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)

4 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. Electronic copies submitted separately directly to Collinsville FOS (Ali Al-Janabi) and Amy Butler.

AECOM
100 N. Broadway, 20th Floor
St. Louis, MO 63102
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January 27, 2023

Ms. Jacqueline M Cooperider, 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 – 4th Quarter 2022

Roxana, Illinois

1191150002 – Madison County

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

Log No. B-43R-CA-21

Dear Ms. Cooperider:

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.

Electronic copies of the referenced report are being submitted separately directly to Ms. Amy Butler and IEPA Collinsville FOS (Ali Al-Janabi) with Illinois Environmental Protection Agency (IEPA).

If you have any questions during your review, please contact Leroy (Buddy) Bealer, Shell 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: 4th Quarter 2022 Report, Roxana Interim Groundwater Monitoring Program
RCRA Facility Groundwater, Leachate and Gas Reporting Form

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Greg Mollett, Greensfelder
Repositories - Roxana Public Library, website

AECOM

4th Quarter 2022 Report

Roxana Interim Groundwater Monitoring Program

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

Project number: 60674381

January 2023

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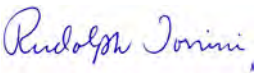
Quality information

Prepared by	Prepared by	Checked by	Verified by	Approved by
				
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Revision History

Revision	Revision date	Details	Authorized	Name	Position

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None	Yes	IEPA Collinsville FOS IEPA, Collinsville
None	Yes	Ms. Michelle Knapp Atlantic Richfield Company
None	Yes	Greg Mollett Greensfelder
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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 4th Quarter 2022 (4Q22) 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."

The bulleted list below summarizes current regulatory-related correspondence between AECOM, on behalf of Shell, and the IEPA during this reporting period (October 2022 through December 2022); prior regulatory-related correspondence which has not yet been addressed by IEPA can be found in **Appendix A**.

- On August 22, 2022, IEPA approved with conditions the Public Works Yard (PWY) Steam Enhanced Extraction (SEE) Workplan (IEPA, 2022). The PWY SEE Workplan was submitted to IEPA on January 31, 2022, and provided the system design as well as the plan and schedule for construction, operation, post-shutdown monitoring, and decommissioning for the proposed SEE system at the Roxana old PWY (AECOM, 2022a).
    - In a September 21, 2022 meeting attended by AECOM, Shell, McMillan-McGee, and IEPA, comments pertaining to the IEPA's August 22, 2022 letter were discussed, including additional PWY sampling.
- On October 12, 2022, AECOM, on behalf of Shell, requested the due date for the 4th Quarter 2022 Report for the Roxana Interim Groundwater Monitoring Program be pushed back approximately two weeks to January 30, 2023 from January 15, 2023. The modified due date was proposed to allow for a two-week delayed start to sampling during the 4Q22 groundwater event to avoid simultaneous operations at the WRR.
- Condition 2 of IEPA's August 22, 2022 letter stated that a Roxana Public Works Yard (PWY) Steam Enhanced Extraction (SEE) - Final Design Report and Construction Work Plan (FDRCWP) was due within 90 days of the date of the letter (i.e. November 20, 2022). On October 14, 2022, AECOM, on behalf of Shell, requested the due date for the FDRCWP be extended to December 20, 2022 to allow for adequate preparation.
- On December 16, 2022, AECOM, on behalf of Shell, submitted the Roxana PWY SEE – FDRCWP (2022d) to IEPA in fulfillment of Phase II of the Corrective Measures Program (CMP); the Roxana PWY SEE – FDRCWP describes the additional sampling discussed in the September 21, 2022 meeting that will be collected prior to, and during, the construction of the SEE system. The Roxana PWY SEE – FDRCWP responded to conditions in IEPA's August 22, 2022 letter.

Groundwater samples were collected and analyzed during 4Q22 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

Groundwater monitoring wells MW-18 through MW-21, located within the Village along the West Fenceline, which are only required to be gauged as part of the quarterly comprehensive groundwater gauging event, were additionally sampled for Method 8260 VOCs in 4Q22 during the quarterly sampling event. Data are included in this report and can be found in **Table 3b**.

2.3 Groundwater Monitoring Well Gauging and Sampling

Groundwater Monitoring Well Gauging

The comprehensive quarterly groundwater monitoring well gauging event was conducted between October 17 and 19, 2022. The gauging activities were conducted in conjunction with the 4Q22 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 groundwater monitoring well gauging results can be found in **Table 1**. 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 October 20 through November 1, 2022 and November 3 through November 4, 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-18 through MW-28; P-54; P-56; P-57; P-59; P-74; P-93A, B, and C; P-114R; ROST-3-MW; ROST-4-PZ(C); ROST-4-PZ(E); 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.

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

[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 submers ble pumps is replaced annually prior to the first quarter sampling event.

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-58, P-66, and P-68, contained LNAPL when gauged and, therefore, were 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 **Tables 3a** and **3b**, 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 4Q22 groundwater gauging and sampling event.

3.1 Groundwater Monitoring Well Gauging Results

The comprehensive quarterly groundwater monitoring well gauging for the 4Q22 event was conducted between October 17 and 19, 2022. This groundwater monitoring well gauging was conducted in accordance with the Interim Groundwater Monitoring Program, and the results can be found in **Table 1**. Groundwater levels in most wells in the vicinity of the West Fenceline have fallen approximately 1.0 foot since the 3Q22 gauging event. Groundwater levels in most wells in the central portion of the WRR have risen approximately 0.5 feet since the 3Q22 gauging event. Groundwater levels in wells in the eastern portion of the WRR have fallen approximately 1.1 feet since the 3Q22 gauging event. Water levels are above the top of the screens in the majority of the wells gauged during the 4Q22 event. The potentiometric surface observed during the 4Q22 groundwater monitoring well gauging (**Figures 3a** and **3b**) illustrates an inward gradient with groundwater flow toward the WRR groundwater production wells.

During the 4Q22 quarterly groundwater monitoring well gauging event, LNAPL was detected in four Interim Groundwater Monitoring Program groundwater monitoring wells (P-55R, P-58, P-66, and P-68) (**Table 1**). These monitoring wells are located in the WRR. In these wells, LNAPL thicknesses ranged from 0.04 to 1.02 feet. Measured LNAPL thickness and the number of locations where it was observed during the 4Q22 quarterly gauging events was generally comparable to that observed in 3Q22.

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 4Q22 quarterly groundwater gauging event, LNAPL was not observed in groundwater monitoring wells located in the Village (**Table 1**). **Figures 4a** and **4b** illustrate the measured LNAPL thickness observed along the West Fenceline and inside the refinery, respectively, during the 4Q22 gauging event.

During 4Q22, LNAPL was observed in groundwater monitoring well 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 metal drum and sent for reuse of in accordance with RCRA, Illinois and United States Department of Transportation (DOT) regulations.

3.2 Data Quality Review Results

A total of 13 sample delivery groups (SDGs) were prepared and sent to TestAmerica for the 4Q22 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. Additionally, five different groundwater sample sets were prepared and analyzed for VOCs alone. The five samples included 4 different investigative sample sets, and one field duplicate set. SDGs for 4Q22 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. Six 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 13 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 six investigative samples (MW5-ROX-102722, MW6B-ROX-102122, P57-ROX-102822, P59-ROX-110422, P74-ROX-102822-DUP, and P93A-ROX-110122); bis(2-ethylhexyl) phthalate is a common laboratory and field contaminant. The extraction holding time criteria was exceeded for five of 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.

- Due to anomalous Method 8270_LL PAH results, the laboratory re-analyzed and/or re-extracted and analyzed for PAHs in six investigative samples (MW6A-ROX-102122, MW6D-ROX-102122, MW12-ROX-102622, MW24-ROX-102022, P57-ROX-102822 and ROST4PZG-ROX-102722). The extraction holding time was exceeded for the re-extracted samples; however, the results from these analyses were consistent with historical data. Based on professional judgement the results from the re-analysis were used for the purposes of this report, however both original and confirmation results can be found on **Table 3a**.

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 3Q22 sampling event. The laboratory analytical results for the groundwater samples collected during this event are presented in **Tables 3a** and **3b**.

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 **Tables 3a** and **3b**.

Samples from 11 groundwater monitoring wells in the Interim Groundwater Monitoring Program (five in the Village, six 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(b)fluoranthene
- 2-Methylnaphthalene
- Methyl tert-Butyl Ether (MTBE)
- Benzo(a)pyrene
- Benzo(k)fluoranthene
- Phenol

Figure 5 presents concentrations of analytes that exceeded the indicated screening criteria for 4Q22. These findings are generally consistent with the results from previous sampling events.

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 4Q22, 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 4Q22 Interim Groundwater Monitoring Program, and the following conclusions are based on the data and information collected as part of this program:

- During 4Q22, groundwater level data indicate groundwater flow from the Investigation Area is moving toward groundwater production wells at the WRR. Groundwater levels in most wells in the vicinity of the West Fenceline have fallen approximately 1.0 foot since the 3Q22 gauging event. Groundwater levels in most wells in the central portion of the WRR have risen approximately 0.5 feet since the 3Q22 gauging event. Groundwater levels in wells in the eastern portion of the WRR have fallen approximately 1.1 feet since the 3Q22 gauging event.
- Measured LNAPL thickness and the number of locations where it was observed during the 4Q22 quarterly gauging events was generally comparable to that observed in 3Q22. LNAPL was detected in P-66 during 2Q22, 3Q22, and 4Q22, however, LNAPL was previously 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 1Q23 Roxana Interim Groundwater Monitoring program.
- The analytical results from 4Q22 are generally consistent with the results from previous sampling events, with the exception of initial PAH results in several samples. Re-extracted and re-analyzed PAH results were generally consistent with those from previous quarters.
- 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.

