	ND		500	300	ug/L			04/22/22 20:54	500
Hexachlorobutadiene	ND		2500	450	ug/L			04/22/22 20:54	500
2-Hexanone	ND		13000	700	ug/L			04/22/22 20:54	500
Isopropylbenzene	ND		500	270	ug/L			04/22/22 20:54	500
Methylene bromide	ND		2500	110	ug/L			04/22/22 20:54	500
Methylene Chloride	ND		2500	1500	ug/L			04/22/22 20:54	500
4-Methyl-2-pentanone (MIBK)	ND		13000	900	ug/L			04/22/22 20:54	500
Methyl tert-butyl ether	ND		500	110	ug/L			04/22/22 20:54	500
m-Xylene & p-Xylene	ND		2500	320	ug/L			04/22/22 20:54	500
Naphthalene	ND		2500	1500	ug/L			04/22/22 20:54	500
n-Butylbenzene	ND		500	380	ug/L			04/22/22 20:54	500
N-Propylbenzene	ND		500	350	ug/L			04/22/22 20:54	500
o-Chlorotoluene	ND		500	290	ug/L			04/22/22 20:54	500
o-Xylene	ND		2500	300	ug/L			04/22/22 20:54	500
p-Chlorotoluene	ND		500	280	ug/L			04/22/22 20:54	500
p-Isopropyltoluene	ND		500	360	ug/L			04/22/22 20:54	500
sec-Butylbenzene	ND		500	350	ug/L			04/22/22 20:54	500

Client Sample ID: MW7-ROX-041922-DUP
Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		500	500	ug/L			04/22/22 20:54	500
tert-Butylbenzene	ND		500	320	ug/L			04/22/22 20:54	500
1,1,1,2-Tetrachloroethane	ND		500	80	ug/L			04/22/22 20:54	500
1,1,2,2-Tetrachloroethane	ND		500	250	ug/L			04/22/22 20:54	500
Tetrachloroethene	ND		500	450	ug/L			04/22/22 20:54	500
Toluene	240	J	500	210	ug/L			04/22/22 20:54	500
trans-1,2-Dichloroethene	ND		500	250	ug/L			04/22/22 20:54	500
trans-1,3-Dichloropropene	ND		2500	100	ug/L			04/22/22 20:54	500
1,2,3-Trichlorobenzene	ND		500	450	ug/L			04/22/22 20:54	500
1,2,4-Trichlorobenzene	ND		500	410	ug/L			04/22/22 20:54	500
1,1,1-Trichloroethane	ND		500	90	ug/L			04/22/22 20:54	500
1,1,2-Trichloroethane	ND		2500	110	ug/L			04/22/22 20:54	500
Trichloroethene	ND		500	75	ug/L			04/22/22 20:54	500
Trichlorofluoromethane	ND		500	260	ug/L			04/22/22 20:54	500
1,2,3-Trichloropropane	ND		2500	420	ug/L			04/22/22 20:54	500
1,2,4-Trimethylbenzene	ND		500	410	ug/L			04/22/22 20:54	500
1,3,5-Trimethylbenzene	ND		500	280	ug/L			04/22/22 20:54	500
Vinyl acetate	ND		13000	470	ug/L			04/22/22 20:54	500
Vinyl chloride	ND		500	250	ug/L			04/22/22 20:54	500
Xylenes, Total	ND		5000	800	ug/L			04/22/22 20:54	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/22/22 20:54*	*500*
Dibromofluoromethane	*111*		*75 - 126*		*04/22/22 20:54*	*500*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/22/22 20:54*	*500*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	950000		5000	650	ug/L			04/23/22 18:25	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*04/23/22 18:25*	*5000*
Dibromofluoromethane	*107*		*75 - 126*		*04/23/22 18:25*	*5000*
Toluene-d8 (Surr)	*101*		*64 - 132*		*04/23/22 18:25*	*5000*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 16:49	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/21/22 09:16	04/28/22 16:49	1
Anthracene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 16:49	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/21/22 09:16	04/28/22 16:49	1
Benzo[a]pyrene	ND		0.20	0.041	ug/L		04/21/22 09:16	04/28/22 16:49	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/21/22 09:16	04/28/22 16:49	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/21/22 09:16	04/28/22 16:49	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/21/22 09:16	04/28/22 16:49	1
Chrysene	ND		0.20	0.073	ug/L		04/21/22 09:16	04/28/22 16:49	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/21/22 09:16	04/28/22 16:49	1
Fluoranthene	ND		0.20	0.067	ug/L		04/21/22 09:16	04/28/22 16:49	1
Fluorene	ND		0.20	0.11	ug/L		04/21/22 09:16	04/28/22 16:49	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/21/22 09:16	04/28/22 16:49	1

Client Sample ID: MW7-ROX-041922-DUP

Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-8

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	1.6		0.20	0.073	ug/L		04/21/22 09:16	04/28/22 16:49	1
2-Methylnaphthalene	2.1		0.20	0.059	ug/L		04/21/22 09:16	04/28/22 16:49	1
Phenanthrene	0.24		0.20	0.036	ug/L		04/21/22 09:16	04/28/22 16:49	1
Pyrene	ND		0.20	0.039	ug/L		04/21/22 09:16	04/28/22 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*115*		*15 - 122*	*04/21/22 09:16*	*04/28/22 16:49*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*04/21/22 09:16*	*04/28/22 16:49*	*1*
Terphenyl-d14	*85*		*33 - 138*	*04/21/22 09:16*	*04/28/22 16:49*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.7	ug/L		04/21/22 09:16	04/23/22 01:33	1
Benzenethiol	ND	*- uJ	9.9	1.7	ug/L		04/21/22 09:16	04/23/22 01:33	1
Benzoic acid	22	J	30	7.2	ug/L		04/21/22 09:16	04/23/22 01:33	1
Benzyl alcohol	ND	uJ	9.9	2.0	ug/L		04/21/22 09:16	04/23/22 01:33	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/21/22 09:16	04/23/22 01:33	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/21/22 09:16	04/23/22 01:33	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/21/22 09:16	04/23/22 01:33	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/21/22 09:16	04/23/22 01:33	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/21/22 09:16	04/23/22 01:33	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/21/22 09:16	04/23/22 01:33	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/21/22 09:16	04/23/22 01:33	1
4-Chloro-3-methylphenol	ND		9.9	3.7	ug/L		04/21/22 09:16	04/23/22 01:33	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/21/22 09:16	04/23/22 01:33	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/21/22 09:16	04/23/22 01:33	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/21/22 09:16	04/23/22 01:33	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		04/21/22 09:16	04/23/22 01:33	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/21/22 09:16	04/23/22 01:33	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		04/21/22 09:16	04/23/22 01:33	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/21/22 09:16	04/23/22 01:33	1
Diethyl phthalate	ND		9.9	0.24	ug/L		04/21/22 09:16	04/23/22 01:33	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/21/22 09:16	04/23/22 01:33	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/21/22 09:16	04/23/22 01:33	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/21/22 09:16	04/23/22 01:33	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/21/22 09:16	04/23/22 01:33	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/21/22 09:16	04/23/22 01:33	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/21/22 09:16	04/23/22 01:33	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/21/22 09:16	04/23/22 01:33	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/21/22 09:16	04/23/22 01:33	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/21/22 09:16	04/23/22 01:33	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/21/22 09:16	04/23/22 01:33	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/21/22 09:16	04/23/22 01:33	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/21/22 09:16	04/23/22 01:33	1
Hexachloroethane	ND		9.9	4.1	ug/L		04/21/22 09:16	04/23/22 01:33	1
Indene	ND		9.9	0.99	ug/L		04/21/22 09:16	04/23/22 01:33	1
Isophorone	ND		9.9	0.14	ug/L		04/21/22 09:16	04/23/22 01:33	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/21/22 09:16	04/23/22 01:33	1
3 & 4 Methylphenol	ND		20	0.38	ug/L		04/21/22 09:16	04/23/22 01:33	1

Client Sample ID: MW7-ROX-041922-DUP

Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-8

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.9	2.2	ug/L		04/21/22 09:16	04/23/22 01:33	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/21/22 09:16	04/23/22 01:33	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/21/22 09:16	04/23/22 01:33	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/21/22 09:16	04/23/22 01:33	1
2-Nitrophenol	ND		9.9	5.1	ug/L		04/21/22 09:16	04/23/22 01:33	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/21/22 09:16	04/23/22 01:33	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/21/22 09:16	04/23/22 01:33	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/21/22 09:16	04/23/22 01:33	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/21/22 09:16	04/23/22 01:33	1
Pentachlorophenol	ND		20	1.4	ug/L		04/21/22 09:16	04/23/22 01:33	1
Phenol	84		9.9	2.6	ug/L		04/21/22 09:16	04/23/22 01:33	1
Pyridine	ND		9.9	3.2	ug/L		04/21/22 09:16	04/23/22 01:33	1
Quinoline	ND		9.9	4.4	ug/L		04/21/22 09:16	04/23/22 01:33	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		04/21/22 09:16	04/23/22 01:33	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/21/22 09:16	04/23/22 01:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*46 - 124*	*04/21/22 09:16*	*04/23/22 01:33*	*1*
2-Fluorophenol	*25*		*13 - 113*	*04/21/22 09:16*	*04/23/22 01:33*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*04/21/22 09:16*	*04/23/22 01:33*	*1*
Phenol-d5	*54*		*17 - 127*	*04/21/22 09:16*	*04/23/22 01:33*	*1*
Terphenyl-d14	*68*		*44 - 149*	*04/21/22 09:16*	*04/23/22 01:33*	*1*
2,4,6-Tribromophenol	*116*		*26 - 150*	*04/21/22 09:16*	*04/23/22 01:33*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		04/26/22 09:26	04/27/22 02:53	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/26/22 09:26	04/27/22 02:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*133*		*51 - 149*	*04/26/22 09:26*	*04/27/22 02:53*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218719-1	TB-ROX-041922-8260	97	105	99
400-218719-3	MW4-ROX-041922-EB	96	101	99
400-218719-4	MW4-ROX-041922	95	103	95
400-218719-5	MW25-ROX-041922	99	102	97
400-218719-6	MW8-ROX-041922	97	106	99
400-218719-6 - DL	MW8-ROX-041922	92	105	102
400-218719-7	MW7-ROX-041922	95	108	97
400-218719-7 - DL	MW7-ROX-041922	93	102	96
400-218719-8	MW7-ROX-041922-DUP	95	111	96
400-218719-8 - DL	MW7-ROX-041922-DUP	94	107	101
LCS 400-574858/1002	Lab Control Sample	96	102	98
LCS 400-575009/1002	Lab Control Sample	93	102	94
LCS 400-575268/1003	Lab Control Sample	96	106	95
MB 400-574858/4	Method Blank	96	100	100
MB 400-575009/4	Method Blank	94	103	101
MB 400-575268/5	Method Blank	94	106	98

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218719-3	MW4-ROX-041922-EB	58	15	63	35	93	67
400-218719-4 - RA	MW4-ROX-041922	87	4 S1-	78	20	94	61
400-218719-5	MW25-ROX-041922	69	12 S1-	75	46	102	114
400-218719-6	MW8-ROX-041922	69	24	75	58	71	117
400-218719-7	MW7-ROX-041922	66	26	72	54	80	112
400-218719-8	MW7-ROX-041922-DUP	66	25	72	54	68	116
LCS 400-574677/2-A	Lab Control Sample	75	38	64	60	96	115
LCS 400-574677/4-A	Lab Control Sample	65	36	73	58	99	64
LCSD 400-574677/3-A	Lab Control Sample Dup	74	20	65	54	92	116
LCSD 400-574677/5-A	Lab Control Sample Dup	72	37	75	59	109	66
MB 400-574677/1-A	Method Blank	67	16	74	48	102	78

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218719-3	MW4-ROX-041922-EB	102	85	96
400-218719-4	MW4-ROX-041922	104	94	96
400-218719-5	MW25-ROX-041922	111	95	109
400-218719-6	MW8-ROX-041922	107	93	82
400-218719-7	MW7-ROX-041922	114	93	98
400-218719-8	MW7-ROX-041922-DUP	115	93	85
LCS 400-574677/2-A	Lab Control Sample	102	81	104
LCSD 400-574677/3-A	Lab Control Sample Dup	102	70	103
MB 400-574677/1-A	Method Blank	110	90	105

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-218719-2	TB-ROX-041922-8011	120
400-218719-3	MW4-ROX-041922-EB	118
400-218719-4	MW4-ROX-041922	122
400-218719-5	MW25-ROX-041922	123
400-218719-6	MW8-ROX-041922	115
400-218719-7	MW7-ROX-041922	132
400-218719-8	MW7-ROX-041922-DUP	133
LCS 400-575297/2-A	Lab Control Sample	136
LCSD 400-575297/3-A	Lab Control Sample Dup	136
MB 400-575297/1-A	Method Blank	131

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Client Sample ID: TB-ROX-041922-8260

Lab Sample ID: 400-218719-1

Date Collected: 04/19/22 00:01
Date Received: 04/20/22 08:58

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574858	04/22/22 14:48	WPD	TAL PEN

Client Sample ID: TB-ROX-041922-8011

Lab Sample ID: 400-218719-2

Date Collected: 04/19/22 00:01
Date Received: 04/20/22 08:58

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.6 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 00:30	DS	TAL PEN

Client Sample ID: MW4-ROX-041922-EB

Lab Sample ID: 400-218719-3

Date Collected: 04/19/22 08:30
Date Received: 04/20/22 08:58

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574858	04/22/22 15:14	WPD	TAL PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 23:50	S1B	TAL PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 15:23	KJA	TAL PEN
Total/NA	Prep	8011			34 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 01:11	DS	TAL PEN

Client Sample ID: MW4-ROX-041922

Lab Sample ID: 400-218719-4

Date Collected: 04/19/22 09:15
Date Received: 04/20/22 08:58

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574858	04/22/22 18:43	WPD	TAL PEN
Total/NA	Prep	3520C			257 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1	0.4 mL	1.0 mL	574934	04/23/22 00:10	S1B	TAL PEN
Total/NA	Prep	3520C	RA		257 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D	RA	1			575177	04/25/22 23:26	S1B	TAL PEN
Total/NA	Prep	3520C			257 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 15:40	KJA	TAL PEN
Total/NA	Prep	8011			33 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 01:31	DS	TAL PEN

Client Sample ID: MW25-ROX-041922

Lab Sample ID: 400-218719-5

Date Collected: 04/19/22 10:10
Date Received: 04/20/22 08:58

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574858	04/22/22 19:09	WPD	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Client Sample ID: MW25-ROX-041922

Date Collected: 04/19/22 10:10
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250.8 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/23/22 00:31	S1B	TAL PEN
Total/NA	Prep	3520C			250.8 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 15:57	KJA	TAL PEN
Total/NA	Prep	8011			34.3 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 01:52	DS	TAL PEN

Client Sample ID: MW8-ROX-041922

Date Collected: 04/19/22 11:00
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		500	5 mL	5 mL	574858	04/22/22 20:02	WPD	TAL PEN
Total/NA	Analysis	8260B	DL	2000	5 mL	5 mL	575009	04/23/22 17:33	WPD	TAL PEN
Total/NA	Prep	3520C			258.2 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/23/22 00:52	S1B	TAL PEN
Total/NA	Prep	3520C			258.2 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 16:14	KJA	TAL PEN
Total/NA	Prep	8011			34.2 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 02:12	DS	TAL PEN

Client Sample ID: MW7-ROX-041922

Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		500	5 mL	5 mL	574858	04/22/22 20:28	WPD	TAL PEN
Total/NA	Analysis	8260B	DL	10000	5 mL	5 mL	575268	04/26/22 20:05	BEP	TAL PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/23/22 01:12	S1B	TAL PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 16:32	KJA	TAL PEN
Total/NA	Prep	8011			35.3 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 02:33	DS	TAL PEN

Client Sample ID: MW7-ROX-041922-DUP

Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		500	5 mL	5 mL	574858	04/22/22 20:54	WPD	TAL PEN
Total/NA	Analysis	8260B	DL	5000	5 mL	5 mL	575009	04/23/22 18:25	WPD	TAL PEN
Total/NA	Prep	3520C			253.4 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/23/22 01:33	S1B	TAL PEN

Client Sample ID: MW7-ROX-041922-DUP

Date Collected: 04/19/22 12:05
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218719-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			253.4 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 16:49	KJA	TAL PEN
Total/NA	Prep	8011			34.4 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 02:53	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574677/1-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 17:59	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 11:57	KJA	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-574858/4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574858	04/22/22 10:52	WPD	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-575009/4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575009	04/23/22 08:17	WPD	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-575268/5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575268	04/26/22 10:02	BEP	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-575297/1-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575297	04/26/22 09:25	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 21:26	DS	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 18:19	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575577	04/28/22 12:14	KJA	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574677/4-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 19:01	S1B	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-574858/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574858	04/22/22 09:51	WPD	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-575009/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575009	04/23/22 07:21	WPD	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-575268/1003
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575268	04/26/22 08:59	BEP	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-575297/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575297	04/26/22 09:25	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 21:46	DS	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 18:40	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575577	04/28/22 12:31	KJA	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-574677/5-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 19:22	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-575297/3-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575297	04/26/22 09:25	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 22:07	DS	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218719-1

GC/MS VOA

Analysis Batch: 574858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218719-1	TB-ROX-041922-8260	Total/NA	Water	8260B	
400-218719-3	MW4-ROX-041922-EB	Total/NA	Water	8260B	
400-218719-4	MW4-ROX-041922	Total/NA	Water	8260B	
400-218719-5	MW25-ROX-041922	Total/NA	Water	8260B	
400-218719-6	MW8-ROX-041922	Total/NA	Water	8260B	
400-218719-7	MW7-ROX-041922	Total/NA	Water	8260B	
400-218719-8	MW7-ROX-041922-DUP	Total/NA	Water	8260B	
MB 400-574858/4	Method Blank	Total/NA	Water	8260B	
LCS 400-574858/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 575009

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218719-6 - DL	MW8-ROX-041922	Total/NA	Water	8260B	
400-218719-8 - DL	MW7-ROX-041922-DUP	Total/NA	Water	8260B	
MB 400-575009/4	Method Blank	Total/NA	Water	8260B	
LCS 400-575009/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 575268

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218719-7 - DL	MW7-ROX-041922	Total/NA	Water	8260B	
MB 400-575268/5	Method Blank	Total/NA	Water	8260B	
LCS 400-575268/1003	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 574677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218719-3	MW4-ROX-041922-EB	Total/NA	Water	3520C	
400-218719-4	MW4-ROX-041922	Total/NA	Water	3520C	
400-218719-4 - RA	MW4-ROX-041922	Total/NA	Water	3520C	
400-218719-5	MW25-ROX-041922	Total/NA	Water	3520C	
400-218719-6	MW8-ROX-041922	Total/NA	Water	3520C	
400-218719-7	MW7-ROX-041922	Total/NA	Water	3520C	
400-218719-8	MW7-ROX-041922-DUP	Total/NA	Water	3520C	
MB 400-574677/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-574677/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-574677/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 574934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218719-3	MW4-ROX-041922-EB	Total/NA	Water	8270D	574677
400-218719-4	MW4-ROX-041922	Total/NA	Water	8270D	574677
400-218719-5	MW25-ROX-041922	Total/NA	Water	8270D	574677
400-218719-6	MW8-ROX-041922	Total/NA	Water	8270D	574677
400-218719-7	MW7-ROX-041922	Total/NA	Water	8270D	574677
400-218719-8	MW7-ROX-041922-DUP	Total/NA	Water	8270D	574677
MB 400-574677/1-A	Method Blank	Total/NA	Water	8270D	574677
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	8270D	574677
LCS 400-574677/4-A	Lab Control Sample	Total/NA	Water	8270D	574677

GC/MS Semi VOA (Continued)

Analysis Batch: 574934 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	574677
LCSD 400-574677/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	574677

Analysis Batch: 575177

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218719-4 - RA	MW4-ROX-041922	Total/NA	Water	8270D	574677

Analysis Batch: 575577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218719-3	MW4-ROX-041922-EB	Total/NA	Water	8270D LL	574677
400-218719-4	MW4-ROX-041922	Total/NA	Water	8270D LL	574677
400-218719-5	MW25-ROX-041922	Total/NA	Water	8270D LL	574677
400-218719-6	MW8-ROX-041922	Total/NA	Water	8270D LL	574677
400-218719-7	MW7-ROX-041922	Total/NA	Water	8270D LL	574677
400-218719-8	MW7-ROX-041922-DUP	Total/NA	Water	8270D LL	574677
MB 400-574677/1-A	Method Blank	Total/NA	Water	8270D LL	574677
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	8270D LL	574677
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	574677

GC Semi VOA

Prep Batch: 575297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218719-2	TB-ROX-041922-8011	Total/NA	Water	8011	
400-218719-3	MW4-ROX-041922-EB	Total/NA	Water	8011	
400-218719-4	MW4-ROX-041922	Total/NA	Water	8011	
400-218719-5	MW25-ROX-041922	Total/NA	Water	8011	
400-218719-6	MW8-ROX-041922	Total/NA	Water	8011	
400-218719-7	MW7-ROX-041922	Total/NA	Water	8011	
400-218719-8	MW7-ROX-041922-DUP	Total/NA	Water	8011	
MB 400-575297/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-575297/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-575297/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 575299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218719-2	TB-ROX-041922-8011	Total/NA	Water	8011	575297
400-218719-3	MW4-ROX-041922-EB	Total/NA	Water	8011	575297
400-218719-4	MW4-ROX-041922	Total/NA	Water	8011	575297
400-218719-5	MW25-ROX-041922	Total/NA	Water	8011	575297
400-218719-6	MW8-ROX-041922	Total/NA	Water	8011	575297
400-218719-7	MW7-ROX-041922	Total/NA	Water	8011	575297
400-218719-8	MW7-ROX-041922-DUP	Total/NA	Water	8011	575297
MB 400-575297/1-A	Method Blank	Total/NA	Water	8011	575297
LCS 400-575297/2-A	Lab Control Sample	Total/NA	Water	8011	575297
LCSD 400-575297/3-A	Lab Control Sample Dup	Total/NA	Water	8011	575297

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574858/4
Matrix: Water
Analysis Batch: 574858

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/22/22 10:52	1
Acrolein	ND		20	3.3	ug/L			04/22/22 10:52	1
Acrylonitrile	ND		10	2.8	ug/L			04/22/22 10:52	1
Benzene	ND		1.0	0.13	ug/L			04/22/22 10:52	1
Bromobenzene	ND		1.0	0.54	ug/L			04/22/22 10:52	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/22/22 10:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/22/22 10:52	1
Bromoform	ND		5.0	0.25	ug/L			04/22/22 10:52	1
Bromomethane	ND		1.0	0.98	ug/L			04/22/22 10:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/22/22 10:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/22/22 10:52	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/22/22 10:52	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/22/22 10:52	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/22/22 10:52	1
Chloroethane	ND		1.0	0.76	ug/L			04/22/22 10:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/22/22 10:52	1
Chloroform	ND		1.0	1.0	ug/L			04/22/22 10:52	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/22/22 10:52	1
Chloromethane	ND		1.0	0.32	ug/L			04/22/22 10:52	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/22/22 10:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/22/22 10:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/22/22 10:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/22/22 10:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/22/22 10:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/22/22 10:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/22/22 10:52	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/22/22 10:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 10:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 10:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 10:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 10:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/22/22 10:52	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/22/22 10:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/22/22 10:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/22/22 10:52	1
2-Hexanone	ND		25	1.4	ug/L			04/22/22 10:52	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/22/22 10:52	1
Methylene bromide	ND		5.0	0.22	ug/L			04/22/22 10:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/22/22 10:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/22/22 10:52	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/22/22 10:52	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/22/22 10:52	1
Naphthalene	ND		5.0	3.0	ug/L			04/22/22 10:52	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/22/22 10:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/22/22 10:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/22/22 10:52	1
o-Xylene	ND		5.0	0.60	ug/L			04/22/22 10:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/22/22 10:52	1

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

Lab Sample ID: MB 400-574858/4
Matrix: Water
Analysis Batch: 574858

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/22/22 10:52	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/22/22 10:52	1
Styrene	ND		1.0	1.0	ug/L			04/22/22 10:52	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/22/22 10:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/22/22 10:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/22/22 10:52	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/22/22 10:52	1
Toluene	ND		1.0	0.41	ug/L			04/22/22 10:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 10:52	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/22/22 10:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/22/22 10:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/22/22 10:52	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/22/22 10:52	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/22/22 10:52	1
Trichloroethene	ND		1.0	0.15	ug/L			04/22/22 10:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/22/22 10:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/22/22 10:52	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/22/22 10:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/22/22 10:52	1
Vinyl acetate	ND		25	0.93	ug/L			04/22/22 10:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/22/22 10:52	1
Xylenes, Total	ND		10	1.6	ug/L			04/22/22 10:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*04/22/22 10:52*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/22/22 10:52*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*04/22/22 10:52*	*1*

Lab Sample ID: LCS 400-574858/1002
Matrix: Water
Analysis Batch: 574858

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	166		ug/L		83	43 - 160
Acrolein	250	220		ug/L		88	38 - 160
Acrylonitrile	500	449		ug/L		90	64 - 142
Benzene	50.0	46.3		ug/L		93	70 - 130
Bromobenzene	50.0	45.3		ug/L		91	70 - 132
Bromochloromethane	50.0	47.2		ug/L		94	70 - 130
Bromodichloromethane	50.0	46.2		ug/L		92	67 - 133
Bromoform	50.0	47.2		ug/L		94	57 - 140
Bromomethane	25.0	25.9		ug/L		103	10 - 160
2-Butanone (MEK)	200	190		ug/L		95	61 - 145
Carbon disulfide	50.0	45.1		ug/L		90	61 - 137
Carbon tetrachloride	50.0	47.7		ug/L		95	61 - 137
Chlorobenzene	50.0	47.0		ug/L		94	70 - 130
Dibromochloromethane	50.0	47.6		ug/L		95	67 - 135
Chloroethane	25.0	24.2		ug/L		97	55 - 141

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

Lab Sample ID: LCS 400-574858/1002
Matrix: Water
Analysis Batch: 574858

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	25.0	27.6		ug/L		110	10 - 160
Chloroform	50.0	45.9		ug/L		92	69 - 130
1-Chlorohexane	50.0	45.5		ug/L		91	69 - 130
Chloromethane	25.0	23.3		ug/L		93	58 - 137
cis-1,2-Dichloroethene	50.0	45.0		ug/L		90	68 - 130
cis-1,3-Dichloropropene	50.0	47.4		ug/L		95	69 - 132
1,2-Dichlorobenzene	50.0	46.5		ug/L		93	67 - 130
1,3-Dichlorobenzene	50.0	47.2		ug/L		94	70 - 130
1,4-Dichlorobenzene	50.0	47.9		ug/L		96	70 - 130
Dichlorodifluoromethane	25.0	22.7		ug/L		91	41 - 146
1,1-Dichloroethane	50.0	44.1		ug/L		88	70 - 130
1,2-Dichloroethane	50.0	44.8		ug/L		90	69 - 130
1,1-Dichloroethene	50.0	45.8		ug/L		92	63 - 134
1,2-Dichloropropane	50.0	46.1		ug/L		92	70 - 130
1,3-Dichloropropane	50.0	45.0		ug/L		90	70 - 130
2,2-Dichloropropane	50.0	44.3		ug/L		89	52 - 135
1,1-Dichloropropene	50.0	46.1		ug/L		92	70 - 130
Ethylbenzene	50.0	47.3		ug/L		95	70 - 130
Ethyl methacrylate	50.0	47.5		ug/L		95	68 - 130
Hexachlorobutadiene	50.0	46.5		ug/L		93	53 - 140
2-Hexanone	200	181		ug/L		91	65 - 137
Isopropylbenzene	50.0	48.8		ug/L		98	70 - 130
Methylene bromide	50.0	45.0		ug/L		90	70 - 130
Methylene Chloride	50.0	45.5		ug/L		91	66 - 135
4-Methyl-2-pentanone (MIBK)	200	188		ug/L		94	69 - 138
Methyl tert-butyl ether	50.0	46.2		ug/L		92	66 - 130
m-Xylene & p-Xylene	50.0	47.6		ug/L		95	70 - 130
Naphthalene	50.0	45.5		ug/L		91	47 - 149
n-Butylbenzene	50.0	50.2		ug/L		100	67 - 130
N-Propylbenzene	50.0	48.2		ug/L		96	70 - 130
o-Chlorotoluene	50.0	48.0		ug/L		96	70 - 130
o-Xylene	50.0	47.3		ug/L		95	70 - 130
p-Chlorotoluene	50.0	47.3		ug/L		95	70 - 130
p-Isopropyltoluene	50.0	48.8		ug/L		98	65 - 130
sec-Butylbenzene	50.0	47.9		ug/L		96	66 - 130
Styrene	50.0	48.6		ug/L		97	70 - 130
tert-Butylbenzene	50.0	47.8		ug/L		96	64 - 139
1,1,1,2-Tetrachloroethane	50.0	47.0		ug/L		94	67 - 131
1,1,2,2-Tetrachloroethane	50.0	44.1		ug/L		88	70 - 131
Tetrachloroethene	50.0	47.1		ug/L		94	65 - 130
Toluene	50.0	47.4		ug/L		95	70 - 130
trans-1,2-Dichloroethene	50.0	44.9		ug/L		90	70 - 130
trans-1,3-Dichloropropene	50.0	45.6		ug/L		91	63 - 130
1,2,3-Trichlorobenzene	50.0	45.3		ug/L		91	60 - 138
1,2,4-Trichlorobenzene	50.0	47.0		ug/L		94	60 - 140
1,1,1-Trichloroethane	50.0	47.4		ug/L		95	68 - 130
1,1,2-Trichloroethane	50.0	45.5		ug/L		91	70 - 130
Trichloroethene	50.0	47.7		ug/L		95	70 - 130
Trichlorofluoromethane	25.0	25.6		ug/L		102	65 - 138

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

Lab Sample ID: LCS 400-574858/1002
Matrix: Water
Analysis Batch: 574858

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	44.4		ug/L		89	70 - 130
1,2,4-Trimethylbenzene	50.0	48.9		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	50.0	47.7		ug/L		95	69 - 130
Vinyl acetate	50.0	49.4		ug/L		99	26 - 160
Vinyl chloride	25.0	23.1		ug/L		92	59 - 136
Xylenes, Total	100	94.9		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 119*
Dibromofluoromethane	*102*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: MB 400-575009/4
Matrix: Water
Analysis Batch: 575009

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.13	ug/L			04/23/22 08:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*04/23/22 08:17*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*04/23/22 08:17*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*04/23/22 08:17*	*1*

Lab Sample ID: LCS 400-575009/1002
Matrix: Water
Analysis Batch: 575009

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	50.0	47.4		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*72 - 119*
Dibromofluoromethane	*102*		*75 - 126*
Toluene-d8 (Surr)	*94*		*64 - 132*

Lab Sample ID: MB 400-575268/5
Matrix: Water
Analysis Batch: 575268

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.13	ug/L			04/26/22 10:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*04/26/22 10:02*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*04/26/22 10:02*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*04/26/22 10:02*	*1*

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

Lab Sample ID: LCS 400-575268/1003
Matrix: Water
Analysis Batch: 575268

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	50.0	46.7		ug/L		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*96*		*72 - 119*
Dibromofluoromethane	*106*		*75 - 126*
Toluene-d8 (Surr)	*95*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzenethiol	ND		10	1.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzoic acid	ND		30	7.3	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzyl alcohol	ND		10	2.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/21/22 09:16	04/22/22 17:59	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chloroaniline	ND		10	3.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Chlorophenol	ND		10	2.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dibenzofuran	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Diethyl phthalate	ND		10	0.24	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/22/22 17:59	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
1,4-Dioxane	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachloroethane	ND		10	4.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
Indene	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		10	0.14	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Methylphenol	ND		10	1.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Nitroaniline	ND		10	2.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
3-Nitroaniline	ND		10	1.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Nitroaniline	ND		10	1.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
Nitrobenzene	ND		10	0.13	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Nitrophenol	ND		10	5.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Nitrophenol	ND		10	2.1	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/21/22 09:16	04/22/22 17:59	1
Pentachlorophenol	ND		20	1.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
Phenol	ND		10	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
Pyridine	ND		10	3.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
Quinoline	ND		10	4.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
2-Fluorophenol	*16*		*13 - 113*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
Phenol-d5	*48*		*17 - 127*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
Terphenyl-d14	*102*		*44 - 149*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
2,4,6-Tribromophenol	*78*		*26 - 150*	*04/21/22 09:16*	*04/22/22 17:59*	*1*

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	79.3		ug/L		66	21 - 120
Benzoic acid	498	219		ug/L		44	10 - 144
Benzyl alcohol	120	64.5		ug/L		54	28 - 120
Bis(2-chloroethoxy)methane	120	65.2		ug/L		54	47 - 120
Bis(2-chloroethyl)ether	120	68.0		ug/L		57	44 - 120
bis (2-chloroisopropyl) ether	120	99.5		ug/L		83	33 - 121
Bis(2-ethylhexyl) phthalate	120	90.0		ug/L		75	52 - 147
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122
Butyl benzyl phthalate	120	90.7		ug/L		76	54 - 133
4-Chloroaniline	120	81.0		ug/L		67	26 - 120
4-Chloro-3-methylphenol	120	78.1		ug/L		65	48 - 131
2-Chloronaphthalene	120	89.7		ug/L		75	52 - 121
2-Chlorophenol	120	72.5		ug/L		60	40 - 120
4-Chlorophenyl phenyl ether	120	96.0		ug/L		80	56 - 125
Dibenz[a,h]acridine	120	119		ug/L		99	31 - 150
Dibenzofuran	120	91.0		ug/L		76	56 - 122

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3,3'-Dichlorobenzidine	160	189		ug/L		118	36 - 132
2,4-Dichlorophenol	120	72.7		ug/L		61	49 - 120
Diethyl phthalate	120	101		ug/L		84	50 - 137
2,4-Dimethylphenol	120	73.6		ug/L		61	48 - 120
Dimethyl phthalate	120	92.5		ug/L		77	57 - 124
Di-n-butyl phthalate	120	108		ug/L		90	58 - 126
4,6-Dinitro-ortho-cresol	240	199		ug/L		83	23 - 148
2,4-Dinitrophenol	240	177		ug/L		74	10 - 150
2,4-Dinitrotoluene	120	88.8		ug/L		74	54 - 142
2,6-Dinitrotoluene	120	84.2		ug/L		70	55 - 130
Di-n-octyl phthalate	120	92.2		ug/L		77	57 - 138
1,4-Dioxane	120	67.5		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	98.9		ug/L		82	45 - 124
Hexachlorobenzene	120	144		ug/L		120	52 - 129
Hexachlorocyclopentadiene	120	73.4		ug/L		61	10 - 134
Hexachloroethane	120	85.5		ug/L		71	20 - 120
Indene	120	88.5		ug/L		74	49 - 120
Isophorone	120	69.8		ug/L		58	48 - 120
2-Methylphenol	120	84.1		ug/L		70	46 - 124
3 & 4 Methylphenol	120	84.0		ug/L		70	45 - 120
2-Nitroaniline	120	94.1		ug/L		78	51 - 145
3-Nitroaniline	120	83.7		ug/L		70	37 - 127
4-Nitroaniline	120	115		ug/L		96	36 - 137
Nitrobenzene	120	72.3		ug/L		60	45 - 120
2-Nitrophenol	120	68.5		ug/L		57	40 - 124
4-Nitrophenol	240	243		ug/L		101	23 - 146
N-Nitrosodimethylamine	120	123		ug/L		103	29 - 137
N-Nitrosodi-n-propylamine	120	97.2		ug/L		81	45 - 120
N-Nitrosodiphenylamine	119	92.3		ug/L		77	54 - 120
Pentachlorophenol	240	191		ug/L		80	31 - 130
Phenol	120	73.0		ug/L		61	11 - 120
Pyridine	240	141		ug/L		59	16 - 120
Quinoline	120	93.1		ug/L		78	49 - 130
2,4,5-Trichlorophenol	120	93.3		ug/L		78	51 - 136
2,4,6-Trichlorophenol	120	92.3		ug/L		77	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*60*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*115*		*26 - 150*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574677/4-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	6.05	J *-	ug/L		5	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*65*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*58*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*64*		*26 - 150*