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Tables

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TABLE 1
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											
1Q22	442.83	1/3/2022	NE	39.03	NA	NA	NA	403.80	394.03 - 384.03 (48.80 - 58.80)	0.0	*
2Q22		4/5/2022	NE	39.78	NA	NA	NA	403.05		0.0	*
3Q22		7/5/2022	NE	38.89	NA	NA	NA	403.94		0.0	*
4Q22		10/18/2022	NE	39.75	NA	NA	NA	403.08		0.0	*
MW 02											
1Q22	443.93	1/3/2022	NE	40.41	NA	NA	NA	403.52	394.06 - 384.06 (49.87 - 59.87)	317.2	*
2Q22		4/4/2022	NE	41.13	NA	NA	NA	402.80		161.2	*
3Q22		7/5/2022	NE	40.28	NA	NA	NA	403.65		5.0	*
4Q22		10/17/2022	NE	40.95	NA	NA	NA	402.98		146.7	*
MW 03											
1Q22	430.23	1/4/2022	NE	26.20	NA	NA	NA	404.03	395.56 - 385.56 (34.67 - 44.67)	0.3	*
2Q22		4/5/2022	NE	26.94	NA	NA	NA	403.29		0.0	*
3Q22		7/5/2022	NE	25.89	NA	NA	NA	404.34		0.0	*
4Q22		10/18/2022	NE	27.05	NA	NA	NA	403.18		0.0	*
MW 04											
1Q22	441.31	1/4/2022	NE	37.43	NA	NA	NA	403.88	396.25 - 386.25 (45.06 - 55.06)	0.0	*
2Q22		4/5/2022	NE	38.19	NA	NA	NA	403.12		0.0	*
3Q22		7/5/2022	NE	37.29	NA	NA	NA	404.02		0.0	*
4Q22		10/18/2022	NE	38.20	NA	NA	NA	403.11		0.0	*
MW 05											
1Q22	429.98	1/4/2022	NE	25.90	NA	NA	NA	404.08	396.01 - 386.01 (33.97 - 43.97)	0.0	*
2Q22		4/5/2022	NE	26.62	NA	NA	NA	403.36		0.0	*
3Q22		7/6/2022	NE	25.68	NA	NA	NA	404.30		0.0	*
4Q22		10/18/2022	NE	26.73	NA	NA	NA	403.25		0.0	*
MW 06A											
1Q22	432.33	1/4/2022	NE	28.02	NA	NA	NA	404.31	398.48 - 388.48 (33.85 - 43.85)	0.1	*
2Q22		4/5/2022	NE	28.70	NA	NA	NA	403.63		0.0	*
3Q22		7/6/2022	NE	26.86	NA	NA	NA	405.47		0.0	*
4Q22		10/18/2022	NE	28.94	NA	NA	NA	403.39		0.0	*
MW 06B											
1Q22	432.37	1/4/2022	NE	28.07	NA	NA	NA	404.30	368.32 - 363.32 (64.05 - 69.05)	0.1	*
2Q22		4/5/2022	NE	28.76	NA	NA	NA	403.61		0.0	*
3Q22		7/6/2022	NE	27.91	NA	NA	NA	404.46		0.0	*
4Q22		10/18/2022	NE	28.97	NA	NA	NA	403.40		0.0	*
MW 06C											
1Q22	432.18	1/4/2022	NE	27.86	NA	NA	NA	404.32	347.23 - 342.23 (84.95 - 89.95)	0.1	*
2Q22		4/5/2022	NE	28.53	NA	NA	NA	403.65		0.0	*
3Q22		7/6/2022	NE	27.70	NA	NA	NA	404.48		0.0	*
4Q22		10/18/2022	NE	28.76	NA	NA	NA	403.42		0.0	*
MW 06D											
1Q22	432.06	1/4/2022	NE	27.73	NA	NA	NA	404.33	327.34 - 322.34 (104.72 - 109.72)	0.1	*
2Q22		4/5/2022	NE	28.39	NA	NA	NA	403.67		0.0	*
3Q22		7/6/2022	NE	27.54	NA	NA	NA	404.52		0.0	*
4Q22		10/18/2022	NE	28.62	NA	NA	NA	403.44		0.0	*
MW 07											
1Q22	443.31	1/3/2022	NE	39.64	NA	NA	NA	403.67	400.39 - 390.39 (42.92 - 52.92)	65.6	*
2Q22		4/4/2022	NE	40.28	NA	NA	NA	403.03		2.6	*
3Q22		7/5/2022	NE	39.37	NA	NA	NA	403.94		0.0	*
4Q22		10/17/2022	NE	40.22	NA	NA	NA	403.09		0.0	*
MW 08											
1Q22	434.43	1/4/2022	NE	30.38	NA	NA	NA	404.05	400.83 - 390.83 (33.60 - 43.60)	0.0	*
2Q22		4/5/2022	NE	31.12	NA	NA	NA	403.31		0.5	*
3Q22		7/6/2022	NE	30.22	NA	NA	NA	404.21		0.0	*
4Q22		10/18/2022	NE	31.20	NA	NA	NA	403.23		0.0	*
MW 09											
1Q22	445.28	1/3/2022	NE	40.43	NA	NA	NA	404.85	399.24 - 389.24 (46.04 - 56.04)	0.2	*
2Q22		4/4/2022	NE	41.43	NA	NA	NA	403.85		0.0	*
3Q22		7/5/2022	NE	40.73	NA	NA	NA	404.55		0.0	*
4Q22		10/17/2022	NE	41.33	NA	NA	NA	403.95		0.0	*

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MW 10											
1Q22	445.06	1/3/2022	NE	40.33	NA	NA	NA	404.73	400.63 - 390.63 (44.43 - 54.43)	0.1	*
2Q22		4/4/2022	NE	41.30	NA	NA	NA	403.76		0.0	*
3Q22		7/5/2022	NE	40.28	NA	NA	NA	404.78		0.0	*
4Q22		10/17/2022	NE	41.26	NA	NA	NA	403.80		0.0	*
MW 11											
1Q22	442.38	1/3/2022	NE	38.14	NA	NA	NA	404.24	400.72 - 390.72 (41.66 - 51.66)	0.2	*
2Q22		4/5/2022	NE	39.04	NA	NA	NA	403.34		0.0	*
3Q22		7/5/2022	NE	38.24	NA	NA	NA	404.14		0.0	*
4Q22		10/17/2022	NE	38.91	NA	NA	NA	403.47		0.0	*
MW 12											
1Q22	442.64	1/3/2022	NE	38.72	NA	NA	NA	403.92	400.72 - 390.72 (41.92 - 51.92)	0.2	*
2Q22		4/5/2022	NE	39.54	NA	NA	NA	403.10		0.0	*
3Q22		7/5/2022	NE	38.60	NA	NA	NA	404.04		0.0	*
4Q22		10/17/2022	NE	39.36	NA	NA	NA	403.28		0.0	*
MW 13											
1Q22	430.30	1/4/2022	NE	25.72	NA	NA	NA	404.58	405.50 - 395.50 (24.80 - 34.80)	5.7	
2Q22		4/5/2022	NE	26.43	NA	NA	NA	403.87		71.2	
3Q22		7/6/2022	NE	25.50	NA	NA	NA	404.80		0.0	
4Q22		10/18/2022	NE	26.78	NA	NA	NA	403.52		0.0	
MW 14											
1Q22	434.61	1/5/2022	NE	30.17	NA	NA	NA	404.44	401.19 - 391.19 (33.42 - 43.42)	2.9	*
2Q22		4/6/2022	NE	30.85	NA	NA	NA	403.76		64.5	*
3Q22		7/7/2022	NE	30.13	NA	NA	NA	404.48		16.6	*
4Q22		10/19/2022	NE	30.96	NA	NA	NA	403.65		64.8	*
MW 16											
1Q22	443.60	1/4/2022	NE	39.62	NA	NA	NA	403.98	406.10 - 396.10 (37.50 - 47.50)	0.0	
2Q22		4/5/2022	NE	40.70	NA	NA	NA	402.90		0.0	
3Q22		7/5/2022	NE	39.85	NA	NA	NA	403.75		0.0	
4Q22		10/17/2022	NE	40.46	NA	NA	NA	403.14		0.0	
MW 17											
1Q22	441.78	1/3/2022	NE	38.02	NA	NA	NA	403.76	407.49 - 392.49 (34.29 - 49.29)	0.1	
2Q22		4/4/2022	NE	39.09	NA	NA	NA	402.69		0.0	
3Q22		7/5/2022	NE	38.39	NA	NA	NA	403.39		0.0	
4Q22		10/17/2022	NE	38.74	NA	NA	NA	403.04		0.1	
MW 18											
1Q22	442.24	1/3/2022	NE	38.68	NA	NA	NA	403.56	407.32 - 392.32 (34.92 - 49.92)	0.0	
2Q22		4/4/2022	NE	39.77	NA	NA	NA	402.47		0.0	
3Q22		7/5/2022	NE	38.87	NA	NA	NA	403.37		0.0	
4Q22		10/17/2022	NE	39.33	NA	NA	NA	402.91		0.0	
MW 19											
1Q22	442.98	1/3/2022	NE	39.38	NA	NA	NA	403.60	406.64 - 391.64 (36.34 - 51.34)	0.0	
2Q22		4/4/2022	NE	40.41	NA	NA	NA	402.57		0.0	
3Q22		7/5/2022	NE	39.54	NA	NA	NA	403.44		0.0	
4Q22		10/17/2022	NE	40.01	NA	NA	NA	402.97		0.0	
MW 20											
1Q22	443.86	1/3/2022	NE	40.35	NA	NA	NA	403.51	407.98 - 392.98 (35.88 - 50.88)	0.0	
2Q22		4/4/2022	NE	41.22	NA	NA	NA	402.64		0.0	
3Q22		7/5/2022	NE	40.36	NA	NA	NA	403.50		0.0	
4Q22		10/17/2022	NE	40.92	NA	NA	NA	402.94		0.8	
MW 21											
1Q22	444.01	1/3/2022	NE	40.55	NA	NA	NA	403.46	409.00 - 394.00 (35.01 - 50.01)	0.5	
2Q22		4/4/2022	NE	41.22	NA	NA	NA	402.79		0.0	
3Q22		7/5/2022	NE	40.31	NA	NA	NA	403.70		0.0	
4Q22		10/17/2022	NE	41.04	NA	NA	NA	402.97		0.0	
MW 22											
1Q22	442.38	1/3/2022	NE	38.37	NA	NA	NA	404.01	403.95 - 393.95 (38.43 - 48.43)	0.0	*
2Q22		4/5/2022	NE	39.36	NA	NA	NA	403.02		0.0	
3Q22		7/5/2022	NE	38.56	NA	NA	NA	403.82		0.0	
4Q22		10/17/2022	NE	39.12	NA	NA	NA	403.26		0.1	

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MW 23											
1Q22	431.57	1/4/2022	NE	27.38	NA	NA	NA	404.19	402.55 - 392.55 (29.02 - 39.02)	0.2	*
2Q22		4/5/2022	NE	27.98	NA	NA	NA	403.59		20.0	*
3Q22		7/6/2022	NE	26.94	NA	NA	NA	404.63		0.0	*
4Q22		10/18/2022	NE	28.26	NA	NA	NA	403.31		0.0	*
MW 24											
1Q22	443.65	1/3/2022	NE	39.44	NA	NA	NA	404.21	404.04 - 394.04 (39.61 - 49.61)	0.0	*
2Q22		4/5/2022	NE	40.34	NA	NA	NA	403.31		0.0	
3Q22		7/7/2022	NE	39.55	NA	NA	NA	404.10		0.0	*
4Q22		10/17/2022	NE	40.22	NA	NA	NA	403.43		0.0	
MW 25											
1Q22	438.53	1/4/2022	NE	34.59	NA	NA	NA	403.94	402.94 - 392.94 (35.59 - 45.59)	140.6	*
2Q22		4/5/2022	NE	35.34	NA	NA	NA	403.19		94.1	*
3Q22		7/5/2022	NE	34.41	NA	NA	NA	404.12		8.9	*
4Q22		10/18/2022	NE	35.38	NA	NA	NA	403.15		93.3	*
MW 26											
1Q22	441.23	1/3/2022	NE	37.44	NA	NA	NA	403.79	403.08 - 393.08 (38.15 - 48.15)	0.2	*
2Q22		4/5/2022	NE	38.15	NA	NA	NA	403.08		0.0	
3Q22		NM	NM	NM	NA	NA	NA	NA		NM	Inaccessible due to parked vehicle.
4Q22		10/18/2022	NE	38.13	NA	NA	NA	403.10		0.0	*
MW 27											
1Q22	443.60	1/3/2022	NE	38.25	NA	NA	NA	405.35	403.81 - 393.81 (39.79 - 49.79)	0.2	*
2Q22		4/5/2022	NE	39.35	NA	NA	NA	404.25		0.0	*
3Q22		7/5/2022	NE	39.08	NA	NA	NA	404.52		0.0	*
4Q22		10/17/2022	NE	39.08	NA	NA	NA	404.52		0.0	*
MW 28											
1Q22	443.55	1/3/2022	NE	37.48	NA	NA	NA	406.07	409.94 - 399.94 (33.61 - 43.61)	0.1	
2Q22		4/5/2022	NE	38.45	NA	NA	NA	405.10		0.0	
3Q22		7/5/2022	NE	38.27	NA	NA	NA	405.28		0.0	
4Q22		10/17/2022	NE	38.32	NA	NA	NA	405.23		0.0	
P 01											
1Q22	442.98	1/5/2022	NE	31.32	NA	NA	NA	411.66	380.76 - 375.76 (62.22 - 67.22)	0.0	*
2Q22		4/5/2022	NE	31.60	NA	NA	NA	411.38		0.0	*
3Q22		7/7/2022	NE	32.02	NA	NA	NA	410.96		0.0	*
4Q22		10/18/2022	NE	32.34	NA	NA	NA	410.64		0.0	*
P 4U											
1Q22	442.74	1/5/2022	NE	32.32	NA	NA	NA	410.42	361.59 - 359.59 (81.15 - 83.15)	0.0	*
2Q22		4/5/2022	NE	32.90	NA	NA	NA	409.84		0.0	*
3Q22		7/6/2022	NE	33.35	NA	NA	NA	409.39		0.0	*
4Q22		10/18/2022	NE	33.69	NA	NA	NA	409.05		0.0	*
P 5L											
1Q22	444.01	1/5/2022	NE	32.25	NA	NA	NA	411.76	303.61 - 301.61 (140.40 - 142.40)	0.0	*
2Q22		4/5/2022	NE	32.74	NA	NA	NA	411.27		0.0	*
3Q22		7/6/2022	NE	33.06	NA	NA	NA	410.95		0.0	*
4Q22		10/18/2022	NE	33.69	NA	NA	NA	410.32		0.0	*
P 5U											
1Q22	444.42	1/5/2022	NE	33.44	NA	NA	NA	410.98	313.79 - 311.79 (130.63 - 132.63)	0.0	*
2Q22		4/5/2022	NE	34.02	NA	NA	NA	410.40		0.0	*
3Q22		7/6/2022	NE	34.61	NA	NA	NA	409.81		0.0	*
4Q22		10/18/2022	NE	34.94	NA	NA	NA	409.48		0.0	*
P 6U											
1Q22	443.63	1/5/2022	NE	32.95	NA	NA	NA	410.68	363.13 - 361.13 (80.50 - 82.50)	0.0	*
2Q22		4/5/2022	NE	33.53	NA	NA	NA	410.10		0.0	*
3Q22		7/6/2022	NE	34.00	NA	NA	NA	409.63		0.0	*
4Q22		10/18/2022	NE	34.44	NA	NA	NA	409.19		0.3	*
P 7U											
1Q22	444.08	1/5/2022	NE	33.15	NA	NA	NA	410.93	383.00 - 381.00 (61.08 - 63.08)	0.0	*
2Q22		4/5/2022	NE	33.75	NA	NA	NA	410.33		0.0	*
3Q22		7/6/2022	NE	34.21	NA	NA	NA	409.87		0.0	*
4Q22		10/18/2022	NE	34.68	NA	NA	NA	409.40		0.0	*

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TABLE 1
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											
1Q22	442.07	1/5/2022	NE	33.06	NA	NA	NA	409.01	382.72 - 380.72 (59.35 - 61.35)	0.0	*
2Q22		4/5/2022	NE	33.81	NA	NA	NA	408.26		0.0	*
3Q22		7/6/2022	NE	34.55	NA	NA	NA	407.52		0.0	*
4Q22		10/18/2022	NE	34.82	NA	NA	NA	407.25		0.5	*
P 9U											
1Q22	445.20	1/3/2022	NE	37.48	NA	NA	NA	407.72	344.61 - 342.61 (100.59 - 102.59)	0.0	*
2Q22		4/5/2022	NE	38.37	NA	NA	NA	406.83		0.0	*
3Q22		7/6/2022	NE	39.36	NA	NA	NA	405.84		0.0	*
4Q22		10/18/2022	NE	39.51	NA	NA	NA	405.69		0.0	*
P 11L											
1Q22	442.76	1/5/2022	NE	34.05	NA	NA	NA	408.71	332.55 - 330.55 (110.21 - 112.21)	0.0	*
2Q22		4/5/2022	NE	34.74	NA	NA	NA	408.02		0.0	*
3Q22		7/6/2022	NE	35.42	NA	NA	NA	407.34		0.0	*
4Q22		10/18/2022	NE	35.50	NA	NA	NA	407.26		0.0	*
P 11U											
1Q22	443.38	1/5/2022	NE	34.65	NA	NA	NA	408.73	343.46 - 341.46 (99.92 - 101.92)	0.0	*
2Q22		4/5/2022	NE	35.38	NA	NA	NA	408.00		0.0	*
3Q22		7/6/2022	NE	36.02	NA	NA	NA	407.36		0.0	*
4Q22		10/18/2022	NE	36.14	NA	NA	NA	407.24		0.0	*
P 14											
1Q22	443.01	1/5/2022	NE	31.40	NA	NA	NA	411.61	395.54 - 385.54 (47.47 - 57.47)	0.0	*
2Q22		4/5/2022	NE	31.69	NA	NA	NA	411.32		0.0	*
3Q22		7/19/2022	NE	32.09	NA	NA	NA	410.92		0.0	*
4Q22		10/18/2022	NE	32.41	NA	NA	NA	410.60		0.0	*
P 15											
1Q22	443.88	1/5/2022	NE	32.93	NA	NA	NA	410.95	398.43 - 388.43 (45.45 - 55.45)	0.0	*
2Q22		4/5/2022	NE	33.58	NA	NA	NA	410.30		0.0	*
3Q22		7/6/2022	NE	33.98	NA	NA	NA	409.90		0.0	*
4Q22		10/18/2022	NE	34.36	NA	NA	NA	409.52		0.0	*
P 16											
1Q22	442.84	1/5/2022	NE	31.88	NA	NA	NA	410.96	397.10 - 387.10 (45.74 - 55.74)	0.0	*
2Q22		4/5/2022	NE	32.77	NA	NA	NA	410.07		0.0	*
3Q22		7/6/2022	NE	32.86	NA	NA	NA	409.98		0.0	*
4Q22		10/18/2022	NE	33.33	NA	NA	NA	409.51		0.0	*
P 43											
1Q22	444.62	1/5/2022	NE	35.52	NA	NA	NA	409.10	381.06 - 371.06 (63.56 - 73.56)	0.0	*
2Q22		4/5/2022	NE	36.25	NA	NA	NA	408.37		0.0	*
3Q22		7/6/2022	NE	36.81	NA	NA	NA	407.81		0.0	*
4Q22		10/18/2022	NE	36.99	NA	NA	NA	407.63		0.0	*
P 53											
1Q22	446.57	1/4/2022	NE	39.57	NA	NA	NA	407.00	406.26 - 381.26 (40.31 - 65.31)	0.2	*
2Q22		4/4/2022	NE	40.63	NA	NA	NA	405.94		0.0	
3Q22		7/6/2022	NE	38.27	NA	NA	NA	408.30		0.0	*
4Q22		10/17/2022	NE	40.91	NA	NA	NA	405.66		0.0	
P 54											
1Q22	442.52	1/3/2022	NE	38.22	NA	NA	NA	404.30	404.52 - 379.52 (38.00 - 63.00)	0.0	
2Q22		4/5/2022	NE	39.06	NA	NA	NA	403.46		0.0	
3Q22		7/5/2022	NE	38.19	NA	NA	NA	404.33		0.0	
4Q22		10/17/2022	NE	38.98	NA	NA	NA	403.54		0.0	
P 55R											
1Q22	444.01	1/3/2022	37.44	37.49	406.52	406.57	0.05	406.56	403.58 - 393.58 (40.43 - 50.43)	350.1	*
2Q22		4/4/2022	39.01	39.09	404.92	405.00	0.08	404.98		209.5	*
3Q22		7/5/2022	38.60	38.69	405.32	405.41	0.09	405.39		197.6	*
4Q22		10/17/2022	38.75	38.83	405.18	405.26	0.08	405.24		146.2	*
P 56											
1Q22	446.32	1/3/2022	NE	42.69	NA	NA	NA	403.63	405.50 - 380.50 (40.82 - 65.82)	1.3	
2Q22		4/4/2022	NE	43.66	NA	NA	NA	402.66		4.8	
3Q22		7/5/2022	NE	42.88	NA	NA	NA	403.44		258.7	
4Q22		10/17/2022	NE	43.39	NA	NA	NA	402.93		123.9	