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	76.8		ug/L		64	21 - 120	3	30
Benzoic acid	498	201		ug/L		40	10 - 144	8	30
Benzyl alcohol	120	60.3		ug/L		50	28 - 120	7	30
Bis(2-chloroethoxy)methane	120	66.8		ug/L		56	47 - 120	2	30
Bis(2-chloroethyl)ether	120	73.5		ug/L		61	44 - 120	8	30
bis (2-chloroisopropyl) ether	120	102		ug/L		85	33 - 121	2	30
Bis(2-ethylhexyl) phthalate	120	92.6		ug/L		77	52 - 147	3	30
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122	1	30
Butyl benzyl phthalate	120	90.1		ug/L		75	54 - 133	1	30
4-Chloroaniline	120	77.1		ug/L		64	26 - 120	5	30
4-Chloro-3-methylphenol	120	86.1		ug/L		72	48 - 131	10	30
2-Chloronaphthalene	120	91.5		ug/L		76	52 - 121	2	30
2-Chlorophenol	120	59.9		ug/L		50	40 - 120	19	30
4-Chlorophenyl phenyl ether	120	99.5		ug/L		83	56 - 125	4	30
Dibenz[a,h]acridine	120	127		ug/L		106	31 - 150	6	30
Dibenzofuran	120	93.4		ug/L		78	56 - 122	3	30
3,3'-Dichlorobenzidine	160	187		ug/L		117	36 - 132	1	30
2,4-Dichlorophenol	120	72.6		ug/L		60	49 - 120	0	30
Diethyl phthalate	120	108		ug/L		90	50 - 137	7	30
2,4-Dimethylphenol	120	74.7		ug/L		62	48 - 120	2	30
Dimethyl phthalate	120	97.9		ug/L		82	57 - 124	6	30
Di-n-butyl phthalate	120	112		ug/L		93	58 - 126	3	30
4,6-Dinitro-ortho-cresol	240	215		ug/L		90	23 - 148	8	30
2,4-Dinitrophenol	240	189		ug/L		79	10 - 150	6	30
2,4-Dinitrotoluene	120	90.0		ug/L		75	54 - 142	1	30
2,6-Dinitrotoluene	120	87.0		ug/L		72	55 - 130	3	30
Di-n-octyl phthalate	120	95.7		ug/L		80	57 - 138	4	30
1,4-Dioxane	120	79.7		ug/L		66	31 - 120	17	30
1,2-Diphenylhydrazine (as Azobenzene)	120	101		ug/L		84	45 - 124	2	30
Hexachlorobenzene	120	144		ug/L		120	52 - 129	0	30
Hexachlorocyclopentadiene	120	81.6		ug/L		68	10 - 134	11	30
Hexachloroethane	120	83.2		ug/L		69	20 - 120	3	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indene	120	94.4		ug/L		79	49 - 120	6	30
Isophorone	120	71.0		ug/L		59	48 - 120	2	30
2-Methylphenol	120	78.5		ug/L		65	46 - 124	7	30
3 & 4 Methylphenol	120	84.3		ug/L		70	45 - 120	0	30
2-Nitroaniline	120	98.2		ug/L		82	51 - 145	4	30
3-Nitroaniline	120	84.2		ug/L		70	37 - 127	1	30
4-Nitroaniline	120	114		ug/L		95	36 - 137	1	30
Nitrobenzene	120	75.0		ug/L		63	45 - 120	4	30
2-Nitrophenol	120	68.9		ug/L		57	40 - 124	0	30
4-Nitrophenol	240	257		ug/L		107	23 - 146	6	30
N-Nitrosodimethylamine	120	123		ug/L		102	29 - 137	0	30
N-Nitrosodi-n-propylamine	120	97.6		ug/L		81	45 - 120	0	30
N-Nitrosodiphenylamine	119	95.1		ug/L		80	54 - 120	3	30
Pentachlorophenol	240	194		ug/L		81	31 - 130	2	30
Phenol	120	70.1		ug/L		58	11 - 120	4	30
Pyridine	240	122		ug/L		51	16 - 120	14	30
Quinoline	120	93.6		ug/L		78	49 - 130	1	30
2,4,5-Trichlorophenol	120	101		ug/L		84	51 - 136	8	30
2,4,6-Trichlorophenol	120	95.1		ug/L		79	50 - 127	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*46 - 124*
2-Fluorophenol	*20*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*54*		*17 - 127*
Terphenyl-d14	*92*		*44 - 149*
2,4,6-Tribromophenol	*116*		*26 - 150*

Lab Sample ID: LCSD 400-574677/5-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	6.02	J *-	ug/L		5	10 - 120	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*37*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*59*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*66*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 11:57	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/21/22 09:16	04/28/22 11:57	1
Anthracene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/21/22 09:16	04/28/22 11:57	1
Chrysene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/28/22 11:57	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/21/22 09:16	04/28/22 11:57	1
Fluoranthene	ND		0.20	0.068	ug/L		04/21/22 09:16	04/28/22 11:57	1
Fluorene	ND		0.20	0.11	ug/L		04/21/22 09:16	04/28/22 11:57	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/21/22 09:16	04/28/22 11:57	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/28/22 11:57	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/21/22 09:16	04/28/22 11:57	1
Phenanthrene	ND		0.20	0.036	ug/L		04/21/22 09:16	04/28/22 11:57	1
Pyrene	ND		0.20	0.040	ug/L		04/21/22 09:16	04/28/22 11:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/21/22 09:16*	*04/28/22 11:57*	*1*
Nitrobenzene-d5	*90*		*19 - 130*	*04/21/22 09:16*	*04/28/22 11:57*	*1*
Terphenyl-d14	*105*		*33 - 138*	*04/21/22 09:16*	*04/28/22 11:57*	*1*

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	116		ug/L		96	41 - 120
Acenaphthylene	120	134		ug/L		111	44 - 120
Anthracene	120	128		ug/L		107	49 - 120
Benzo[a]anthracene	120	125		ug/L		104	61 - 135
Benzo[a]pyrene	120	125		ug/L		104	52 - 120
Benzo[b]fluoranthene	120	125		ug/L		104	53 - 134
Benzo[g,h,i]perylene	120	93.0		ug/L		78	47 - 133
Benzo[k]fluoranthene	120	127		ug/L		106	57 - 134
Chrysene	120	122		ug/L		102	55 - 122
Dibenz(a,h)anthracene	120	110		ug/L		92	48 - 146
Fluoranthene	120	134		ug/L		111	54 - 128
Fluorene	120	138		ug/L		115	45 - 125
Indeno[1,2,3-cd]pyrene	120	105		ug/L		87	43 - 142
1-Methylnaphthalene	120	101		ug/L		84	41 - 120
2-Methylnaphthalene	120	93.1		ug/L		78	32 - 124
Phenanthrene	120	127		ug/L		106	48 - 120
Pyrene	120	119		ug/L		99	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*102*		*15 - 122*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	81		19 - 130
Terphenyl-d14	104		33 - 138

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	120		ug/L		100	41 - 120	4	56
Acenaphthylene	120	140		ug/L		116	44 - 120	4	56
Anthracene	120	128		ug/L		107	49 - 120	0	51
Benzo[a]anthracene	120	128		ug/L		107	61 - 135	2	49
Benzo[a]pyrene	120	130		ug/L		108	52 - 120	4	50
Benzo[b]fluoranthene	120	129		ug/L		107	53 - 134	3	54
Benzo[g,h,i]perylene	120	98.7		ug/L		82	47 - 133	6	50
Benzo[k]fluoranthene	120	131		ug/L		109	57 - 134	3	52
Chrysene	120	128		ug/L		107	55 - 122	5	50
Dibenz(a,h)anthracene	120	117		ug/L		97	48 - 146	6	50
Fluoranthene	120	133		ug/L		111	54 - 128	1	52
Fluorene	120	142		ug/L		119	45 - 125	3	56
Indeno[1,2,3-cd]pyrene	120	111		ug/L		93	43 - 142	6	51
1-Methylnaphthalene	120	108		ug/L		90	41 - 120	6	55
2-Methylnaphthalene	120	96.8		ug/L		81	32 - 124	4	57
Phenanthrene	120	129		ug/L		107	48 - 120	1	56
Pyrene	120	118		ug/L		98	48 - 132	1	52

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	102		15 - 122
Nitrobenzene-d5	70		19 - 130
Terphenyl-d14	103		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-575297/1-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575297

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/26/22 09:25	04/26/22 21:26	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/26/22 09:25	04/26/22 21:26	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	131		51 - 149	04/26/22 09:25	04/26/22 21:26	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-575297/2-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.167	*+	ug/L		166	60 - 140
1,2-Dibromoethane	0.101	0.122		ug/L		121	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*136*		*51 - 149*

Lab Sample ID: LCSD 400-575297/3-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 575297

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.161	*+	ug/L		160	60 - 140	4	30
1,2-Dibromoethane	0.101	0.112		ug/L		112	60 - 140	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*136*		*51 - 149*

LAB (LOCATION)

☐ ACCUTEST (_____)

☐ CALSCIENCE (_____)

☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))

☐ Other (_____)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:

☐ SGW FDG ☐ PIPELINE ☐ RETAIL

☐ CHEMICALS ☐ CONSULTANT ☐ LUBES

☐ TRANSPORTATION ☑ OTHER _ENV. SERVICES_____

SAMPLING COMPANY: AECOM	LOG CODE:
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA	
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger	
TELEPHONE: 314-429-0100	FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com	

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) __EDD_____

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/19/2022
PO #	GSAP Project ID	PAGE: 1 of 1
60674381 – 3.2.2	USPC/00114/R/02	

SITE ADDRESS Street and City: 900 South Central Ave; ROXANA	State: IL	AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.2.2
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions	PHONE NO.: 314-802-1207; 314-802-1122	E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols		AECOM Other ID / LAB USE ONLY

REQUESTED ANALYSIS
60674381 – 3.2.2

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL
	TB-ROX-041922-8260	4/19/2022	0000	Water	2					2	X			
	TB-ROX-041922-8011	4/19/2022	0000	Water	2					2		X		
	MW4-ROX-041922-EB	4/19/2022	0830	Water	6			2		8	X	X	X	X
	MW4-ROX-041922	4/19/2022	0915	Water	6			2		8	X	X	X	X
	MW25-ROX-041922	4/19/2022	1010	Water	6			2		8	X	X	X	X
	MW8-ROX-041922	4/19/2022	1100	Water	6			2		8	X	X	X	X
	MW7-ROX-041922	4/19/2022	1205	Water	6			2		8	X	X	X	X
	MW7-ROX-041922-DUP	4/19/2022	1205	Water	6			2		8	X	X	X	X

400-218719 COC

FIELD NOTES:
0-0, 0-0°C
IR9

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

Relinquished by: (Signature) MARY MASSA	Received by: (Signature) FEDEX: 1482 3813 0930, 1482 3813 0929	Date: 4/19/2022	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4-20-22	Time: 858

CUSTODY SEALS: 1892120, 1892121, 1892122, 1892123

Version 1Apr22

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4/29/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218719-1

Login Number: 218719
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0, 0.0°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Job ID: 400-218719-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218725-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Teresa Amentt Jennings

Date Reviewed: 6/14/2022

Guidance: *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (November 2020)

Sample Identification	Sample Identification
TB-ROX-041922-8260-SS	TB-ROX-041922-8011-SS
P93D-ROX-041922	P93A-ROX-041922
P93C-ROX-041922	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that bis(2-ethylhexyl) phthalate in several samples was re-extracted outside of the extraction time criteria. Chlorobenzene was detected in trip blank TB-ROX-041922-8260-SS. LCS/LCSD recoveries for 4-methyl-2-pentanone (MIBK), benzenethiol and 1,2-dibromo-3-chloropropane were outside evaluation criteria. The continuing calibration verification for benzyl alcohol was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are 8260 VOCs are poor performers when preserved to a pH < 2; results may be biased low due to the low pH after preserving the samples.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

No, bis(2-ethylhexyl) phthalate in several samples was re-extracted 1 day outside extraction holding time criteria (7 days) and then re-analyzed for confirmation. Analytical data requiring qualification is summarized in the table below.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-041922 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	**UJ**
P93A-ROX-041922 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	**UJ**

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
TB-ROX-041922-8260-SS	VOCs	Chlorobenzene	0.57 µg/L

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS 400-574881/1002	VOCs	4-Methyl-2-pentanone (MIBK)	**68**	NA	69-138
LCS/LCSD 400-574677/4-A/5-A	SVOCs	Benzenethiol	**5/5**	0	10-120/30
LCS/LCSD 400-575297/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**166/160**	4	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-041922	VOCs	4-Methyl-2-pentanone (MIBK)	**UJ**
P93D-ROX-041922	SVOCs	Benzenethiol	**UJ**
P93A-ROX-041922	VOCs	4-Methyl-2-pentanone (MIBK)	**UJ**
P93A-ROX-041922	SVOCs	Benzenethiol	**UJ**
P93C-ROX-041922	VOCs	4-Methyl-2-pentanone (MIBK)	**UJ**
P93C-ROX-041922	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

Yes

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification for benzyl alcohol was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-041922	SVOCs	Benzyl alcohol	**UJ**
P93A-ROX-041922	SVOCs	Benzyl alcohol	**UJ**
P93C-ROX-041922	SVOCs	Benzyl alcohol	**UJ**



eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218725-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
5/3/2022 2:06:35 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

Links

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Reviewed 6/14/202 MR

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

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

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

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Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Job ID: 400-218725-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218725-1

Comments
No additional comments.

Receipt
The samples were received on 4/20/2022 8:58 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.0° C and 0.0° C.

GC/MS VOA
Method 8260B: The following analyte recovered outside control limits for the LCS associated with analytical batch 400-574881: 4-Methyl-2-pentanone (MIBK). This is not indicative of a systematic control problem because this was a random marginal exceedance. Qualified results have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-041922-8260-SS (400-218725-1), P93D-ROX-041922 (400-218725-3), P93A-ROX-041922 (400-218725-4) and P93C-ROX-041922 (400-218725-5). The requested target analyte list includes 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The sample TB-ROX-041922-8260-SS (400-218725-1) contained Chlorobenzene above the method detection limit. This target analyte concentration was confirmed by re-analysis of a different container.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-574677 and analytical batch 400-574934 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered above the upper control limit for N-Nitrosodimethylamine, 1,4-Dioxane, 4-Nitrophenol, Hexachlorobenzene and 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered above the upper control limit for Dibenz[a,h]acridine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-574934 recovered outside acceptance criteria, low biased, for Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D: The samples were re-extracted due to the confirmation of Bis(2-ethylhexyl) Phthalate was detected above the method detection limit (MDL) for the following sample(s): P93D-ROX-041922 (400-218725-3), P93A-ROX-041922 (400-218725-4) Samples were re-prepared and/or re-analyzed outside the holding time, and both sets of data have been reported.

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

GC Semi VOA
Method 8011: The continuing calibration verification (CCV) associated with batch 400-575299 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Job ID: 400-218725-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8011: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-575297 and analytical batch 400-575299 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

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

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218725-1	TB-ROX-041922-8260-SS	Water	04/19/22 00:01	04/20/22 08:58
400-218725-2	TB-ROX-041922-8011-SS	Water	04/19/22 00:01	04/20/22 08:58
400-218725-3	P93D-ROX-041922	Water	04/19/22 11:55	04/20/22 08:58
400-218725-4	P93A-ROX-041922	Water	04/19/22 12:40	04/20/22 08:58
400-218725-5	P93C-ROX-041922	Water	04/19/22 13:30	04/20/22 08:58

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Client Sample ID: TB-ROX-041922-8260-SS — Lab Sample ID: 400-218725-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chlorobenzene	0.57	J	1.0	0.15	ug/L	1		8260B	Total/NA

Client Sample ID: TB-ROX-041922-8011-SS — Lab Sample ID: 400-218725-2

No Detections.

Client Sample ID: P93D-ROX-041922 — Lab Sample ID: 400-218725-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.0		1.0	0.22	ug/L	1		8260B	Total/NA
Bis(2-ethylhexyl) phthalate	6.4	J	9.9	5.0	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.39	J	9.9	0.24	ug/L	1		8270D	Total/NA

Client Sample ID: P93A-ROX-041922 — Lab Sample ID: 400-218725-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7.6		1.0	0.13	ug/L	1		8260B	Total/NA
1-Chlorohexane	0.77	J	1.0	0.32	ug/L	1		8260B	Total/NA
tert-Butylbenzene	1.3		1.0	0.63	ug/L	1		8260B	Total/NA
trans-1,3-Dichloropropene	0.25	J	5.0	0.20	ug/L	1		8260B	Total/NA
Benzo[a]pyrene	0.14	J	0.20	0.042	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.14	J	0.20	0.034	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.16	J	0.20	0.050	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.11	J	0.20	0.068	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.17	J	0.20	0.043	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.079	J	0.20	0.036	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	6.1	J	10	5.0	ug/L	1		8270D	Total/NA

Client Sample ID: P93C-ROX-041922 — Lab Sample ID: 400-218725-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	47		1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	3.1		1.0	0.22	ug/L	1		8260B	Total/NA
Anthracene	0.058	J	0.19	0.031	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.13	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.11	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.13	J	0.19	0.049	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.093	J	0.19	0.066	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.17	J	0.19	0.042	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.045	J	0.19	0.035	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Client Sample ID: TB-ROX-041922-8260-SS
Date Collected: 04/19/22 00:01
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/22/22 13:18	1
Acrolein	ND		20	3.3	ug/L			04/22/22 13:18	1
Acrylonitrile	ND		10	2.8	ug/L			04/22/22 13:18	1
Benzene	ND		1.0	0.13	ug/L			04/22/22 13:18	1
Bromobenzene	ND		1.0	0.54	ug/L			04/22/22 13:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/22/22 13:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/22/22 13:18	1
Bromoform	ND		5.0	0.25	ug/L			04/22/22 13:18	1
Bromomethane	ND		1.0	0.98	ug/L			04/22/22 13:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/22/22 13:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/22/22 13:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/22/22 13:18	1
Chlorobenzene	0.57	J	1.0	0.15	ug/L			04/22/22 13:18	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/22/22 13:18	1
Chloroethane	ND		1.0	0.76	ug/L			04/22/22 13:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/22/22 13:18	1
Chloroform	ND		1.0	1.0	ug/L			04/22/22 13:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/22/22 13:18	1
Chloromethane	ND		1.0	0.32	ug/L			04/22/22 13:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/22/22 13:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/22/22 13:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/22/22 13:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/22/22 13:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/22/22 13:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/22/22 13:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/22/22 13:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/22/22 13:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 13:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 13:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 13:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 13:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/22/22 13:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/22/22 13:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/22/22 13:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/22/22 13:18	1
2-Hexanone	ND		25	1.4	ug/L			04/22/22 13:18	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/22/22 13:18	1
Methylene bromide	ND		5.0	0.22	ug/L			04/22/22 13:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/22/22 13:18	1
4-Methyl-2-pentanone (MIBK)	ND	*-	25	1.8	ug/L			04/22/22 13:18	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/22/22 13:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/22/22 13:18	1
Naphthalene	ND		5.0	3.0	ug/L			04/22/22 13:18	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/22/22 13:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/22/22 13:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/22/22 13:18	1
o-Xylene	ND		5.0	0.60	ug/L			04/22/22 13:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/22/22 13:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/22/22 13:18	1

Client Sample ID: TB-ROX-041922-8260-SS
Date Collected: 04/19/22 00:01
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/22/22 13:18	1
Styrene	ND		1.0	1.0	ug/L			04/22/22 13:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/22/22 13:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/22/22 13:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/22/22 13:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/22/22 13:18	1
Toluene	ND		1.0	0.41	ug/L			04/22/22 13:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 13:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/22/22 13:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/22/22 13:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/22/22 13:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/22/22 13:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/22/22 13:18	1
Trichloroethene	ND		1.0	0.15	ug/L			04/22/22 13:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/22/22 13:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/22/22 13:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/22/22 13:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/22/22 13:18	1
Vinyl acetate	ND		25	0.93	ug/L			04/22/22 13:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/22/22 13:18	1
Xylenes, Total	ND		10	1.6	ug/L			04/22/22 13:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/22/22 13:18*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*04/22/22 13:18*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/22/22 13:18*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Client Sample ID: TB-ROX-041922-8011-SS
Date Collected: 04/19/22 00:01
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		04/26/22 09:26	04/27/22 03:54	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		04/26/22 09:26	04/27/22 03:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*120*		*51 - 149*	*04/26/22 09:26*	*04/27/22 03:54*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Client Sample ID: P93D-ROX-041922
Date Collected: 04/19/22 11:55
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/22/22 17:48	1
Acrolein	ND		20	3.3	ug/L			04/22/22 17:48	1
Acrylonitrile	ND		10	2.8	ug/L			04/22/22 17:48	1
Benzene	ND		1.0	0.13	ug/L			04/22/22 17:48	1
Bromobenzene	ND		1.0	0.54	ug/L			04/22/22 17:48	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/22/22 17:48	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/22/22 17:48	1
Bromoform	ND		5.0	0.25	ug/L			04/22/22 17:48	1
Bromomethane	ND		1.0	0.98	ug/L			04/22/22 17:48	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/22/22 17:48	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/22/22 17:48	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/22/22 17:48	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/22/22 17:48	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/22/22 17:48	1
Chloroethane	ND		1.0	0.76	ug/L			04/22/22 17:48	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/22/22 17:48	1
Chloroform	ND		1.0	1.0	ug/L			04/22/22 17:48	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/22/22 17:48	1
Chloromethane	ND		1.0	0.32	ug/L			04/22/22 17:48	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/22/22 17:48	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/22/22 17:48	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/22/22 17:48	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/22/22 17:48	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/22/22 17:48	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/22/22 17:48	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/22/22 17:48	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/22/22 17:48	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 17:48	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 17:48	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 17:48	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 17:48	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/22/22 17:48	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/22/22 17:48	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/22/22 17:48	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/22/22 17:48	1
2-Hexanone	ND		25	1.4	ug/L			04/22/22 17:48	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/22/22 17:48	1
Methylene bromide	ND		5.0	0.22	ug/L			04/22/22 17:48	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/22/22 17:48	1
4-Methyl-2-pentanone (MIBK)	ND	*	25	1.8	ug/L			04/22/22 17:48	1
Methyl tert-butyl ether	1.0		1.0	0.22	ug/L			04/22/22 17:48	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/22/22 17:48	1
Naphthalene	ND		5.0	3.0	ug/L			04/22/22 17:48	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/22/22 17:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/22/22 17:48	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/22/22 17:48	1
o-Xylene	ND		5.0	0.60	ug/L			04/22/22 17:48	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/22/22 17:48	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/22/22 17:48	1

Client Sample ID: P93D-ROX-041922

Date Collected: 04/19/22 11:55
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/22/22 17:48	1
Styrene	ND		1.0	1.0	ug/L			04/22/22 17:48	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/22/22 17:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/22/22 17:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/22/22 17:48	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/22/22 17:48	1
Toluene	ND		1.0	0.41	ug/L			04/22/22 17:48	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 17:48	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/22/22 17:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/22/22 17:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/22/22 17:48	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/22/22 17:48	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/22/22 17:48	1
Trichloroethene	ND		1.0	0.15	ug/L			04/22/22 17:48	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/22/22 17:48	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/22/22 17:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/22/22 17:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/22/22 17:48	1
Vinyl acetate	ND		25	0.93	ug/L			04/22/22 17:48	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/22/22 17:48	1
Xylenes, Total	ND		10	1.6	ug/L			04/22/22 17:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*04/22/22 17:48*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*04/22/22 17:48*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/22/22 17:48*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 17:23	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/21/22 09:16	04/28/22 17:23	1
Anthracene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 17:23	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/21/22 09:16	04/28/22 17:23	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/21/22 09:16	04/28/22 17:23	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/21/22 09:16	04/28/22 17:23	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/21/22 09:16	04/28/22 17:23	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/21/22 09:16	04/28/22 17:23	1
Chrysene	ND		0.20	0.073	ug/L		04/21/22 09:16	04/28/22 17:23	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/21/22 09:16	04/28/22 17:23	1
Fluoranthene	ND		0.20	0.067	ug/L		04/21/22 09:16	04/28/22 17:23	1
Fluorene	ND		0.20	0.11	ug/L		04/21/22 09:16	04/28/22 17:23	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/21/22 09:16	04/28/22 17:23	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/21/22 09:16	04/28/22 17:23	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/21/22 09:16	04/28/22 17:23	1
Phenanthrene	ND		0.20	0.036	ug/L		04/21/22 09:16	04/28/22 17:23	1
Pyrene	ND		0.20	0.040	ug/L		04/21/22 09:16	04/28/22 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*112*		*15 - 122*	*04/21/22 09:16*	*04/28/22 17:23*	*1*
Nitrobenzene-d5	*98*		*19 - 130*	*04/21/22 09:16*	*04/28/22 17:23*	*1*

Client Sample ID: P93D-ROX-041922
Date Collected: 04/19/22 11:55
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	101		33 - 138	04/21/22 09:16	04/28/22 17:23	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		04/21/22 09:16	04/22/22 20:03	1
Benzenethiol	ND	*- UJ	9.9	1.7	ug/L		04/21/22 09:16	04/22/22 20:03	1
Benzoic acid	ND		30	7.2	ug/L		04/21/22 09:16	04/22/22 20:03	1
Benzyl alcohol	ND	UJ	9.9	2.0	ug/L		04/21/22 09:16	04/22/22 20:03	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		04/21/22 09:16	04/22/22 20:03	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		04/21/22 09:16	04/22/22 20:03	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		04/21/22 09:16	04/22/22 20:03	1
Bis(2-ethylhexyl) phthalate	**6.4**	J	9.9	5.0	ug/L		04/21/22 09:16	04/22/22 20:03	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/21/22 09:16	04/22/22 20:03	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/21/22 09:16	04/22/22 20:03	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/21/22 09:16	04/22/22 20:03	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		04/21/22 09:16	04/22/22 20:03	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/21/22 09:16	04/22/22 20:03	1
2-Chlorophenol	ND		9.9	2.2	ug/L		04/21/22 09:16	04/22/22 20:03	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/21/22 09:16	04/22/22 20:03	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		04/21/22 09:16	04/22/22 20:03	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/21/22 09:16	04/22/22 20:03	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		04/21/22 09:16	04/22/22 20:03	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		04/21/22 09:16	04/22/22 20:03	1
Diethyl phthalate	**0.39**	J	9.9	0.24	ug/L		04/21/22 09:16	04/22/22 20:03	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		04/21/22 09:16	04/22/22 20:03	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/21/22 09:16	04/22/22 20:03	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/21/22 09:16	04/22/22 20:03	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		04/21/22 09:16	04/22/22 20:03	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/21/22 09:16	04/22/22 20:03	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/21/22 09:16	04/22/22 20:03	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/21/22 09:16	04/22/22 20:03	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/21/22 09:16	04/22/22 20:03	1
1,4-Dioxane	ND		9.9	0.99	ug/L		04/21/22 09:16	04/22/22 20:03	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		04/21/22 09:16	04/22/22 20:03	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/21/22 09:16	04/22/22 20:03	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/21/22 09:16	04/22/22 20:03	1
Hexachloroethane	ND		9.9	4.2	ug/L		04/21/22 09:16	04/22/22 20:03	1
Indene	ND		9.9	0.99	ug/L		04/21/22 09:16	04/22/22 20:03	1
Isophorone	ND		9.9	0.14	ug/L		04/21/22 09:16	04/22/22 20:03	1
2-Methylphenol	ND		9.9	1.8	ug/L		04/21/22 09:16	04/22/22 20:03	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/21/22 09:16	04/22/22 20:03	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/21/22 09:16	04/22/22 20:03	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/21/22 09:16	04/22/22 20:03	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/21/22 09:16	04/22/22 20:03	1
Nitrobenzene	ND		9.9	0.13	ug/L		04/21/22 09:16	04/22/22 20:03	1
2-Nitrophenol	ND		9.9	5.2	ug/L		04/21/22 09:16	04/22/22 20:03	1
4-Nitrophenol	ND		9.9	2.1	ug/L		04/21/22 09:16	04/22/22 20:03	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		04/21/22 09:16	04/22/22 20:03	1

Client Sample ID: P93D-ROX-041922
Date Collected: 04/19/22 11:55
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/21/22 09:16	04/22/22 20:03	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/21/22 09:16	04/22/22 20:03	1
Pentachlorophenol	ND		20	1.4	ug/L		04/21/22 09:16	04/22/22 20:03	1
Phenol	ND		9.9	2.6	ug/L		04/21/22 09:16	04/22/22 20:03	1
Pyridine	ND		9.9	3.2	ug/L		04/21/22 09:16	04/22/22 20:03	1
Quinoline	ND		9.9	4.5	ug/L		04/21/22 09:16	04/22/22 20:03	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		04/21/22 09:16	04/22/22 20:03	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		04/21/22 09:16	04/22/22 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*04/21/22 09:16*	*04/22/22 20:03*	*1*
2-Fluorophenol	*44*		*13 - 113*	*04/21/22 09:16*	*04/22/22 20:03*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*04/21/22 09:16*	*04/22/22 20:03*	*1*
Phenol-d5	*62*		*17 - 127*	*04/21/22 09:16*	*04/22/22 20:03*	*1*
Terphenyl-d14	*111*		*44 - 149*	*04/21/22 09:16*	*04/22/22 20:03*	*1*
2,4,6-Tribromophenol	*103*		*26 - 150*	*04/21/22 09:16*	*04/22/22 20:03*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H LCS	10	5.0	ug/L		04/27/22 10:02	04/29/22 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*46 - 124*	*04/27/22 10:02*	*04/29/22 15:54*	*1*
Nitrobenzene-d5	*63*		*36 - 126*	*04/27/22 10:02*	*04/29/22 15:54*	*1*
Terphenyl-d14	*101*		*44 - 149*	*04/27/22 10:02*	*04/29/22 15:54*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		04/26/22 09:26	04/27/22 04:15	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/26/22 09:26	04/27/22 04:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*124*		*51 - 149*	*04/26/22 09:26*	*04/27/22 04:15*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Client Sample ID: P93A-ROX-041922
Date Collected: 04/19/22 12:40
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/22/22 18:12	1
Acrolein	ND		20	3.3	ug/L			04/22/22 18:12	1
Acrylonitrile	ND		10	2.8	ug/L			04/22/22 18:12	1
Benzene	7.6		1.0	0.13	ug/L			04/22/22 18:12	1
Bromobenzene	ND		1.0	0.54	ug/L			04/22/22 18:12	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/22/22 18:12	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/22/22 18:12	1
Bromoform	ND		5.0	0.25	ug/L			04/22/22 18:12	1
Bromomethane	ND		1.0	0.98	ug/L			04/22/22 18:12	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/22/22 18:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/22/22 18:12	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/22/22 18:12	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/22/22 18:12	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/22/22 18:12	1
Chloroethane	ND		1.0	0.76	ug/L			04/22/22 18:12	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/22/22 18:12	1
Chloroform	ND		1.0	1.0	ug/L			04/22/22 18:12	1
1-Chlorohexane	0.77	J	1.0	0.32	ug/L			04/22/22 18:12	1
Chloromethane	ND		1.0	0.32	ug/L			04/22/22 18:12	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/22/22 18:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/22/22 18:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/22/22 18:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/22/22 18:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/22/22 18:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/22/22 18:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/22/22 18:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/22/22 18:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 18:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 18:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 18:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 18:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/22/22 18:12	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/22/22 18:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/22/22 18:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/22/22 18:12	1
2-Hexanone	ND		25	1.4	ug/L			04/22/22 18:12	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/22/22 18:12	1
Methylene bromide	ND		5.0	0.22	ug/L			04/22/22 18:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/22/22 18:12	1
4-Methyl-2-pentanone (MIBK)	ND	*- UJ	25	1.8	ug/L			04/22/22 18:12	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/22/22 18:12	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/22/22 18:12	1
Naphthalene	ND		5.0	3.0	ug/L			04/22/22 18:12	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/22/22 18:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/22/22 18:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/22/22 18:12	1
o-Xylene	ND		5.0	0.60	ug/L			04/22/22 18:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/22/22 18:12	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/22/22 18:12	1

Client Sample ID: P93A-ROX-041922
Date Collected: 04/19/22 12:40
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/22/22 18:12	1
Styrene	ND		1.0	1.0	ug/L			04/22/22 18:12	1
tert-Butylbenzene	1.3		1.0	0.63	ug/L			04/22/22 18:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/22/22 18:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/22/22 18:12	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/22/22 18:12	1
Toluene	ND		1.0	0.41	ug/L			04/22/22 18:12	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 18:12	1
trans-1,3-Dichloropropene	0.25	J	5.0	0.20	ug/L			04/22/22 18:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/22/22 18:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/22/22 18:12	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/22/22 18:12	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/22/22 18:12	1
Trichloroethene	ND		1.0	0.15	ug/L			04/22/22 18:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/22/22 18:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/22/22 18:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/22/22 18:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/22/22 18:12	1
Vinyl acetate	ND		25	0.93	ug/L			04/22/22 18:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/22/22 18:12	1
Xylenes, Total	ND		10	1.6	ug/L			04/22/22 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/22/22 18:12*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/22/22 18:12*	*1*
Toluene-d8 (Surr)	*95*		*64 - 132*		*04/22/22 18:12*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/30/22 16:03	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/21/22 09:16	04/30/22 16:03	1
Anthracene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/30/22 16:03	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/21/22 09:16	04/30/22 16:03	1
Benzo[a]pyrene	0.14	J	0.20	0.042	ug/L		04/21/22 09:16	04/30/22 16:03	1
Benzo[b]fluoranthene	0.14	J	0.20	0.034	ug/L		04/21/22 09:16	04/30/22 16:03	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/21/22 09:16	04/30/22 16:03	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/21/22 09:16	04/30/22 16:03	1
Chrysene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/30/22 16:03	1
Dibenz(a,h)anthracene	0.16	J	0.20	0.050	ug/L		04/21/22 09:16	04/30/22 16:03	1
Fluoranthene	0.11	J	0.20	0.068	ug/L		04/21/22 09:16	04/30/22 16:03	1
Fluorene	ND		0.20	0.11	ug/L		04/21/22 09:16	04/30/22 16:03	1
Indeno[1,2,3-cd]pyrene	0.17	J	0.20	0.043	ug/L		04/21/22 09:16	04/30/22 16:03	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/30/22 16:03	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/21/22 09:16	04/30/22 16:03	1
Phenanthrene	0.079	J	0.20	0.036	ug/L		04/21/22 09:16	04/30/22 16:03	1
Pyrene	ND		0.20	0.040	ug/L		04/21/22 09:16	04/30/22 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*15 - 122*	*04/21/22 09:16*	*04/30/22 16:03*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*04/21/22 09:16*	*04/30/22 16:03*	*1*

Client Sample ID: P93A-ROX-041922
Date Collected: 04/19/22 12:40
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	91		33 - 138	04/21/22 09:16	04/30/22 16:03	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/21/22 09:16	04/22/22 20:24	1
Benzenethiol	ND	*- UJ	10	1.7	ug/L		04/21/22 09:16	04/22/22 20:24	1
Benzoic acid	ND		30	7.3	ug/L		04/21/22 09:16	04/22/22 20:24	1
Benzyl alcohol	ND	UJ	10	2.0	ug/L		04/21/22 09:16	04/22/22 20:24	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/21/22 09:16	04/22/22 20:24	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/21/22 09:16	04/22/22 20:24	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/21/22 09:16	04/22/22 20:24	1
Bis(2-ethylhexyl) phthalate	**6.1**	**J**	10	5.0	ug/L		04/21/22 09:16	04/22/22 20:24	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/21/22 09:16	04/22/22 20:24	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/21/22 09:16	04/22/22 20:24	1
4-Chloroaniline	ND		10	3.4	ug/L		04/21/22 09:16	04/22/22 20:24	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/21/22 09:16	04/22/22 20:24	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/21/22 09:16	04/22/22 20:24	1
2-Chlorophenol	ND		10	2.2	ug/L		04/21/22 09:16	04/22/22 20:24	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/21/22 09:16	04/22/22 20:24	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 20:24	1
Dibenzofuran	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 20:24	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/21/22 09:16	04/22/22 20:24	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/21/22 09:16	04/22/22 20:24	1
Diethyl phthalate	ND		10	0.24	ug/L		04/21/22 09:16	04/22/22 20:24	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 20:24	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 20:24	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/21/22 09:16	04/22/22 20:24	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/21/22 09:16	04/22/22 20:24	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/21/22 09:16	04/22/22 20:24	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/22/22 20:24	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/22/22 20:24	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 20:24	1
1,4-Dioxane	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 20:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 20:24	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 20:24	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/21/22 09:16	04/22/22 20:24	1
Hexachloroethane	ND		10	4.2	ug/L		04/21/22 09:16	04/22/22 20:24	1
Indene	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 20:24	1
Isophorone	ND		10	0.14	ug/L		04/21/22 09:16	04/22/22 20:24	1
2-Methylphenol	ND		10	1.8	ug/L		04/21/22 09:16	04/22/22 20:24	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/21/22 09:16	04/22/22 20:24	1
2-Nitroaniline	ND		10	2.2	ug/L		04/21/22 09:16	04/22/22 20:24	1
3-Nitroaniline	ND		10	1.8	ug/L		04/21/22 09:16	04/22/22 20:24	1
4-Nitroaniline	ND		10	1.5	ug/L		04/21/22 09:16	04/22/22 20:24	1
Nitrobenzene	ND		10	0.13	ug/L		04/21/22 09:16	04/22/22 20:24	1
2-Nitrophenol	ND		10	5.2	ug/L		04/21/22 09:16	04/22/22 20:24	1
4-Nitrophenol	ND		10	2.1	ug/L		04/21/22 09:16	04/22/22 20:24	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 20:24	1

Client Sample ID: P93A-ROX-041922
Date Collected: 04/19/22 12:40
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/21/22 09:16	04/22/22 20:24	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/21/22 09:16	04/22/22 20:24	1
Pentachlorophenol	ND		20	1.4	ug/L		04/21/22 09:16	04/22/22 20:24	1
Phenol	ND		10	2.6	ug/L		04/21/22 09:16	04/22/22 20:24	1
Pyridine	ND		10	3.2	ug/L		04/21/22 09:16	04/22/22 20:24	1
Quinoline	ND		10	4.5	ug/L		04/21/22 09:16	04/22/22 20:24	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/21/22 09:16	04/22/22 20:24	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 20:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*04/21/22 09:16*	*04/22/22 20:24*	*1*
2-Fluorophenol	*17*		*13 - 113*	*04/21/22 09:16*	*04/22/22 20:24*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*04/21/22 09:16*	*04/22/22 20:24*	*1*
Phenol-d5	*47*		*17 - 127*	*04/21/22 09:16*	*04/22/22 20:24*	*1*
Terphenyl-d14	*90*		*44 - 149*	*04/21/22 09:16*	*04/22/22 20:24*	*1*
2,4,6-Tribromophenol	*87*		*26 - 150*	*04/21/22 09:16*	*04/22/22 20:24*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H U5	10	5.1	ug/L		04/27/22 10:02	04/29/22 16:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*04/27/22 10:02*	*04/29/22 16:19*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*04/27/22 10:02*	*04/29/22 16:19*	*1*
Terphenyl-d14	*79*		*44 - 149*	*04/27/22 10:02*	*04/29/22 16:19*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.017	ug/L		04/26/22 09:26	04/27/22 04:55	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/26/22 09:26	04/27/22 04:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*130*		*51 - 149*	*04/26/22 09:26*	*04/27/22 04:55*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Client Sample ID: P93C-ROX-041922
Date Collected: 04/19/22 13:30
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/22/22 18:37	1
Acrolein	ND		20	3.3	ug/L			04/22/22 18:37	1
Acrylonitrile	ND		10	2.8	ug/L			04/22/22 18:37	1
Benzene	**47**		1.0	0.13	ug/L			04/22/22 18:37	1
Bromobenzene	ND		1.0	0.54	ug/L			04/22/22 18:37	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/22/22 18:37	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/22/22 18:37	1
Bromoform	ND		5.0	0.25	ug/L			04/22/22 18:37	1
Bromomethane	ND		1.0	0.98	ug/L			04/22/22 18:37	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/22/22 18:37	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/22/22 18:37	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/22/22 18:37	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/22/22 18:37	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/22/22 18:37	1
Chloroethane	ND		1.0	0.76	ug/L			04/22/22 18:37	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/22/22 18:37	1
Chloroform	ND		1.0	1.0	ug/L			04/22/22 18:37	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/22/22 18:37	1
Chloromethane	ND		1.0	0.32	ug/L			04/22/22 18:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/22/22 18:37	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/22/22 18:37	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/22/22 18:37	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/22/22 18:37	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/22/22 18:37	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/22/22 18:37	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/22/22 18:37	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/22/22 18:37	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 18:37	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 18:37	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 18:37	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 18:37	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/22/22 18:37	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/22/22 18:37	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/22/22 18:37	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/22/22 18:37	1
2-Hexanone	ND		25	1.4	ug/L			04/22/22 18:37	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/22/22 18:37	1
Methylene bromide	ND		5.0	0.22	ug/L			04/22/22 18:37	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/22/22 18:37	1
4-Methyl-2-pentanone (MIBK)	ND	*- UJ	25	1.8	ug/L			04/22/22 18:37	1
Methyl tert-butyl ether	**3.1**		1.0	0.22	ug/L			04/22/22 18:37	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/22/22 18:37	1
Naphthalene	ND		5.0	3.0	ug/L			04/22/22 18:37	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/22/22 18:37	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/22/22 18:37	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/22/22 18:37	1
o-Xylene	ND		5.0	0.60	ug/L			04/22/22 18:37	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/22/22 18:37	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/22/22 18:37	1