TABLE 1
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											
1Q22	447.15	1/3/2022	NE	43.52	NA	NA	NA	403.63	402.96 - 392.96 (44.19 - 54.19)	117.6	*
2Q22		4/4/2022	NE	44.30	NA	NA	NA	402.85		76.1	
3Q22		7/5/2022	NE	43.53	NA	NA	NA	403.62		125.8	*
4Q22		10/17/2022	NE	44.21	NA	NA	NA	402.94		113.2	
P 58											
1Q22	445.16	1/3/2022	NE	41.43	NA	NA	NA	403.73	404.95 - 379.95 (40.21 - 65.21)	0.1	
2Q22		4/4/2022	NE	42.10	NA	NA	NA	403.06		0.0	
3Q22		7/5/2022	NE	41.33	NA	NA	NA	403.83		2.0	
4Q22		10/17/2022	42.13	42.18	402.98	403.03	0.05	403.02		0.1	
P 59											
1Q22	447.07	1/3/2022	NE	43.42	NA	NA	NA	403.65	399.16 - 374.16 (47.91 - 72.91)	262.3	*
2Q22		4/4/2022	NE	44.52	NA	NA	NA	402.55		275.2	*
3Q22		7/5/2022	NE	43.73	NA	NA	NA	403.34		349.5	*
4Q22		10/17/2022	NE	44.18	NA	NA	NA	402.89		182.8	*
P 60											
1Q22	446.88	1/3/2022	NE	42.83	NA	NA	NA	404.05	402.23 - 382.23 (44.65 - 64.65)	14.9	*
2Q22		4/4/2022	NE	44.52	NA	NA	NA	402.36		3.5	*
3Q22		7/5/2022	NE	43.29	NA	NA	NA	403.59		0.5	*
4Q22		10/17/2022	NE	43.68	NA	NA	NA	403.20		1.4	*
P 61											
1Q22	444.66	1/4/2022	41.22	41.23	403.43	403.44	0.01	403.44	398.98 - 373.98 (45.68 - 70.68)	82.0	*
2Q22		4/4/2022	NE	42.54	NA	NA	NA	402.12		74.6	*
3Q22		7/6/2022	NE	41.94	NA	NA	NA	402.72		83.7	*
4Q22		10/17/2022	NE	42.18	NA	NA	NA	402.48		113.9	*
P 62											
1Q22	442.60	1/4/2022	38.67	38.70	403.90	403.93	0.03	403.92	401.13 - 376.13 (41.47 - 66.47)	12.0	*
2Q22		4/4/2022	39.82	39.84	402.76	402.78	0.02	402.78		22.5	*
3Q22		7/6/2022	39.53	39.55	403.05	403.07	0.02	403.07		40.9	*
4Q22		10/17/2022	39.73	39.75	402.85	402.87	0.02	402.87		67.2	*
P 63											
1Q22	446.06	1/4/2022	42.35	42.40	403.66	403.71	0.05	403.70	398.77 - 373.77 (47.29 - 72.29)	128.5	*
2Q22		4/4/2022	43.38	43.39	402.67	402.68	0.01	402.68		126.1	*
3Q22		7/8/2022	43.44	43.45	402.61	402.62	0.01	402.62		146.7	*
4Q22		10/18/2022	43.41	43.42	402.64	402.65	0.01	402.65		38.8	*
P 64											
1Q22	446.78	1/4/2022	43.45	43.46	403.32	403.33	0.01	403.33	399.55 - 374.55 (47.23 - 72.23)	22.1	*
2Q22		4/4/2022	44.54	44.60	402.18	402.24	0.06	402.23		78.3	*
3Q22		7/5/2022	44.72	44.77	402.01	402.06	0.05	402.05		134.2	*
4Q22		10/17/2022	45.03	45.09	401.69	401.75	0.06	401.74		91.6	*
P 65											
1Q22	444.77	1/4/2022	NE	41.22	NA	NA	NA	403.55	397.75 - 372.75 (47.02 - 72.02)	0.4	*
2Q22		4/4/2022	NE	42.12	NA	NA	NA	402.65		1.6	*
3Q22		7/6/2022	NE	42.12	NA	NA	NA	402.65		2.9	*
4Q22		10/17/2022	NE	42.08	NA	NA	NA	402.69		10.5	*
P 66											
1Q22	437.00	1/5/2022	NE	33.00	NA	NA	NA	404.00	402.28 - 377.28 (34.72 - 59.72)	52.5	*
2Q22		4/6/2022	33.63	34.11	402.89	403.37	0.48	403.27		240.1	*
3Q22		7/7/2022	33.00	33.01	403.99	404.00	0.01	404.00		42.6	*
4Q22		10/19/2022	33.56	34.58	402.42	403.44	1.02	403.24		103.5	*
P 67											
1Q22	444.30	1/5/2022	39.33	39.35	404.95	404.97	0.02	404.97	402.32 - 377.32 (41.98 - 66.98)	2.3	*
2Q22		4/6/2022	39.93	39.94	404.36	404.37	0.01	404.37		3.5	*
3Q22		7/7/2022	39.49	39.52	404.78	404.81	0.03	404.80		0.0	*
4Q22		10/19/2022	40.11	40.12	404.18	404.19	0.01	404.19		0.9	*
P 68											
1Q22	445.38	1/4/2022	41.16	41.17	404.21	404.22	0.01	404.22	401.62 - 376.62 (43.76 - 68.76)	171.9	*
2Q22		4/4/2022	42.46	42.54	402.84	402.92	0.08	402.90		224.0	*
3Q22		7/7/2022	41.93	42.05	403.33	403.45	0.12	403.43		396.7	*
4Q22		10/17/2022	42.24	42.28	403.10	403.14	0.04	403.13		172.8	*

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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											
1Q22	443.77	1/4/2022	NE	39.98	NA	NA	NA	403.79	402.95 - 377.95 (40.82 - 65.82)	47.1	*
2Q22		4/4/2022	NE	41.32	NA	NA	NA	402.45		0.0	
3Q22		7/6/2022	NE	40.79	NA	NA	NA	402.98		309.0	*
4Q22		10/17/2022	NE	41.03	NA	NA	NA	402.74		0.0	
P 70											
1Q22	443.11	1/4/2022	39.36	39.40	403.71	403.75	0.04	403.74	398.44 - 373.44 (44.67 - 69.67)	265.9	*
2Q22		4/4/2022	NE	40.55	NA	NA	NA	402.56		182.4	*
3Q22		7/6/2022	NE	40.20	NA	NA	NA	402.91		302.8	*
4Q22		10/17/2022	NE	40.39	NA	NA	NA	402.72		188.2	*
P 71											
1Q22	445.09	1/4/2022	NE	40.56	NA	NA	NA	404.53	402.48 - 377.48 (42.61 - 67.61)	35.4	*
2Q22		4/4/2022	NE	41.47	NA	NA	NA	403.62		1.4	*
3Q22		7/6/2022	NE	41.51	NA	NA	NA	403.58		68.7	*
4Q22		10/17/2022	NE	41.54	NA	NA	NA	403.55		71.9	*
P 72											
1Q22	444.70	1/4/2022	NE	40.36	NA	NA	NA	404.34	398.93 - 373.93 (45.77 - 70.77)	2.2	*
2Q22		4/4/2022	NE	41.22	NA	NA	NA	403.48		4.5	*
3Q22		7/6/2022	NE	40.94	NA	NA	NA	403.76		6.5	*
4Q22		10/17/2022	NE	41.21	NA	NA	NA	403.49		38.5	*
P 73											
1Q22	444.02	1/4/2022	NE	39.76	NA	NA	NA	404.26	402.42 - 377.42 (41.59 - 66.59)	16.8	*
2Q22		4/4/2022	NE	41.59	NA	NA	NA	402.43		72.5	
3Q22		7/6/2022	NE	41.70	NA	NA	NA	402.32		149.4	
4Q22		10/19/2022	NE	41.63	NA	NA	NA	402.39		150.0	
P 74											
1Q22	442.93	1/4/2022	NE	39.22	NA	NA	NA	403.71	399.10 - 374.10 (43.83 - 68.83)	0.0	*
2Q22		4/4/2022	NE	40.12	NA	NA	NA	402.81		0.0	*
3Q22		7/6/2022	NE	39.87	NA	NA	NA	403.06		0.3	*
4Q22		10/17/2022	NE	40.19	NA	NA	NA	402.74		1.1	*
P 75											
1Q22	446.68	1/5/2022	NE	43.01	NA	NA	NA	403.67	403.55 - 378.55 (43.13 - 68.13)	37.6	*
2Q22		4/6/2022	NE	43.57	NA	NA	NA	403.11		0.0	
3Q22		7/7/2022	NE	42.99	NA	NA	NA	403.69		38.5	*
4Q22		10/19/2022	NE	43.62	NA	NA	NA	403.06		0.7	
P 82A											
1Q22	434.94	1/5/2022	NE	27.03	NA	NA	NA	407.91	401.73 - 386.73 (33.21 - 48.21)	0.2	*
2Q22		4/6/2022	NE	27.64	NA	NA	NA	407.30		0.0	*
3Q22		7/6/2022	NE	27.12	NA	NA	NA	407.82		0.0	*
4Q22		10/18/2022	NE	28.10	NA	NA	NA	406.84		0.0	*
P 82B											
1Q22	434.68	1/5/2022	NE	26.86	NA	NA	NA	407.82	371.88 - 369.88 (62.80 - 64.80)	0.0	*
2Q22		4/6/2022	NE	27.36	NA	NA	NA	407.32		0.0	*
3Q22		7/6/2022	NE	26.83	NA	NA	NA	407.85		0.0	*
4Q22		10/18/2022	NE	27.82	NA	NA	NA	406.86		0.0	*
P 82C											
1Q22	434.41	1/5/2022	NE	26.56	NA	NA	NA	407.85	351.64 - 349.64 (82.77 - 84.77)	0.0	*
2Q22		4/6/2022	NE	27.06	NA	NA	NA	407.35		0.0	*
3Q22		7/6/2022	NE	26.53	NA	NA	NA	407.88		0.0	*
4Q22		10/18/2022	NE	27.55	NA	NA	NA	406.86		0.0	*
P 82D											
1Q22	435.09	1/5/2022	NE	27.35	NA	NA	NA	407.74	323.55 - 321.55 (111.54 - 113.54)	0.0	*
2Q22		4/6/2022	NE	27.82	NA	NA	NA	407.27		0.0	*
3Q22		7/6/2022	NE	27.30	NA	NA	NA	407.79		0.0	*
4Q22		10/18/2022	NE	28.32	NA	NA	NA	406.77			*
P 83A											
1Q22	445.54	1/3/2022	NE	40.08	NA	NA	NA	405.46	398.14 - 383.14 (47.40 - 62.40)	0.0	*
2Q22		4/4/2022	NE	40.93	NA	NA	NA	404.61		0.0	*
3Q22		7/5/2022	NE	41.42	NA	NA	NA	404.12		0.0	*
4Q22		10/18/2022	NE	41.46	NA	NA	NA	404.08		0.0	*