Client Sample ID: P93C-ROX-041922
Date Collected: 04/19/22 13:30
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/22/22 18:37	1
Styrene	ND		1.0	1.0	ug/L			04/22/22 18:37	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/22/22 18:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/22/22 18:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/22/22 18:37	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/22/22 18:37	1
Toluene	ND		1.0	0.41	ug/L			04/22/22 18:37	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 18:37	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/22/22 18:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/22/22 18:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/22/22 18:37	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/22/22 18:37	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/22/22 18:37	1
Trichloroethene	ND		1.0	0.15	ug/L			04/22/22 18:37	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/22/22 18:37	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/22/22 18:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/22/22 18:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/22/22 18:37	1
Vinyl acetate	ND		25	0.93	ug/L			04/22/22 18:37	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/22/22 18:37	1
Xylenes, Total	ND		10	1.6	ug/L			04/22/22 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*04/22/22 18:37*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*04/22/22 18:37*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/22/22 18:37*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		04/21/22 09:16	04/30/22 15:46	1
Acenaphthylene	ND		0.19	0.044	ug/L		04/21/22 09:16	04/30/22 15:46	1
Anthracene	**0.058**	**J**	0.19	0.031	ug/L		04/21/22 09:16	04/30/22 15:46	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		04/21/22 09:16	04/30/22 15:46	1
Benzo[a]pyrene	**0.13**	**J**	0.19	0.041	ug/L		04/21/22 09:16	04/30/22 15:46	1
Benzo[b]fluoranthene	**0.11**	**J**	0.19	0.033	ug/L		04/21/22 09:16	04/30/22 15:46	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		04/21/22 09:16	04/30/22 15:46	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		04/21/22 09:16	04/30/22 15:46	1
Chrysene	ND		0.19	0.072	ug/L		04/21/22 09:16	04/30/22 15:46	1
Dibenz(a,h)anthracene	**0.13**	**J**	0.19	0.049	ug/L		04/21/22 09:16	04/30/22 15:46	1
Fluoranthene	**0.093**	**J**	0.19	0.066	ug/L		04/21/22 09:16	04/30/22 15:46	1
Fluorene	ND		0.19	0.11	ug/L		04/21/22 09:16	04/30/22 15:46	1
Indeno[1,2,3-cd]pyrene	**0.17**	**J**	0.19	0.042	ug/L		04/21/22 09:16	04/30/22 15:46	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		04/21/22 09:16	04/30/22 15:46	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		04/21/22 09:16	04/30/22 15:46	1
Phenanthrene	**0.045**	**J**	0.19	0.035	ug/L		04/21/22 09:16	04/30/22 15:46	1
Pyrene	ND		0.19	0.039	ug/L		04/21/22 09:16	04/30/22 15:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*15 - 122*	*04/21/22 09:16*	*04/30/22 15:46*	*1*
Nitrobenzene-d5	*89*		*19 - 130*	*04/21/22 09:16*	*04/30/22 15:46*	*1*

Client Sample ID: P93C-ROX-041922
Date Collected: 04/19/22 13:30
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	81		33 - 138	04/21/22 09:16	04/30/22 15:46	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		04/21/22 09:16	04/22/22 20:44	1
Benzenethiol	ND	*- UJ	9.7	1.7	ug/L		04/21/22 09:16	04/22/22 20:44	1
Benzoic acid	ND		29	7.1	ug/L		04/21/22 09:16	04/22/22 20:44	1
Benzyl alcohol	ND	UJ	9.7	1.9	ug/L		04/21/22 09:16	04/22/22 20:44	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 20:44	1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L		04/21/22 09:16	04/22/22 20:44	1
bis (2-chloroisopropyl) ether	ND		9.7	0.16	ug/L		04/21/22 09:16	04/22/22 20:44	1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.9	ug/L		04/21/22 09:16	04/22/22 20:44	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		04/21/22 09:16	04/22/22 20:44	1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L		04/21/22 09:16	04/22/22 20:44	1
4-Chloroaniline	ND		9.7	3.3	ug/L		04/21/22 09:16	04/22/22 20:44	1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L		04/21/22 09:16	04/22/22 20:44	1
2-Chloronaphthalene	ND		9.7	0.14	ug/L		04/21/22 09:16	04/22/22 20:44	1
2-Chlorophenol	ND		9.7	2.1	ug/L		04/21/22 09:16	04/22/22 20:44	1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L		04/21/22 09:16	04/22/22 20:44	1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 20:44	1
Dibenzofuran	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 20:44	1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L		04/21/22 09:16	04/22/22 20:44	1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L		04/21/22 09:16	04/22/22 20:44	1
Diethyl phthalate	ND		9.7	0.23	ug/L		04/21/22 09:16	04/22/22 20:44	1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 20:44	1
Dimethyl phthalate	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 20:44	1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L		04/21/22 09:16	04/22/22 20:44	1
4,6-Dinitro-ortho-cresol	ND		9.7	1.6	ug/L		04/21/22 09:16	04/22/22 20:44	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		04/21/22 09:16	04/22/22 20:44	1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 20:44	1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 20:44	1
Di-n-octyl phthalate	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 20:44	1
1,4-Dioxane	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 20:44	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 20:44	1
Hexachlorobenzene	ND		9.7	0.17	ug/L		04/21/22 09:16	04/22/22 20:44	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		04/21/22 09:16	04/22/22 20:44	1
Hexachloroethane	ND		9.7	4.1	ug/L		04/21/22 09:16	04/22/22 20:44	1
Indene	ND		9.7	0.97	ug/L		04/21/22 09:16	04/22/22 20:44	1
Isophorone	ND		9.7	0.14	ug/L		04/21/22 09:16	04/22/22 20:44	1
2-Methylphenol	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 20:44	1
3 & 4 Methylphenol	ND		19	0.38	ug/L		04/21/22 09:16	04/22/22 20:44	1
2-Nitroaniline	ND		9.7	2.1	ug/L		04/21/22 09:16	04/22/22 20:44	1
3-Nitroaniline	ND		9.7	1.8	ug/L		04/21/22 09:16	04/22/22 20:44	1
4-Nitroaniline	ND		9.7	1.5	ug/L		04/21/22 09:16	04/22/22 20:44	1
Nitrobenzene	ND		9.7	0.13	ug/L		04/21/22 09:16	04/22/22 20:44	1
2-Nitrophenol	ND		9.7	5.1	ug/L		04/21/22 09:16	04/22/22 20:44	1
4-Nitrophenol	ND		9.7	2.0	ug/L		04/21/22 09:16	04/22/22 20:44	1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 20:44	1

Client Sample ID: P93C-ROX-041922
Date Collected: 04/19/22 13:30
Date Received: 04/20/22 08:58

Lab Sample ID: 400-218725-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L		04/21/22 09:16	04/22/22 20:44	1
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L		04/21/22 09:16	04/22/22 20:44	1
Pentachlorophenol	ND		19	1.4	ug/L		04/21/22 09:16	04/22/22 20:44	1
Phenol	ND		9.7	2.5	ug/L		04/21/22 09:16	04/22/22 20:44	1
Pyridine	ND		9.7	3.1	ug/L		04/21/22 09:16	04/22/22 20:44	1
Quinoline	ND		9.7	4.4	ug/L		04/21/22 09:16	04/22/22 20:44	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L		04/21/22 09:16	04/22/22 20:44	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L		04/21/22 09:16	04/22/22 20:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*66*		*46 - 124*	*04/21/22 09:16*	*04/22/22 20:44*	*1*
2-Fluorophenol	*23*		*13 - 113*	*04/21/22 09:16*	*04/22/22 20:44*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*04/21/22 09:16*	*04/22/22 20:44*	*1*
Phenol-d5	*47*		*17 - 127*	*04/21/22 09:16*	*04/22/22 20:44*	*1*
Terphenyl-d14	*93*		*44 - 149*	*04/21/22 09:16*	*04/22/22 20:44*	*1*
2,4,6-Tribromophenol	*101*		*26 - 150*	*04/21/22 09:16*	*04/22/22 20:44*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.032	0.018	ug/L		04/26/22 09:26	04/27/22 05:16	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/26/22 09:26	04/27/22 05:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*137*		*51 - 149*	*04/26/22 09:26*	*04/27/22 05:16*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218725-1	TB-ROX-041922-8260-SS	98	99	95
400-218725-3	P93D-ROX-041922	96	98	94
400-218725-4	P93A-ROX-041922	98	101	95
400-218725-5	P93C-ROX-041922	94	107	94
LCS 400-574881/1002	Lab Control Sample	110	90	100
MB 400-574881/13	Method Blank	98	101	96

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218725-3	P93D-ROX-041922	73	44	79	62	111	103
400-218725-3 - RERA	P93D-ROX-041922	91		63		101	
400-218725-4	P93A-ROX-041922	67	17	71	47	90	87
400-218725-4 - RERA	P93A-ROX-041922	88		61		79	
400-218725-5	P93C-ROX-041922	66	23	72	47	93	101
LCS 400-574677/2-A	Lab Control Sample	75	38	64	60	96	115
LCS 400-574677/4-A	Lab Control Sample	65	36	73	58	99	64
LCS 400-575464/2-A	Lab Control Sample	86		87		88	
LCSD 400-574677/3-A	Lab Control Sample Dup	74	20	65	54	92	116
LCSD 400-574677/5-A	Lab Control Sample Dup	72	37	75	59	109	66
LCSD 400-575464/3-A	Lab Control Sample Dup	90		89		93	
MB 400-574677/1-A	Method Blank	67	16	74	48	102	78
MB 400-575464/1-A	Method Blank	91		76		97	

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218725-3	P93D-ROX-041922	112	98	101
400-218725-4	P93A-ROX-041922	86	94	91
400-218725-5	P93C-ROX-041922	83	89	81
LCS 400-574677/2-A	Lab Control Sample	102	81	104
LCSD 400-574677/3-A	Lab Control Sample Dup	102	70	103

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
MB 400-574677/1-A	Method Blank	110	90	105

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-218725-2	TB-ROX-041922-8011-SS	120
400-218725-3	P93D-ROX-041922	124
400-218725-4	P93A-ROX-041922	130
400-218725-5	P93C-ROX-041922	137
LCS 400-575297/2-A	Lab Control Sample	136
LCSD 400-575297/3-A	Lab Control Sample Dup	136
MB 400-575297/1-A	Method Blank	131

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Client Sample ID: TB-ROX-041922-8260-SS

Lab Sample ID: 400-218725-1

Date Collected: 04/19/22 00:01
Matrix: Water
Date Received: 04/20/22 08:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574881	04/22/22 13:18	SAB	TAL PEN

Client Sample ID: TB-ROX-041922-8011-SS

Lab Sample ID: 400-218725-2

Date Collected: 04/19/22 00:01
Matrix: Water
Date Received: 04/20/22 08:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 03:54	DS	TAL PEN

Client Sample ID: P93D-ROX-041922

Lab Sample ID: 400-218725-3

Date Collected: 04/19/22 11:55
Matrix: Water
Date Received: 04/20/22 08:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574881	04/22/22 17:48	SAB	TAL PEN
Total/NA	Prep	3520C			252 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 20:03	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		249.6 mL	1 mL	575464	04/27/22 10:02	KWS	TAL PEN
Total/NA	Analysis	8270D	RERA	1			575848	04/29/22 15:54	VC1	TAL PEN
Total/NA	Prep	3520C			252 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 17:23	KJA	TAL PEN
Total/NA	Prep	8011			32.7 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 04:15	DS	TAL PEN

Client Sample ID: P93A-ROX-041922

Lab Sample ID: 400-218725-4

Date Collected: 04/19/22 12:40
Matrix: Water
Date Received: 04/20/22 08:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574881	04/22/22 18:12	SAB	TAL PEN
Total/NA	Prep	3520C			250.2 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 20:24	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		243.2 mL	1 mL	575464	04/27/22 10:02	KWS	TAL PEN
Total/NA	Analysis	8270D	RERA	1			575848	04/29/22 16:19	VC1	TAL PEN
Total/NA	Prep	3520C			250.2 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575786	04/30/22 16:03	PP1	TAL PEN
Total/NA	Prep	8011			34.3 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 04:55	DS	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Client Sample ID: P93C-ROX-041922

Lab Sample ID: 400-218725-5

Date Collected: 04/19/22 13:30
Matrix: Water
Date Received: 04/20/22 08:58

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574881	04/22/22 18:37	SAB	TAL PEN
Total/NA	Prep	3520C			257 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 20:44	S1B	TAL PEN
Total/NA	Prep	3520C			257 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575786	04/30/22 15:46	PP1	TAL PEN
Total/NA	Prep	8011			33.1 mL	35 mL	575297	04/26/22 09:26	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/27/22 05:16	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574677/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 17:59	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575577	04/28/22 11:57	KJA	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-574881/13

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574881	04/22/22 12:54	SAB	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-575297/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575297	04/26/22 09:25	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 21:26	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-575464/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	575464	04/27/22 10:02	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575858	04/29/22 17:01	VC1	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574677/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 18:19	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575577	04/28/22 12:14	KJA	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574677/4-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 19:01	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-574881/1002
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	574881	04/22/22 11:30	SAB	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-575297/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575297	04/26/22 09:25	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 21:46	DS	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-575464/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	575464	04/27/22 10:02	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575858	04/29/22 15:55	VC1	TAL PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-574677/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 18:40	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575577	04/28/22 12:31	KJA	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-574677/5-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	574677	04/21/22 09:16	KWS	TAL PEN
Total/NA	Analysis	8270D		1			574934	04/22/22 19:22	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-575297/3-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575297	04/26/22 09:25	LHB	TAL PEN
Total/NA	Analysis	8011		1			575299	04/26/22 22:07	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-575464/3-A

Date Collected: N/A
Date Received: N/A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	575464	04/27/22 10:02	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575858	04/29/22 16:17	VC1	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

GC/MS VOA

Analysis Batch: 574881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218725-1	TB-ROX-041922-8260-SS	Total/NA	Water	8260B	
400-218725-3	P93D-ROX-041922	Total/NA	Water	8260B	
400-218725-4	P93A-ROX-041922	Total/NA	Water	8260B	
400-218725-5	P93C-ROX-041922	Total/NA	Water	8260B	
MB 400-574881/13	Method Blank	Total/NA	Water	8260B	
LCS 400-574881/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 574677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218725-3	P93D-ROX-041922	Total/NA	Water	3520C	
400-218725-4	P93A-ROX-041922	Total/NA	Water	3520C	
400-218725-5	P93C-ROX-041922	Total/NA	Water	3520C	
MB 400-574677/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-574677/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-574677/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 574934

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218725-3	P93D-ROX-041922	Total/NA	Water	8270D	574677
400-218725-4	P93A-ROX-041922	Total/NA	Water	8270D	574677
400-218725-5	P93C-ROX-041922	Total/NA	Water	8270D	574677
MB 400-574677/1-A	Method Blank	Total/NA	Water	8270D	574677
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	8270D	574677
LCS 400-574677/4-A	Lab Control Sample	Total/NA	Water	8270D	574677
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	574677
LCSD 400-574677/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	574677

Prep Batch: 575464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218725-3 - RERA	P93D-ROX-041922	Total/NA	Water	3520C	
400-218725-4 - RERA	P93A-ROX-041922	Total/NA	Water	3520C	
MB 400-575464/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-575464/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-575464/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 575577

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218725-3	P93D-ROX-041922	Total/NA	Water	8270D LL	574677
MB 400-574677/1-A	Method Blank	Total/NA	Water	8270D LL	574677
LCS 400-574677/2-A	Lab Control Sample	Total/NA	Water	8270D LL	574677
LCSD 400-574677/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	574677

Analysis Batch: 575786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218725-4	P93A-ROX-041922	Total/NA	Water	8270D LL	574677
400-218725-5	P93C-ROX-041922	Total/NA	Water	8270D LL	574677

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218725-1

GC/MS Semi VOA

Analysis Batch: 575848

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218725-3 - RERA	P93D-ROX-041922	Total/NA	Water	8270D	575464
400-218725-4 - RERA	P93A-ROX-041922	Total/NA	Water	8270D	575464

Analysis Batch: 575858

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-575464/1-A	Method Blank	Total/NA	Water	8270D	575464
LCS 400-575464/2-A	Lab Control Sample	Total/NA	Water	8270D	575464
LCSD 400-575464/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	575464

GC Semi VOA

Prep Batch: 575297

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218725-2	TB-ROX-041922-8011-SS	Total/NA	Water	8011	
400-218725-3	P93D-ROX-041922	Total/NA	Water	8011	
400-218725-4	P93A-ROX-041922	Total/NA	Water	8011	
400-218725-5	P93C-ROX-041922	Total/NA	Water	8011	
MB 400-575297/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-575297/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-575297/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 575299

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218725-2	TB-ROX-041922-8011-SS	Total/NA	Water	8011	575297
400-218725-3	P93D-ROX-041922	Total/NA	Water	8011	575297
400-218725-4	P93A-ROX-041922	Total/NA	Water	8011	575297
400-218725-5	P93C-ROX-041922	Total/NA	Water	8011	575297
MB 400-575297/1-A	Method Blank	Total/NA	Water	8011	575297
LCS 400-575297/2-A	Lab Control Sample	Total/NA	Water	8011	575297
LCSD 400-575297/3-A	Lab Control Sample Dup	Total/NA	Water	8011	575297

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574881/13
Matrix: Water
Analysis Batch: 574881

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/22/22 12:54	1
Acrolein	ND		20	3.3	ug/L			04/22/22 12:54	1
Acrylonitrile	ND		10	2.8	ug/L			04/22/22 12:54	1
Benzene	ND		1.0	0.13	ug/L			04/22/22 12:54	1
Bromobenzene	ND		1.0	0.54	ug/L			04/22/22 12:54	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/22/22 12:54	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/22/22 12:54	1
Bromoform	ND		5.0	0.25	ug/L			04/22/22 12:54	1
Bromomethane	ND		1.0	0.98	ug/L			04/22/22 12:54	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/22/22 12:54	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/22/22 12:54	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/22/22 12:54	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/22/22 12:54	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/22/22 12:54	1
Chloroethane	ND		1.0	0.76	ug/L			04/22/22 12:54	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/22/22 12:54	1
Chloroform	ND		1.0	1.0	ug/L			04/22/22 12:54	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/22/22 12:54	1
Chloromethane	ND		1.0	0.32	ug/L			04/22/22 12:54	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/22/22 12:54	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/22/22 12:54	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/22/22 12:54	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/22/22 12:54	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/22/22 12:54	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/22/22 12:54	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/22/22 12:54	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/22/22 12:54	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 12:54	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 12:54	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 12:54	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/22/22 12:54	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/22/22 12:54	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/22/22 12:54	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/22/22 12:54	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/22/22 12:54	1
2-Hexanone	ND		25	1.4	ug/L			04/22/22 12:54	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/22/22 12:54	1
Methylene bromide	ND		5.0	0.22	ug/L			04/22/22 12:54	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/22/22 12:54	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/22/22 12:54	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/22/22 12:54	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/22/22 12:54	1
Naphthalene	ND		5.0	3.0	ug/L			04/22/22 12:54	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/22/22 12:54	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/22/22 12:54	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/22/22 12:54	1
o-Xylene	ND		5.0	0.60	ug/L			04/22/22 12:54	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/22/22 12:54	1

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

Lab Sample ID: MB 400-574881/13
Matrix: Water
Analysis Batch: 574881

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/22/22 12:54	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/22/22 12:54	1
Styrene	ND		1.0	1.0	ug/L			04/22/22 12:54	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/22/22 12:54	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/22/22 12:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/22/22 12:54	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/22/22 12:54	1
Toluene	ND		1.0	0.41	ug/L			04/22/22 12:54	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/22/22 12:54	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/22/22 12:54	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/22/22 12:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/22/22 12:54	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/22/22 12:54	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/22/22 12:54	1
Trichloroethene	ND		1.0	0.15	ug/L			04/22/22 12:54	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/22/22 12:54	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/22/22 12:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/22/22 12:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/22/22 12:54	1
Vinyl acetate	ND		25	0.93	ug/L			04/22/22 12:54	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/22/22 12:54	1
Xylenes, Total	ND		10	1.6	ug/L			04/22/22 12:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*04/22/22 12:54*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/22/22 12:54*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/22/22 12:54*	*1*

Lab Sample ID: LCS 400-574881/1002
Matrix: Water
Analysis Batch: 574881

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	179		ug/L		89	43 - 160
Acrolein	500	475		ug/L		95	38 - 160
Acrylonitrile	500	405		ug/L		81	64 - 142
Benzene	50.0	45.5		ug/L		91	70 - 130
Bromobenzene	50.0	44.0		ug/L		88	70 - 132
Bromochloromethane	50.0	42.3		ug/L		85	70 - 130
Bromodichloromethane	50.0	46.2		ug/L		92	67 - 133
Bromoform	50.0	42.8		ug/L		86	57 - 140
Bromomethane	50.0	53.1		ug/L		106	10 - 160
2-Butanone (MEK)	200	193		ug/L		96	61 - 145
Carbon disulfide	50.0	45.6		ug/L		91	61 - 137
Carbon tetrachloride	50.0	46.1		ug/L		92	61 - 137
Chlorobenzene	50.0	48.3		ug/L		97	70 - 130
Dibromochloromethane	50.0	43.3		ug/L		87	67 - 135
Chloroethane	50.0	41.5		ug/L		83	55 - 141

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

Lab Sample ID: LCS 400-574881/1002
Matrix: Water
Analysis Batch: 574881

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	41.3		ug/L		83	10 - 160
Chloroform	50.0	49.1		ug/L		98	69 - 130
1-Chlorohexane	50.0	39.7		ug/L		79	69 - 130
Chloromethane	50.0	32.8		ug/L		66	58 - 137
cis-1,2-Dichloroethene	50.0	42.8		ug/L		86	68 - 130
cis-1,3-Dichloropropene	50.0	47.7		ug/L		95	69 - 132
1,2-Dichlorobenzene	50.0	43.7		ug/L		87	67 - 130
1,3-Dichlorobenzene	50.0	44.7		ug/L		89	70 - 130
1,4-Dichlorobenzene	50.0	49.3		ug/L		99	70 - 130
Dichlorodifluoromethane	50.0	39.4		ug/L		79	41 - 146
1,1-Dichloroethane	50.0	42.8		ug/L		86	70 - 130
1,2-Dichloroethane	50.0	42.4		ug/L		85	69 - 130
1,1-Dichloroethene	50.0	47.8		ug/L		96	63 - 134
1,2-Dichloropropane	50.0	41.5		ug/L		83	70 - 130
1,3-Dichloropropane	50.0	47.5		ug/L		95	70 - 130
2,2-Dichloropropane	50.0	45.1		ug/L		90	52 - 135
1,1-Dichloropropene	50.0	47.8		ug/L		96	70 - 130
Ethylbenzene	50.0	45.6		ug/L		91	70 - 130
Ethyl methacrylate	50.0	48.0		ug/L		96	68 - 130
Hexachlorobutadiene	50.0	50.5		ug/L		101	53 - 140
2-Hexanone	200	141		ug/L		70	65 - 137
Isopropylbenzene	50.0	46.7		ug/L		93	70 - 130
Methylene bromide	50.0	44.1		ug/L		88	70 - 130
Methylene Chloride	50.0	46.8		ug/L		94	66 - 135
4-Methyl-2-pentanone (MIBK)	200	136	*-	ug/L		68	69 - 138
Methyl tert-butyl ether	50.0	46.3		ug/L		93	66 - 130
m-Xylene & p-Xylene	50.0	45.9		ug/L		92	70 - 130
Naphthalene	50.0	37.8		ug/L		76	47 - 149
n-Butylbenzene	50.0	50.5		ug/L		101	67 - 130
N-Propylbenzene	50.0	48.0		ug/L		96	70 - 130
o-Chlorotoluene	50.0	49.2		ug/L		98	70 - 130
o-Xylene	50.0	47.2		ug/L		94	70 - 130
p-Chlorotoluene	50.0	49.2		ug/L		98	70 - 130
p-Isopropyltoluene	50.0	47.5		ug/L		95	65 - 130
sec-Butylbenzene	50.0	49.1		ug/L		98	66 - 130
Styrene	50.0	43.9		ug/L		88	70 - 130
tert-Butylbenzene	50.0	53.5		ug/L		107	64 - 139
1,1,1,2-Tetrachloroethane	50.0	45.2		ug/L		90	67 - 131
1,1,2,2-Tetrachloroethane	50.0	47.1		ug/L		94	70 - 131
Tetrachloroethene	50.0	41.1		ug/L		82	65 - 130
Toluene	50.0	49.6		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	45.1		ug/L		90	70 - 130
trans-1,3-Dichloropropene	50.0	49.2		ug/L		98	63 - 130
1,2,3-Trichlorobenzene	50.0	45.3		ug/L		91	60 - 138
1,2,4-Trichlorobenzene	50.0	43.8		ug/L		88	60 - 140
1,1,1-Trichloroethane	50.0	47.8		ug/L		96	68 - 130
1,1,2-Trichloroethane	50.0	45.6		ug/L		91	70 - 130
Trichloroethene	50.0	44.0		ug/L		88	70 - 130
Trichlorofluoromethane	50.0	47.9		ug/L		96	65 - 138

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

Lab Sample ID: LCS 400-574881/1002
Matrix: Water
Analysis Batch: 574881

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	45.2		ug/L		90	70 - 130
1,2,4-Trimethylbenzene	50.0	49.1		ug/L		98	70 - 130
1,3,5-Trimethylbenzene	50.0	49.2		ug/L		98	69 - 130
Vinyl acetate	100	87.2		ug/L		87	26 - 160
Vinyl chloride	50.0	47.9		ug/L		96	59 - 136
Xylenes, Total	100	93.1		ug/L		93	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*110*		*72 - 119*
Dibromofluoromethane	*90*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzenethiol	ND		10	1.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzoic acid	ND		30	7.3	ug/L		04/21/22 09:16	04/22/22 17:59	1
Benzyl alcohol	ND		10	2.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/21/22 09:16	04/22/22 17:59	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/21/22 09:16	04/22/22 17:59	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chloroaniline	ND		10	3.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Chlorophenol	ND		10	2.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dibenzofuran	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Diethyl phthalate	ND		10	0.24	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/21/22 09:16	04/22/22 17:59	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
1,4-Dioxane	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
Hexachloroethane	ND		10	4.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
Indene	ND		10	1.0	ug/L		04/21/22 09:16	04/22/22 17:59	1
Isophorone	ND		10	0.14	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Methylphenol	ND		10	1.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Nitroaniline	ND		10	2.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
3-Nitroaniline	ND		10	1.8	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Nitroaniline	ND		10	1.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
Nitrobenzene	ND		10	0.13	ug/L		04/21/22 09:16	04/22/22 17:59	1
2-Nitrophenol	ND		10	5.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
4-Nitrophenol	ND		10	2.1	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/21/22 09:16	04/22/22 17:59	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/21/22 09:16	04/22/22 17:59	1
Pentachlorophenol	ND		20	1.4	ug/L		04/21/22 09:16	04/22/22 17:59	1
Phenol	ND		10	2.6	ug/L		04/21/22 09:16	04/22/22 17:59	1
Pyridine	ND		10	3.2	ug/L		04/21/22 09:16	04/22/22 17:59	1
Quinoline	ND		10	4.5	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/21/22 09:16	04/22/22 17:59	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/21/22 09:16	04/22/22 17:59	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
2-Fluorophenol	*16*		*13 - 113*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
Nitrobenzene-d5	*74*		*36 - 126*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
Phenol-d5	*48*		*17 - 127*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
Terphenyl-d14	*102*		*44 - 149*	*04/21/22 09:16*	*04/22/22 17:59*	*1*
2,4,6-Tribromophenol	*78*		*26 - 150*	*04/21/22 09:16*	*04/22/22 17:59*	*1*

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	79.3		ug/L		66	21 - 120
Benzoic acid	498	219		ug/L		44	10 - 144
Benzyl alcohol	120	64.5		ug/L		54	28 - 120
Bis(2-chloroethoxy)methane	120	65.2		ug/L		54	47 - 120
Bis(2-chloroethyl)ether	120	68.0		ug/L		57	44 - 120
bis (2-chloroisopropyl) ether	120	99.5		ug/L		83	33 - 121
Bis(2-ethylhexyl) phthalate	120	90.0		ug/L		75	52 - 147
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122
Butyl benzyl phthalate	120	90.7		ug/L		76	54 - 133
4-Chloroaniline	120	81.0		ug/L		67	26 - 120
4-Chloro-3-methylphenol	120	78.1		ug/L		65	48 - 131

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	89.7		ug/L		75	52 - 121
2-Chlorophenol	120	72.5		ug/L		60	40 - 120
4-Chlorophenyl phenyl ether	120	96.0		ug/L		80	56 - 125
Dibenz[a,h]acridine	120	119		ug/L		99	31 - 150
Dibenzofuran	120	91.0		ug/L		76	56 - 122
3,3'-Dichlorobenzidine	160	189		ug/L		118	36 - 132
2,4-Dichlorophenol	120	72.7		ug/L		61	49 - 120
Diethyl phthalate	120	101		ug/L		84	50 - 137
2,4-Dimethylphenol	120	73.6		ug/L		61	48 - 120
Dimethyl phthalate	120	92.5		ug/L		77	57 - 124
Di-n-butyl phthalate	120	108		ug/L		90	58 - 126
4,6-Dinitro-ortho-cresol	240	199		ug/L		83	23 - 148
2,4-Dinitrophenol	240	177		ug/L		74	10 - 150
2,4-Dinitrotoluene	120	88.8		ug/L		74	54 - 142
2,6-Dinitrotoluene	120	84.2		ug/L		70	55 - 130
Di-n-octyl phthalate	120	92.2		ug/L		77	57 - 138
1,4-Dioxane	120	67.5		ug/L		56	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	98.9		ug/L		82	45 - 124
Hexachlorobenzene	120	144		ug/L		120	52 - 129
Hexachlorocyclopentadiene	120	73.4		ug/L		61	10 - 134
Hexachloroethane	120	85.5		ug/L		71	20 - 120
Indene	120	88.5		ug/L		74	49 - 120
Isophorone	120	69.8		ug/L		58	48 - 120
2-Methylphenol	120	84.1		ug/L		70	46 - 124
3 & 4 Methylphenol	120	84.0		ug/L		70	45 - 120
2-Nitroaniline	120	94.1		ug/L		78	51 - 145
3-Nitroaniline	120	83.7		ug/L		70	37 - 127
4-Nitroaniline	120	115		ug/L		96	36 - 137
Nitrobenzene	120	72.3		ug/L		60	45 - 120
2-Nitrophenol	120	68.5		ug/L		57	40 - 124
4-Nitrophenol	240	243		ug/L		101	23 - 146
N-Nitrosodimethylamine	120	123		ug/L		103	29 - 137
N-Nitrosodi-n-propylamine	120	97.2		ug/L		81	45 - 120
N-Nitrosodiphenylamine	119	92.3		ug/L		77	54 - 120
Pentachlorophenol	240	191		ug/L		80	31 - 130
Phenol	120	73.0		ug/L		61	11 - 120
Pyridine	240	141		ug/L		59	16 - 120
Quinoline	120	93.1		ug/L		78	49 - 130
2,4,5-Trichlorophenol	120	93.3		ug/L		78	51 - 136
2,4,6-Trichlorophenol	120	92.3		ug/L		77	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*75*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*64*		*36 - 126*
Phenol-d5	*60*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	*115*		*26 - 150*

Lab Sample ID: LCS 400-574677/4-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	6.05	J *-	ug/L		5	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	*65*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*73*		*36 - 126*
Phenol-d5	*58*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*64*		*26 - 150*

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	76.8		ug/L		64	21 - 120	3	30
Benzoic acid	498	201		ug/L		40	10 - 144	8	30
Benzyl alcohol	120	60.3		ug/L		50	28 - 120	7	30
Bis(2-chloroethoxy)methane	120	66.8		ug/L		56	47 - 120	2	30
Bis(2-chloroethyl)ether	120	73.5		ug/L		61	44 - 120	8	30
bis (2-chloroisopropyl) ether	120	102		ug/L		85	33 - 121	2	30
Bis(2-ethylhexyl) phthalate	120	92.6		ug/L		77	52 - 147	3	30
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122	1	30
Butyl benzyl phthalate	120	90.1		ug/L		75	54 - 133	1	30
4-Chloroaniline	120	77.1		ug/L		64	26 - 120	5	30
4-Chloro-3-methylphenol	120	86.1		ug/L		72	48 - 131	10	30
2-Chloronaphthalene	120	91.5		ug/L		76	52 - 121	2	30
2-Chlorophenol	120	59.9		ug/L		50	40 - 120	19	30
4-Chlorophenyl phenyl ether	120	99.5		ug/L		83	56 - 125	4	30
Dibenz[a,h]acridine	120	127		ug/L		106	31 - 150	6	30
Dibenzofuran	120	93.4		ug/L		78	56 - 122	3	30
3,3'-Dichlorobenzidine	160	187		ug/L		117	36 - 132	1	30
2,4-Dichlorophenol	120	72.6		ug/L		60	49 - 120	0	30
Diethyl phthalate	120	108		ug/L		90	50 - 137	7	30
2,4-Dimethylphenol	120	74.7		ug/L		62	48 - 120	2	30
Dimethyl phthalate	120	97.9		ug/L		82	57 - 124	6	30
Di-n-butyl phthalate	120	112		ug/L		93	58 - 126	3	30
4,6-Dinitro-ortho-cresol	240	215		ug/L		90	23 - 148	8	30
2,4-Dinitrophenol	240	189		ug/L		79	10 - 150	6	30
2,4-Dinitrotoluene	120	90.0		ug/L		75	54 - 142	1	30
2,6-Dinitrotoluene	120	87.0		ug/L		72	55 - 130	3	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate	120	95.7		ug/L		80	57 - 138	4	30
1,4-Dioxane	120	79.7		ug/L		66	31 - 120	17	30
1,2-Diphenylhydrazine (as Azobenzene)	120	101		ug/L		84	45 - 124	2	30
Hexachlorobenzene	120	144		ug/L		120	52 - 129	0	30
Hexachlorocyclopentadiene	120	81.6		ug/L		68	10 - 134	11	30
Hexachloroethane	120	83.2		ug/L		69	20 - 120	3	30
Indene	120	94.4		ug/L		79	49 - 120	6	30
Isophorone	120	71.0		ug/L		59	48 - 120	2	30
2-Methylphenol	120	78.5		ug/L		65	46 - 124	7	30
3 & 4 Methylphenol	120	84.3		ug/L		70	45 - 120	0	30
2-Nitroaniline	120	98.2		ug/L		82	51 - 145	4	30
3-Nitroaniline	120	84.2		ug/L		70	37 - 127	1	30
4-Nitroaniline	120	114		ug/L		95	36 - 137	1	30
Nitrobenzene	120	75.0		ug/L		63	45 - 120	4	30
2-Nitrophenol	120	68.9		ug/L		57	40 - 124	0	30
4-Nitrophenol	240	257		ug/L		107	23 - 146	6	30
N-Nitrosodimethylamine	120	123		ug/L		102	29 - 137	0	30
N-Nitrosodi-n-propylamine	120	97.6		ug/L		81	45 - 120	0	30
N-Nitrosodiphenylamine	119	95.1		ug/L		80	54 - 120	3	30
Pentachlorophenol	240	194		ug/L		81	31 - 130	2	30
Phenol	120	70.1		ug/L		58	11 - 120	4	30
Pyridine	240	122		ug/L		51	16 - 120	14	30
Quinoline	120	93.6		ug/L		78	49 - 130	1	30
2,4,5-Trichlorophenol	120	101		ug/L		84	51 - 136	8	30
2,4,6-Trichlorophenol	120	95.1		ug/L		79	50 - 127	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*74*		*46 - 124*
2-Fluorophenol	*20*		*13 - 113*
Nitrobenzene-d5	*65*		*36 - 126*
Phenol-d5	*54*		*17 - 127*
Terphenyl-d14	*92*		*44 - 149*
2,4,6-Tribromophenol	*116*		*26 - 150*

Lab Sample ID: LCSD 400-574677/5-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	6.02	J *-	ug/L		5	10 - 120	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*37*		*13 - 113*
Nitrobenzene-d5	*75*		*36 - 126*
Phenol-d5	*59*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-574677/5-A
Matrix: Water
Analysis Batch: 574934

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*66*		*26 - 150*

Lab Sample ID: MB 400-575464/1-A
Matrix: Water
Analysis Batch: 575858

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575464

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/27/22 10:02	04/29/22 17:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*91*		*46 - 124*	*04/27/22 10:02*	*04/29/22 17:01*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*04/27/22 10:02*	*04/29/22 17:01*	*1*
Terphenyl-d14	*97*		*44 - 149*	*04/27/22 10:02*	*04/29/22 17:01*	*1*

Lab Sample ID: LCS 400-575464/2-A
Matrix: Water
Analysis Batch: 575858

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575464

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-ethylhexyl) phthalate	120	105		ug/L		88	52 - 147

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*46 - 124*
Nitrobenzene-d5	*87*		*36 - 126*
Terphenyl-d14	*88*		*44 - 149*

Lab Sample ID: LCSD 400-575464/3-A
Matrix: Water
Analysis Batch: 575858

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 575464

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate	120	110		ug/L		92	52 - 147	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*90*		*46 - 124*
Nitrobenzene-d5	*89*		*36 - 126*
Terphenyl-d14	*93*		*44 - 149*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 11:57	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/21/22 09:16	04/28/22 11:57	1
Anthracene	ND		0.20	0.032	ug/L		04/21/22 09:16	04/28/22 11:57	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-574677/1-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 574677

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/21/22 09:16	04/28/22 11:57	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/21/22 09:16	04/28/22 11:57	1
Chrysene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/28/22 11:57	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/21/22 09:16	04/28/22 11:57	1
Fluoranthene	ND		0.20	0.068	ug/L		04/21/22 09:16	04/28/22 11:57	1
Fluorene	ND		0.20	0.11	ug/L		04/21/22 09:16	04/28/22 11:57	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/21/22 09:16	04/28/22 11:57	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/21/22 09:16	04/28/22 11:57	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/21/22 09:16	04/28/22 11:57	1
Phenanthrene	ND		0.20	0.036	ug/L		04/21/22 09:16	04/28/22 11:57	1
Pyrene	ND		0.20	0.040	ug/L		04/21/22 09:16	04/28/22 11:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/21/22 09:16*	*04/28/22 11:57*	*1*
Nitrobenzene-d5	*90*		*19 - 130*	*04/21/22 09:16*	*04/28/22 11:57*	*1*
Terphenyl-d14	*105*		*33 - 138*	*04/21/22 09:16*	*04/28/22 11:57*	*1*

Lab Sample ID: LCS 400-574677/2-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	116		ug/L		96	41 - 120
Acenaphthylene	120	134		ug/L		111	44 - 120
Anthracene	120	128		ug/L		107	49 - 120
Benzo[a]anthracene	120	125		ug/L		104	61 - 135
Benzo[a]pyrene	120	125		ug/L		104	52 - 120
Benzo[b]fluoranthene	120	125		ug/L		104	53 - 134
Benzo[g,h,i]perylene	120	93.0		ug/L		78	47 - 133
Benzo[k]fluoranthene	120	127		ug/L		106	57 - 134
Chrysene	120	122		ug/L		102	55 - 122
Dibenz(a,h)anthracene	120	110		ug/L		92	48 - 146
Fluoranthene	120	134		ug/L		111	54 - 128
Fluorene	120	138		ug/L		115	45 - 125
Indeno[1,2,3-cd]pyrene	120	105		ug/L		87	43 - 142
1-Methylnaphthalene	120	101		ug/L		84	41 - 120
2-Methylnaphthalene	120	93.1		ug/L		78	32 - 124
Phenanthrene	120	127		ug/L		106	48 - 120
Pyrene	120	119		ug/L		99	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*102*		*15 - 122*
Nitrobenzene-d5	*81*		*19 - 130*
Terphenyl-d14	*104*		*33 - 138*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 400-574677/3-A
Matrix: Water
Analysis Batch: 575577

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 574677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	120		ug/L		100	41 - 120	4	56
Acenaphthylene	120	140		ug/L		116	44 - 120	4	56
Anthracene	120	128		ug/L		107	49 - 120	0	51
Benzo[a]anthracene	120	128		ug/L		107	61 - 135	2	49
Benzo[a]pyrene	120	130		ug/L		108	52 - 120	4	50
Benzo[b]fluoranthene	120	129		ug/L		107	53 - 134	3	54
Benzo[g,h,i]perylene	120	98.7		ug/L		82	47 - 133	6	50
Benzo[k]fluoranthene	120	131		ug/L		109	57 - 134	3	52
Chrysene	120	128		ug/L		107	55 - 122	5	50
Dibenz(a,h)anthracene	120	117		ug/L		97	48 - 146	6	50
Fluoranthene	120	133		ug/L		111	54 - 128	1	52
Fluorene	120	142		ug/L		119	45 - 125	3	56
Indeno[1,2,3-cd]pyrene	120	111		ug/L		93	43 - 142	6	51
1-Methylnaphthalene	120	108		ug/L		90	41 - 120	6	55
2-Methylnaphthalene	120	96.8		ug/L		81	32 - 124	4	57
Phenanthrene	120	129		ug/L		107	48 - 120	1	56
Pyrene	120	118		ug/L		98	48 - 132	1	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*102*		*15 - 122*
Nitrobenzene-d5	*70*		*19 - 130*
Terphenyl-d14	*103*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-575297/1-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575297

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/26/22 09:25	04/26/22 21:26	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/26/22 09:25	04/26/22 21:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*131*		*51 - 149*	*04/26/22 09:25*	*04/26/22 21:26*	*1*

Lab Sample ID: LCS 400-575297/2-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575297

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.167	*+	ug/L		166	60 - 140
1,2-Dibromoethane	0.101	0.122		ug/L		121	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*136*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-575297/3-A
Matrix: Water
Analysis Batch: 575299

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 575297

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane			0.101	0.161	*+	ug/L		160	60 - 140	4	30
1,2-Dibromoethane			0.101	0.112		ug/L		112	60 - 140	8	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*136*		*51 - 149*

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER ENV. SERVICES	

Print Bill To Contact Name:	**PlaNet Site or Project ID**
Melissa Remiger	25278
PO #	**GSAP Project ID**
60674381 – 3.2.2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/19/2022
PAGE: 1 of 1

SAMPLING COMPANY: AECOM
LOG CODE:
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

SITE ADDRESS Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.2.2
EDF DELIVERABLE TO (Name Company Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
SAMPLER NAME(S) (Print): M. Heintz, J. Mayer
LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

SPLIT REPORT

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.2.2

FIELD NOTES:
0.0, 0.0°C
IR9

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

LAB USE ONL	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL	
	TB-ROX-041922-8260-SS	4/19/2022	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-041922-8011-SS	4/19/2022	0000	Water	2					2		X			SPLIT REPORT
	P93D-ROX-041922	4/19/2022	1155	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93A-ROX-041922	4/19/2022	1240	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93C-ROX-041922	4/19/2022	1330	Water	6			2		8	X	X	X	X	SPLIT REPORT

400-218725 COC

Relinquished by: (Signature) Joe Mayer	Received by: (Signature) FEDEX: 1482 3813 0930, 1482 3813 0929	Date: 4/19/2022	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4-20-22	Time: 1858

CUSTODY SEALS: 1892120, 1892121, 1892122, 1892123

Version 1Apr22

5/3/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218725-1

Login Number: 218725
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0, 0.0°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-218725-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

Roxana Groundwater Quarterly – 2nd Quarter 2022 Data Review

Laboratory SDG: 400-218876-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Teresa Amentt Jennings

Date Reviewed: 6/14/2022

Guidance: *USEPA National Functional Guidelines for Organic Superfund Methods Data Review* (November 2020)

Sample Identification	Sample Identification
TB-ROX-042022-8560-SS-B	TB-ROX-042022-8011-SS-B
P93B-ROX-042022	TB-ROX-042022-8260-SS-A
TB-ROX-042022-8011-SS-A	P56-ROX-042022
T12-ROX-042022	

1.0 Data Package Completeness

Were all items delivered as specified in the QAPP and COC as appropriate?

Yes

2.0 Laboratory Case Narrative \ Cooler Receipt Form

Were problems noted in the laboratory case narrative or cooler receipt form?

Yes, the laboratory case narrative indicated that diethyl phthalate was detected in the method blank. Several VOC, SVOC, and VOC by 8011 LCS/LCSD recoveries were outside evaluation criteria. Several SVOC/PAH surrogate recoveries were outside criteria in several investigative and quality control samples. Samples P93B-ROX-042022 and T12-ROX-042022 were diluted to bring VOCs into calibration range of the instrument. The continuing calibration verifications for several analytes were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are poor performers when preserved to a pH < 2; results may be biased low due to the low pH after preserving the samples.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-575121/1-A	SVOCs	Diethyl phthalate	0.461 µg/L

Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification. No qualification of data was required.

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS 400-575275/1002	VOCs	Chloromethane	**141**	NA	58-137
LCS 400-575480/1002	VOCs	Chloromethane	**144**	NA	58-137
LCS 400-575121/2-A	SVOCs	Dibenz[a,h]acridine	**178**	NA	31-150
LCS 400-575121/3-A/4-A	SVOCs	Dibenz[a,h]acridine	123/**166**	30	31-150/30
LCS/LCSD 400-575121/5-A/6-A	SVOCs	Benzenethiol	**6/4**	**34**	10-120/30
LCS/LCSD 400-575468/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**161/171**	6	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol below evaluation criteria; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P93B-ROX-042022	SVOCs	Benzenethiol	**UJ**
P56-ROX-042022	SVOCs	Benzenethiol	**UJ**
T12-ROX-042022	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P56-ROX-042022	PAHs	2-Fluorobiphenyl	**126**	15-122
T12-ROX-042022	SVOCs	Phenol-d_5	**5**	17-127
T12-ROX-042022	SVOCs	2-Fluorophenol	**0**	13-113
MB 400-575121/1-A	PAHs	2-Fluorobiphenyl	**125**	15-122

Analytical data that required qualification based on surrogate data are included in the table below. Qualifications due to surrogate recoveries were not required if only one of three base/neutral PAH surrogate recoveries were outside evaluation criteria. Method

blanks are quality control samples and do not require qualification.

Sample ID	Parameter	Analyte	Qualification
T12-ROX-042022	SVOCs	Benzoic acid	**UJ**
T12-ROX-042022	SVOCs	4-Chloro-3-methylphenol	**UJ**
T12-ROX-042022	SVOCs	2-Chlorophenol	**UJ**
T12-ROX-042022	SVOCs	2,4-Dichlorophenol	**UJ**
T12-ROX-042022	SVOCs	2,4-Dimethylphenol	**UJ**
T12-ROX-042022	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
T12-ROX-042022	SVOCs	2,4-Dinitrophenol	**UJ**
T12-ROX-042022	SVOCs	2-Methylphenol	**UJ**
T12-ROX-042022	SVOCs	3&4-Methylphenol	**UJ**
T12-ROX-042022	SVOCs	2-Nitrophenol	**UJ**
T12-ROX-042022	SVOCs	4-Nitrophenol	**UJ**
T12-ROX-042022	SVOCs	Pentachlorophenol	**UJ**
T12-ROX-042022	SVOCs	Phenol	**J**
T12-ROX-042022	SVOCs	2,4,5-Trichlorophenol	**UJ**
T12-ROX-042022	SVOCs	2,4,6-Trichlorophenol	**UJ**

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside evaluation criteria, biased low. 4,6-Dinitro-ortho-cresol and pentachlorophenol in sample T12-ROX-042022 were previously qualified in Section 6.0 of this data review due to surrogate recovery outside acceptance criteria; no further qualification was required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93B-ROX-042022	SVOCs	Aniline	UJ
P93B-ROX-042022	SVOCs	Benzyl alcohol	UJ
P93B-ROX-042022	SVOCs	bis(2-Chloroethoxy) methane	UJ
P93B-ROX-042022	SVOCs	bis(2-Chloroethyl) ether	UJ
P93B-ROX-042022	SVOCs	bis(2-Chloroisopropyl) ether	UJ
P93B-ROX-042022	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P93B-ROX-042022	SVOCs	1,4-Dioxane	UJ
P93B-ROX-042022	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
P93B-ROX-042022	SVOCs	Hexachlorocyclopentadiene	UJ
P93B-ROX-042022	SVOCs	Isophorone	UJ
P93B-ROX-042022	SVOCs	Nitrobenzene	UJ
P93B-ROX-042022	SVOCs	N-Nitrosodimethylamine	UJ
P93B-ROX-042022	SVOCs	Pentachlorophenol	UJ
P93B-ROX-042022	SVOCs	Pyridine	UJ
P93B-ROX-042022	PAHs	Benzo[g,h,i]perylene	UJ
P56-ROX-042022	VOCs	1,1-Dichloroethene	UJ
P56-ROX-042022	SVOCs	Aniline	UJ
P56-ROX-042022	SVOCs	Benzyl alcohol	UJ
P56-ROX-042022	SVOCs	bis(2-Chloroethoxy) methane	UJ
P56-ROX-042022	SVOCs	bis(2-Chloroethyl) ether	UJ
P56-ROX-042022	SVOCs	bis(2-Chloroisopropyl) ether	UJ
P56-ROX-042022	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P56-ROX-042022	SVOCs	1,4-Dioxane	UJ
P56-ROX-042022	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
P56-ROX-042022	SVOCs	Hexachlorocyclopentadiene	UJ
P56-ROX-042022	SVOCs	Isophorone	UJ
P56-ROX-042022	SVOCs	Nitrobenzene	UJ
P56-ROX-042022	SVOCs	N-Nitrosodimethylamine	UJ
P56-ROX-042022	SVOCs	Pentachlorophenol	UJ
P56-ROX-042022	SVOCs	Pyridine	UJ
P56-ROX-042022	PAHs	Benzo[g,h,i]perylene	UJ
T12-ROX-042022	VOCs	1,1-Dichloroethene	UJ
T12-ROX-042022	SVOCs	Aniline	UJ
T12-ROX-042022	SVOCs	bis(2-Chloroethoxy) methane	UJ
T12-ROX-042022	SVOCs	bis(2-Chloroethyl) ether	UJ
T12-ROX-042022	SVOCs	bis(2-Chloroisopropyl) ether	UJ
T12-ROX-042022	SVOCs	1,4-Dioxane	UJ
T12-ROX-042022	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
T12-ROX-042022	SVOCs	Hexachlorocyclopentadiene	UJ
T12-ROX-042022	SVOCs	Isophorone	UJ
T12-ROX-042022	SVOCs	Nitrobenzene	UJ
T12-ROX-042022	SVOCs	N-Nitrosodimethylamine	UJ
T12-ROX-042022	SVOCs	Pyridine	UJ

Sample ID	Parameter	Analyte	Qualification
T12-ROX-042022	PAHs	Benzo[g,h,i]perylene	UJ



eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-218876-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Melissa Remiger

Authorized for release by:
5/3/2022 2:52:58 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@et.eurofinsus.com

Links

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.eurofinsus.com/Env

Reviewed 6/14/2022 MR

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

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

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

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Job ID: 400-218876-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218876-1

Comments
No additional comments.

Receipt
The samples were received on 4/22/2022 9:04 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.6° C and 5.6° C.

GC/MS VOA
Method 8260B: The laboratory control sample (LCS) for analytical batch 400-575275 recovered outside control limits for the following analytes: Chloromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following sample was received preserved with hydrochloric acid: TB-ROX-042022-8560-SS-B (400-218876-1), P93B-ROX-042022 (400-218876-3). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-575480 recovered above the upper control limit for Bromomethane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: P93B-ROX-042022 (400-218876-3). Elevated reporting limits (RLs) are provided.

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-575480 recovered outside control limits for the following analytes: Chloromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-575275 recovered above the upper control limit for Vinyl chloride and Bromomethane The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

GC/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-575121 and analytical batch 400-575281 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-575121 and analytical batch 400-575281 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The method blank for preparation batch 400-575121 and analytical batch 400-575281 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-575121 and analytical batch 400-575281 recovered outside control limits for the following analytes: Dibenz[a,h]acridine. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-575281 recovered outside acceptance criteria, low

Job ID: 400-218876-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

biased, for Hexachlorocyclopentadiene, Pentachlorophenol, Aniline, N-Nitrosodimethylamine, Nitrobenzene, Bis(2-chloroethoxy)methane, bis (2-chloroisopropyl) ether, Isophorone, Bis(2-chloroethyl)ether, 1,2-Diphenylhydrazine (as Azobenzene), Benzyl alcohol, 4,6-Dinitro-ortho-cresol, 1,4-Dioxane and Pyridine. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-575714 recovered above the upper control limit for Acenaphthylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The surrogate recovery for the blank associated with preparation batch 400-575121 and analytical batch 400-575714 was outside the upper control limits.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-575714 recovered outside acceptance criteria, low biased, for Benzo[g,h,i]perylene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-575573 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-575468 and analytical batch 400-575573 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-575573 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Job ID: 400-218878-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-218878-1

Comments

No additional comments.

Receipt

The samples were received on 4/22/2022 9:04 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 2.6° C and 5.6° C.

GC/MS VOA

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-575595 recovered outside acceptance criteria, low biased, for 1,1-Dichloroethene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated

Job ID: 400-218878-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

samples were non-detect for the analyte(s), the data are reported.

Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: T12-ROX-042022 (400-218878-4). Elevated reporting limits (RLs) are provided.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-042022-8260-SS-A (400-218878-1), P56-ROX-042022 (400-218878-3) and T12-ROX-042022 (400-218878-4). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

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

GC/MS Semi VOA

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-575121 and analytical batch 400-575281 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-575121 and analytical batch 400-575281 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: Surrogate recovery for the following sample was outside control limits: T12-ROX-042022 (400-218878-4). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The method blank for preparation batch 400-575121 and analytical batch 400-575281 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-575281 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene, Pentachlorophenol, Aniline, Phenol, 3 & 4 Methylphenol N-Nitrosodimethylamine, Nitrobenzene, Bis(2-chloroethoxy)methane, bis (2-chloroisopropyl) ether, Isophorone, Bis(2-chloroethyl)ether, 1,2-Diphenylhydrazine (as Azobenzene), Benzyl alcohol, 4,6-Dinitro-ortho-cresol, 1,4-Dioxane and Pyridine. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-575714 recovered above the upper control limit for Acenaphthylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The surrogate recovery for the blank associated with preparation batch 400-575121 and analytical batch 400-575714 was outside the upper control limits.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-575714 recovered outside acceptance criteria, low biased, for Benzo[g,h,i]perylene. A reporting limit (RL) standard was analyzed, and the target analytes are detected. Since the associated samples were non-detect for the analyte(s), the data are reported.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: P56-ROX-042022 (400-218878-3). These results have been reported and qualified.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-575573 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Job ID: 400-218878-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-575468 and analytical batch 400-575573 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-575573 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

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

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

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-218876-1	TB-ROX-042022-8560-SS-B	Water	04/20/22 00:01	04/22/22 09:04
400-218876-2	TB-ROX-042022-8011-SS-B	Water	04/20/22 00:01	04/22/22 09:04
400-218876-3	P93B-ROX-042022	Water	04/20/22 09:25	04/22/22 09:04
400-218878-1	TB-ROX-042022-8260-SS-A	Water	04/20/22 00:01	04/22/22 09:04
400-218878-2	TB-ROX-042022-8011-SS-A	Water	04/20/22 00:01	04/22/22 09:04
400-218878-3	P56-ROX-042022	Water	04/20/22 09:40	04/22/22 09:04
400-218878-4	T12-ROX-042022	Water	04/20/22 13:40	04/22/22 09:04

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Client Sample ID: TB-ROX-042022-8560-SS-B — Lab Sample ID: 400-218876-1

No Detections.

Client Sample ID: TB-ROX-042022-8011-SS-B — Lab Sample ID: 400-218876-2

No Detections.

Client Sample ID: P93B-ROX-042022 — Lab Sample ID: 400-218876-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	920000		5000	650	ug/L	5000		8260B	Total/NA
Anthracene	0.19	J	0.21	0.033	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.13	J	0.21	0.047	ug/L	1		8270D LL	Total/NA
Chrysene	0.078	J	0.21	0.076	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.36		0.21	0.070	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	0.12	J	0.21	0.076	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.12	J	0.21	0.062	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.43		0.21	0.037	ug/L	1		8270D LL	Total/NA
Pyrene	0.26		0.21	0.041	ug/L	1		8270D LL	Total/NA
2,4-Dimethylphenol	4.2	J	10	3.6	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	2.5	J	21	0.40	ug/L	1		8270D	Total/NA
Phenol	400		10	2.7	ug/L	1		8270D	Total/NA

Client Sample ID: TB-ROX-042022-8260-SS-A — Lab Sample ID: 400-218878-1

No Detections.

Client Sample ID: TB-ROX-042022-8011-SS-A — Lab Sample ID: 400-218878-2

No Detections.

Client Sample ID: P56-ROX-042022 — Lab Sample ID: 400-218878-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	3.3		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropylbenzene	21		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	34		5.0	0.63	ug/L	1		8260B	Total/NA
n-Butylbenzene	1.3		1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	24		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	1.0	J	5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	1.3		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	2.2		1.0	0.70	ug/L	1		8260B	Total/NA
Toluene	1.2		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	13		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	4.5		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	35		10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	0.81		0.20	0.032	ug/L	1		8270D LL	Total/NA
Fluorene	0.45		0.20	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	17		0.20	0.074	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	16		0.20	0.060	ug/L	1		8270D LL	Total/NA
Phenanthrene	1.0		0.20	0.036	ug/L	1		8270D LL	Total/NA
Pyrene	0.046	J	0.20	0.040	ug/L	1		8270D LL	Total/NA
Dibenzofuran	0.53	J	10	0.17	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Client Sample ID: T12-ROX-042022

Lab Sample ID: 400-218878-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1200		10	1.3	ug/L	10		8260B	Total/NA
Ethylbenzene	13		10	5.0	ug/L	10		8260B	Total/NA
Methyl tert-butyl ether	2.8	J	10	2.2	ug/L	10		8260B	Total/NA
m-Xylene & p-Xylene	67		50	6.3	ug/L	10		8260B	Total/NA
N-Propylbenzene	8.0	J	10	6.9	ug/L	10		8260B	Total/NA
Toluene	26		10	4.1	ug/L	10		8260B	Total/NA
1,2,4-Trimethylbenzene	10		10	8.2	ug/L	10		8260B	Total/NA
1,3,5-Trimethylbenzene	8.9	J	10	5.6	ug/L	10		8260B	Total/NA
Xylenes, Total	72	J	100	16	ug/L	10		8260B	Total/NA
Indene	1.6	J	9.9	0.99	ug/L	1		8270D	Total/NA
Phenol	7.6	J J	9.9	2.6	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-ROX-042022-8560-SS-B
Date Collected: 04/20/22 00:01
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218876-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/26/22 14:35	1
Acrolein	ND		20	3.3	ug/L			04/26/22 14:35	1
Acrylonitrile	ND		10	2.8	ug/L			04/26/22 14:35	1
Benzene	ND		1.0	0.13	ug/L			04/26/22 14:35	1
Bromobenzene	ND		1.0	0.54	ug/L			04/26/22 14:35	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/26/22 14:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/26/22 14:35	1
Bromoform	ND		5.0	0.25	ug/L			04/26/22 14:35	1
Bromomethane	ND		1.0	0.98	ug/L			04/26/22 14:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/26/22 14:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/26/22 14:35	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/26/22 14:35	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/26/22 14:35	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/26/22 14:35	1
Chloroethane	ND		1.0	0.76	ug/L			04/26/22 14:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/26/22 14:35	1
Chloroform	ND		1.0	1.0	ug/L			04/26/22 14:35	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/26/22 14:35	1
Chloromethane	ND	*+	1.0	0.32	ug/L			04/26/22 14:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/26/22 14:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/26/22 14:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/26/22 14:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/26/22 14:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/26/22 14:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/26/22 14:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/26/22 14:35	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/26/22 14:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/26/22 14:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/22 14:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/26/22 14:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/22 14:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/26/22 14:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/26/22 14:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/26/22 14:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/26/22 14:35	1
2-Hexanone	ND		25	1.4	ug/L			04/26/22 14:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/26/22 14:35	1
Methylene bromide	ND		5.0	0.22	ug/L			04/26/22 14:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/26/22 14:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/26/22 14:35	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/26/22 14:35	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/26/22 14:35	1
Naphthalene	ND		5.0	3.0	ug/L			04/26/22 14:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/26/22 14:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/22 14:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/26/22 14:35	1
o-Xylene	ND		5.0	0.60	ug/L			04/26/22 14:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/26/22 14:35	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/26/22 14:35	1

Client Sample ID: TB-ROX-042022-8560-SS-B
Date Collected: 04/20/22 00:01
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218876-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/26/22 14:35	1
Styrene	ND		1.0	1.0	ug/L			04/26/22 14:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/26/22 14:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/26/22 14:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/26/22 14:35	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/26/22 14:35	1
Toluene	ND		1.0	0.41	ug/L			04/26/22 14:35	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/26/22 14:35	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/26/22 14:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/26/22 14:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/26/22 14:35	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/26/22 14:35	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/26/22 14:35	1
Trichloroethene	ND		1.0	0.15	ug/L			04/26/22 14:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/26/22 14:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/26/22 14:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/26/22 14:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/26/22 14:35	1
Vinyl acetate	ND		25	0.93	ug/L			04/26/22 14:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/26/22 14:35	1
Xylenes, Total	ND		10	1.6	ug/L			04/26/22 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*04/26/22 14:35*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*04/26/22 14:35*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/26/22 14:35*	*1*

Client Sample ID: TB-ROX-042022-8011-SS-B
Date Collected: 04/20/22 00:01
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218876-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.031	0.018	ug/L		04/27/22 10:04	04/28/22 05:29	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		04/27/22 10:04	04/28/22 05:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*141*		*51 - 149*	*04/27/22 10:04*	*04/28/22 05:29*	*1*

Client Sample ID: P93B-ROX-042022
Date Collected: 04/20/22 09:25
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218876-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130000	50000	ug/L			04/27/22 22:46	5000
Acrolein	ND		100000	17000	ug/L			04/27/22 22:46	5000
Acrylonitrile	ND		50000	14000	ug/L			04/27/22 22:46	5000
Benzene	**920000**		5000	650	ug/L			04/27/22 22:46	5000
Bromobenzene	ND		5000	2700	ug/L			04/27/22 22:46	5000
Bromochloromethane	ND		5000	1100	ug/L			04/27/22 22:46	5000
Bromodichloromethane	ND		5000	2500	ug/L			04/27/22 22:46	5000
Bromoform	ND		25000	1300	ug/L			04/27/22 22:46	5000
Bromomethane	ND		5000	4900	ug/L			04/27/22 22:46	5000
2-Butanone (MEK)	ND		130000	13000	ug/L			04/27/22 22:46	5000
Carbon disulfide	ND		5000	2500	ug/L			04/27/22 22:46	5000
Carbon tetrachloride	ND		5000	950	ug/L			04/27/22 22:46	5000
Chlorobenzene	ND		5000	750	ug/L			04/27/22 22:46	5000
Dibromochloromethane	ND		5000	1200	ug/L			04/27/22 22:46	5000
Chloroethane	ND		5000	3800	ug/L			04/27/22 22:46	5000
2-Chloroethyl vinyl ether	ND		25000	10000	ug/L			04/27/22 22:46	5000
Chloroform	ND		5000	5000	ug/L			04/27/22 22:46	5000
1-Chlorohexane	ND		5000	1600	ug/L			04/27/22 22:46	5000
Chloromethane	ND	*+	5000	1600	ug/L			04/27/22 22:46	5000
cis-1,2-Dichloroethene	ND		5000	1000	ug/L			04/27/22 22:46	5000
cis-1,3-Dichloropropene	ND		25000	2500	ug/L			04/27/22 22:46	5000
1,2-Dichlorobenzene	ND		5000	2500	ug/L			04/27/22 22:46	5000
1,3-Dichlorobenzene	ND		5000	2700	ug/L			04/27/22 22:46	5000
1,4-Dichlorobenzene	ND		5000	3200	ug/L			04/27/22 22:46	5000
Dichlorodifluoromethane	ND		5000	4300	ug/L			04/27/22 22:46	5000
1,1-Dichloroethane	ND		5000	2500	ug/L			04/27/22 22:46	5000
1,2-Dichloroethane	ND		5000	950	ug/L			04/27/22 22:46	5000
1,1-Dichloroethene	ND		5000	2500	ug/L			04/27/22 22:46	5000
1,2-Dichloropropane	ND		5000	2500	ug/L			04/27/22 22:46	5000
1,3-Dichloropropane	ND		5000	2500	ug/L			04/27/22 22:46	5000
2,2-Dichloropropane	ND		5000	2500	ug/L			04/27/22 22:46	5000
1,1-Dichloropropene	ND		5000	2500	ug/L			04/27/22 22:46	5000
Ethylbenzene	ND		5000	2500	ug/L			04/27/22 22:46	5000
Ethyl methacrylate	ND		5000	3000	ug/L			04/27/22 22:46	5000
Hexachlorobutadiene	ND		25000	4500	ug/L			04/27/22 22:46	5000
2-Hexanone	ND		130000	7000	ug/L			04/27/22 22:46	5000
Isopropylbenzene	ND		5000	2700	ug/L			04/27/22 22:46	5000
Methylene bromide	ND		25000	1100	ug/L			04/27/22 22:46	5000
Methylene Chloride	ND		25000	15000	ug/L			04/27/22 22:46	5000
4-Methyl-2-pentanone (MIBK)	ND		130000	9000	ug/L			04/27/22 22:46	5000
Methyl tert-butyl ether	ND		5000	1100	ug/L			04/27/22 22:46	5000
m-Xylene & p-Xylene	ND		25000	3200	ug/L			04/27/22 22:46	5000
Naphthalene	ND		25000	15000	ug/L			04/27/22 22:46	5000
n-Butylbenzene	ND		5000	3800	ug/L			04/27/22 22:46	5000
N-Propylbenzene	ND		5000	3500	ug/L			04/27/22 22:46	5000
o-Chlorotoluene	ND		5000	2900	ug/L			04/27/22 22:46	5000
o-Xylene	ND		25000	3000	ug/L			04/27/22 22:46	5000
p-Chlorotoluene	ND		5000	2800	ug/L			04/27/22 22:46	5000
p-Isopropyltoluene	ND		5000	3600	ug/L			04/27/22 22:46	5000

Client Sample ID: P93B-ROX-042022
Date Collected: 04/20/22 09:25
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218876-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5000	3500	ug/L			04/27/22 22:46	5000
Styrene	ND		5000	5000	ug/L			04/27/22 22:46	5000
tert-Butylbenzene	ND		5000	3200	ug/L			04/27/22 22:46	5000
1,1,1,2-Tetrachloroethane	ND		5000	800	ug/L			04/27/22 22:46	5000
1,1,2,2-Tetrachloroethane	ND		5000	2500	ug/L			04/27/22 22:46	5000
Tetrachloroethene	ND		5000	4500	ug/L			04/27/22 22:46	5000
Toluene	ND		5000	2100	ug/L			04/27/22 22:46	5000
trans-1,2-Dichloroethene	ND		5000	2500	ug/L			04/27/22 22:46	5000
trans-1,3-Dichloropropene	ND		25000	1000	ug/L			04/27/22 22:46	5000
1,2,3-Trichlorobenzene	ND		5000	4500	ug/L			04/27/22 22:46	5000
1,2,4-Trichlorobenzene	ND		5000	4100	ug/L			04/27/22 22:46	5000
1,1,1-Trichloroethane	ND		5000	900	ug/L			04/27/22 22:46	5000
1,1,2-Trichloroethane	ND		25000	1100	ug/L			04/27/22 22:46	5000
Trichloroethene	ND		5000	750	ug/L			04/27/22 22:46	5000
Trichlorofluoromethane	ND		5000	2600	ug/L			04/27/22 22:46	5000
1,2,3-Trichloropropane	ND		25000	4200	ug/L			04/27/22 22:46	5000
1,2,4-Trimethylbenzene	ND		5000	4100	ug/L			04/27/22 22:46	5000
1,3,5-Trimethylbenzene	ND		5000	2800	ug/L			04/27/22 22:46	5000
Vinyl acetate	ND		130000	4700	ug/L			04/27/22 22:46	5000
Vinyl chloride	ND		5000	2500	ug/L			04/27/22 22:46	5000
Xylenes, Total	ND		50000	8000	ug/L			04/27/22 22:46	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*04/27/22 22:46*	*5000*
Dibromofluoromethane	*104*		*75 - 126*		*04/27/22 22:46*	*5000*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/27/22 22:46*	*5000*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.21	0.033	ug/L		04/25/22 09:36	04/28/22 22:49	1
Acenaphthylene	ND		0.21	0.046	ug/L		04/25/22 09:36	04/28/22 22:49	1
Anthracene	**0.19**	**J**	0.21	0.033	ug/L		04/25/22 09:36	04/28/22 22:49	1
Benzo[a]anthracene	**0.13**	**J**	0.21	0.047	ug/L		04/25/22 09:36	04/28/22 22:49	1
Benzo[a]pyrene	ND		0.21	0.043	ug/L		04/25/22 09:36	04/28/22 22:49	1
Benzo[b]fluoranthene	ND		0.21	0.035	ug/L		04/25/22 09:36	04/28/22 22:49	1
Benzo[g,h,i]perylene	ND	UJ	0.21	0.13	ug/L		04/25/22 09:36	04/28/22 22:49	1
Benzo[k]fluoranthene	ND		0.21	0.10	ug/L		04/25/22 09:36	04/28/22 22:49	1
Chrysene	**0.078**	**J**	0.21	0.076	ug/L		04/25/22 09:36	04/28/22 22:49	1
Dibenz(a,h)anthracene	ND		0.21	0.051	ug/L		04/25/22 09:36	04/28/22 22:49	1
Fluoranthene	**0.36**		0.21	0.070	ug/L		04/25/22 09:36	04/28/22 22:49	1
Fluorene	ND		0.21	0.11	ug/L		04/25/22 09:36	04/28/22 22:49	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.044	ug/L		04/25/22 09:36	04/28/22 22:49	1
1-Methylnaphthalene	**0.12**	**J**	0.21	0.076	ug/L		04/25/22 09:36	04/28/22 22:49	1
2-Methylnaphthalene	**0.12**	**J**	0.21	0.062	ug/L		04/25/22 09:36	04/28/22 22:49	1
Phenanthrene	**0.43**		0.21	0.037	ug/L		04/25/22 09:36	04/28/22 22:49	1
Pyrene	**0.26**		0.21	0.041	ug/L		04/25/22 09:36	04/28/22 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*110*		*15 - 122*	*04/25/22 09:36*	*04/28/22 22:49*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*04/25/22 09:36*	*04/28/22 22:49*	*1*

Client Sample ID: P93B-ROX-042022
Date Collected: 04/20/22 09:25
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218876-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	94		33 - 138	04/25/22 09:36	04/28/22 22:49	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	10	3.9	ug/L		04/25/22 09:36	04/26/22 19:12	1
Benzenethiol	ND	*-*1 UJ	10	1.7	ug/L		04/25/22 09:36	04/26/22 19:12	1
Benzoic acid	ND		31	7.5	ug/L		04/25/22 09:36	04/26/22 19:12	1
Benzyl alcohol	ND	UJ	10	2.1	ug/L		04/25/22 09:36	04/26/22 19:12	1
Bis(2-chloroethoxy)methane	ND	UJ	10	0.16	ug/L		04/25/22 09:36	04/26/22 19:12	1
Bis(2-chloroethyl)ether	ND	UJ	10	2.8	ug/L		04/25/22 09:36	04/26/22 19:12	1
bis (2-chloroisopropyl) ether	ND	UJ	10	0.16	ug/L		04/25/22 09:36	04/26/22 19:12	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		04/25/22 09:36	04/26/22 19:12	1
4-Bromophenyl phenyl ether	ND		10	0.21	ug/L		04/25/22 09:36	04/26/22 19:12	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/25/22 09:36	04/26/22 19:12	1
4-Chloroaniline	ND		10	3.5	ug/L		04/25/22 09:36	04/26/22 19:12	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		04/25/22 09:36	04/26/22 19:12	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/25/22 09:36	04/26/22 19:12	1
2-Chlorophenol	ND		10	2.3	ug/L		04/25/22 09:36	04/26/22 19:12	1
4-Chlorophenyl phenyl ether	ND		10	2.1	ug/L		04/25/22 09:36	04/26/22 19:12	1
Dibenz[a,h]acridine	ND	*+	10	1.0	ug/L		04/25/22 09:36	04/26/22 19:12	1
Dibenzofuran	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 19:12	1
3,3'-Dichlorobenzidine	ND		10	2.7	ug/L		04/25/22 09:36	04/26/22 19:12	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		04/25/22 09:36	04/26/22 19:12	1
Diethyl phthalate	ND		10	0.25	ug/L		04/25/22 09:36	04/26/22 19:12	1
2,4-Dimethylphenol	**4.2**	**J**	10	3.6	ug/L		04/25/22 09:36	04/26/22 19:12	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 19:12	1
Di-n-butyl phthalate	ND		10	2.8	ug/L		04/25/22 09:36	04/26/22 19:12	1
4,6-Dinitro-ortho-cresol	ND	UJ	10	1.6	ug/L		04/25/22 09:36	04/26/22 19:12	1
2,4-Dinitrophenol	ND		31	3.5	ug/L		04/25/22 09:36	04/26/22 19:12	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/25/22 09:36	04/26/22 19:12	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/25/22 09:36	04/26/22 19:12	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 19:12	1
1,4-Dioxane	ND	UJ	10	1.0	ug/L		04/25/22 09:36	04/26/22 19:12	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	10	1.0	ug/L		04/25/22 09:36	04/26/22 19:12	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 19:12	1
Hexachlorocyclopentadiene	ND	UJ	21	2.7	ug/L		04/25/22 09:36	04/26/22 19:12	1
Hexachloroethane	ND		10	4.3	ug/L		04/25/22 09:36	04/26/22 19:12	1
Indene	ND		10	1.0	ug/L		04/25/22 09:36	04/26/22 19:12	1
Isophorone	ND	UJ	10	0.14	ug/L		04/25/22 09:36	04/26/22 19:12	1
2-Methylphenol	ND		10	1.8	ug/L		04/25/22 09:36	04/26/22 19:12	1
3 & 4 Methylphenol	**2.5**	**J**	21	0.40	ug/L		04/25/22 09:36	04/28/22 00:08	1
2-Nitroaniline	ND		10	2.3	ug/L		04/25/22 09:36	04/26/22 19:12	1
3-Nitroaniline	ND		10	1.8	ug/L		04/25/22 09:36	04/26/22 19:12	1
4-Nitroaniline	ND		10	1.5	ug/L		04/25/22 09:36	04/26/22 19:12	1
Nitrobenzene	ND	UJ	10	0.13	ug/L		04/25/22 09:36	04/26/22 19:12	1
2-Nitrophenol	ND		10	5.3	ug/L		04/25/22 09:36	04/26/22 19:12	1
4-Nitrophenol	ND		10	2.2	ug/L		04/25/22 09:36	04/26/22 19:12	1
N-Nitrosodimethylamine	ND	UJ	10	3.6	ug/L		04/25/22 09:36	04/26/22 19:12	1