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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											
1Q22	445.77	1/3/2022	NE	40.30	NA	NA	NA	405.47	371.97 - 369.97 (73.80 - 75.80)	0.0	*
2Q22		4/4/2022	NE	41.17	NA	NA	NA	404.60		0.0	*
3Q22		7/5/2022	NE	41.70	NA	NA	NA	404.07		0.0	*
4Q22		10/18/2022	NE	41.57	NA	NA	NA	404.20		0.0	*
P 83C											
1Q22	445.95	1/3/2022	NE	40.46	NA	NA	NA	405.49	353.56 - 351.56 (92.39 - 94.39)	0.0	*
2Q22		4/4/2022	NE	41.32	NA	NA	NA	404.63		0.0	*
3Q22		7/5/2022	NE	41.84	NA	NA	NA	404.11		0.6	*
4Q22		10/18/2022	NE	41.76	NA	NA	NA	404.19		0.0	*
P 83D											
1Q22	445.86	1/3/2022	NE	40.45	NA	NA	NA	405.41	312.06 - 310.06 (133.80 - 135.80)	0.0	*
2Q22		4/4/2022	NE	41.30	NA	NA	NA	404.56		0.0	*
3Q22		7/5/2022	NE	41.80	NA	NA	NA	404.06		0.0	*
4Q22		10/18/2022	NE	41.83	NA	NA	NA	404.03		0.0	*
P 84A											
1Q22	446.63	1/4/2022	NE	40.50	NA	NA	NA	406.13	397.71 - 382.71 (48.92 - 63.92)	0.1	*
2Q22		4/4/2022	NE	41.60	NA	NA	NA	405.03		0.0	*
3Q22		7/7/2022	NE	41.62	NA	NA	NA	405.01		0.0	*
4Q22		10/18/2022	NE	41.83	NA	NA	NA	404.80		0.0	*
P 84B											
1Q22	446.35	1/4/2022	NE	40.25	NA	NA	NA	406.10	372.85 - 370.85 (73.50 - 75.50)	0.1	*
2Q22		4/5/2022	NE	41.32	NA	NA	NA	405.03		0.0	*
3Q22		7/7/2022	NE	41.36	NA	NA	NA	404.99		0.0	*
4Q22		10/18/2022	NE	41.57	NA	NA	NA	404.78		0.0	*
P 84C											
1Q22	446.37	1/4/2022	NE	40.26	NA	NA	NA	406.11	352.32 - 350.32 (94.05 - 96.05)	0.1	*
2Q22		4/5/2022	NE	41.28	NA	NA	NA	405.09		0.0	*
3Q22		7/7/2022	NE	41.36	NA	NA	NA	405.01		0.0	*
4Q22		10/18/2022	NE	41.58	NA	NA	NA	404.79		0.0	*
P 84D											
1Q22	446.38	1/4/2022	NE	40.26	NA	NA	NA	406.12	325.55 - 323.55 (120.83 - 122.83)	0.1	*
2Q22		4/5/2022	NE	41.27	NA	NA	NA	405.11		0.0	*
3Q22		7/7/2022	NE	41.38	NA	NA	NA	405.00		0.0	*
4Q22		10/18/2022	NE	41.57	NA	NA	NA	404.81		0.0	*
P 88A											
1Q22	443.27	1/4/2022	NE	32.27	NA	NA	NA	411.00	404.87 - 389.87 (38.40 - 53.40)	0.1	*
2Q22		4/6/2022	NE	33.57	NA	NA	NA	409.70		0.0	*
3Q22		7/7/2022	NE	33.11	NA	NA	NA	410.16		0.0	*
4Q22		10/19/2022	NE	33.61	NA	NA	NA	409.66		0.0	*
P 88B											
1Q22	443.35	1/4/2022	NE	32.33	NA	NA	NA	411.02	371.70 - 369.70 (71.65 - 73.65)	0.1	*
2Q22		4/6/2022	NE	33.62	NA	NA	NA	409.73		0.0	*
3Q22		7/7/2022	NE	33.16	NA	NA	NA	410.19		0.0	*
4Q22		10/19/2022	NE	33.66	NA	NA	NA	409.69		0.0	*
P 88C											
1Q22	443.31	1/4/2022	NE	32.27	NA	NA	NA	411.04	351.01 - 349.01 (92.30 - 94.30)	0.0	*
2Q22		4/6/2022	NE	33.56	NA	NA	NA	409.75		0.0	*
3Q22		7/7/2022	NE	33.13	NA	NA	NA	410.18		0.0	*
4Q22		10/19/2022	NE	33.61	NA	NA	NA	409.70		0.0	*
P 88D											
1Q22	443.38	1/4/2022	NE	32.42	NA	NA	NA	410.96	331.21 - 329.21 (112.17 - 114.17)	0.1	*
2Q22		4/6/2022	NE	33.69	NA	NA	NA	409.69		0.0	*
3Q22		7/7/2022	NE	33.23	NA	NA	NA	410.15		0.0	*
4Q22		10/19/2022	NE	33.74	NA	NA	NA	409.64		0.0	*
P 89B											
1Q22	447.64	1/5/2022	NE	40.52	NA	NA	NA	407.12	370.28 - 368.28 (77.36 - 79.36)	0.0	*
2Q22		4/5/2022	NE	41.28	NA	NA	NA	406.36		0.0	*
3Q22		7/6/2022	NE	42.29	NA	NA	NA	405.35		0.0	*
4Q22		10/18/2022	NE	42.33	NA	NA	NA	405.31		0.0	*