Client Sample ID: P93B-ROX-042022
Date Collected: 04/20/22 09:25
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218876-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L		04/25/22 09:36	04/26/22 19:12	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/25/22 09:36	04/26/22 19:12	1
Pentachlorophenol	ND	uJ	21	1.4	ug/L		04/25/22 09:36	04/26/22 19:12	1
Phenol	400		10	2.7	ug/L		04/25/22 09:36	04/28/22 00:08	1
Pyridine	ND	uJ	10	3.3	ug/L		04/25/22 09:36	04/26/22 19:12	1
Quinoline	ND		10	4.6	ug/L		04/25/22 09:36	04/26/22 19:12	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		04/25/22 09:36	04/26/22 19:12	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		04/25/22 09:36	04/26/22 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*04/25/22 09:36*	*04/26/22 19:12*	*1*
2-Fluorophenol	*36*		*13 - 113*	*04/25/22 09:36*	*04/26/22 19:12*	*1*
Nitrobenzene-d5	*61*		*36 - 126*	*04/25/22 09:36*	*04/26/22 19:12*	*1*
Phenol-d5	*56*		*17 - 127*	*04/25/22 09:36*	*04/26/22 19:12*	*1*
Terphenyl-d14	*87*		*44 - 149*	*04/25/22 09:36*	*04/26/22 19:12*	*1*
2,4,6-Tribromophenol	*129*		*26 - 150*	*04/25/22 09:36*	*04/26/22 19:12*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.033	0.019	ug/L		04/27/22 10:04	04/28/22 05:49	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		04/27/22 10:04	04/28/22 05:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*125*		*51 - 149*	*04/27/22 10:04*	*04/28/22 05:49*	*1*

Client Sample ID: TB-ROX-042022-8260-SS-A

Date Collected: 04/20/22 00:01
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/28/22 15:24	1
Acrolein	ND		20	3.3	ug/L			04/28/22 15:24	1
Acrylonitrile	ND		10	2.8	ug/L			04/28/22 15:24	1
Benzene	ND		1.0	0.13	ug/L			04/28/22 15:24	1
Bromobenzene	ND		1.0	0.54	ug/L			04/28/22 15:24	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/28/22 15:24	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/28/22 15:24	1
Bromoform	ND		5.0	0.25	ug/L			04/28/22 15:24	1
Bromomethane	ND		1.0	0.98	ug/L			04/28/22 15:24	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/28/22 15:24	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/28/22 15:24	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/28/22 15:24	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/28/22 15:24	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/28/22 15:24	1
Chloroethane	ND		1.0	0.76	ug/L			04/28/22 15:24	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/28/22 15:24	1
Chloroform	ND		1.0	1.0	ug/L			04/28/22 15:24	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/28/22 15:24	1
Chloromethane	ND		1.0	0.32	ug/L			04/28/22 15:24	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/28/22 15:24	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/28/22 15:24	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/28/22 15:24	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/28/22 15:24	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/28/22 15:24	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/28/22 15:24	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/28/22 15:24	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/28/22 15:24	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/28/22 15:24	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/22 15:24	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/28/22 15:24	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/22 15:24	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/28/22 15:24	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/28/22 15:24	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/28/22 15:24	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/28/22 15:24	1
2-Hexanone	ND		25	1.4	ug/L			04/28/22 15:24	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/28/22 15:24	1
Methylene bromide	ND		5.0	0.22	ug/L			04/28/22 15:24	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/28/22 15:24	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/28/22 15:24	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/28/22 15:24	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/28/22 15:24	1
Naphthalene	ND		5.0	3.0	ug/L			04/28/22 15:24	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/28/22 15:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/28/22 15:24	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/28/22 15:24	1
o-Xylene	ND		5.0	0.60	ug/L			04/28/22 15:24	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/28/22 15:24	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/28/22 15:24	1

Client Sample ID: TB-ROX-042022-8260-SS-A
Date Collected: 04/20/22 00:01
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/28/22 15:24	1
Styrene	ND		1.0	1.0	ug/L			04/28/22 15:24	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/28/22 15:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/28/22 15:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/28/22 15:24	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/28/22 15:24	1
Toluene	ND		1.0	0.41	ug/L			04/28/22 15:24	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/28/22 15:24	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/28/22 15:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/28/22 15:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/28/22 15:24	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/28/22 15:24	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/28/22 15:24	1
Trichloroethene	ND		1.0	0.15	ug/L			04/28/22 15:24	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/28/22 15:24	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/28/22 15:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/28/22 15:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/28/22 15:24	1
Vinyl acetate	ND		25	0.93	ug/L			04/28/22 15:24	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/28/22 15:24	1
Xylenes, Total	ND		10	1.6	ug/L			04/28/22 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*04/28/22 15:24*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*04/28/22 15:24*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*04/28/22 15:24*	*1*

Client Sample ID: TB-ROX-042022-8011-SS-A
Date Collected: 04/20/22 00:01
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.035	0.020	ug/L		04/27/22 10:04	04/28/22 06:30	1
1,2-Dibromoethane	ND		0.023	0.017	ug/L		04/27/22 10:04	04/28/22 06:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*143*		*51 - 149*	*04/27/22 10:04*	*04/28/22 06:30*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Client Sample ID: P56-ROX-042022
Date Collected: 04/20/22 09:40
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/28/22 15:49	1
Acrolein	ND		20	3.3	ug/L			04/28/22 15:49	1
Acrylonitrile	ND		10	2.8	ug/L			04/28/22 15:49	1
Benzene	ND		1.0	0.13	ug/L			04/28/22 15:49	1
Bromobenzene	ND		1.0	0.54	ug/L			04/28/22 15:49	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/28/22 15:49	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/28/22 15:49	1
Bromoform	ND		5.0	0.25	ug/L			04/28/22 15:49	1
Bromomethane	ND		1.0	0.98	ug/L			04/28/22 15:49	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/28/22 15:49	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/28/22 15:49	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/28/22 15:49	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/28/22 15:49	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/28/22 15:49	1
Chloroethane	ND		1.0	0.76	ug/L			04/28/22 15:49	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/28/22 15:49	1
Chloroform	ND		1.0	1.0	ug/L			04/28/22 15:49	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/28/22 15:49	1
Chloromethane	ND		1.0	0.32	ug/L			04/28/22 15:49	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/28/22 15:49	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/28/22 15:49	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/28/22 15:49	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/28/22 15:49	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/28/22 15:49	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/28/22 15:49	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/28/22 15:49	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/28/22 15:49	1
1,1-Dichloroethene	ND	LCJ	1.0	0.50	ug/L			04/28/22 15:49	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/22 15:49	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/28/22 15:49	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/22 15:49	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/28/22 15:49	1
Ethylbenzene	**3.3**		1.0	0.50	ug/L			04/28/22 15:49	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/28/22 15:49	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/28/22 15:49	1
2-Hexanone	ND		25	1.4	ug/L			04/28/22 15:49	1
Isopropylbenzene	**21**		1.0	0.53	ug/L			04/28/22 15:49	1
Methylene bromide	ND		5.0	0.22	ug/L			04/28/22 15:49	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/28/22 15:49	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/28/22 15:49	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/28/22 15:49	1
m-Xylene & p-Xylene	**34**		5.0	0.63	ug/L			04/28/22 15:49	1
Naphthalene	ND		5.0	3.0	ug/L			04/28/22 15:49	1
n-Butylbenzene	**1.3**		1.0	0.76	ug/L			04/28/22 15:49	1
N-Propylbenzene	**24**		1.0	0.69	ug/L			04/28/22 15:49	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/28/22 15:49	1
o-Xylene	**1.0**	J	5.0	0.60	ug/L			04/28/22 15:49	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/28/22 15:49	1
p-Isopropyltoluene	**1.3**		1.0	0.71	ug/L			04/28/22 15:49	1

Client Sample ID: P56-ROX-042022
Date Collected: 04/20/22 09:40
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.2		1.0	0.70	ug/L			04/28/22 15:49	1
Styrene	ND		1.0	1.0	ug/L			04/28/22 15:49	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/28/22 15:49	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/28/22 15:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/28/22 15:49	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/28/22 15:49	1
Toluene	1.2		1.0	0.41	ug/L			04/28/22 15:49	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/28/22 15:49	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/28/22 15:49	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/28/22 15:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/28/22 15:49	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/28/22 15:49	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/28/22 15:49	1
Trichloroethene	ND		1.0	0.15	ug/L			04/28/22 15:49	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/28/22 15:49	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/28/22 15:49	1
1,2,4-Trimethylbenzene	13		1.0	0.82	ug/L			04/28/22 15:49	1
1,3,5-Trimethylbenzene	4.5		1.0	0.56	ug/L			04/28/22 15:49	1
Vinyl acetate	ND		25	0.93	ug/L			04/28/22 15:49	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/28/22 15:49	1
Xylenes, Total	35		10	1.6	ug/L			04/28/22 15:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*04/28/22 15:49*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*04/28/22 15:49*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*04/28/22 15:49*	*1*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.81		0.20	0.032	ug/L		04/25/22 09:36	04/28/22 23:06	1
Acenaphthylene	ND		0.20	0.045	ug/L		04/25/22 09:36	04/28/22 23:06	1
Anthracene	ND		0.20	0.032	ug/L		04/25/22 09:36	04/28/22 23:06	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/25/22 09:36	04/28/22 23:06	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/25/22 09:36	04/28/22 23:06	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/25/22 09:36	04/28/22 23:06	1
Benzo[g,h,i]perylene	ND	UJ	0.20	0.13	ug/L		04/25/22 09:36	04/28/22 23:06	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/25/22 09:36	04/28/22 23:06	1
Chrysene	ND		0.20	0.074	ug/L		04/25/22 09:36	04/28/22 23:06	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/25/22 09:36	04/28/22 23:06	1
Fluoranthene	ND		0.20	0.068	ug/L		04/25/22 09:36	04/28/22 23:06	1
Fluorene	0.45		0.20	0.11	ug/L		04/25/22 09:36	04/28/22 23:06	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/25/22 09:36	04/28/22 23:06	1
1-Methylnaphthalene	17		0.20	0.074	ug/L		04/25/22 09:36	04/28/22 23:06	1
2-Methylnaphthalene	16		0.20	0.060	ug/L		04/25/22 09:36	04/30/22 17:11	1
Phenanthrene	1.0		0.20	0.036	ug/L		04/25/22 09:36	04/28/22 23:06	1
Pyrene	0.046	J	0.20	0.040	ug/L		04/25/22 09:36	04/28/22 23:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*126*	*S1+*	*15 - 122*	*04/25/22 09:36*	*04/28/22 23:06*	*1*
Nitrobenzene-d5	*107*		*19 - 130*	*04/25/22 09:36*	*04/28/22 23:06*	*1*

Client Sample ID: P56-ROX-042022
Date Collected: 04/20/22 09:40
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	94		33 - 138	04/25/22 09:36	04/28/22 23:06	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	10	3.8	ug/L		04/25/22 09:36	04/26/22 19:38	1
Benzenethiol	ND	*-*1 UJ	10	1.7	ug/L		04/25/22 09:36	04/26/22 19:38	1
Benzoic acid	ND		30	7.3	ug/L		04/25/22 09:36	04/26/22 19:38	1
Benzyl alcohol	ND	UJ	10	2.0	ug/L		04/25/22 09:36	04/26/22 19:38	1
Bis(2-chloroethoxy)methane	ND	UJ	10	0.16	ug/L		04/25/22 09:36	04/26/22 19:38	1
Bis(2-chloroethyl)ether	ND	UJ	10	2.7	ug/L		04/25/22 09:36	04/26/22 19:38	1
bis (2-chloroisopropyl) ether	ND	UJ	10	0.16	ug/L		04/25/22 09:36	04/26/22 19:38	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/25/22 09:36	04/26/22 19:38	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/25/22 09:36	04/26/22 19:38	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/25/22 09:36	04/26/22 19:38	1
4-Chloroaniline	ND		10	3.4	ug/L		04/25/22 09:36	04/26/22 19:38	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/25/22 09:36	04/26/22 19:38	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/25/22 09:36	04/26/22 19:38	1
2-Chlorophenol	ND		10	2.2	ug/L		04/25/22 09:36	04/26/22 19:38	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/25/22 09:36	04/26/22 19:38	1
Dibenz[a,h]acridine	ND	*+	10	1.0	ug/L		04/25/22 09:36	04/26/22 19:38	1
Dibenzofuran	0.53	J	10	0.17	ug/L		04/25/22 09:36	04/26/22 19:38	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/25/22 09:36	04/26/22 19:38	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/25/22 09:36	04/26/22 19:38	1
Diethyl phthalate	ND		10	0.24	ug/L		04/25/22 09:36	04/26/22 19:38	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/25/22 09:36	04/26/22 19:38	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 19:38	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/25/22 09:36	04/26/22 19:38	1
4,6-Dinitro-ortho-cresol	ND	UJ	10	1.6	ug/L		04/25/22 09:36	04/26/22 19:38	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/25/22 09:36	04/26/22 19:38	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/25/22 09:36	04/26/22 19:38	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/25/22 09:36	04/26/22 19:38	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 19:38	1
1,4-Dioxane	ND	UJ	10	1.0	ug/L		04/25/22 09:36	04/26/22 19:38	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	10	1.0	ug/L		04/25/22 09:36	04/26/22 19:38	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 19:38	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/25/22 09:36	04/26/22 19:38	1
Hexachloroethane	ND		10	4.2	ug/L		04/25/22 09:36	04/26/22 19:38	1
Indene	ND		10	1.0	ug/L		04/25/22 09:36	04/26/22 19:38	1
Isophorone	ND	UJ	10	0.14	ug/L		04/25/22 09:36	04/26/22 19:38	1
2-Methylphenol	ND		10	1.8	ug/L		04/25/22 09:36	04/26/22 19:38	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/25/22 09:36	04/26/22 19:38	1
2-Nitroaniline	ND		10	2.2	ug/L		04/25/22 09:36	04/26/22 19:38	1
3-Nitroaniline	ND		10	1.8	ug/L		04/25/22 09:36	04/26/22 19:38	1
4-Nitroaniline	ND		10	1.5	ug/L		04/25/22 09:36	04/26/22 19:38	1
Nitrobenzene	ND	UJ	10	0.13	ug/L		04/25/22 09:36	04/26/22 19:38	1
2-Nitrophenol	ND		10	5.2	ug/L		04/25/22 09:36	04/26/22 19:38	1
4-Nitrophenol	ND		10	2.1	ug/L		04/25/22 09:36	04/26/22 19:38	1
N-Nitrosodimethylamine	ND	UJ	10	3.5	ug/L		04/25/22 09:36	04/26/22 19:38	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Client Sample ID: P56-ROX-042022
Date Collected: 04/20/22 09:40
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/25/22 09:36	04/26/22 19:38	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/25/22 09:36	04/26/22 19:38	1
Pentachlorophenol	ND	UJ	20	1.4	ug/L		04/25/22 09:36	04/26/22 19:38	1
Phenol	ND		10	2.6	ug/L		04/25/22 09:36	04/26/22 19:38	1
Pyridine	ND	UJ	10	3.2	ug/L		04/25/22 09:36	04/26/22 19:38	1
Quinoline	ND		10	4.5	ug/L		04/25/22 09:36	04/26/22 19:38	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/25/22 09:36	04/26/22 19:38	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/25/22 09:36	04/26/22 19:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*46 - 124*	*04/25/22 09:36*	*04/26/22 19:38*	*1*
2-Fluorophenol	*16*		*13 - 113*	*04/25/22 09:36*	*04/26/22 19:38*	*1*
Nitrobenzene-d5	*69*		*36 - 126*	*04/25/22 09:36*	*04/26/22 19:38*	*1*
Phenol-d5	*40*		*17 - 127*	*04/25/22 09:36*	*04/26/22 19:38*	*1*
Terphenyl-d14	*81*		*44 - 149*	*04/25/22 09:36*	*04/26/22 19:38*	*1*
2,4,6-Tribromophenol	*130*		*26 - 150*	*04/25/22 09:36*	*04/26/22 19:38*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.034	0.019	ug/L		04/27/22 10:04	04/28/22 07:11	1
1,2-Dibromoethane	ND		0.023	0.017	ug/L		04/27/22 10:04	04/28/22 07:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*128*		*51 - 149*	*04/27/22 10:04*	*04/28/22 07:11*	*1*

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Client Sample ID: T12-ROX-042022
Date Collected: 04/20/22 13:40
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		250	100	ug/L			04/28/22 12:18	10
Acrolein	ND		200	33	ug/L			04/28/22 12:18	10
Acrylonitrile	ND		100	28	ug/L			04/28/22 12:18	10
Benzene	**1200**		10	1.3	ug/L			04/28/22 12:18	10
Bromobenzene	ND		10	5.4	ug/L			04/28/22 12:18	10
Bromochloromethane	ND		10	2.1	ug/L			04/28/22 12:18	10
Bromodichloromethane	ND		10	5.0	ug/L			04/28/22 12:18	10
Bromoform	ND		50	2.5	ug/L			04/28/22 12:18	10
Bromomethane	ND		10	9.8	ug/L			04/28/22 12:18	10
2-Butanone (MEK)	ND		250	26	ug/L			04/28/22 12:18	10
Carbon disulfide	ND		10	5.0	ug/L			04/28/22 12:18	10
Carbon tetrachloride	ND		10	1.9	ug/L			04/28/22 12:18	10
Chlorobenzene	ND		10	1.5	ug/L			04/28/22 12:18	10
Dibromochloromethane	ND		10	2.4	ug/L			04/28/22 12:18	10
Chloroethane	ND		10	7.6	ug/L			04/28/22 12:18	10
2-Chloroethyl vinyl ether	ND		50	20	ug/L			04/28/22 12:18	10
Chloroform	ND		10	10	ug/L			04/28/22 12:18	10
1-Chlorohexane	ND		10	3.2	ug/L			04/28/22 12:18	10
Chloromethane	ND		10	3.2	ug/L			04/28/22 12:18	10
cis-1,2-Dichloroethene	ND		10	2.0	ug/L			04/28/22 12:18	10
cis-1,3-Dichloropropene	ND		50	5.0	ug/L			04/28/22 12:18	10
1,2-Dichlorobenzene	ND		10	5.0	ug/L			04/28/22 12:18	10
1,3-Dichlorobenzene	ND		10	5.4	ug/L			04/28/22 12:18	10
1,4-Dichlorobenzene	ND		10	6.4	ug/L			04/28/22 12:18	10
Dichlorodifluoromethane	ND		10	8.5	ug/L			04/28/22 12:18	10
1,1-Dichloroethane	ND		10	5.0	ug/L			04/28/22 12:18	10
1,2-Dichloroethane	ND		10	1.9	ug/L			04/28/22 12:18	10
1,1-Dichloroethene	ND	UJ	10	5.0	ug/L			04/28/22 12:18	10
1,2-Dichloropropane	ND		10	5.0	ug/L			04/28/22 12:18	10
1,3-Dichloropropane	ND		10	5.0	ug/L			04/28/22 12:18	10
2,2-Dichloropropane	ND		10	5.0	ug/L			04/28/22 12:18	10
1,1-Dichloropropene	ND		10	5.0	ug/L			04/28/22 12:18	10
Ethylbenzene	**13**		10	5.0	ug/L			04/28/22 12:18	10
Ethyl methacrylate	ND		10	6.0	ug/L			04/28/22 12:18	10
Hexachlorobutadiene	ND		50	9.0	ug/L			04/28/22 12:18	10
2-Hexanone	ND		250	14	ug/L			04/28/22 12:18	10
Isopropylbenzene	ND		10	5.3	ug/L			04/28/22 12:18	10
Methylene bromide	ND		50	2.2	ug/L			04/28/22 12:18	10
Methylene Chloride	ND		50	30	ug/L			04/28/22 12:18	10
4-Methyl-2-pentanone (MIBK)	ND		250	18	ug/L			04/28/22 12:18	10
Methyl tert-butyl ether	**2.8**	J	10	2.2	ug/L			04/28/22 12:18	10
m-Xylene & p-Xylene	**67**		50	6.3	ug/L			04/28/22 12:18	10
Naphthalene	ND		50	30	ug/L			04/28/22 12:18	10
n-Butylbenzene	ND		10	7.6	ug/L			04/28/22 12:18	10
N-Propylbenzene	**8.0**	J	10	6.9	ug/L			04/28/22 12:18	10
o-Chlorotoluene	ND		10	5.7	ug/L			04/28/22 12:18	10
o-Xylene	ND		50	6.0	ug/L			04/28/22 12:18	10
p-Chlorotoluene	ND		10	5.6	ug/L			04/28/22 12:18	10
p-Isopropyltoluene	ND		10	7.1	ug/L			04/28/22 12:18	10

Client Sample ID: T12-ROX-042022
Date Collected: 04/20/22 13:40
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		10	7.0	ug/L			04/28/22 12:18	10
Styrene	ND		10	10	ug/L			04/28/22 12:18	10
tert-Butylbenzene	ND		10	6.3	ug/L			04/28/22 12:18	10
1,1,1,2-Tetrachloroethane	ND		10	1.6	ug/L			04/28/22 12:18	10
1,1,2,2-Tetrachloroethane	ND		10	5.0	ug/L			04/28/22 12:18	10
Tetrachloroethene	ND		10	9.0	ug/L			04/28/22 12:18	10
Toluene	26		10	4.1	ug/L			04/28/22 12:18	10
trans-1,2-Dichloroethene	ND		10	5.0	ug/L			04/28/22 12:18	10
trans-1,3-Dichloropropene	ND		50	2.0	ug/L			04/28/22 12:18	10
1,2,3-Trichlorobenzene	ND		10	9.0	ug/L			04/28/22 12:18	10
1,2,4-Trichlorobenzene	ND		10	8.2	ug/L			04/28/22 12:18	10
1,1,1-Trichloroethane	ND		10	1.8	ug/L			04/28/22 12:18	10
1,1,2-Trichloroethane	ND		50	2.1	ug/L			04/28/22 12:18	10
Trichloroethene	ND		10	1.5	ug/L			04/28/22 12:18	10
Trichlorofluoromethane	ND		10	5.2	ug/L			04/28/22 12:18	10
1,2,3-Trichloropropane	ND		50	8.4	ug/L			04/28/22 12:18	10
1,2,4-Trimethylbenzene	10		10	8.2	ug/L			04/28/22 12:18	10
1,3,5-Trimethylbenzene	8.9	J	10	5.6	ug/L			04/28/22 12:18	10
Vinyl acetate	ND		250	9.3	ug/L			04/28/22 12:18	10
Vinyl chloride	ND		10	5.0	ug/L			04/28/22 12:18	10
Xylenes, Total	72	J	100	16	ug/L			04/28/22 12:18	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*04/28/22 12:18*	*10*
Dibromofluoromethane	*96*		*75 - 126*		*04/28/22 12:18*	*10*
Toluene-d8 (Surr)	*104*		*64 - 132*		*04/28/22 12:18*	*10*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/25/22 09:36	04/28/22 23:24	1
Acenaphthylene	ND		0.20	0.044	ug/L		04/25/22 09:36	04/28/22 23:24	1
Anthracene	ND		0.20	0.032	ug/L		04/25/22 09:36	04/28/22 23:24	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		04/25/22 09:36	04/28/22 23:24	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/25/22 09:36	04/28/22 23:24	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/25/22 09:36	04/28/22 23:24	1
Benzo[g,h,i]perylene	ND	UJ	0.20	0.13	ug/L		04/25/22 09:36	04/28/22 23:24	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		04/25/22 09:36	04/28/22 23:24	1
Chrysene	ND		0.20	0.073	ug/L		04/25/22 09:36	04/28/22 23:24	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		04/25/22 09:36	04/28/22 23:24	1
Fluoranthene	ND		0.20	0.067	ug/L		04/25/22 09:36	04/28/22 23:24	1
Fluorene	ND		0.20	0.11	ug/L		04/25/22 09:36	04/28/22 23:24	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L		04/25/22 09:36	04/28/22 23:24	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		04/25/22 09:36	04/28/22 23:24	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		04/25/22 09:36	04/28/22 23:24	1
Phenanthrene	ND		0.20	0.036	ug/L		04/25/22 09:36	04/28/22 23:24	1
Pyrene	ND		0.20	0.040	ug/L		04/25/22 09:36	04/28/22 23:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*116*		*15 - 122*	*04/25/22 09:36*	*04/28/22 23:24*	*1*
Nitrobenzene-d5	*95*		*19 - 130*	*04/25/22 09:36*	*04/28/22 23:24*	*1*

Client Sample ID: T12-ROX-042022
Date Collected: 04/20/22 13:40
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	112		33 - 138	04/25/22 09:36	04/28/22 23:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.9	3.8	ug/L		04/25/22 09:36	04/26/22 20:03	1
Benzenethiol	ND	*-*1 UJ	9.9	1.7	ug/L		04/25/22 09:36	04/26/22 20:03	1
Benzoic acid	ND	UJ	30	7.2	ug/L		04/25/22 09:36	04/26/22 20:03	1
Benzyl alcohol	ND	UJ	9.9	2.0	ug/L		04/25/22 09:36	04/26/22 20:03	1
Bis(2-chloroethoxy)methane	ND	UJ	9.9	0.16	ug/L		04/25/22 09:36	04/26/22 20:03	1
Bis(2-chloroethyl)ether	ND	UJ	9.9	2.7	ug/L		04/25/22 09:36	04/26/22 20:03	1
bis (2-chloroisopropyl) ether	ND	UJ	9.9	0.16	ug/L		04/25/22 09:36	04/26/22 20:03	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		04/25/22 09:36	04/26/22 20:03	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		04/25/22 09:36	04/26/22 20:03	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		04/25/22 09:36	04/26/22 20:03	1
4-Chloroaniline	ND		9.9	3.4	ug/L		04/25/22 09:36	04/26/22 20:03	1
4-Chloro-3-methylphenol	ND	UJ	9.9	3.8	ug/L		04/25/22 09:36	04/26/22 20:03	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		04/25/22 09:36	04/26/22 20:03	1
2-Chlorophenol	ND	UJ	9.9	2.2	ug/L		04/25/22 09:36	04/26/22 20:03	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		04/25/22 09:36	04/26/22 20:03	1
Dibenz[a,h]acridine	ND	*+	9.9	0.99	ug/L		04/25/22 09:36	04/26/22 20:03	1
Dibenzofuran	ND		9.9	0.17	ug/L		04/25/22 09:36	04/26/22 20:03	1
3,3'-Dichlorobenzidine	ND		9.9	2.6	ug/L		04/25/22 09:36	04/26/22 20:03	1
2,4-Dichlorophenol	ND	UJ	9.9	3.0	ug/L		04/25/22 09:36	04/26/22 20:03	1
Diethyl phthalate	ND		9.9	0.24	ug/L		04/25/22 09:36	04/26/22 20:03	1
2,4-Dimethylphenol	ND	UJ	9.9	3.5	ug/L		04/25/22 09:36	04/26/22 20:03	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		04/25/22 09:36	04/26/22 20:03	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		04/25/22 09:36	04/26/22 20:03	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.9	1.6	ug/L		04/25/22 09:36	04/26/22 20:03	1
2,4-Dinitrophenol	ND	UJ	30	3.4	ug/L		04/25/22 09:36	04/26/22 20:03	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		04/25/22 09:36	04/26/22 20:03	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		04/25/22 09:36	04/26/22 20:03	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		04/25/22 09:36	04/26/22 20:03	1
1,4-Dioxane	ND	UJ	9.9	0.99	ug/L		04/25/22 09:36	04/26/22 20:03	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.9	0.99	ug/L		04/25/22 09:36	04/26/22 20:03	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		04/25/22 09:36	04/26/22 20:03	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		04/25/22 09:36	04/26/22 20:03	1
Hexachloroethane	ND		9.9	4.2	ug/L		04/25/22 09:36	04/26/22 20:03	1
Indene	1.6	J	9.9	0.99	ug/L		04/25/22 09:36	04/26/22 20:03	1
Isophorone	ND	UJ	9.9	0.14	ug/L		04/25/22 09:36	04/26/22 20:03	1
2-Methylphenol	ND	UJ	9.9	1.8	ug/L		04/25/22 09:36	04/26/22 20:03	1
3 & 4 Methylphenol	ND	UJ	20	0.39	ug/L		04/25/22 09:36	04/26/22 20:03	1
2-Nitroaniline	ND		9.9	2.2	ug/L		04/25/22 09:36	04/26/22 20:03	1
3-Nitroaniline	ND		9.9	1.8	ug/L		04/25/22 09:36	04/26/22 20:03	1
4-Nitroaniline	ND		9.9	1.5	ug/L		04/25/22 09:36	04/26/22 20:03	1
Nitrobenzene	ND	UJ	9.9	0.13	ug/L		04/25/22 09:36	04/26/22 20:03	1
2-Nitrophenol	ND	UJ	9.9	5.1	ug/L		04/25/22 09:36	04/26/22 20:03	1
4-Nitrophenol	ND	UJ	9.9	2.1	ug/L		04/25/22 09:36	04/26/22 20:03	1
N-Nitrosodimethylamine	ND	UJ	9.9	3.5	ug/L		04/25/22 09:36	04/26/22 20:03	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Client Sample ID: T12-ROX-042022
Date Collected: 04/20/22 13:40
Date Received: 04/22/22 09:04

Lab Sample ID: 400-218878-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		04/25/22 09:36	04/26/22 20:03	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		04/25/22 09:36	04/26/22 20:03	1
Pentachlorophenol	ND	UJ	20	1.4	ug/L		04/25/22 09:36	04/26/22 20:03	1
Phenol	7.6	J	9.9	2.6	ug/L		04/25/22 09:36	04/28/22 00:29	1
Pyridine	ND	UJ	9.9	3.2	ug/L		04/25/22 09:36	04/26/22 20:03	1
Quinoline	ND		9.9	4.4	ug/L		04/25/22 09:36	04/26/22 20:03	1
2,4,5-Trichlorophenol	ND	UJ	9.9	3.7	ug/L		04/25/22 09:36	04/26/22 20:03	1
2,4,6-Trichlorophenol	ND	UJ	9.9	3.5	ug/L		04/25/22 09:36	04/26/22 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*04/25/22 09:36*	*04/26/22 20:03*	*1*
2-Fluorophenol	*0*	*S1-*	*13 - 113*	*04/25/22 09:36*	*04/26/22 20:03*	*1*
Nitrobenzene-d5	*56*		*36 - 126*	*04/25/22 09:36*	*04/26/22 20:03*	*1*
Phenol-d5	*5*	*S1-*	*17 - 127*	*04/25/22 09:36*	*04/26/22 20:03*	*1*
Terphenyl-d14	*99*		*44 - 149*	*04/25/22 09:36*	*04/26/22 20:03*	*1*
2,4,6-Tribromophenol	*61*		*26 - 150*	*04/25/22 09:36*	*04/26/22 20:03*	*1*

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*+	0.033	0.019	ug/L		04/27/22 10:04	04/28/22 07:31	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		04/27/22 10:04	04/28/22 07:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*125*		*51 - 149*	*04/27/22 10:04*	*04/28/22 07:31*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc. Job ID: 400-218876-1
Project/Site: ROXANA QUARTERLY GW

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

Glossary

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

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(72-119)	(75-126)	(64-132)
400-218876-1	TB-ROX-042022-8560-SS-B	95	108	94
400-218876-3	P93B-ROX-042022	92	104	94
400-218878-1	TB-ROX-042022-8260-SS-A	100	103	102
400-218878-3	P56-ROX-042022	100	100	100
400-218878-4	T12-ROX-042022	100	96	104
LCS 400-575275/1002	Lab Control Sample	97	99	95
LCS 400-575480/1002	Lab Control Sample	98	100	96
LCS 400-575595/1002	Lab Control Sample	99	100	100
MB 400-575275/5	Method Blank	96	108	96
MB 400-575480/4	Method Blank	97	108	94
MB 400-575595/4	Method Blank	99	101	100

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		FBP	2FP	NBZ	PHL	TPHL	TBP
Lab Sample ID	Client Sample ID	(46-124)	(13-113)	(36-126)	(17-127)	(44-149)	(26-150)
400-218876-3	P93B-ROX-042022	88	36	61	56	87	129
400-218878-3	P56-ROX-042022	92	16	69	40	81	130
400-218878-4	T12-ROX-042022	84	0 S1-	56	5 S1-	99	61
LCS 400-575121/2-A	Lab Control Sample	96	36	68	56	113	112
LCS 400-575121/3-A	Lab Control Sample	102	66	72	63	110	118
LCS 400-575121/5-A	Lab Control Sample	104	37	72	54	118	83
LCSD 400-575121/4-A	Lab Control Sample Dup	92	57	63	53	91	101
LCSD 400-575121/6-A	Lab Control Sample Dup	92	25	63	42	102	75
MB 400-575121/1-A	Method Blank	104	16	77	44	121	115

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPHL = Terphenyl-d14
TBP = 2,4,6-Tribromophenol

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
400-218876-3	P93B-ROX-042022	110	93	94
400-218878-3	P56-ROX-042022	126 S1+	107	94
400-218878-4	T12-ROX-042022	116	95	112
LCS 400-575121/2-A	Lab Control Sample	110	72	109

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-218876-1
Project/Site: ROXANA QUARTERLY GW

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)		
		FBP	NBZ	TPHL
Lab Sample ID	Client Sample ID	(15-122)	(19-130)	(33-138)
MB 400-575121/1-A	Method Blank	125 S1+	111	124

Surrogate Legend

FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB1
Lab Sample ID	Client Sample ID	(51-149)
400-218876-2	TB-ROX-042022-8011-SS-B	141
400-218876-3	P93B-ROX-042022	125
400-218878-2	TB-ROX-042022-8011-SS-A	143
400-218878-3	P56-ROX-042022	128
400-218878-4	T12-ROX-042022	125
LCS 400-575468/2-A	Lab Control Sample	129
LCSD 400-575468/3-A	Lab Control Sample Dup	140
MB 400-575468/1-A	Method Blank	125

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Client Sample ID: TB-ROX-042022-8560-SS-B

Lab Sample ID: 400-218876-1
Matrix: Water
Date Collected: 04/20/22 00:01
Date Received: 04/22/22 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575275	04/26/22 14:35	AGW	TAL PEN

Client Sample ID: TB-ROX-042022-8011-SS-B

Lab Sample ID: 400-218876-2
Matrix: Water
Date Collected: 04/20/22 00:01
Date Received: 04/22/22 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.5 mL	35 mL	575468	04/27/22 10:04	RS	TAL PEN
Total/NA	Analysis	8011		1			575573	04/28/22 05:29	DS	TAL PEN

Client Sample ID: P93B-ROX-042022

Lab Sample ID: 400-218876-3
Matrix: Water
Date Collected: 04/20/22 09:25
Date Received: 04/22/22 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5000	5 mL	5 mL	575480	04/27/22 22:46	AGW	TAL PEN
Total/NA	Prep	3520C			243.6 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575281	04/26/22 19:12	S1B	TAL PEN
Total/NA	Prep	3520C			243.6 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575531	04/28/22 00:08	S1B	TAL PEN
Total/NA	Prep	3520C			243.6 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575714	04/28/22 22:49	PP1	TAL PEN
Total/NA	Prep	8011			31.9 mL	35 mL	575468	04/27/22 10:04	RS	TAL PEN
Total/NA	Analysis	8011		1			575573	04/28/22 05:49	DS	TAL PEN

Client Sample ID: TB-ROX-042022-8260-SS-A

Lab Sample ID: 400-218878-1
Matrix: Water
Date Collected: 04/20/22 00:01
Date Received: 04/22/22 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575595	04/28/22 15:24	WPD	TAL PEN

Client Sample ID: TB-ROX-042022-8011-SS-A

Lab Sample ID: 400-218878-2
Matrix: Water
Date Collected: 04/20/22 00:01
Date Received: 04/22/22 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			30.3 mL	35 mL	575468	04/27/22 10:04	RS	TAL PEN
Total/NA	Analysis	8011		1			575573	04/28/22 06:30	DS	TAL PEN

Client Sample ID: P56-ROX-042022

Lab Sample ID: 400-218878-3
Matrix: Water
Date Collected: 04/20/22 09:40
Date Received: 04/22/22 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575595	04/28/22 15:49	WPD	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Client Sample ID: P56-ROX-042022

Lab Sample ID: 400-218878-3

Date Collected: 04/20/22 09:40
Matrix: Water
Date Received: 04/22/22 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			248.6 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575281	04/26/22 19:38	S1B	TAL PEN
Total/NA	Prep	3520C			248.6 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575714	04/28/22 23:06	PP1	TAL PEN
Total/NA	Prep	3520C			248.6 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575786	04/30/22 17:11	PP1	TAL PEN
Total/NA	Prep	8011			30.6 mL	35 mL	575468	04/27/22 10:04	RS	TAL PEN
Total/NA	Analysis	8011		1			575573	04/28/22 07:11	DS	TAL PEN