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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											
1Q22	447.96	1/5/2022	NE	40.84	NA	NA	NA	407.12	351.56 - 349.56 (96.40 - 98.40)	0.0	*
2Q22		4/5/2022	NE	41.61	NA	NA	NA	406.35		0.0	*
3Q22		7/6/2022	NE	42.72	NA	NA	NA	405.24		0.0	*
4Q22		10/18/2022	NE	42.68	NA	NA	NA	405.28		0.0	*
P 89D											
1Q22	447.83	1/5/2022	NE	40.85	NA	NA	NA	406.98	309.33 - 307.33 (138.50 - 140.50)	0.0	*
2Q22		4/5/2022	NE	41.58	NA	NA	NA	406.25		0.0	*
3Q22		7/6/2022	NE	42.84	NA	NA	NA	404.99		0.0	*
4Q22		10/18/2022	NE	42.78	NA	NA	NA	405.05		0.0	*
P 91A											
1Q22	447.43	1/4/2022	44.66	44.67	402.76	402.77	0.01	402.77	395.92 - 380.92 (51.51 - 66.51)	7.7	*
2Q22		4/5/2022	NE	45.85	NA	NA	NA	401.58		177.6	*
3Q22		7/5/2022	NE	46.26	NA	NA	NA	401.17		6.6	*
4Q22		10/18/2022	NE	45.72	NA	NA	NA	401.71		16.3	*
P 91B											
1Q22	447.47	1/4/2022	NE	44.79	NA	NA	NA	402.68	372.78 - 370.78 (74.69 - 76.69)	0.0	*
2Q22		4/5/2022	NE	45.97	NA	NA	NA	401.50		6.0	*
3Q22		7/5/2022	NE	46.35	NA	NA	NA	401.12		1.8	*
4Q22		10/18/2022	NE	45.77	NA	NA	NA	401.70		10.0	*
P 91C											
1Q22	447.27	1/4/2022	NE	44.51	NA	NA	NA	402.76	352.54 - 350.54 (94.73 - 96.73)	0.0	*
2Q22		4/5/2022	NE	45.71	NA	NA	NA	401.56		0.7	*
3Q22		7/5/2022	NE	46.11	NA	NA	NA	401.16		0.0	*
4Q22		10/18/2022	NE	45.54	NA	NA	NA	401.73		0.0	*
P 91D											
1Q22	447.26	1/4/2022	NE	44.52	NA	NA	NA	402.74	278.94 - 276.94 (168.32 - 170.32)	0.0	*
2Q22		4/5/2022	NE	45.71	NA	NA	NA	401.55		8.2	*
3Q22		7/5/2022	NE	46.12	NA	NA	NA	401.14		0.0	*
4Q22		10/18/2022	NE	45.56	NA	NA	NA	401.70		0.0	*
P 92A											
1Q22	446.39	1/4/2022	43.05	43.10	403.29	403.34	0.05	403.33	398.82 - 383.82 (47.57 - 62.57)	49.3	*
2Q22		4/4/2022	NE	44.08	NA	NA	NA	402.31		28.0	*
3Q22		7/5/2022	42.21	42.22	404.17	404.18	0.01	404.18		72.0	*
4Q22		10/17/2022	44.04	44.20	402.19	402.35	0.16	402.32		64.1	*
P 92B											
1Q22	446.33	1/4/2022	NE	42.97	NA	NA	NA	403.36	371.92 - 369.92 (74.41 - 76.41)	0.0	*
2Q22		4/4/2022	NE	44.01	NA	NA	NA	402.32		0.0	*
3Q22		7/5/2022	NE	44.11	NA	NA	NA	402.22		0.0	*
4Q22		10/17/2022	NE	43.98	NA	NA	NA	402.35		0.0	*
P 92C											
1Q22	446.34	1/4/2022	NE	42.97	NA	NA	NA	403.37	353.38 - 348.38 (92.96 - 97.96)	0.0	*
2Q22		4/4/2022	NE	43.99	NA	NA	NA	402.35		0.0	*
3Q22		7/5/2022	NE	42.88	NA	NA	NA	403.46		0.6	*
4Q22		10/17/2022	NE	43.97	NA	NA	NA	402.37		0.0	*
P 92D											
1Q22	446.15	1/4/2022	NE	42.87	NA	NA	NA	403.28	305.15 - 303.15 (141.00 - 143.00)	0.0	*
2Q22		4/4/2022	NE	43.87	NA	NA	NA	402.28		0.0	*
3Q22		7/5/2022	NE	44.03	NA	NA	NA	402.12		0.0	*
4Q22		10/17/2022	NE	43.84	NA	NA	NA	402.31		0.0	*
P 93A											
1Q22	445.37	1/3/2022	NE	41.79	NA	NA	NA	403.58	402.30 - 392.30 (43.07 - 53.07)	0.0	*
2Q22		4/4/2022	NE	42.47	NA	NA	NA	402.90		0.0	*
3Q22		7/5/2022	NE	41.68	NA	NA	NA	403.69		0.0	*
4Q22		10/17/2022	NE	42.40	NA	NA	NA	402.97		0.0	*
P 93B											
1Q22	446.70	1/3/2022	NE	43.06	NA	NA	NA	403.64	371.92 - 369.92 (74.78 - 76.78)	0.0	*
2Q22		4/4/2022	NE	43.80	NA	NA	NA	402.90		0.0	*
3Q22		7/5/2022	NE	43.05	NA	NA	NA	403.65		0.0	*
4Q22		10/17/2022	NE	43.75	NA	NA	NA	402.95		0.1	*

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TABLE 1
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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											
1Q22	446.55	1/3/2022	NE	42.90	NA	NA	NA	403.65	353.67 - 348.67 (92.88 - 97.88)	0.0	*
2Q22		4/4/2022	NE	43.83	NA	NA	NA	402.72		0.0	*
3Q22		7/5/2022	NE	42.88	NA	NA	NA	403.67		0.0	*
4Q22		10/17/2022	NE	43.58	NA	NA	NA	402.97		0.0	*
P 93D											
1Q22	446.97	1/3/2022	NE	43.28	NA	NA	NA	403.69	321.31 - 319.31 (125.66 - 127.66)	0.0	*
2Q22		4/4/2022	NE	44.03	NA	NA	NA	402.94		0.0	*
3Q22		7/5/2022	NE	43.23	NA	NA	NA	403.74		0.0	*
4Q22		10/17/2022	NE	43.93	NA	NA	NA	403.04		0.1	*
P 94											
1Q22	445.04	1/3/2022	NE	36.49	NA	NA	NA	408.55	398.80 - 383.80 (46.24 - 61.24)	0.0	*
2Q22		4/4/2022	NE	37.36	NA	NA	NA	407.68		0.0	*
3Q22		7/5/2022	NE	38.02	NA	NA	NA	407.02		0.0	*
4Q22		10/18/2022	NE	38.35	NA	NA	NA	406.69		0.0	*
P 95											
1Q22	443.95	1/4/2022	NE	30.18	NA	NA	NA	413.77	407.43 - 392.43 (36.52 - 51.52)	0.1	*
2Q22		4/6/2022	NE	31.64	NA	NA	NA	412.31		0.0	*
3Q22		7/7/2022	NE	31.24	NA	NA	NA	412.71		0.0	*
4Q22		10/19/2022	NE	31.61	NA	NA	NA	412.34		0.0	*
P 102											
1Q22	445.14	1/5/2022	NE	34.26	NA	NA	NA	410.88	402.39 - 382.39 (42.75 - 62.75)	1.1	*
2Q22		4/6/2022	NE	35.36	NA	NA	NA	409.78		1.7	*
3Q22		7/7/2022	NE	35.20	NA	NA	NA	409.94		2.5	*
4Q22		10/19/2022	NE	35.29	NA	NA	NA	409.85		10.0	*
P 114R											
1Q22	429.48	1/4/2022	NE	24.88	NA	NA	NA	404.60	406.47 - 396.47 (23.01 - 33.01)	10.8	
2Q22		4/5/2022	NE	25.48	NA	NA	NA	404.00		48.4	
3Q22		7/6/2022	NE	24.25	NA	NA	NA	405.23		6.2	
4Q22		10/18/2022	NE	25.94	NA	NA	NA	403.54		0.0	
P 115											
1Q22	433.54	1/4/2022	NE	28.97	NA	NA	NA	404.57	401.24 - 381.24 (32.30 - 52.30)	0.1	*
2Q22		4/5/2022	NE	29.41	NA	NA	NA	404.13		0.0	*
3Q22		7/6/2022	NE	28.16	NA	NA	NA	405.38		0.0	*
4Q22		10/18/2022	NE	29.96	NA	NA	NA	403.58		0.0	*
P 116											
1Q22	436.79	1/4/2022	NE	32.44	NA	NA	NA	404.35	399.35 - 379.35 (37.44 - 57.44)	0.1	*
2Q22		4/5/2022	NE	32.81	NA	NA	NA	403.98		0.0	*
3Q22		7/6/2022	NE	31.51	NA	NA	NA	405.28		0.0	*
4Q22		10/18/2022	NE	33.43	NA	NA	NA	403.36		0.0	*
P 117											
1Q22	432.87	1/4/2022	NE	28.69	NA	NA	NA	404.18	399.94 - 379.94 (32.93 - 52.93)	0.1	*
2Q22		4/5/2022	NE	29.03	NA	NA	NA	403.84		0.0	*
3Q22		7/6/2022	NE	27.67	NA	NA	NA	405.20		0.0	*
4Q22		10/18/2022	NE	29.68	NA	NA	NA	403.19		0.0	*
P 118											
1Q22	431.48	1/4/2022	NE	27.66	NA	NA	NA	403.82	400.36 - 384.43 (31.12 - 47.05)	0.0	*
2Q22		4/5/2022	NE	27.74	NA	NA	NA	403.74		0.0	*
3Q22		7/6/2022	NE	26.39	NA	NA	NA	405.09		0.0	*
4Q22		10/18/2022	NE	28.73	NA	NA	NA	402.75		0.0	*
P 119											
1Q22	432.11	1/4/2022	NE	27.03	NA	NA	NA	405.08	401.44 - 385.51 (30.67 - 46.60)	0.1	*
2Q22		4/5/2022	NE	27.78	NA	NA	NA	404.33		0.0	*
3Q22		7/6/2022	NE	26.94	NA	NA	NA	405.17		0.0	*
4Q22		10/18/2022	NE	28.20	NA	NA	NA	403.91		0.0	*
P 120											
1Q22	433.00	1/4/2022	NE	27.58	NA	NA	NA	405.42	401.62 - 385.69 (31.38 - 47.31)	0.0	*
2Q22		4/5/2022	NE	27.99	NA	NA	NA	405.01		0.0	*
3Q22		7/6/2022	NE	27.09	NA	NA	NA	405.91		0.0	*
4Q22		10/18/2022	NE	28.63	NA	NA	NA	404.37		0.0	*

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P 129											
1Q22	432.66	1/4/2022	NE	30.12	NA	NA	NA	402.54	400.69 - 384.76 (31.97 - 47.90)	0.0	*
2Q22		4/5/2022	NE	29.36	NA	NA	NA	403.30		0.0	*
3Q22		7/6/2022	NE	28.23	NA	NA	NA	404.43		0.0	*
4Q22		10/18/2022	NE	31.28	NA	NA	NA	401.38		0.0	*
ROST 3 MW											
1Q22	442.52	1/3/2022	NE	38.10	NA	NA	NA	404.42	404.71 - 394.71 (37.81 - 47.81)	0.0	
2Q22		4/5/2022	NE	39.12	NA	NA	NA	403.40		31.5	
3Q22		7/5/2022	NE	38.43	NA	NA	NA	404.09		75.6	
4Q22		10/17/2022	NE	38.93	NA	NA	NA	403.59		8.8	
ROST 4 PZ											
1Q22	442.15	1/3/2022	NE	37.27	NA	NA	NA	404.88	407.22 - 397.22 (34.93 - 44.93)	0.2	
2Q22		4/4/2022	NE	38.21	NA	NA	NA	403.94		0.0	
3Q22		7/5/2022	NE	37.93	NA	NA	NA	404.22		0.0	
4Q22		10/17/2022	NE	37.93	NA	NA	NA	404.22		0.0	
ROST 4 PZ(A)											
1Q22	442.15	1/3/2022	NE	36.34	NA	NA	NA	405.81	407.38 - 397.38 (34.77 - 44.77)	0.0	
2Q22		4/4/2022	NE	37.36	NA	NA	NA	404.79		0.0	
3Q22		7/5/2022	NE	36.96	NA	NA	NA	405.19		0.0	
4Q22		10/17/2022	NE	36.75	NA	NA	NA	405.40		0.0	
ROST 4 PZ(B)											
1Q22	442.40	1/3/2022	NE	37.10	NA	NA	NA	405.30	407.35 - 397.35 (35.05 - 45.05)	0.0	
2Q22		4/4/2022	NE	38.22	NA	NA	NA	404.18		0.0	
3Q22		7/5/2022	NE	37.89	NA	NA	NA	404.51		0.0	
4Q22		10/17/2022	NE	37.75	NA	NA	NA	404.65		0.0	
ROST 4 PZ(C)											
1Q22	442.97	1/3/2022	NE	38.13	NA	NA	NA	404.84	408.02 - 398.02 (34.95 - 44.95)	0.1	
2Q22		4/5/2022	NE	39.17	NA	NA	NA	403.80		0.0	
3Q22		7/5/2022	NE	38.81	NA	NA	NA	404.16		0.0	
4Q22		10/18/2022	NE	39.03	NA	NA	NA	403.94		0.0	
ROST 4 PZ(D)											
1Q22	442.92	1/3/2022	NE	38.03	NA	NA	NA	404.89	407.95 - 397.95 (34.97 - 44.97)	0.8	
2Q22		4/5/2022	NE	38.96	NA	NA	NA	403.96		0.0	
3Q22		7/5/2022	NE	38.65	NA	NA	NA	404.27		0.0	
4Q22		10/17/2022	NE	38.77	NA	NA	NA	404.15		0.0	
ROST 4 PZ(E)											
1Q22	441.98	1/3/2022	37.20	37.21	404.77	404.78	0.01	404.78	407.23 - 397.23 (34.75 - 44.75)	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	
3Q22		7/5/2022	NE	37.82	NA	NA	NA	404.16		0.0	
4Q22		10/17/2022	NE	37.95	NA	NA	NA	404.03		0.0	
ROST 4 PZ(F)											
1Q22	442.12	1/3/2022	NE	37.40	NA	NA	NA	404.72	407.59 - 397.59 (34.53 - 44.53)	0.0	
2Q22		4/4/2022	NE	39.41	NA	NA	NA	402.71		0.0	
3Q22		7/5/2022	NE	38.09	NA	NA	NA	404.03		0.0	
4Q22		10/17/2022	NE	38.09	NA	NA	NA	404.03		0.0	
ROST 4 PZ(G)											
1Q22	442.20	1/3/2022	NE	38.15	NA	NA	NA	404.05	407.92 - 397.92 (34.28 - 44.28)	308.5	
2Q22		4/5/2022	NE	39.16	NA	NA	NA	403.04		50.3	
3Q22		7/5/2022	NE	38.46	NA	NA	NA	403.74		0.0	
4Q22		10/17/2022	NE	38.68	NA	NA	NA	403.52		0.0	
S 1											
1Q22	444.06	1/4/2022	40.26	40.28	403.78	403.80	0.02	403.80	Unknown	61.7	
2Q22		4/4/2022	41.24	41.25	402.81	402.82	0.01	402.82		141.5	
3Q22		7/6/2022	41.02	41.06	403.00	403.04	0.04	403.03		156.6	
4Q22		10/17/2022	41.23	41.30	402.76	402.83	0.07	402.82		123.4	
T 1											
1Q22	445.61	1/3/2022	NE	40.57	NA	NA	NA	405.04	398.61 - 388.61 (47.00 - 57.00)	0.0	
2Q22		4/4/2022	NE	41.55	NA	NA	NA	404.06		0.0	
3Q22		7/5/2022	NE	41.22	NA	NA	NA	404.39		0.3	
4Q22		10/17/2022	NE	41.58	NA	NA	NA	404.03		0.1	

TABLE 1
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											
1Q22	443.40	1/4/2022	NE	38.56	NA	NA	NA	404.84	392.90 - 372.75 (50.49 - 70.64)	0.0	
2Q22		4/4/2022	NE	39.61	NA	NA	NA	403.79		0.0	
3Q22		7/5/2022	NE	39.63	NA	NA	NA	403.77		0.0	
4Q22		10/17/2022	NE	39.73	NA	NA	NA	403.67		0.1	
T 3											
1Q22	449.21	1/3/2022	NE	45.76	NA	NA	NA	403.45	403.99 - 388.99 (45.22 - 60.22)	0.2	
2Q22		4/4/2022	NE	46.57	NA	NA	NA	402.64		0.0	
3Q22		7/5/2022	NE	46.76	NA	NA	NA	402.45		0.0	
4Q22		10/18/2022	NE	46.50	NA	NA	NA	402.71		0.1	
T 4											
1Q22	446.82	1/4/2022	NE	43.86	NA	NA	NA	402.96	396.80 - 381.80 (50.02 - 65.02)	0.0	
2Q22		4/5/2022	NE	44.70	NA	NA	NA	402.12		0.0	
3Q22		7/5/2022	NE	46.23	NA	NA	NA	400.59		0.0	
4Q22		10/18/2022	NE	45.82	NA	NA	NA	401.00		0.1	
T 5											
1Q22	443.66	1/4/2022	NE	39.37	NA	NA	NA	404.29	395.33 - 378.78 (48.33 - 64.88)	1.0	
2Q22		4/4/2022	NE	40.30	NA	NA	NA	403.36		2.5	
3Q22		7/6/2022	NE	40.22	NA	NA	NA	403.44		16.8	
4Q22		10/17/2022	NE	40.32	NA	NA	NA	403.34		0.0	
T 6											
1Q22	446.78	1/3/2022	NE	43.22	NA	NA	NA	403.56	394.27 - 380.02 (52.51 - 66.76)	0.2	
2Q22		4/4/2022	NE	43.97	NA	NA	NA	402.81		1.4	
3Q22		7/5/2022	NE	43.23	NA	NA	NA	403.55		0.0	
4Q22		10/17/2022	NE	43.87	NA	NA	NA	402.91		1.5	
T 7											
1Q22	444.26	1/6/2022	NE	39.26	NA	NA	NA	405.00	395.54 - 380.54 (48.72 - 63.72)	2.0	
2Q22		4/6/2022	NE	39.92	NA	NA	NA	404.34		2.1	
3Q22		7/7/2022	NE	39.44	NA	NA	NA	404.82		0.0	
4Q22		10/19/2022	NE	40.11	NA	NA	NA	404.15		2.3	
T 12											
1Q22	444.99	1/3/2022	NE	41.99	NA	NA	NA	403.00	398.16 - 372.16 (46.83 - 72.83)	3.5	
2Q22		4/4/2022	NE	42.39	NA	NA	NA	402.60		3.1	
3Q22		7/5/2022	NE	41.64	NA	NA	NA	403.35		5.7	
4Q22		10/17/2022	NE	42.03	NA	NA	NA	402.96		0.2	
T 13											
1Q22	443.76	1/3/2022	NE	38.78	NA	NA	NA	404.98	399.95 - 373.95 (43.81 - 69.81)	0.0	
2Q22		4/4/2022	NE	39.41	NA	NA	NA	404.35		0.0	
3Q22		7/5/2022	NE	39.10	NA	NA	NA	404.66		0.0	
4Q22		10/17/2022	NE	39.51	NA	NA	NA	404.25		0.0	
T 15											
1Q22	445.35	1/4/2022	NE	40.31	NA	NA	NA	405.04	396.95 - 370.95 (48.40 - 74.40)	0.0	
2Q22		4/4/2022	NE	41.35	NA	NA	NA	404.00		0.0	
3Q22		7/5/2022	NE	41.55	NA	NA	NA	403.80		0.0	
4Q22		10/18/2022	NE	41.64	NA	NA	NA	403.71		0.1	
T 17											
1Q22	446.19	1/3/2022	NE	39.53	NA	NA	NA	406.66	401.72 - 375.72 (44.47 - 70.47)	0.2	
2Q22		4/4/2022	NE	40.34	NA	NA	NA	405.85		0.0	
3Q22		7/5/2022	NE	41.28	NA	NA	NA	404.91		0.0	
4Q22		10/18/2022	NE	41.47	NA	NA	NA	404.72		0.4	
T 19											
1Q22	446.99	1/4/2022	NE	43.91	NA	NA	NA	403.08	396.22 - 370.22 (50.77 - 76.77)	2.3	
2Q22		4/5/2022	NE	44.74	NA	NA	NA	402.25		8.5	
3Q22		7/5/2022	NE	46.22	NA	NA	NA	400.77		33.8	
4Q22		10/18/2022	NE	45.82	NA	NA	NA	401.17		8.4	
T 21											
1Q22	444.22	1/5/2022	NE	30.91	NA	NA	NA	413.31	412.26 - 386.26 (31.96 - 57.96)	0.5	
2Q22		4/6/2022	NE	31.91	NA	NA	NA	412.31		0.0	
3Q22		7/7/2022	NE	31.56	NA	NA	NA	412.66		0.0	
4Q22		10/19/2022	NE	31.90	NA	NA	NA	412.32		0.0	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 1
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											
1Q22	442.37	1/5/2022	NE	32.83	NA	NA	NA	409.54	410.82 - 385.12 (31.55 - 57.25)	0.2	
2Q22		4/6/2022	NE	33.47	NA	NA	NA	408.90		0.0	
3Q22		7/7/2022	NE	32.87	NA	NA	NA	409.50		0.0	
4Q22		10/19/2022	NE	33.62	NA	NA	NA	408.75		0.0	
T 23											
1Q22	432.90	1/5/2022	NE	25.92	NA	NA	NA	406.98	405.67 - 379.67 (27.23 - 53.23)	0.0	
2Q22		4/6/2022	NE	26.05	NA	NA	NA	406.85		0.0	
3Q22		7/7/2022	NE	25.51	NA	NA	NA	407.39		0.0	
4Q22		10/18/2022	NE	26.57	NA	NA	NA	406.33		0.0	
T 24											
1Q22	444.00	1/4/2022	39.94	39.99	404.01	404.06	0.05	404.05	402.50 - 376.85 (41.50 - 67.15)	16.8	
2Q22		4/4/2022	41.11	41.24	402.76	402.89	0.13	402.86		0.0	
3Q22		7/6/2022	NE	40.93	NA	NA	NA	403.07		16.4	
4Q22		10/17/2022	NE	41.13	NA	NA	NA	402.87		0.2	
T 28											
1Q22	444.56	1/3/2022	NE	39.14	NA	NA	NA	405.42	Uknown	0.0	
2Q22		4/4/2022	NE	39.94	NA	NA	NA	404.62		0.0	
3Q22		7/5/2022	NE	40.64	NA	NA	NA	403.92		0.0	
4Q22		10/18/2022	NE	40.66	NA	NA	NA	403.90		0.1	
T 37											
1Q22	447.44	1/5/2022	NE	40.36	NA	NA	NA	407.08	398.58 - 378.58 (48.85 - 68.85)	0.0	
2Q22		4/5/2022	NE	41.10	NA	NA	NA	406.34		0.0	
3Q22		7/6/2022	NE	42.24	NA	NA	NA	405.20		0.0	
4Q22		10/18/2022	NE	42.20	NA	NA	NA	405.24		0.0	
T 38											
1Q22	445.89	1/5/2022	NE	37.73	NA	NA	NA	408.16	396.75 - 376.75 (49.14 - 69.14)	0.0	
2Q22		4/5/2022	NE	38.39	NA	NA	NA	407.50		0.0	
3Q22		7/6/2022	NE	38.67	NA	NA	NA	407.22		0.0	
4Q22		10/18/2022	NE	38.49	NA	NA	NA	407.40		0.1	
T 62											
1Q22	432.16	1/4/2022	NE	27.02	NA	NA	NA	405.14	412.45 - 382.45 (19.71 - 49.71)	0.1	
2Q22		4/5/2022	NE	27.72	NA	NA	NA	404.44		0.0	
3Q22		7/6/2022	NE	26.57	NA	NA	NA	405.59		0.0	
4Q22		10/18/2022	NE	28.19	NA	NA	NA	403.97		0.0	
T 63											
1Q22	431.55	1/4/2022	NE	26.79	NA	NA	NA	404.76	411.57 - 381.57 (19.98 - 49.98)	0.1	
2Q22		4/5/2022	NE	27.32	NA	NA	NA	404.23		0.0	
3Q22		7/6/2022	NE	26.02	NA	NA	NA	405.53		0.0	
4Q22		10/18/2022	NE	27.88	NA	NA	NA	403.67		0.0	
T 64											
1Q22	429.10	1/4/2022	NE	24.94	NA	NA	NA	404.16	409.29 - 379.29 (19.81 - 49.81)	0.0	
2Q22		4/5/2022	NE	35.12	NA	NA	NA	393.98		0.0	
3Q22		7/6/2022	NE	23.67	NA	NA	NA	405.43		0.0	
4Q22		10/18/2022	NE	26.00	NA	NA	NA	403.10		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 mil ion; NA Not App icable; 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 Vi lage of Roxana Interim Groundwater Monitoring Program and the WRB Refining LP Wood River Refinery Program.