Client Sample ID: T12-ROX-042022

Lab Sample ID: 400-218878-4

Date Collected: 04/20/22 13:40
Matrix: Water
Date Received: 04/22/22 09:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	5 mL	5 mL	575595	04/28/22 12:18	WPD	TAL PEN
Total/NA	Prep	3520C			253 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575281	04/26/22 20:03	S1B	TAL PEN
Total/NA	Prep	3520C			253 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575531	04/28/22 00:29	S1B	TAL PEN
Total/NA	Prep	3520C			253 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575714	04/28/22 23:24	PP1	TAL PEN
Total/NA	Prep	8011			31.6 mL	35 mL	575468	04/27/22 10:04	RS	TAL PEN
Total/NA	Analysis	8011		1			575573	04/28/22 07:31	DS	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-575121/1-A

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575281	04/26/22 12:17	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D LL		1			575714	04/28/22 19:06	PP1	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-575275/5

Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575275	04/26/22 10:12	AGW	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-575468/1-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575468	04/27/22 10:04	RS	TAL PEN
Total/NA	Analysis	8011		1			575573	04/28/22 03:27	DS	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-575480/4
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575480	04/27/22 13:12	AGW	TAL PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-575595/4
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575595	04/28/22 08:07	WPD	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-575121/2-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575281	04/26/22 12:45	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D LL		5			575714	04/28/22 19:24	PP1	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-575121/3-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575281	04/26/22 13:11	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-575121/5-A
Date Collected: N/A
Matrix: Water
Date Received: N/A

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575281	04/26/22 14:08	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-575275/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575275	04/26/22 09:12	AGW	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-575468/2-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575468	04/27/22 10:04	RS	TAL PEN
Total/NA	Analysis	8011		1			575573	04/28/22 03:48	DS	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-575480/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575480	04/27/22 12:11	AGW	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-575595/1002
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	575595	04/28/22 07:10	WPD	TAL PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-575121/4-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575281	04/26/22 13:40	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-575121/6-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			250 mL	1 mL	575121	04/25/22 09:36	KWS	TAL PEN
Total/NA	Analysis	8270D		1			575281	04/26/22 14:34	S1B	TAL PEN

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-575468/3-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35 mL	35 mL	575468	04/27/22 10:04	RS	TAL PEN
Total/NA	Analysis	8011		1			575573	04/28/22 04:08	DS	TAL PEN

Laboratory References:

TAL PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

GC/MS VOA

Analysis Batch: 575275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218876-1	TB-ROX-042022-8560-SS-B	Total/NA	Water	8260B	
MB 400-575275/5	Method Blank	Total/NA	Water	8260B	
LCS 400-575275/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 575480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218876-3	P93B-ROX-042022	Total/NA	Water	8260B	
MB 400-575480/4	Method Blank	Total/NA	Water	8260B	
LCS 400-575480/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 575595

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218878-1	TB-ROX-042022-8260-SS-A	Total/NA	Water	8260B	
400-218878-3	P56-ROX-042022	Total/NA	Water	8260B	
400-218878-4	T12-ROX-042022	Total/NA	Water	8260B	
MB 400-575595/4	Method Blank	Total/NA	Water	8260B	
LCS 400-575595/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 575121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218876-3	P93B-ROX-042022	Total/NA	Water	3520C	
400-218878-3	P56-ROX-042022	Total/NA	Water	3520C	
400-218878-4	T12-ROX-042022	Total/NA	Water	3520C	
MB 400-575121/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-575121/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-575121/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-575121/5-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-575121/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-575121/6-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 575281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218876-3	P93B-ROX-042022	Total/NA	Water	8270D	575121
400-218878-3	P56-ROX-042022	Total/NA	Water	8270D	575121
400-218878-4	T12-ROX-042022	Total/NA	Water	8270D	575121
MB 400-575121/1-A	Method Blank	Total/NA	Water	8270D	575121
LCS 400-575121/2-A	Lab Control Sample	Total/NA	Water	8270D	575121
LCS 400-575121/3-A	Lab Control Sample	Total/NA	Water	8270D	575121
LCS 400-575121/5-A	Lab Control Sample	Total/NA	Water	8270D	575121
LCSD 400-575121/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	575121
LCSD 400-575121/6-A	Lab Control Sample Dup	Total/NA	Water	8270D	575121

Analysis Batch: 575531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218876-3	P93B-ROX-042022	Total/NA	Water	8270D	575121
400-218878-4	T12-ROX-042022	Total/NA	Water	8270D	575121

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-218876-1

GC/MS Semi VOA

Analysis Batch: 575714

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218876-3	P93B-ROX-042022	Total/NA	Water	8270D LL	575121
400-218878-3	P56-ROX-042022	Total/NA	Water	8270D LL	575121
400-218878-4	T12-ROX-042022	Total/NA	Water	8270D LL	575121
MB 400-575121/1-A	Method Blank	Total/NA	Water	8270D LL	575121
LCS 400-575121/2-A	Lab Control Sample	Total/NA	Water	8270D LL	575121

Analysis Batch: 575786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218878-3	P56-ROX-042022	Total/NA	Water	8270D LL	575121

GC Semi VOA

Prep Batch: 575468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218876-2	TB-ROX-042022-8011-SS-B	Total/NA	Water	8011	
400-218876-3	P93B-ROX-042022	Total/NA	Water	8011	
400-218878-2	TB-ROX-042022-8011-SS-A	Total/NA	Water	8011	
400-218878-3	P56-ROX-042022	Total/NA	Water	8011	
400-218878-4	T12-ROX-042022	Total/NA	Water	8011	
MB 400-575468/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-575468/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-575468/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 575573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-218876-2	TB-ROX-042022-8011-SS-B	Total/NA	Water	8011	575468
400-218876-3	P93B-ROX-042022	Total/NA	Water	8011	575468
400-218878-2	TB-ROX-042022-8011-SS-A	Total/NA	Water	8011	575468
400-218878-3	P56-ROX-042022	Total/NA	Water	8011	575468
400-218878-4	T12-ROX-042022	Total/NA	Water	8011	575468
MB 400-575468/1-A	Method Blank	Total/NA	Water	8011	575468
LCS 400-575468/2-A	Lab Control Sample	Total/NA	Water	8011	575468
LCSD 400-575468/3-A	Lab Control Sample Dup	Total/NA	Water	8011	575468

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-575275/5
Matrix: Water
Analysis Batch: 575275

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/26/22 10:12	1
Acrolein	ND		20	3.3	ug/L			04/26/22 10:12	1
Acrylonitrile	ND		10	2.8	ug/L			04/26/22 10:12	1
Benzene	ND		1.0	0.13	ug/L			04/26/22 10:12	1
Bromobenzene	ND		1.0	0.54	ug/L			04/26/22 10:12	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/26/22 10:12	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/26/22 10:12	1
Bromoform	ND		5.0	0.25	ug/L			04/26/22 10:12	1
Bromomethane	ND		1.0	0.98	ug/L			04/26/22 10:12	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/26/22 10:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/26/22 10:12	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/26/22 10:12	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/26/22 10:12	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/26/22 10:12	1
Chloroethane	ND		1.0	0.76	ug/L			04/26/22 10:12	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/26/22 10:12	1
Chloroform	ND		1.0	1.0	ug/L			04/26/22 10:12	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/26/22 10:12	1
Chloromethane	ND		1.0	0.32	ug/L			04/26/22 10:12	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/26/22 10:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/26/22 10:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/26/22 10:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/26/22 10:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/26/22 10:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/26/22 10:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/26/22 10:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/26/22 10:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/26/22 10:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/22 10:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/26/22 10:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/26/22 10:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/26/22 10:12	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/26/22 10:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/26/22 10:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/26/22 10:12	1
2-Hexanone	ND		25	1.4	ug/L			04/26/22 10:12	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/26/22 10:12	1
Methylene bromide	ND		5.0	0.22	ug/L			04/26/22 10:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/26/22 10:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/26/22 10:12	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/26/22 10:12	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/26/22 10:12	1
Naphthalene	ND		5.0	3.0	ug/L			04/26/22 10:12	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/26/22 10:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/26/22 10:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/26/22 10:12	1
o-Xylene	ND		5.0	0.60	ug/L			04/26/22 10:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/26/22 10:12	1

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

Lab Sample ID: MB 400-575275/5
Matrix: Water
Analysis Batch: 575275

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/26/22 10:12	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/26/22 10:12	1
Styrene	ND		1.0	1.0	ug/L			04/26/22 10:12	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/26/22 10:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/26/22 10:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/26/22 10:12	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/26/22 10:12	1
Toluene	ND		1.0	0.41	ug/L			04/26/22 10:12	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/26/22 10:12	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/26/22 10:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/26/22 10:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/26/22 10:12	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/26/22 10:12	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/26/22 10:12	1
Trichloroethene	ND		1.0	0.15	ug/L			04/26/22 10:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/26/22 10:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/26/22 10:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/26/22 10:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/26/22 10:12	1
Vinyl acetate	ND		25	0.93	ug/L			04/26/22 10:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/26/22 10:12	1
Xylenes, Total	ND		10	1.6	ug/L			04/26/22 10:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*04/26/22 10:12*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*04/26/22 10:12*	*1*
Toluene-d8 (Surr)	*96*		*64 - 132*		*04/26/22 10:12*	*1*

Lab Sample ID: LCS 400-575275/1002
Matrix: Water
Analysis Batch: 575275

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	194		ug/L		97	43 - 160
Acrolein	500	544		ug/L		109	38 - 160
Acrylonitrile	500	567		ug/L		113	64 - 142
Benzene	50.0	55.7		ug/L		111	70 - 130
Bromobenzene	50.0	49.1		ug/L		98	70 - 132
Bromochloromethane	50.0	53.1		ug/L		106	70 - 130
Bromodichloromethane	50.0	52.9		ug/L		106	67 - 133
Bromoform	50.0	46.7		ug/L		93	57 - 140
Bromomethane	50.0	79.2		ug/L		158	10 - 160
2-Butanone (MEK)	200	206		ug/L		103	61 - 145
Carbon disulfide	50.0	49.0		ug/L		98	61 - 137
Carbon tetrachloride	50.0	51.8		ug/L		104	61 - 137
Chlorobenzene	50.0	51.6		ug/L		103	70 - 130
Dibromochloromethane	50.0	48.3		ug/L		97	67 - 135
Chloroethane	50.0	58.1		ug/L		116	55 - 141

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

Lab Sample ID: LCS 400-575275/1002
Matrix: Water
Analysis Batch: 575275

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloroethyl vinyl ether	50.0	50.0		ug/L		100	10 - 160
Chloroform	50.0	52.9		ug/L		106	69 - 130
1-Chlorohexane	50.0	53.6		ug/L		107	69 - 130
Chloromethane	50.0	70.7	*+	ug/L		141	58 - 137
cis-1,2-Dichloroethene	50.0	53.3		ug/L		107	68 - 130
cis-1,3-Dichloropropene	50.0	53.3		ug/L		107	69 - 132
1,2-Dichlorobenzene	50.0	49.9		ug/L		100	67 - 130
1,3-Dichlorobenzene	50.0	50.8		ug/L		102	70 - 130
1,4-Dichlorobenzene	50.0	50.7		ug/L		101	70 - 130
Dichlorodifluoromethane	50.0	69.3		ug/L		139	41 - 146
1,1-Dichloroethane	50.0	54.9		ug/L		110	70 - 130
1,2-Dichloroethane	50.0	50.4		ug/L		101	69 - 130
1,1-Dichloroethene	50.0	46.0		ug/L		92	63 - 134
1,2-Dichloropropane	50.0	57.7		ug/L		115	70 - 130
1,3-Dichloropropane	50.0	51.2		ug/L		102	70 - 130
2,2-Dichloropropane	50.0	47.6		ug/L		95	52 - 135
1,1-Dichloropropene	50.0	54.5		ug/L		109	70 - 130
Ethylbenzene	50.0	50.4		ug/L		101	70 - 130
Ethyl methacrylate	50.0	46.4		ug/L		93	68 - 130
Hexachlorobutadiene	50.0	55.9		ug/L		112	53 - 140
2-Hexanone	200	186		ug/L		93	65 - 137
Isopropylbenzene	50.0	50.2		ug/L		100	70 - 130
Methylene bromide	50.0	53.2		ug/L		106	70 - 130
Methylene Chloride	50.0	47.1		ug/L		94	66 - 135
4-Methyl-2-pentanone (MIBK)	200	206		ug/L		103	69 - 138
Methyl tert-butyl ether	50.0	49.0		ug/L		98	66 - 130
m-Xylene & p-Xylene	50.0	49.3		ug/L		99	70 - 130
Naphthalene	50.0	44.4		ug/L		89	47 - 149
n-Butylbenzene	50.0	53.4		ug/L		107	67 - 130
N-Propylbenzene	50.0	52.4		ug/L		105	70 - 130
o-Chlorotoluene	50.0	51.3		ug/L		103	70 - 130
o-Xylene	50.0	49.0		ug/L		98	70 - 130
p-Chlorotoluene	50.0	50.1		ug/L		100	70 - 130
p-Isopropyltoluene	50.0	50.5		ug/L		101	65 - 130
sec-Butylbenzene	50.0	51.7		ug/L		103	66 - 130
Styrene	50.0	50.1		ug/L		100	70 - 130
tert-Butylbenzene	50.0	50.0		ug/L		100	64 - 139
1,1,1,2-Tetrachloroethane	50.0	48.6		ug/L		97	67 - 131
1,1,2,2-Tetrachloroethane	50.0	49.4		ug/L		99	70 - 131
Tetrachloroethene	50.0	49.1		ug/L		98	65 - 130
Toluene	50.0	48.2		ug/L		96	70 - 130
trans-1,2-Dichloroethene	50.0	51.9		ug/L		104	70 - 130
trans-1,3-Dichloropropene	50.0	48.3		ug/L		97	63 - 130
1,2,3-Trichlorobenzene	50.0	48.8		ug/L		98	60 - 138
1,2,4-Trichlorobenzene	50.0	48.7		ug/L		97	60 - 140
1,1,1-Trichloroethane	50.0	51.3		ug/L		103	68 - 130
1,1,2-Trichloroethane	50.0	50.0		ug/L		100	70 - 130
Trichloroethene	50.0	54.0		ug/L		108	70 - 130
Trichlorofluoromethane	50.0	56.9		ug/L		114	65 - 138

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

Lab Sample ID: LCS 400-575275/1002
Matrix: Water
Analysis Batch: 575275

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,3-Trichloropropane	50.0	47.8		ug/L		96	70 - 130
1,2,4-Trimethylbenzene	50.0	50.8		ug/L		102	70 - 130
1,3,5-Trimethylbenzene	50.0	50.9		ug/L		102	69 - 130
Vinyl acetate	100	105		ug/L		105	26 - 160
Vinyl chloride	50.0	63.0		ug/L		126	59 - 136
Xylenes, Total	100	98.3		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 119*
Dibromofluoromethane	*99*		*75 - 126*
Toluene-d8 (Surr)	*95*		*64 - 132*

Lab Sample ID: MB 400-575480/4
Matrix: Water
Analysis Batch: 575480

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/27/22 13:12	1
Acrolein	ND		20	3.3	ug/L			04/27/22 13:12	1
Acrylonitrile	ND		10	2.8	ug/L			04/27/22 13:12	1
Benzene	ND		1.0	0.13	ug/L			04/27/22 13:12	1
Bromobenzene	ND		1.0	0.54	ug/L			04/27/22 13:12	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/27/22 13:12	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/27/22 13:12	1
Bromoform	ND		5.0	0.25	ug/L			04/27/22 13:12	1
Bromomethane	ND		1.0	0.98	ug/L			04/27/22 13:12	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/27/22 13:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/27/22 13:12	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/27/22 13:12	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/27/22 13:12	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/27/22 13:12	1
Chloroethane	ND		1.0	0.76	ug/L			04/27/22 13:12	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/27/22 13:12	1
Chloroform	ND		1.0	1.0	ug/L			04/27/22 13:12	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/27/22 13:12	1
Chloromethane	ND		1.0	0.32	ug/L			04/27/22 13:12	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/27/22 13:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/27/22 13:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/27/22 13:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/27/22 13:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/27/22 13:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/27/22 13:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/27/22 13:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/27/22 13:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/27/22 13:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/27/22 13:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/27/22 13:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/27/22 13:12	1

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

Lab Sample ID: MB 400-575480/4
Matrix: Water
Analysis Batch: 575480

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/27/22 13:12	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/27/22 13:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/27/22 13:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/27/22 13:12	1
2-Hexanone	ND		25	1.4	ug/L			04/27/22 13:12	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/27/22 13:12	1
Methylene bromide	ND		5.0	0.22	ug/L			04/27/22 13:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/27/22 13:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/27/22 13:12	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/27/22 13:12	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/27/22 13:12	1
Naphthalene	ND		5.0	3.0	ug/L			04/27/22 13:12	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/27/22 13:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/27/22 13:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/27/22 13:12	1
o-Xylene	ND		5.0	0.60	ug/L			04/27/22 13:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/27/22 13:12	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/27/22 13:12	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/27/22 13:12	1
Styrene	ND		1.0	1.0	ug/L			04/27/22 13:12	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/27/22 13:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/27/22 13:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/27/22 13:12	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/27/22 13:12	1
Toluene	ND		1.0	0.41	ug/L			04/27/22 13:12	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/27/22 13:12	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/27/22 13:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/27/22 13:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/27/22 13:12	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/27/22 13:12	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/27/22 13:12	1
Trichloroethene	ND		1.0	0.15	ug/L			04/27/22 13:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/27/22 13:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/27/22 13:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/27/22 13:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/27/22 13:12	1
Vinyl acetate	ND		25	0.93	ug/L			04/27/22 13:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/27/22 13:12	1
Xylenes, Total	ND		10	1.6	ug/L			04/27/22 13:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*04/27/22 13:12*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*04/27/22 13:12*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*04/27/22 13:12*	*1*

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

Lab Sample ID: LCS 400-575480/1002
Matrix: Water
Analysis Batch: 575480

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	182		ug/L		91	43 - 160
Acrolein	500	539		ug/L		108	38 - 160
Acrylonitrile	500	546		ug/L		109	64 - 142
Benzene	50.0	51.9		ug/L		104	70 - 130
Bromobenzene	50.0	44.5		ug/L		89	70 - 132
Bromochloromethane	50.0	50.9		ug/L		102	70 - 130
Bromodichloromethane	50.0	50.0		ug/L		100	67 - 133
Bromoform	50.0	43.0		ug/L		86	57 - 140
Bromomethane	50.0	79.4		ug/L		159	10 - 160
2-Butanone (MEK)	200	197		ug/L		98	61 - 145
Carbon disulfide	50.0	45.1		ug/L		90	61 - 137
Carbon tetrachloride	50.0	49.4		ug/L		99	61 - 137
Chlorobenzene	50.0	48.7		ug/L		97	70 - 130
Dibromochloromethane	50.0	45.5		ug/L		91	67 - 135
Chloroethane	50.0	58.3		ug/L		117	55 - 141
2-Chloroethyl vinyl ether	50.0	50.1		ug/L		100	10 - 160
Chloroform	50.0	50.7		ug/L		101	69 - 130
1-Chlorohexane	50.0	49.2		ug/L		98	69 - 130
Chloromethane	50.0	72.2	*+	ug/L		144	58 - 137
cis-1,2-Dichloroethene	50.0	50.6		ug/L		101	68 - 130
cis-1,3-Dichloropropene	50.0	50.1		ug/L		100	69 - 132
1,2-Dichlorobenzene	50.0	45.7		ug/L		91	67 - 130
1,3-Dichlorobenzene	50.0	46.1		ug/L		92	70 - 130
1,4-Dichlorobenzene	50.0	46.6		ug/L		93	70 - 130
Dichlorodifluoromethane	50.0	70.6		ug/L		141	41 - 146
1,1-Dichloroethane	50.0	52.5		ug/L		105	70 - 130
1,2-Dichloroethane	50.0	49.6		ug/L		99	69 - 130
1,1-Dichloroethene	50.0	41.8		ug/L		84	63 - 134
1,2-Dichloropropane	50.0	53.6		ug/L		107	70 - 130
1,3-Dichloropropane	50.0	48.5		ug/L		97	70 - 130
2,2-Dichloropropane	50.0	45.3		ug/L		91	52 - 135
1,1-Dichloropropene	50.0	50.9		ug/L		102	70 - 130
Ethylbenzene	50.0	46.3		ug/L		93	70 - 130
Ethyl methacrylate	50.0	42.9		ug/L		86	68 - 130
Hexachlorobutadiene	50.0	50.6		ug/L		101	53 - 140
2-Hexanone	200	177		ug/L		88	65 - 137
Isopropylbenzene	50.0	46.1		ug/L		92	70 - 130
Methylene bromide	50.0	50.5		ug/L		101	70 - 130
Methylene Chloride	50.0	49.4		ug/L		99	66 - 135
4-Methyl-2-pentanone (MIBK)	200	199		ug/L		99	69 - 138
Methyl tert-butyl ether	50.0	47.2		ug/L		94	66 - 130
m-Xylene & p-Xylene	50.0	45.2		ug/L		90	70 - 130
Naphthalene	50.0	40.6		ug/L		81	47 - 149
n-Butylbenzene	50.0	49.1		ug/L		98	67 - 130
N-Propylbenzene	50.0	46.6		ug/L		93	70 - 130
o-Chlorotoluene	50.0	47.0		ug/L		94	70 - 130
o-Xylene	50.0	45.7		ug/L		91	70 - 130
p-Chlorotoluene	50.0	46.0		ug/L		92	70 - 130

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

Lab Sample ID: LCS 400-575480/1002
Matrix: Water
Analysis Batch: 575480

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
p-Isopropyltoluene	50.0	45.5		ug/L		91	65 - 130
sec-Butylbenzene	50.0	46.4		ug/L		93	66 - 130
Styrene	50.0	46.2		ug/L		92	70 - 130
tert-Butylbenzene	50.0	44.7		ug/L		89	64 - 139
1,1,1,2-Tetrachloroethane	50.0	46.4		ug/L		93	67 - 131
1,1,2,2-Tetrachloroethane	50.0	45.7		ug/L		91	70 - 131
Tetrachloroethene	50.0	44.7		ug/L		89	65 - 130
Toluene	50.0	45.1		ug/L		90	70 - 130
trans-1,2-Dichloroethene	50.0	49.5		ug/L		99	70 - 130
trans-1,3-Dichloropropene	50.0	45.5		ug/L		91	63 - 130
1,2,3-Trichlorobenzene	50.0	45.8		ug/L		92	60 - 138
1,2,4-Trichlorobenzene	50.0	44.4		ug/L		89	60 - 140
1,1,1-Trichloroethane	50.0	49.1		ug/L		98	68 - 130
1,1,2-Trichloroethane	50.0	48.0		ug/L		96	70 - 130
Trichloroethene	50.0	51.1		ug/L		102	70 - 130
Trichlorofluoromethane	50.0	55.9		ug/L		112	65 - 138
1,2,3-Trichloropropane	50.0	44.1		ug/L		88	70 - 130
1,2,4-Trimethylbenzene	50.0	46.7		ug/L		93	70 - 130
1,3,5-Trimethylbenzene	50.0	45.7		ug/L		91	69 - 130
Vinyl acetate	100	105		ug/L		105	26 - 160
Vinyl chloride	50.0	63.1		ug/L		126	59 - 136
Xylenes, Total	100	90.9		ug/L		91	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 119*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

Lab Sample ID: MB 400-575595/4
Matrix: Water
Analysis Batch: 575595

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			04/28/22 08:07	1
Acrolein	ND		20	3.3	ug/L			04/28/22 08:07	1
Acrylonitrile	ND		10	2.8	ug/L			04/28/22 08:07	1
Benzene	ND		1.0	0.13	ug/L			04/28/22 08:07	1
Bromobenzene	ND		1.0	0.54	ug/L			04/28/22 08:07	1
Bromochloromethane	ND		1.0	0.21	ug/L			04/28/22 08:07	1
Bromodichloromethane	ND		1.0	0.50	ug/L			04/28/22 08:07	1
Bromoform	ND		5.0	0.25	ug/L			04/28/22 08:07	1
Bromomethane	ND		1.0	0.98	ug/L			04/28/22 08:07	1
2-Butanone (MEK)	ND		25	2.6	ug/L			04/28/22 08:07	1
Carbon disulfide	ND		1.0	0.50	ug/L			04/28/22 08:07	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			04/28/22 08:07	1
Chlorobenzene	ND		1.0	0.15	ug/L			04/28/22 08:07	1
Dibromochloromethane	ND		1.0	0.24	ug/L			04/28/22 08:07	1
Chloroethane	ND		1.0	0.76	ug/L			04/28/22 08:07	1

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

Lab Sample ID: MB 400-575595/4
Matrix: Water
Analysis Batch: 575595

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			04/28/22 08:07	1
Chloroform	ND		1.0	1.0	ug/L			04/28/22 08:07	1
1-Chlorohexane	ND		1.0	0.32	ug/L			04/28/22 08:07	1
Chloromethane	ND		1.0	0.32	ug/L			04/28/22 08:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			04/28/22 08:07	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			04/28/22 08:07	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			04/28/22 08:07	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			04/28/22 08:07	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			04/28/22 08:07	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			04/28/22 08:07	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			04/28/22 08:07	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			04/28/22 08:07	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			04/28/22 08:07	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/22 08:07	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			04/28/22 08:07	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			04/28/22 08:07	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			04/28/22 08:07	1
Ethylbenzene	ND		1.0	0.50	ug/L			04/28/22 08:07	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			04/28/22 08:07	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			04/28/22 08:07	1
2-Hexanone	ND		25	1.4	ug/L			04/28/22 08:07	1
Isopropylbenzene	ND		1.0	0.53	ug/L			04/28/22 08:07	1
Methylene bromide	ND		5.0	0.22	ug/L			04/28/22 08:07	1
Methylene Chloride	ND		5.0	3.0	ug/L			04/28/22 08:07	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			04/28/22 08:07	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			04/28/22 08:07	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			04/28/22 08:07	1
Naphthalene	ND		5.0	3.0	ug/L			04/28/22 08:07	1
n-Butylbenzene	ND		1.0	0.76	ug/L			04/28/22 08:07	1
N-Propylbenzene	ND		1.0	0.69	ug/L			04/28/22 08:07	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			04/28/22 08:07	1
o-Xylene	ND		5.0	0.60	ug/L			04/28/22 08:07	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			04/28/22 08:07	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			04/28/22 08:07	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			04/28/22 08:07	1
Styrene	ND		1.0	1.0	ug/L			04/28/22 08:07	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			04/28/22 08:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			04/28/22 08:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			04/28/22 08:07	1
Tetrachloroethene	ND		1.0	0.90	ug/L			04/28/22 08:07	1
Toluene	ND		1.0	0.41	ug/L			04/28/22 08:07	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			04/28/22 08:07	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			04/28/22 08:07	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			04/28/22 08:07	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			04/28/22 08:07	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			04/28/22 08:07	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			04/28/22 08:07	1
Trichloroethene	ND		1.0	0.15	ug/L			04/28/22 08:07	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			04/28/22 08:07	1

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

Lab Sample ID: MB 400-575595/4
Matrix: Water
Analysis Batch: 575595

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			04/28/22 08:07	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			04/28/22 08:07	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			04/28/22 08:07	1
Vinyl acetate	ND		25	0.93	ug/L			04/28/22 08:07	1
Vinyl chloride	ND		1.0	0.50	ug/L			04/28/22 08:07	1
Xylenes, Total	ND		10	1.6	ug/L			04/28/22 08:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*04/28/22 08:07*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*04/28/22 08:07*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*04/28/22 08:07*	*1*

Lab Sample ID: LCS 400-575595/1002
Matrix: Water
Analysis Batch: 575595

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	161		ug/L		80	43 - 160
Acrolein	250	258		ug/L		103	38 - 160
Acrylonitrile	500	480		ug/L		96	64 - 142
Benzene	50.0	46.1		ug/L		92	70 - 130
Bromobenzene	50.0	49.3		ug/L		99	70 - 132
Bromochloromethane	50.0	48.3		ug/L		97	70 - 130
Bromodichloromethane	50.0	46.2		ug/L		92	67 - 133
Bromoform	50.0	52.7		ug/L		105	57 - 140
Bromomethane	25.0	22.4		ug/L		90	10 - 160
2-Butanone (MEK)	200	202		ug/L		101	61 - 145
Carbon disulfide	50.0	42.8		ug/L		86	61 - 137
Carbon tetrachloride	50.0	47.5		ug/L		95	61 - 137
Chlorobenzene	50.0	49.6		ug/L		99	70 - 130
Dibromochloromethane	50.0	52.4		ug/L		105	67 - 135
Chloroethane	25.0	25.6		ug/L		102	55 - 141
2-Chloroethyl vinyl ether	25.0	28.2		ug/L		113	10 - 160
Chloroform	50.0	45.1		ug/L		90	69 - 130
1-Chlorohexane	50.0	46.6		ug/L		93	69 - 130
Chloromethane	25.0	23.4		ug/L		93	58 - 137
cis-1,2-Dichloroethene	50.0	45.3		ug/L		91	68 - 130
cis-1,3-Dichloropropene	50.0	48.3		ug/L		97	69 - 132
1,2-Dichlorobenzene	50.0	51.1		ug/L		102	67 - 130
1,3-Dichlorobenzene	50.0	50.3		ug/L		101	70 - 130
1,4-Dichlorobenzene	50.0	50.5		ug/L		101	70 - 130
Dichlorodifluoromethane	25.0	25.5		ug/L		102	41 - 146
1,1-Dichloroethane	50.0	43.2		ug/L		86	70 - 130
1,2-Dichloroethane	50.0	46.8		ug/L		94	69 - 130
1,1-Dichloroethene	50.0	37.2		ug/L		74	63 - 134
1,2-Dichloropropane	50.0	45.5		ug/L		91	70 - 130
1,3-Dichloropropane	50.0	49.6		ug/L		99	70 - 130
2,2-Dichloropropane	50.0	44.3		ug/L		89	52 - 135

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

Lab Sample ID: LCS 400-575595/1002
Matrix: Water
Analysis Batch: 575595

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1-Dichloropropene	50.0	45.7		ug/L		91	70 - 130
Ethylbenzene	50.0	49.4		ug/L		99	70 - 130
Ethyl methacrylate	50.0	52.4		ug/L		105	68 - 130
Hexachlorobutadiene	50.0	49.3		ug/L		99	53 - 140
2-Hexanone	200	205		ug/L		102	65 - 137
Isopropylbenzene	50.0	50.5		ug/L		101	70 - 130
Methylene bromide	50.0	47.3		ug/L		95	70 - 130
Methylene Chloride	50.0	45.2		ug/L		90	66 - 135
4-Methyl-2-pentanone (MIBK)	200	202		ug/L		101	69 - 138
Methyl tert-butyl ether	50.0	49.0		ug/L		98	66 - 130
m-Xylene & p-Xylene	50.0	48.9		ug/L		98	70 - 130
Naphthalene	50.0	59.4		ug/L		119	47 - 149
n-Butylbenzene	50.0	52.2		ug/L		104	67 - 130
N-Propylbenzene	50.0	50.9		ug/L		102	70 - 130
o-Chlorotoluene	50.0	50.4		ug/L		101	70 - 130
o-Xylene	50.0	49.5		ug/L		99	70 - 130
p-Chlorotoluene	50.0	50.8		ug/L		102	70 - 130
p-Isopropyltoluene	50.0	51.7		ug/L		103	65 - 130
sec-Butylbenzene	50.0	51.3		ug/L		103	66 - 130
Styrene	50.0	52.1		ug/L		104	70 - 130
tert-Butylbenzene	50.0	50.3		ug/L		101	64 - 139
1,1,1,2-Tetrachloroethane	50.0	50.5		ug/L		101	67 - 131
1,1,2,2-Tetrachloroethane	50.0	52.3		ug/L		105	70 - 131
Tetrachloroethene	50.0	46.3		ug/L		93	65 - 130
Toluene	50.0	48.9		ug/L		98	70 - 130
trans-1,2-Dichloroethene	50.0	44.8		ug/L		90	70 - 130
trans-1,3-Dichloropropene	50.0	50.4		ug/L		101	63 - 130
1,2,3-Trichlorobenzene	50.0	49.9		ug/L		100	60 - 138
1,2,4-Trichlorobenzene	50.0	50.5		ug/L		101	60 - 140
1,1,1-Trichloroethane	50.0	46.7		ug/L		93	68 - 130
1,1,2-Trichloroethane	50.0	50.2		ug/L		100	70 - 130
Trichloroethene	50.0	46.3		ug/L		93	70 - 130
Trichlorofluoromethane	25.0	25.1		ug/L		100	65 - 138
1,2,3-Trichloropropane	50.0	51.7		ug/L		103	70 - 130
1,2,4-Trimethylbenzene	50.0	52.0		ug/L		104	70 - 130
1,3,5-Trimethylbenzene	50.0	51.0		ug/L		102	69 - 130
Vinyl acetate	50.0	51.1		ug/L		102	26 - 160
Vinyl chloride	25.0	24.3		ug/L		97	59 - 136
Xylenes, Total	100	98.4		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*72 - 119*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-575121/1-A
Matrix: Water
Analysis Batch: 575281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		04/25/22 09:36	04/26/22 12:17	1
Benzenethiol	ND		10	1.7	ug/L		04/25/22 09:36	04/26/22 12:17	1
Benzoic acid	ND		30	7.3	ug/L		04/25/22 09:36	04/26/22 12:17	1
Benzyl alcohol	ND		10	2.0	ug/L		04/25/22 09:36	04/26/22 12:17	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		04/25/22 09:36	04/26/22 12:17	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		04/25/22 09:36	04/26/22 12:17	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		04/25/22 09:36	04/26/22 12:17	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		04/25/22 09:36	04/26/22 12:17	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		04/25/22 09:36	04/26/22 12:17	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		04/25/22 09:36	04/26/22 12:17	1
4-Chloroaniline	ND		10	3.4	ug/L		04/25/22 09:36	04/26/22 12:17	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		04/25/22 09:36	04/26/22 12:17	1
2-Chloronaphthalene	ND		10	0.14	ug/L		04/25/22 09:36	04/26/22 12:17	1
2-Chlorophenol	ND		10	2.2	ug/L		04/25/22 09:36	04/26/22 12:17	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		04/25/22 09:36	04/26/22 12:17	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		04/25/22 09:36	04/26/22 12:17	1
Dibenzofuran	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 12:17	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		04/25/22 09:36	04/26/22 12:17	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		04/25/22 09:36	04/26/22 12:17	1
Diethyl phthalate	0.461	J	10	0.24	ug/L		04/25/22 09:36	04/26/22 12:17	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		04/25/22 09:36	04/26/22 12:17	1
Dimethyl phthalate	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 12:17	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		04/25/22 09:36	04/26/22 12:17	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		04/25/22 09:36	04/26/22 12:17	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		04/25/22 09:36	04/26/22 12:17	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		04/25/22 09:36	04/26/22 12:17	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		04/25/22 09:36	04/26/22 12:17	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 12:17	1
1,4-Dioxane	ND		10	1.0	ug/L		04/25/22 09:36	04/26/22 12:17	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		04/25/22 09:36	04/26/22 12:17	1
Hexachlorobenzene	ND		10	0.17	ug/L		04/25/22 09:36	04/26/22 12:17	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		04/25/22 09:36	04/26/22 12:17	1
Hexachloroethane	ND		10	4.2	ug/L		04/25/22 09:36	04/26/22 12:17	1
Indene	ND		10	1.0	ug/L		04/25/22 09:36	04/26/22 12:17	1
Isophorone	ND		10	0.14	ug/L		04/25/22 09:36	04/26/22 12:17	1
2-Methylphenol	ND		10	1.8	ug/L		04/25/22 09:36	04/26/22 12:17	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		04/25/22 09:36	04/26/22 12:17	1
2-Nitroaniline	ND		10	2.2	ug/L		04/25/22 09:36	04/26/22 12:17	1
3-Nitroaniline	ND		10	1.8	ug/L		04/25/22 09:36	04/26/22 12:17	1
4-Nitroaniline	ND		10	1.5	ug/L		04/25/22 09:36	04/26/22 12:17	1
Nitrobenzene	ND		10	0.13	ug/L		04/25/22 09:36	04/26/22 12:17	1
2-Nitrophenol	ND		10	5.2	ug/L		04/25/22 09:36	04/26/22 12:17	1
4-Nitrophenol	ND		10	2.1	ug/L		04/25/22 09:36	04/26/22 12:17	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		04/25/22 09:36	04/26/22 12:17	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		04/25/22 09:36	04/26/22 12:17	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		04/25/22 09:36	04/26/22 12:17	1
Pentachlorophenol	ND		20	1.4	ug/L		04/25/22 09:36	04/26/22 12:17	1
Phenol	ND		10	2.6	ug/L		04/25/22 09:36	04/26/22 12:17	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-575121/1-A
Matrix: Water
Analysis Batch: 575281

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		04/25/22 09:36	04/26/22 12:17	1
Quinoline	ND		10	4.5	ug/L		04/25/22 09:36	04/26/22 12:17	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		04/25/22 09:36	04/26/22 12:17	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		04/25/22 09:36	04/26/22 12:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*104*		*46 - 124*	*04/25/22 09:36*	*04/26/22 12:17*	*1*
2-Fluorophenol	*16*		*13 - 113*	*04/25/22 09:36*	*04/26/22 12:17*	*1*
Nitrobenzene-d5	*77*		*36 - 126*	*04/25/22 09:36*	*04/26/22 12:17*	*1*
Phenol-d5	*44*		*17 - 127*	*04/25/22 09:36*	*04/26/22 12:17*	*1*
Terphenyl-d14	*121*		*44 - 149*	*04/25/22 09:36*	*04/26/22 12:17*	*1*
2,4,6-Tribromophenol	*115*		*26 - 150*	*04/25/22 09:36*	*04/26/22 12:17*	*1*

Lab Sample ID: LCS 400-575121/2-A
Matrix: Water
Analysis Batch: 575281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	73.8		ug/L		62	21 - 120
Benzoic acid	498	102		ug/L		21	10 - 144
Benzyl alcohol	120	48.8		ug/L		41	28 - 120
Bis(2-chloroethoxy)methane	120	65.9		ug/L		55	47 - 120
Bis(2-chloroethyl)ether	120	75.4		ug/L		63	44 - 120
bis (2-chloroisopropyl) ether	120	46.4		ug/L		39	33 - 121
Bis(2-ethylhexyl) phthalate	120	102		ug/L		85	52 - 147
4-Bromophenyl phenyl ether	120	127		ug/L		105	54 - 122
Butyl benzyl phthalate	120	101		ug/L		84	54 - 133
4-Chloroaniline	120	69.5		ug/L		58	26 - 120
4-Chloro-3-methylphenol	120	81.9		ug/L		68	48 - 131
2-Chloronaphthalene	120	101		ug/L		85	52 - 121
2-Chlorophenol	120	69.0		ug/L		58	40 - 120
4-Chlorophenyl phenyl ether	120	115		ug/L		96	56 - 125
Dibenz[a,h]acridine	120	213	*+	ug/L		178	31 - 150
Dibenzofuran	120	106		ug/L		88	56 - 122
3,3'-Dichlorobenzidine	160	159		ug/L		99	36 - 132
2,4-Dichlorophenol	120	90.7		ug/L		76	49 - 120
Diethyl phthalate	120	114		ug/L		95	50 - 137
2,4-Dimethylphenol	120	90.0		ug/L		75	48 - 120
Dimethyl phthalate	120	109		ug/L		90	57 - 124
Di-n-butyl phthalate	120	113		ug/L		94	58 - 126
4,6-Dinitro-ortho-cresol	240	223		ug/L		93	23 - 148
2,4-Dinitrophenol	240	181		ug/L		76	10 - 150
2,4-Dinitrotoluene	120	114		ug/L		95	54 - 142
2,6-Dinitrotoluene	120	107		ug/L		89	55 - 130
Di-n-octyl phthalate	120	96.8		ug/L		81	57 - 138
1,4-Dioxane	120	54.6		ug/L		45	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	91.1		ug/L		76	45 - 124
Hexachlorobenzene	120	137		ug/L		115	52 - 129

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-575121/2-A
Matrix: Water
Analysis Batch: 575281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	120	57.8		ug/L		48	10 - 134
Hexachloroethane	120	77.2		ug/L		64	20 - 120
Indene	120	88.1		ug/L		73	49 - 120
Isophorone	120	71.3		ug/L		59	48 - 120
2-Methylphenol	120	78.9		ug/L		66	46 - 124
3 & 4 Methylphenol	120	74.4		ug/L		62	45 - 120
2-Nitroaniline	120	83.6		ug/L		70	51 - 145
3-Nitroaniline	120	90.5		ug/L		75	37 - 127
4-Nitroaniline	120	89.4		ug/L		75	36 - 137
Nitrobenzene	120	71.7		ug/L		60	45 - 120
2-Nitrophenol	120	82.4		ug/L		69	40 - 124
4-Nitrophenol	240	286		ug/L		119	23 - 146
N-Nitrosodimethylamine	120	122		ug/L		101	29 - 137
N-Nitrosodi-n-propylamine	120	80.5		ug/L		67	45 - 120
N-Nitrosodiphenylamine	119	108		ug/L		91	54 - 120
Pentachlorophenol	240	113		ug/L		47	31 - 130
Phenol	120	57.6		ug/L		48	11 - 120
Pyridine	240	108		ug/L		45	16 - 120
Quinoline	120	117		ug/L		98	49 - 130
2,4,5-Trichlorophenol	120	95.6		ug/L		80	51 - 136
2,4,6-Trichlorophenol	120	101		ug/L		84	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*96*		*46 - 124*
2-Fluorophenol	*36*		*13 - 113*
Nitrobenzene-d5	*68*		*36 - 126*
Phenol-d5	*56*		*17 - 127*
Terphenyl-d14	*113*		*44 - 149*
2,4,6-Tribromophenol	*112*		*26 - 150*

Lab Sample ID: LCS 400-575121/3-A
Matrix: Water
Analysis Batch: 575281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenz[a,h]acridine	160	197		ug/L		123	31 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*102*		*46 - 124*
2-Fluorophenol	*66*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*63*		*17 - 127*
Terphenyl-d14	*110*		*44 - 149*
2,4,6-Tribromophenol	*118*		*26 - 150*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-575121/5-A
Matrix: Water
Analysis Batch: 575281

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	7.32	J *-	ug/L		6	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*104*		*46 - 124*
2-Fluorophenol	*37*		*13 - 113*
Nitrobenzene-d5	*72*		*36 - 126*
Phenol-d5	*54*		*17 - 127*
Terphenyl-d14	*118*		*44 - 149*
2,4,6-Tribromophenol	*83*		*26 - 150*

Lab Sample ID: LCSD 400-575121/4-A
Matrix: Water
Analysis Batch: 575281

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 575121

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenz[a,h]acridine	160	266	*+	ug/L		166	31 - 150	30	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*46 - 124*
2-Fluorophenol	*57*		*13 - 113*
Nitrobenzene-d5	*63*		*36 - 126*
Phenol-d5	*53*		*17 - 127*
Terphenyl-d14	*91*		*44 - 149*
2,4,6-Tribromophenol	*101*		*26 - 150*

Lab Sample ID: LCSD 400-575121/6-A
Matrix: Water
Analysis Batch: 575281

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 575121

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	5.17	J *- *1	ug/L		4	10 - 120	34	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*46 - 124*
2-Fluorophenol	*25*		*13 - 113*
Nitrobenzene-d5	*63*		*36 - 126*
Phenol-d5	*42*		*17 - 127*
Terphenyl-d14	*102*		*44 - 149*
2,4,6-Tribromophenol	*75*		*26 - 150*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-575121/1-A
Matrix: Water
Analysis Batch: 575714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		04/25/22 09:36	04/28/22 19:06	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-575121/1-A
Matrix: Water
Analysis Batch: 575714

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575121

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	ND		0.20	0.045	ug/L		04/25/22 09:36	04/28/22 19:06	1
Anthracene	ND		0.20	0.032	ug/L		04/25/22 09:36	04/28/22 19:06	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		04/25/22 09:36	04/28/22 19:06	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		04/25/22 09:36	04/28/22 19:06	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		04/25/22 09:36	04/28/22 19:06	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		04/25/22 09:36	04/28/22 19:06	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		04/25/22 09:36	04/28/22 19:06	1
Chrysene	ND		0.20	0.074	ug/L		04/25/22 09:36	04/28/22 19:06	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		04/25/22 09:36	04/28/22 19:06	1
Fluoranthene	ND		0.20	0.068	ug/L		04/25/22 09:36	04/28/22 19:06	1
Fluorene	ND		0.20	0.11	ug/L		04/25/22 09:36	04/28/22 19:06	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		04/25/22 09:36	04/28/22 19:06	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		04/25/22 09:36	04/28/22 19:06	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		04/25/22 09:36	04/28/22 19:06	1
Phenanthrene	ND		0.20	0.036	ug/L		04/25/22 09:36	04/28/22 19:06	1
Pyrene	ND		0.20	0.040	ug/L		04/25/22 09:36	04/28/22 19:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*125*	*S1+*	*15 - 122*	*04/25/22 09:36*	*04/28/22 19:06*	*1*
Nitrobenzene-d5	*111*		*19 - 130*	*04/25/22 09:36*	*04/28/22 19:06*	*1*
Terphenyl-d14	*124*		*33 - 138*	*04/25/22 09:36*	*04/28/22 19:06*	*1*

Lab Sample ID: LCS 400-575121/2-A
Matrix: Water
Analysis Batch: 575714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575121

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	123		ug/L		103	41 - 120
Acenaphthylene	120	141		ug/L		117	44 - 120
Anthracene	120	131		ug/L		109	49 - 120
Benzo[a]anthracene	120	131		ug/L		109	61 - 135
Benzo[a]pyrene	120	132		ug/L		110	52 - 120
Benzo[b]fluoranthene	120	133		ug/L		111	53 - 134
Benzo[g,h,i]perylene	120	95.0		ug/L		79	47 - 133
Benzo[k]fluoranthene	120	144		ug/L		120	57 - 134
Chrysene	120	129		ug/L		108	55 - 122
Dibenz(a,h)anthracene	120	112		ug/L		93	48 - 146
Fluoranthene	120	139		ug/L		116	54 - 128
Fluorene	120	145		ug/L		121	45 - 125
Indeno[1,2,3-cd]pyrene	120	106		ug/L		89	43 - 142
1-Methylnaphthalene	120	99.0		ug/L		83	41 - 120
2-Methylnaphthalene	120	92.3		ug/L		77	32 - 124
Phenanthrene	120	130		ug/L		108	48 - 120
Pyrene	120	125		ug/L		104	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*110*		*15 - 122*
Nitrobenzene-d5	*72*		*19 - 130*

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-575121/2-A
Matrix: Water
Analysis Batch: 575714

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575121

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*109*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-575468/1-A
Matrix: Water
Analysis Batch: 575573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 575468

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.017	ug/L		04/27/22 10:04	04/28/22 03:27	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		04/27/22 10:04	04/28/22 03:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*125*		*51 - 149*	*04/27/22 10:04*	*04/28/22 03:27*	*1*

Lab Sample ID: LCS 400-575468/2-A
Matrix: Water
Analysis Batch: 575573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 575468

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.162	*+	ug/L		161	60 - 140
1,2-Dibromoethane	0.101	0.118		ug/L		117	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*129*		*51 - 149*

Lab Sample ID: LCSD 400-575468/3-A
Matrix: Water
Analysis Batch: 575573

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 575468

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.172	*+	ug/L		171	60 - 140	6	30
1,2-Dibromoethane	0.101	0.124		ug/L		123	60 - 140	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*140*		*51 - 149*

LAB (LOCATION)

Shell Oil Products US Chain Of Custody Record

AECOM

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES_____	

Print Bill To Contact Name:	PlaNet Site or Project ID
Melissa Remiger	25278
PO #	**GSAP Project ID**
60674381 – 3.2.2	USPC/00114/R/02

☐ CHECK IF NO INCIDENT # APPLIES
DATE: 4/20/22
PAGE: 2 of 2

SAMPLING COMPANY: AECOM
LOG CODE:
SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.2.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger
SAMPLER NAME(S) (Print): Mary Massa, Jamell Nichols
LAB USE ONLY
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) __EDD_____

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

SPLIT REPORT

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zamfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.2.2

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL	FIELD NOTES: / Container PID Readings or Laboratory Notes:
	TB-ROX-042022-8260-SS-B	4/20/2022	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-042022-8011-SS-B	4/20/2022	0000	Water	2					2		X			SPLIT REPORT
	P93B-ROX-042022	4/20/2022	0925	Water	6			2		6	X	X	X	X	SPLIT REPORT

400-218876 COC

TEMPERATURE ON RECEIPT C°
5.6°C IR9
2.6°C IR9

Page 57 of 58

Relinquished by: (Signature) MARY MASSA	Received by: (Signature) FEDEX: 1482 3813 0918, 1482 3813 0907	Date: 4/20/2022	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4 22 22	Time: 09:04

CUSTODY SEALS: 1892118, 1892119, 1892117, 1892116

Version. 1Apr22

5/3/2022

Shell Oil Products US Chain Of Custody Record

AECOM

LAB (LOCATION)

☐ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☑ TESTAMERICA (TestAmerica Pensacola; 3355 McLemore Dr. Pensacola, FL 32514 (850-474-1001))
☐ Other (_____)

Please Check Appropriate Box:

☐ SGW FDG	☐ PIPELINE	☐ RETAIL
☐ CHEMICALS	☐ CONSULTANT	☐ LUBES
☐ TRANSPORTATION	☑ OTHER _ENV. SERVICES	

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 4/20/2022
PO #	**GSAP Project ID**	PAGE: 1 of 2
60674381 – 3.2.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM
LOG CODE:
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger
TELEPHONE: 314-429-0100
FAX: 314-429-0462
Bill To Contact E-MAIL: melissa.remiger@aecom.com

SITE ADDRESS: Street and City: 900 South Central Ave; ROXANA
State: IL
AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.2.2
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger, Bob Billman - please see special instructions
PHONE NO.: 314-802-1207; 314-802-1122
E-MAIL: melissa.remiger@aecom.com; bob.billman@aecom.com
AECOM Other ID:
SAMPLER NAME(S) (Print): M. Heintz, J. Mayer
LAB USE ONLY

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT

DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☑ LEVEL 4 ☑ OTHER (SPECIFY) EDD

TEMPERATURE ON RECEIPT C° Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :

SPLIT REPORT

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; andrei.zemfir@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.2.2

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	VOC 8260	8011 EDB + DBCP	SVOC 8270	PAH 8270LL	
	TB-ROX-042022-8260-SS-A	4/20/2022	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-042022-8011-SS-A	4/20/2022	0000	Water	2					2		X			SPLIT REPORT
	PS6-ROX-042022	4/20/2022	0940	Water	6			2		8	X	X	X	X	SPLIT REPORT
	T12-ROX-042022	4/20/2022	1340	Water	6			2		8	X	X	X	X	SPLIT REPORT

400-218878 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
5 GC IR9
2 G-L IR9

Container PID Readings or Laboratory Notes:

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
JOE MAYER	FEDEX: 1482 3813 0918, 1482 3813 0907	4/20/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 4.22.22	Time: 09:04

CUSTODY SEALS: 1892118, 1892119, 1892117, 1892116

Version: 1Apr22

Page 50 of 58

5/3/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-218876-1

Login Number: 218876
List Number: 1
Creator: Whitley, Adrian

List Source: Eurofins Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	5.6, 2.6°C IR9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: AECOM Technical Services Inc. Job ID: 400-218876-1
Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins Pensacola

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

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-22
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-22
California	State	2510	06-30-22
Florida	NELAP	E81010	06-30-22
Georgia	State	E81010(FL)	06-30-22
Illinois	NELAP	200041	10-09-22
Kansas	NELAP	E-10253	10-31-22
Kentucky (UST)	State	53	06-30-22
Kentucky (WW)	State	KY98030	12-31-22
Louisiana	NELAP	30976	06-30-22
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-22
Massachusetts	State	M-FL094	06-30-22
Michigan	State	9912	06-30-22
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-22
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-22
Tennessee	State	TN02907	06-30-22
Texas	NELAP	T104704286	09-30-22
US Fish & Wildlife	US Federal Programs	058448	07-31-22
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-22
West Virginia DEP	State	136	05-31-22

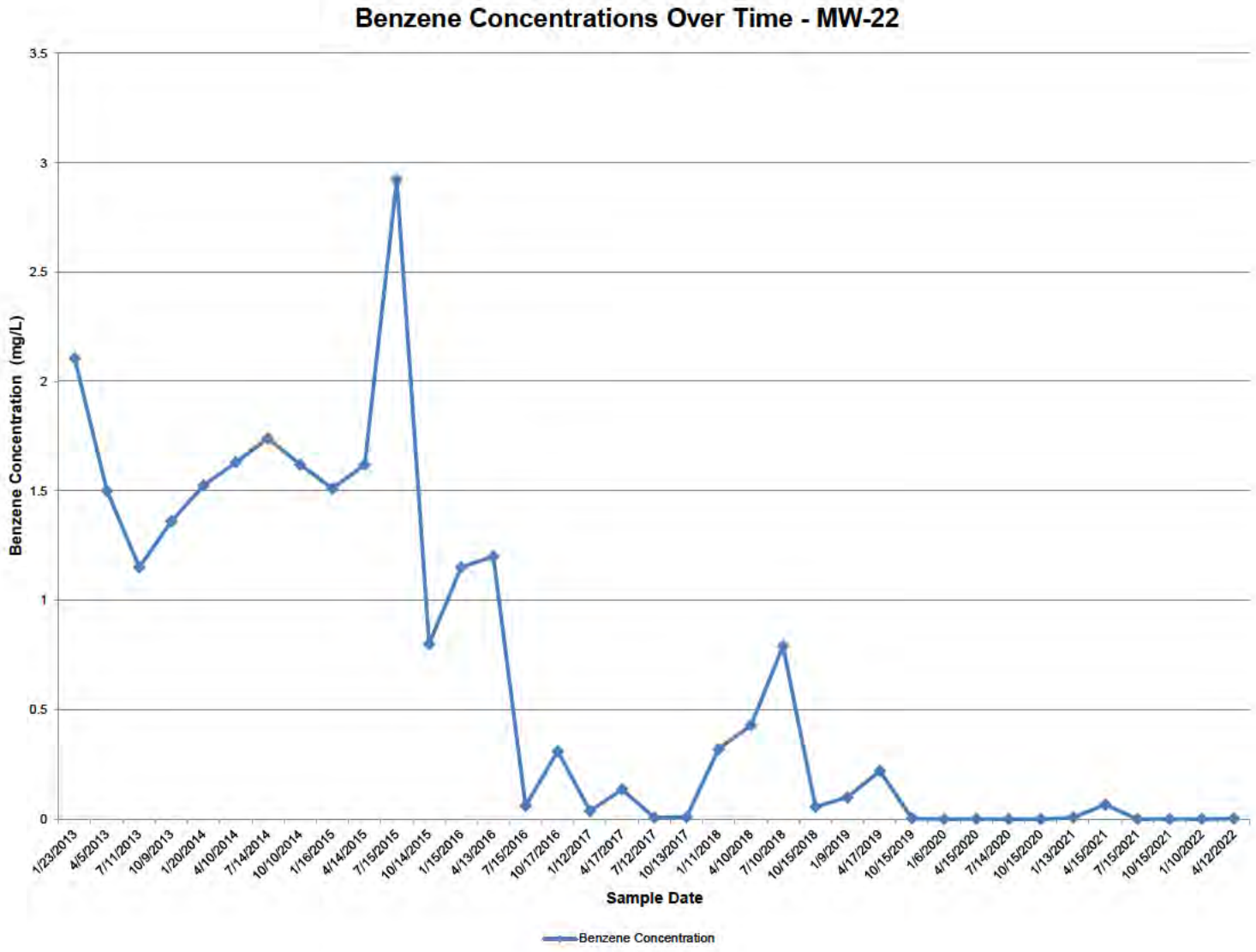
Appendix D

Appendix D – 1 Charts – Benzene Concentrations Over Time

Appendix D – 2 GWSDAT Charts

- 4th Street area – MW-22, ROST-4 PZ(C), P-59, and T-12
- Public Works Yard area – MW-7, MW-8, MW-25, and P-57

4th Street Area



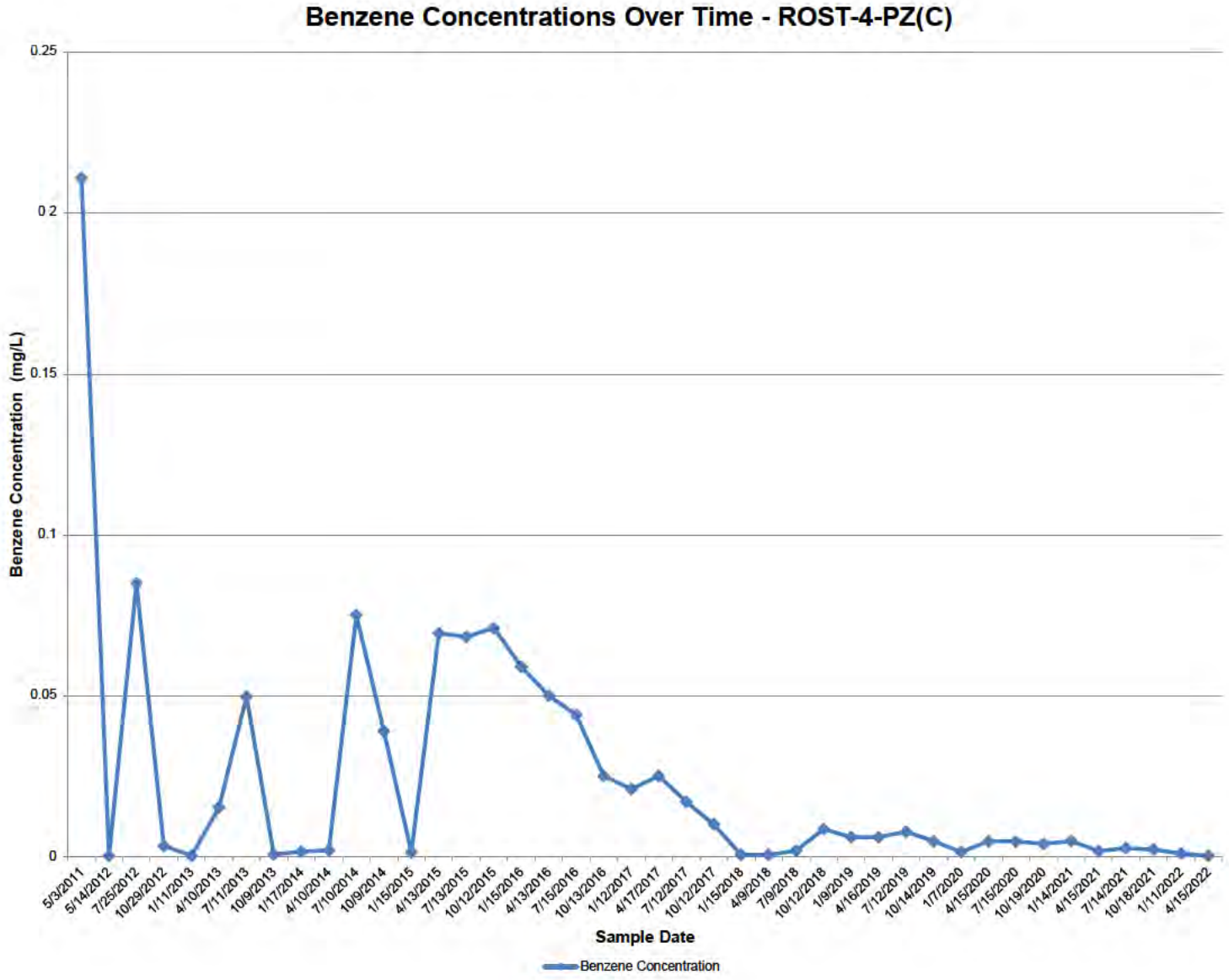
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Non-detect values are shown at half the reporting limit.

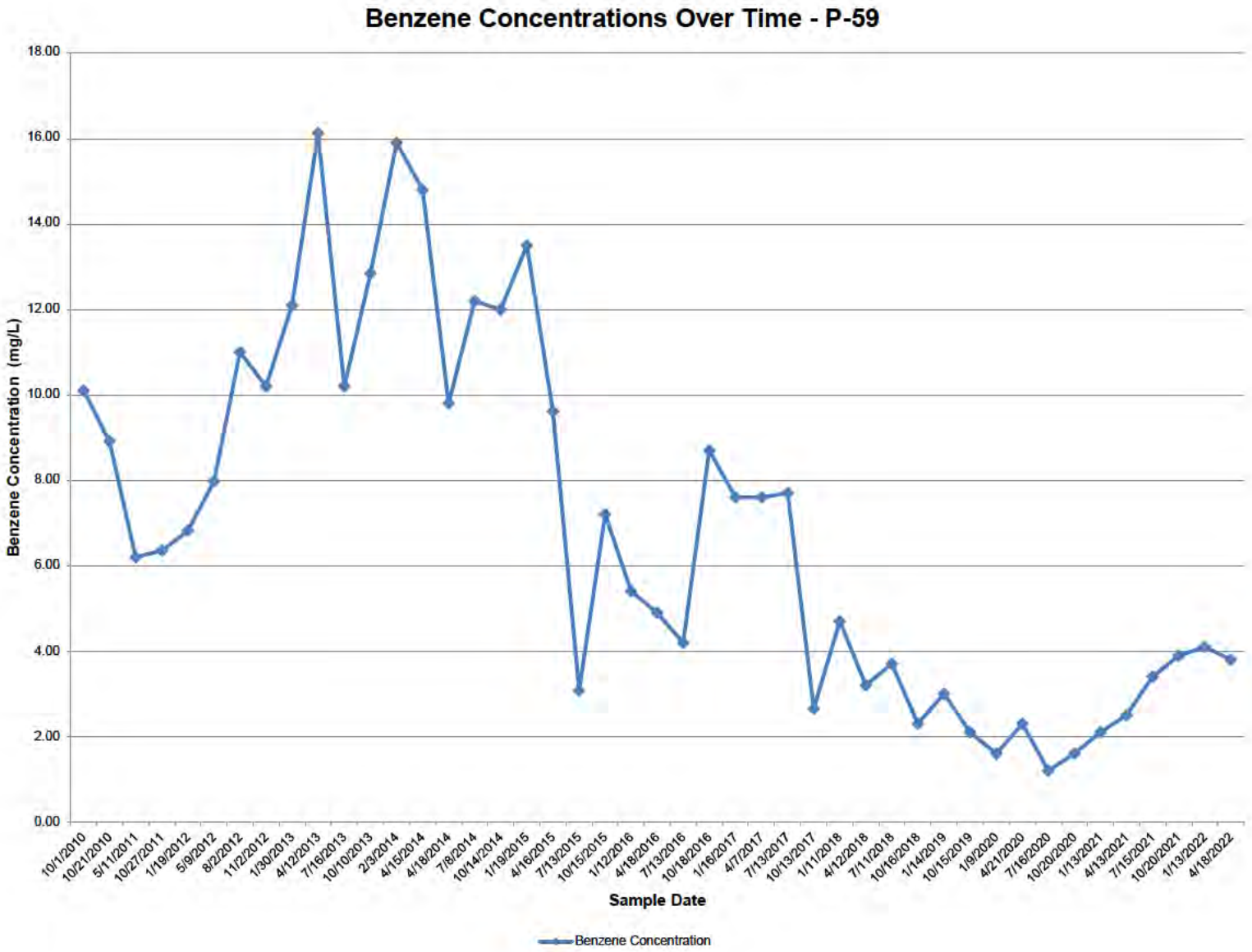


Notes:

mg/L = milligrams per liter

Timeframe specific to available data.

Non-detect values are shown at half the reporting limit.

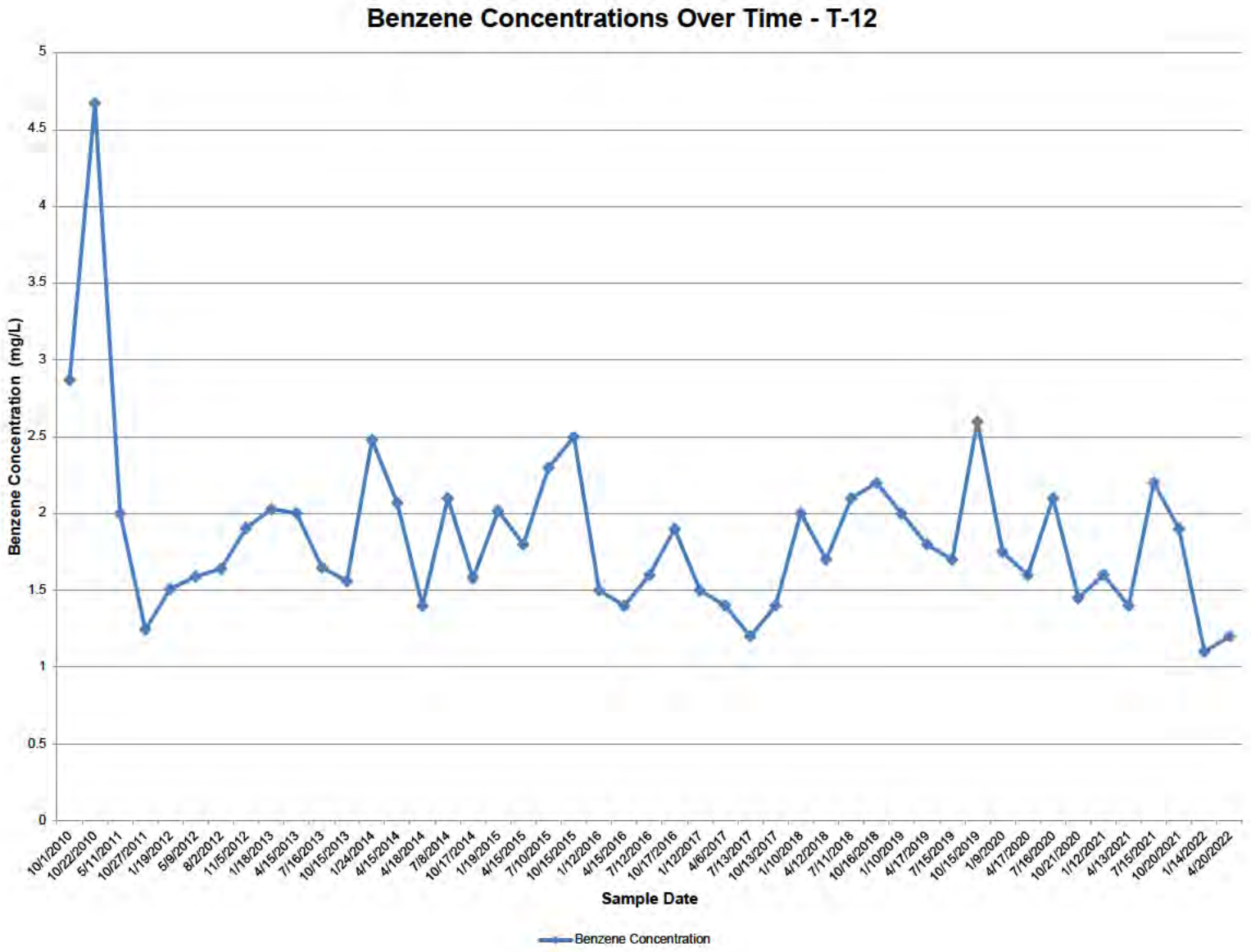


Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.



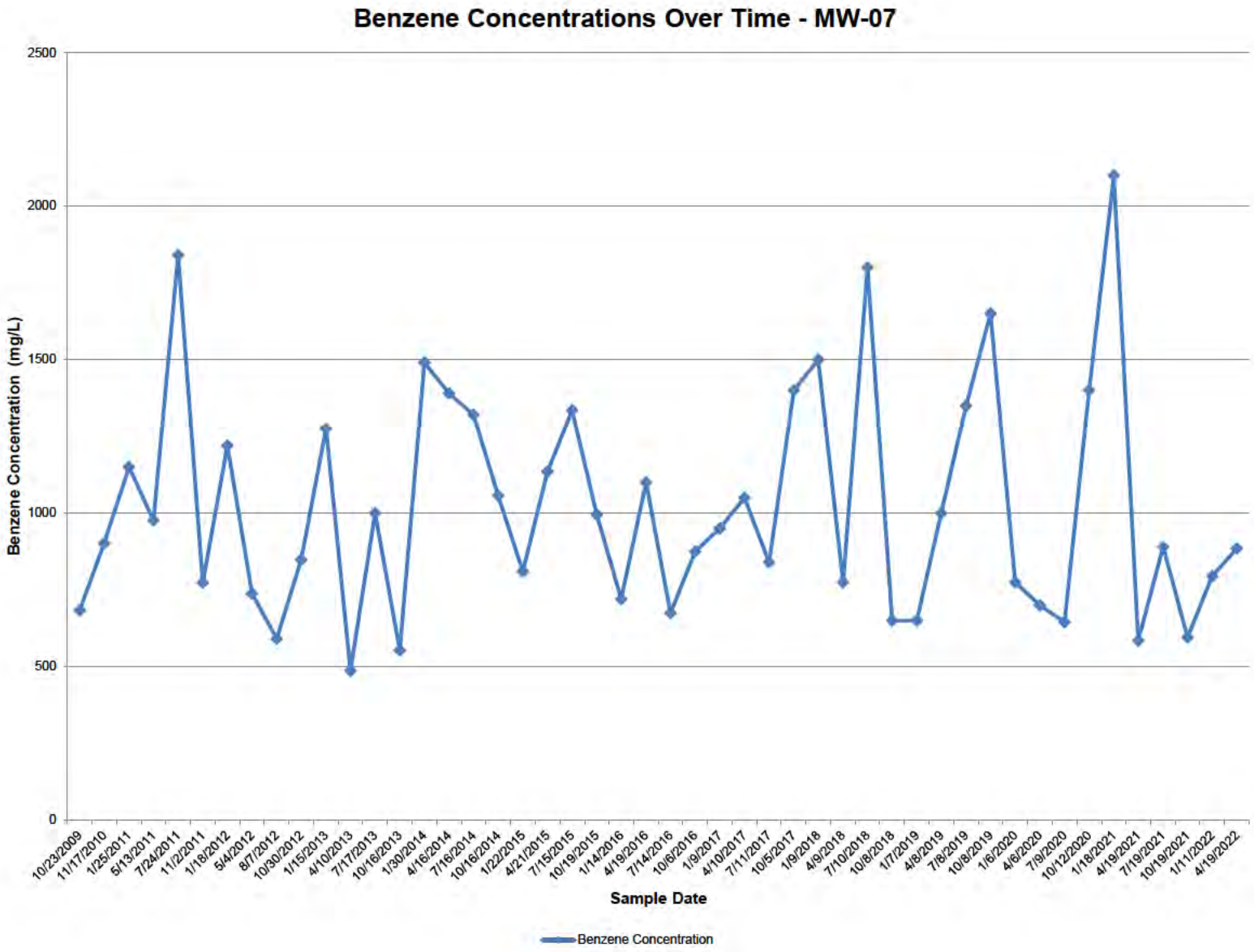
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Public Works Yard Area

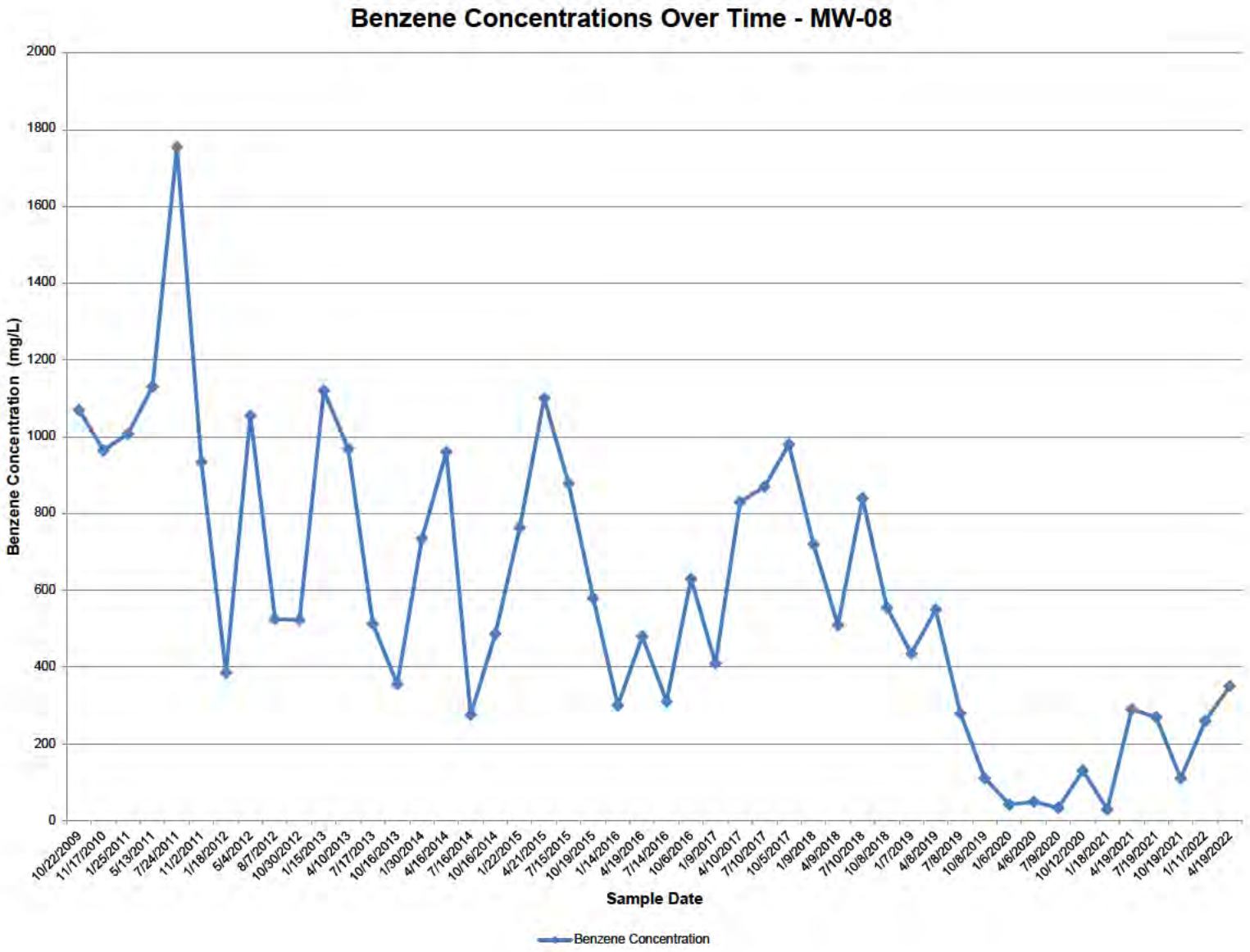


Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

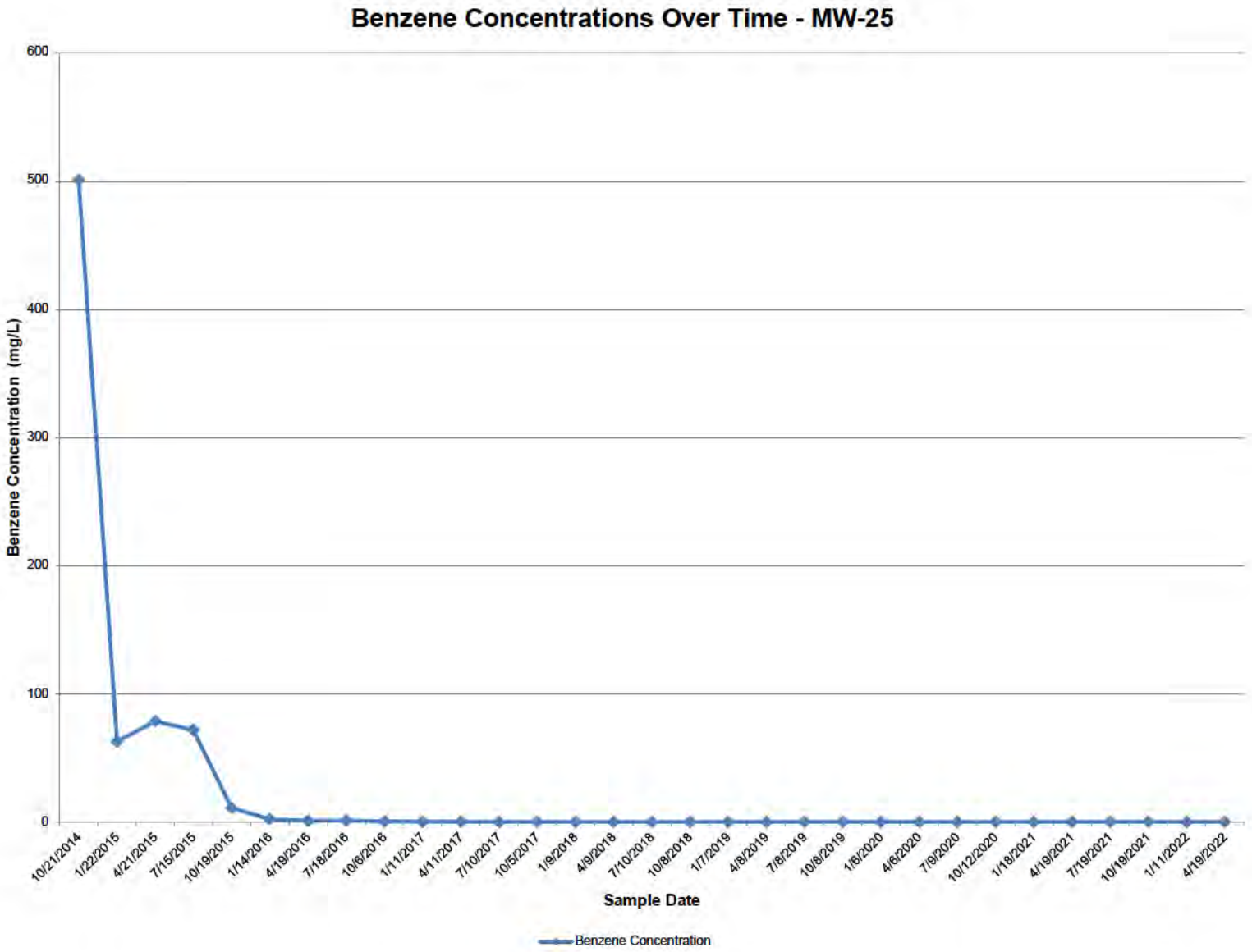


Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.



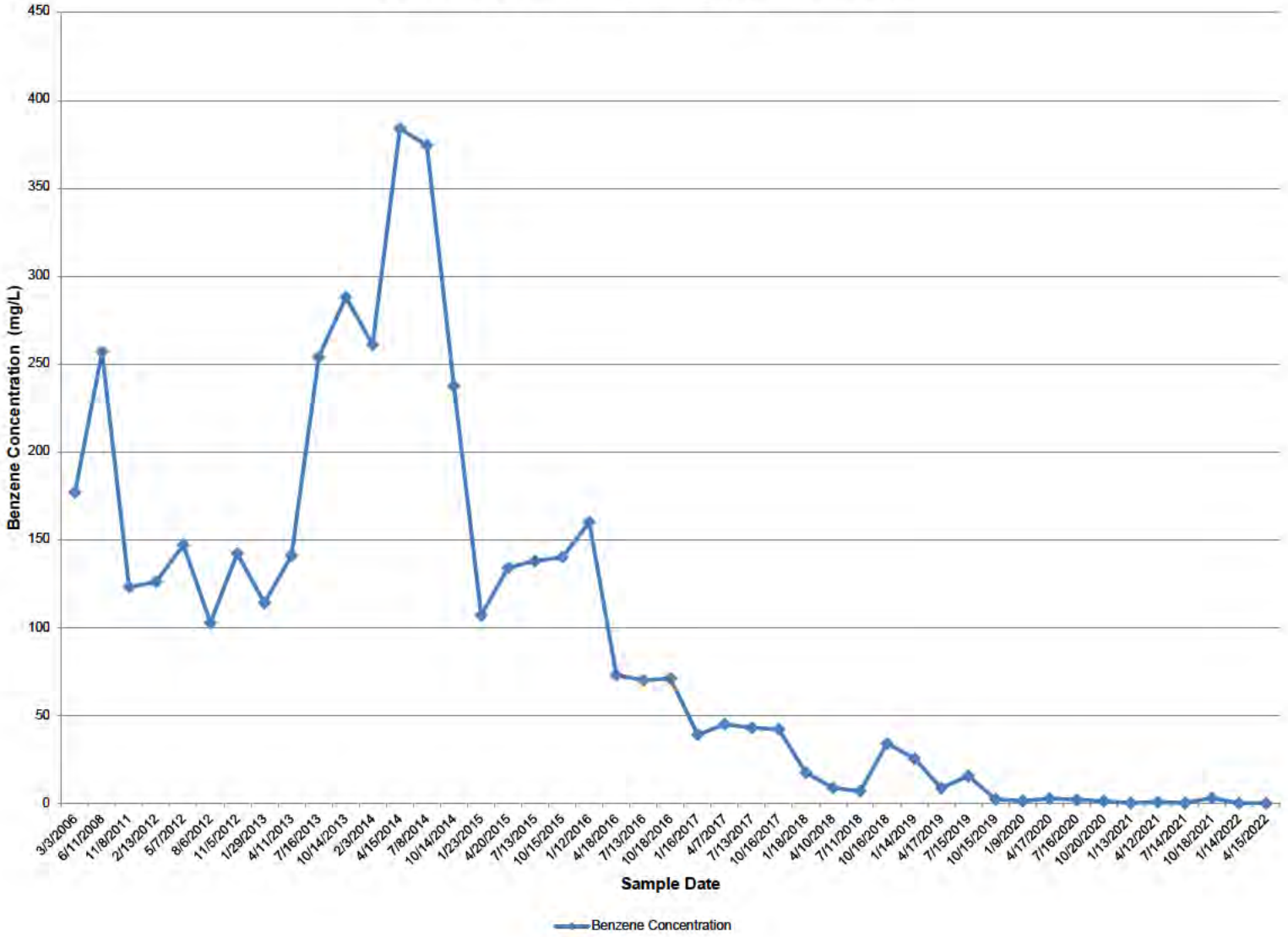
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Benzene Concentrations Over Time - P-57



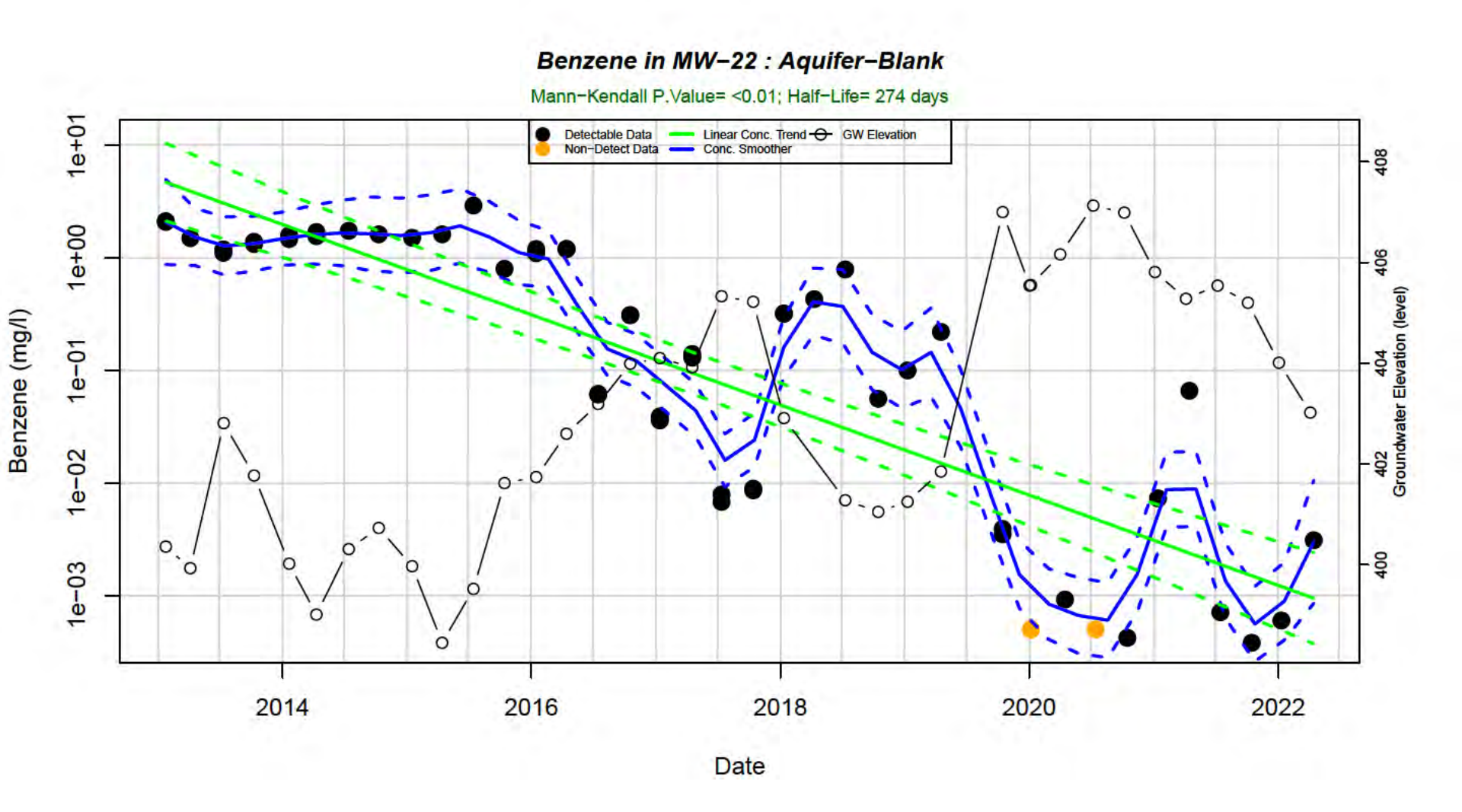
Notes:

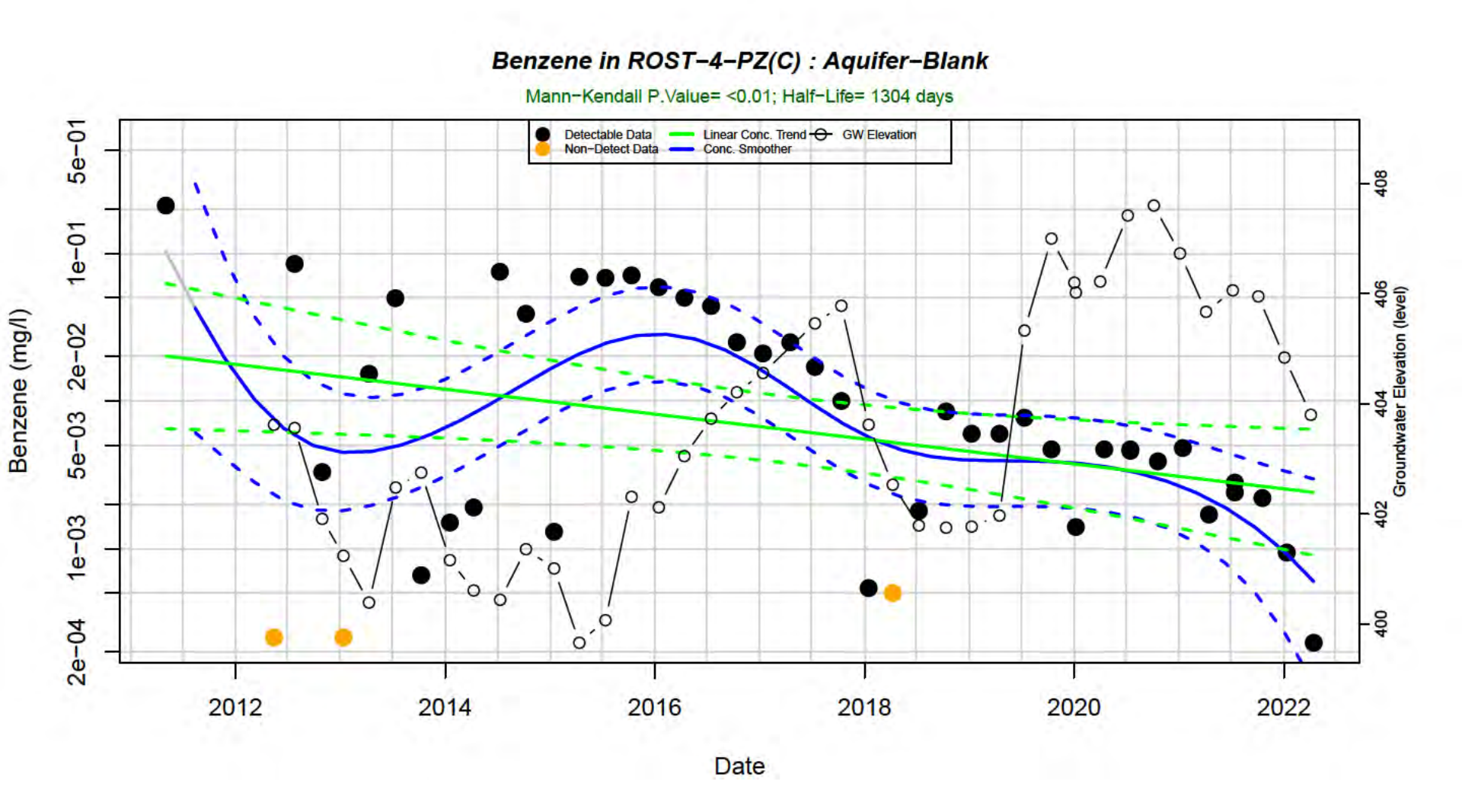
mg/L = milligrams per liter

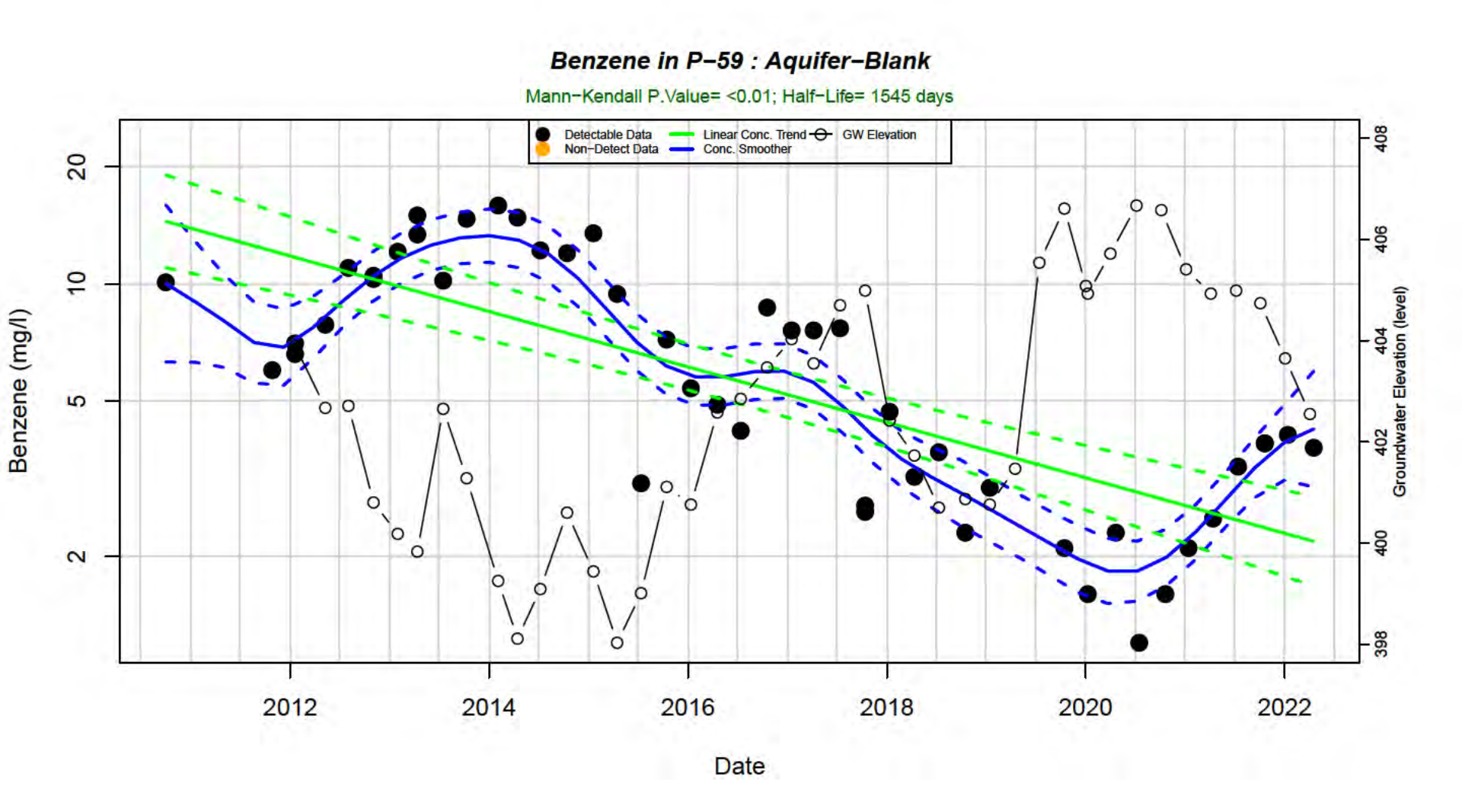
Duplicate values were averaged.

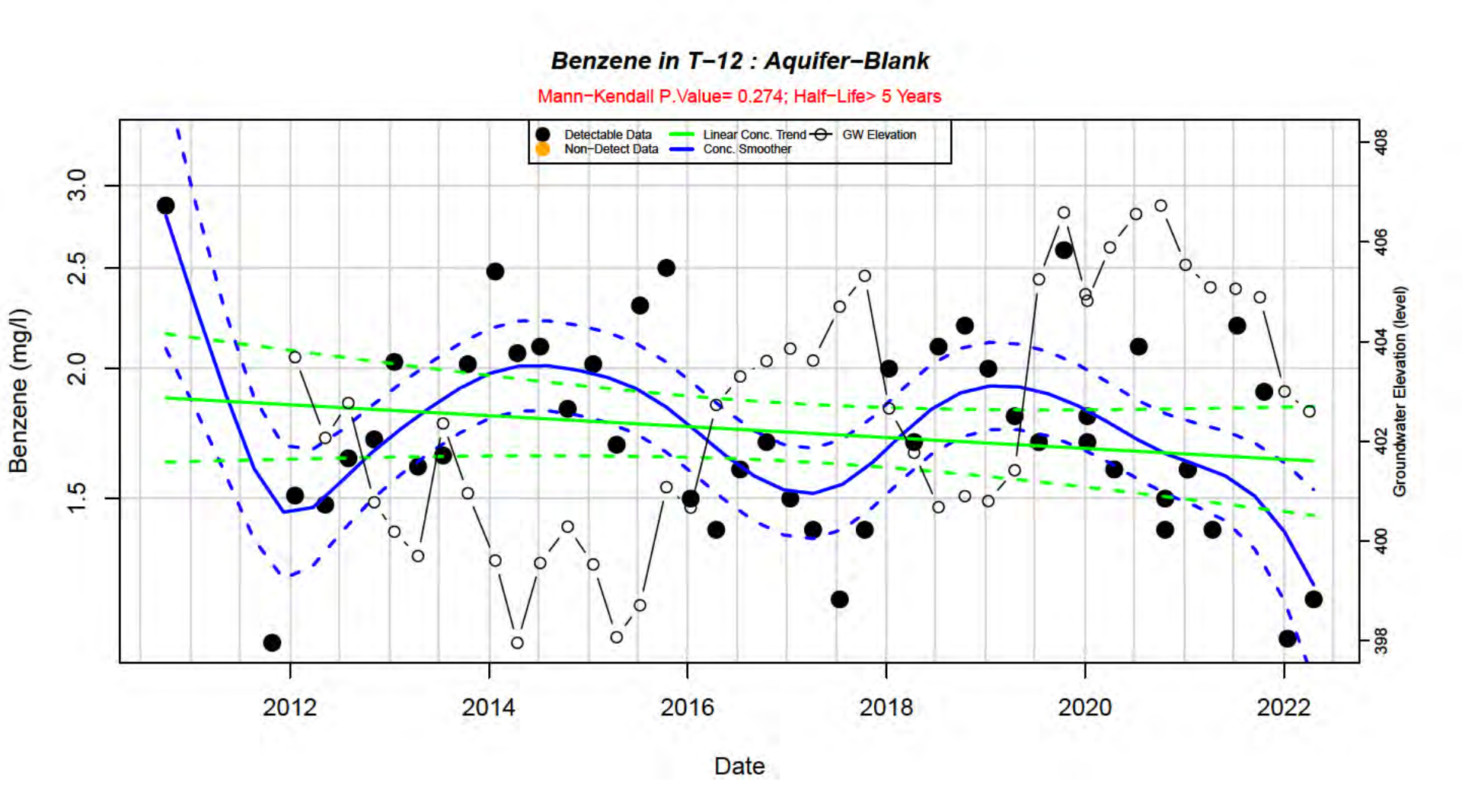
Timeframe specific to available data.

4th Street Area

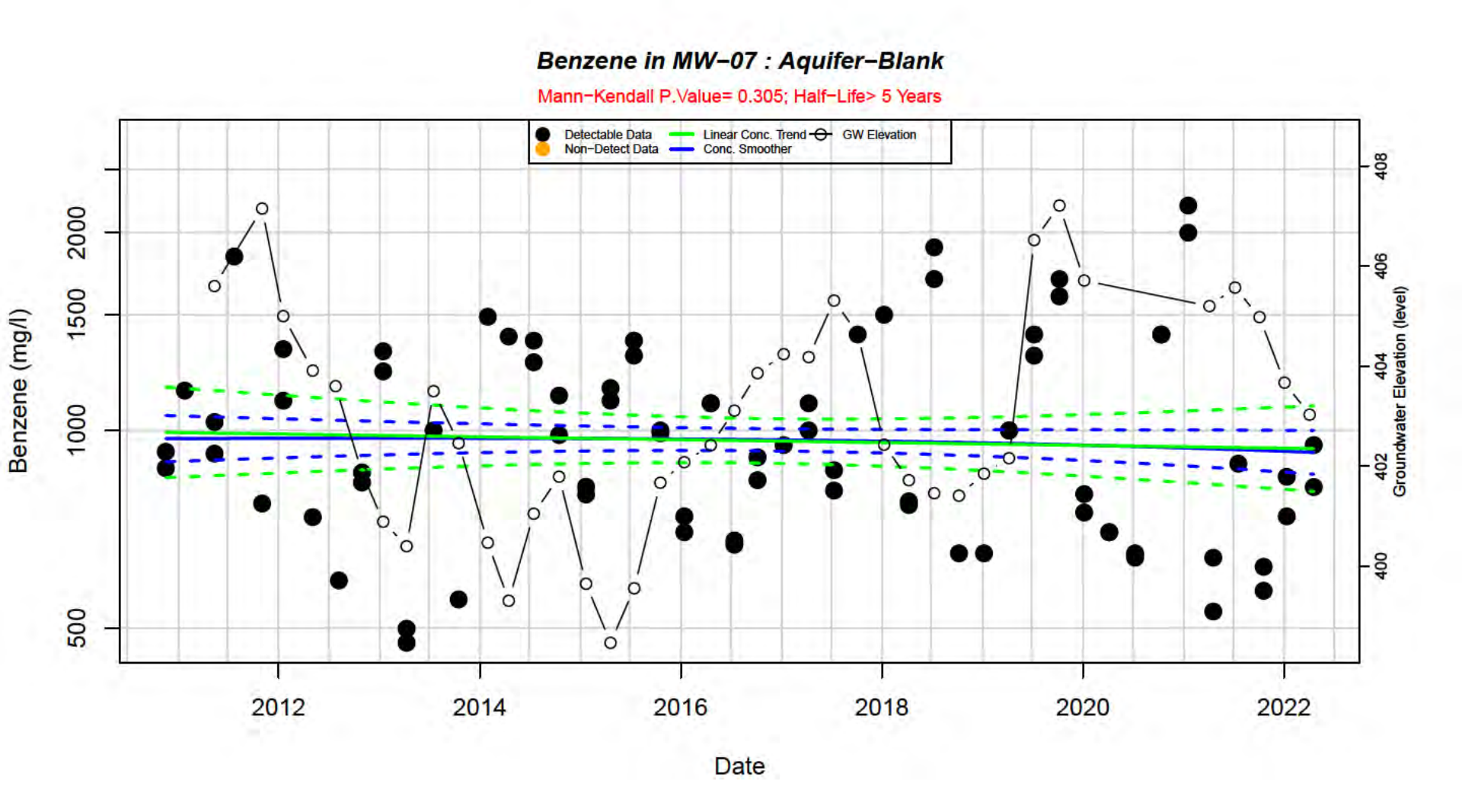

Benzene in MW−22 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 274 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
1e−03
1e−02
1e−01
1e+00
1e+01
Groundwater Elevation (level)
400
402
404
406
408
2014
2016
2018
2020
2022
Date

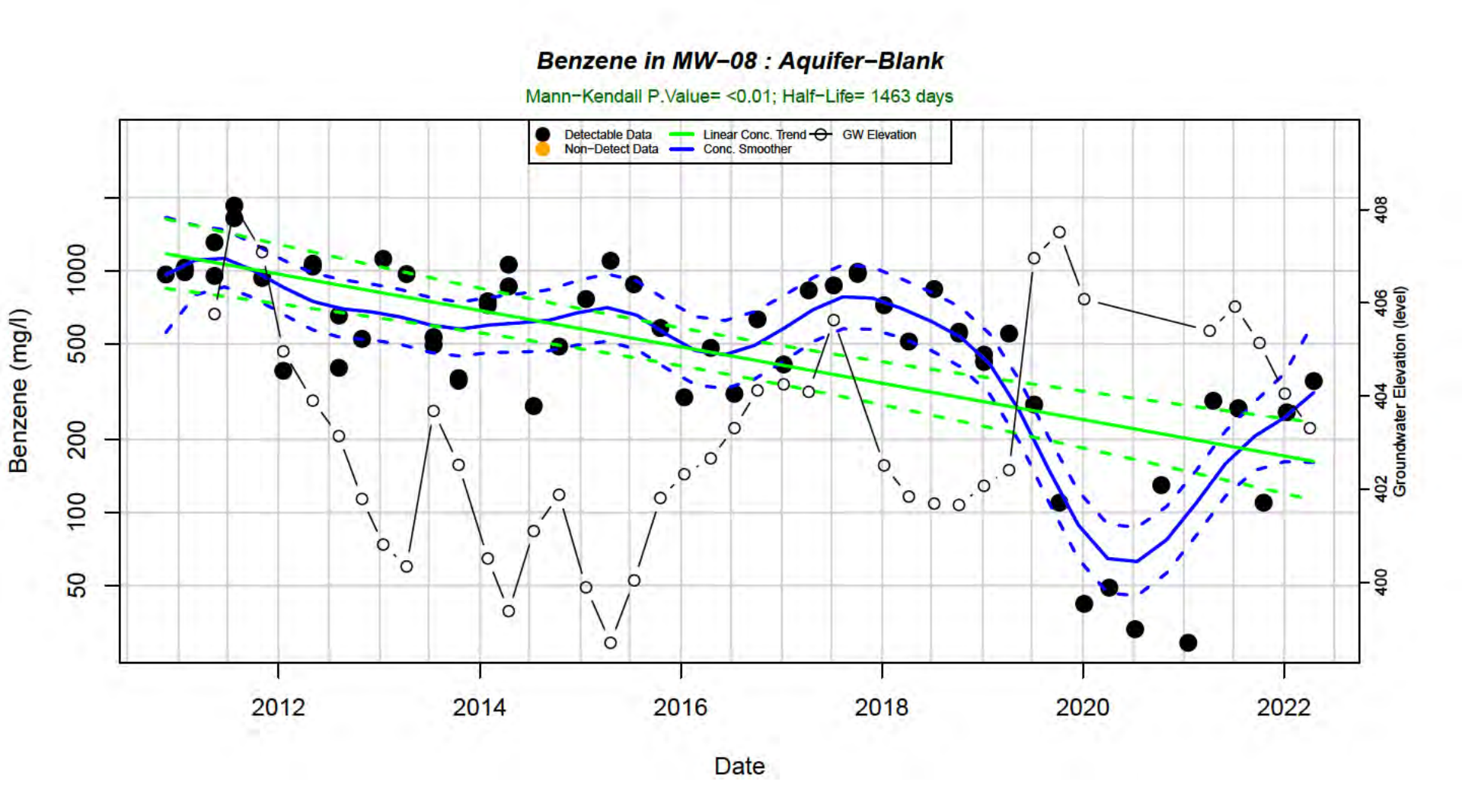

Benzene in ROST−4−PZ(C) : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 1304 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
5e−01
1e−01
2e−02
5e−03
1e−03
2e−04
Groundwater Elevation (level)
408
406
404
402
400
2012
2014
2016
2018
2020
2022
Date

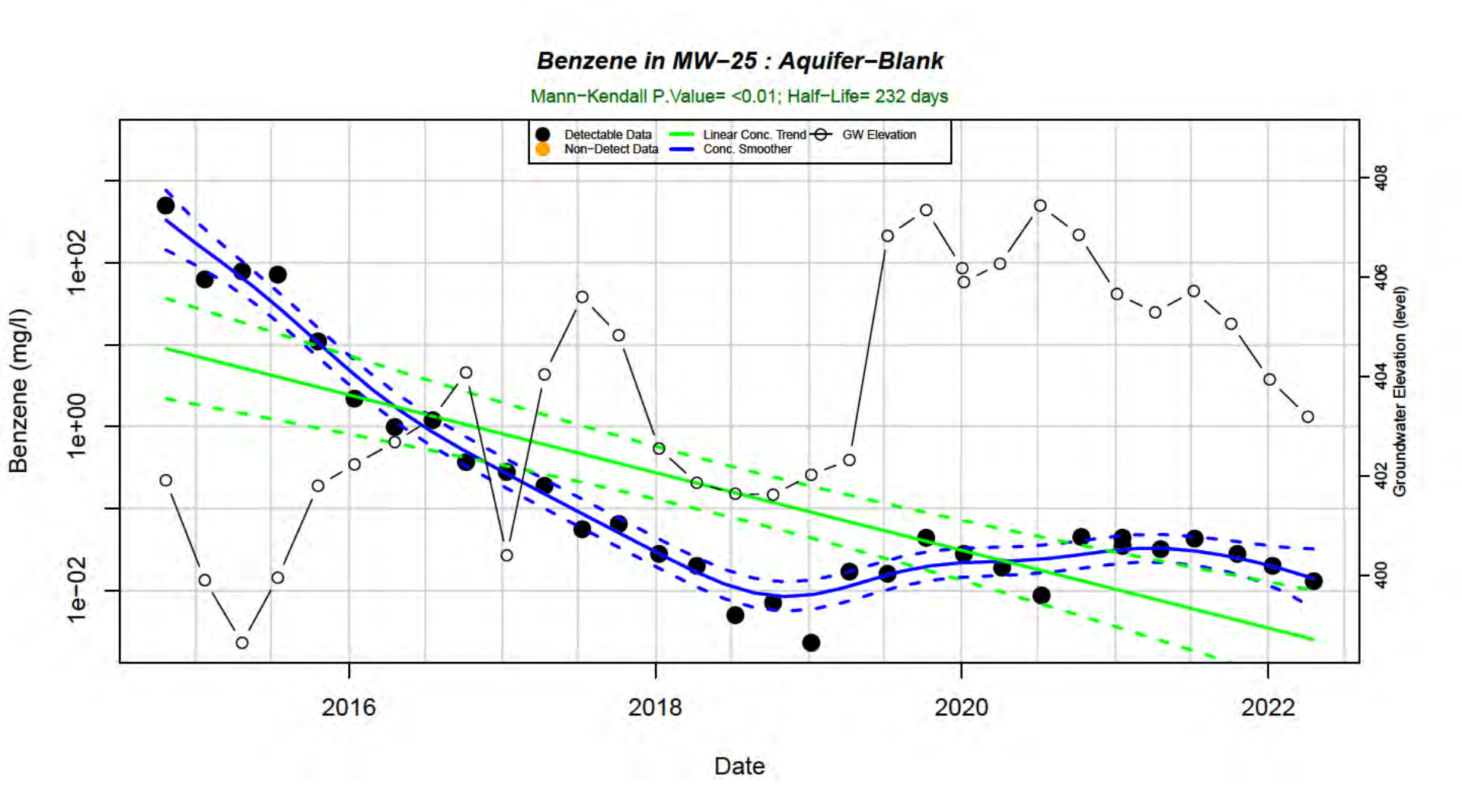

Benzene in P−59 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 1545 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
Groundwater Elevation (level)
Date
2012
2014
2016
2018
2020
2022
2
5
10
20
398
400
402
404
406
408

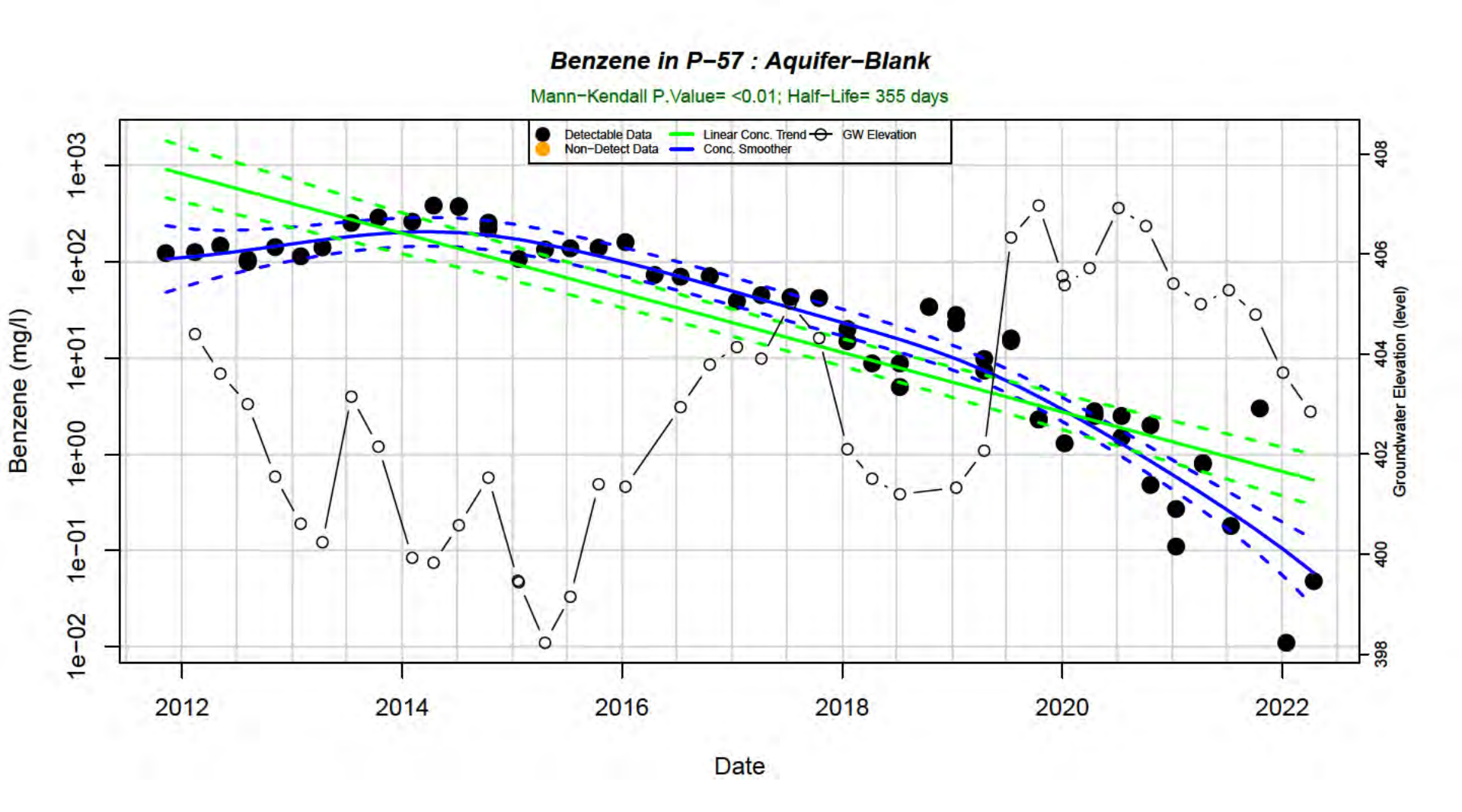

Benzene in T−12 : Aquifer−Blank
Mann−Kendall P.Value= 0.274; Half−Life> 5 Years
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
Groundwater Elevation (level)
Date
1.5
2.0
2.5
3.0
398
400
402
404
406
408
2012
2014
2016
2018
2020
2022

Public Works Yard Area


Benzene in MW−07 : Aquifer−Blank
Mann−Kendall P.Value= 0.305; Half−Life> 5 Years
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
500
1000
1500
2000
Groundwater Elevation (level)
400
402
404
406
408
2012
2014
2016
2018
2020
2022
Date


Benzene in MW−08 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 1463 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
50
100
200
500
1000
Groundwater Elevation (level)
400
402
404
406
408
2012
2014
2016
2018
2020
2022
Date


Benzene in MW−25 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 232 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
1e+02
1e+00
1e−02
Groundwater Elevation (level)
408
406
404
402
400
2016
2018
2020
2022
Date


Benzene in P−57 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 355 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
1e−02
1e−01
1e+00
1e+01
1e+02
1e+03
Groundwater Elevation (level)
398
400
402
404
406
408
2012
2014
2016
2018
2020
2022
Date

Melissa Remiger
Environmental Scientist
M: 314/449-2913
E: melissa.remiger@aecom.com

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St. Louis, MO 63102
aecom.com