7) The screened interval for certain monitoring we ls 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 Perm t Condition IV.J.9, which requires we ls be surveyed every five (5) years.

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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							
1Q22	6.85	16.22	0.942	9.52	0.96	122 51	
2Q22	6.78	17.10	1.013	24 80	0.37	58.20	
3Q22	6.98	21.61	1.042	30 53	0.51	20.50	
4Q22	6.90	18.15	0.966	4.54	0.63	45.45	
MW-02							
1Q22	7.14	16.07	1.003	10 30	0.46	-129.15	
2Q22	7.15	16.37	1.021	4.61	0.20	-123.16	
3Q22	7.13	21.56	0.968	2.87	0.40	-140 56	
4Q22	7.16	18.23	0.824	6.14	0.64	-50.56	
MW-03							
1Q22	6.84	15.94	1.347	1.19	0.44	-135 38	
2Q22	6.69	16.73	1.492	3.69	0.18	-56.84	
3Q22	6.68	20.37	1.461	3.56	0.34	-137.78	
4Q22	6.61	18.73	1.293	0.00	0.53	-72.66	
MW-04							
1Q22	6.79	16.13	0.961	17 03	0.70	-53.01	
2Q22	6.54	15.38	1.134	15 23	0.37	103.15	
3Q22	6.72	20.57	1.172	22.16	0.34	-103 54	
4Q22	6.86	18.56	1.116	2.82	0.49	-38.50	
MW-05							
1Q22	6.94	16.46	1.190	2.53	0.47	-144.40	
2Q22	6.67	17.80	1.134	5.26	0.28	35.70	
3Q22	6.70	20.59	1.126	9.98	1.01	-100 89	
4Q22	6.65	17.68	0.984	6.49	0.69	-72.15	
MW-06A							
1Q22	6.80	18.30	1.196	33 24	0.44	-121.18	
2Q22	6.52	18.20	1.189	29 00	0.16	-67.65	
3Q22	6.80	22.51	0.956	32 29	1.02	-72.90	
4Q22	6.78	20.87	1.066	40 67	0.35	-97.21	
MW-06B							
1Q22	7.06	16.20	0.794	2.89	0.53	-106 57	
2Q22	7.06	17.59	0.832	7.91	0.37	-61.84	
3Q22	7.14	21.72	0.763	8.30	0.91	-96.07	
4Q22	7.04	20.33	0.773	5.61	0.65	-76.49	
MW-06C							
1Q22	7.24	14.31	0.655	8.62	2.79	83.93	
2Q22	7.08	17.24	0.761	3.11	0.37	-70.82	
3Q22	7.12	21.07	0.766	1.92	0.88	-111 88	
4Q22	7.01	19.10	0.779	-0.10	0.59	-86.89	
MW-06D							
1Q22	7.09	15.04	1.056	27.13	2.43	97.47	
2Q22	6.91	17.36	1.314	10 87	0.19	-62.08	
3Q22	7.00	20.22	0.993	33.11	0.84	-98.35	
4Q22	6.91	18.55	0.952	14 02	0.57	-60.22	

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							
1Q22	6.72	16.49	1.216	12.14	0.64	-59.61	
2Q22	6.78	17.66	1.470	5.16	0.27	15.97	
3Q22	6.78	22.51	1.296	7.48	0.32	-75.06	
4Q22	6.65	18.66	1.299	-0.59	0.51	-29.52	
MW-08							
1Q22	6.83	16.57	1.255	7.91	0.71	-133 91	
2Q22	6.81	16.77	1.409	11 56	0.27	2 98	
3Q22	6.86	22.25	1.393	4.69	0.32	-145 30	
4Q22	6.74	18.47	1.433	15.48	0.51	-78.14	
MW-09							
1Q22	6.84	14.57	1.142	16 63	0.72	-67.71	
2Q22	6.71	17.31	1.300	18 85	2.58	84.94	
3Q22	6.58	20.08	1.102	6.32	0.44	-61.82	
4Q22	6.77	17.95	1.031	-0.35	0.63	-49.17	
MW-10							
1Q22	6.99	18.01	1.365	47.48	0.67	-105 64	
2Q22	6.96	17.28	1.494	37 26	0.25	-83.61	
3Q22	6.94	21.40	2.106	31.71	0.45	-138 37	
4Q22	6.84	18.88	1.875	35 09	0.48	-23.18	
MW-11							
1Q22	6.84	14.59	1.437	48 34	0.72	-53.38	
2Q22	6.83	16.48	1.493	6.97	2.70	78.04	
3Q22	6.70	20.08	1.615	13 33	0.41	-91.02	
4Q22	6.54	16.18	1.328	13 53	0.66	-23.09	
MW-12							
1Q22	6.97	17.06	0.859	16.40	0.84	109 64	
2Q22	6.97	16.99	0.912	7.53	0.34	2 67	
3Q22	7.03	21.12	0.937	8.62	0.45	74.63	
4Q22	6.57	17.18	0.865	1.29	0.68	115 08	
MW-13							
1Q22	6.70	17.90	1.206	49 63	0.57	-124 82	
2Q22	6.42	19.12	1.233	32.49	0.21	-19.73	
3Q22	6.59	23.85	1.009	19 63	0.14	-125.76	
4Q22	6.47	20.99	1.430	19.40	0.50	-92.33	
MW-14							
1Q22	6.71	17.08	1.202	17 96	0.71	52.25	
2Q22	6.63	15.60	1.225	37.70	0.20	-33.82	
3Q22	6.67	20.80	1.197	36 29	0.66	-84.68	
4Q22	6.71	19.39	1.121	22.72	0.58	-56.63	
MW-16							
1Q22	6.85	15.29	0.803	34 63	0.85	-57.39	
2Q22	6.72	16.29	0.900	8.48	0.40	14.36	
3Q22	6.73	21.08	0.873	25 62	0.63	-14.60	
4Q22	6.72	17.28	0.861	19 96	0.66	43.10	

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							
1Q22	6.98	15.75	1.289	7.46	0.57	-52.73	
2Q22	6.97	17.69	1.195	4.68	0.29	3.12	
3Q22	6.99	22.75	1.064	9.92	0.45	-104 09	
4Q22	6.77	18.11	0.938	12.41	0.64	-21.70	
MW-23							
1Q22	6.50	16.07	0.985	32 59	0.74	-76.25	
2Q22	6.62	17.31	0.959	16 34	0.28	-22.28	
3Q22	6.53	21.70	1.057	11 65	0.36	-99.86	
4Q22	6.47	18.42	1.073	39 89	0.59	-39.10	
MW-24							
1Q22	6.92	15.79	1.221	29 33	1.01	13.74	
2Q22	7.00	17.53	1.627	10 06	2.67	87.73	
3Q22	6.62	19.35	1.618	4.61	0.38	140 04	
4Q22	6.93	18.29	1.606	9.66	0.99	39.40	
MW-25							
1Q22	6.90	17.03	1.022	10 55	0.72	-96.78	
2Q22	6.82	17.47	1.217	42 28	0.18	21.78	
3Q22	6.91	22.57	1.087	13 94	0.38	-129 92	
4Q22	6.88	19.14	1.040	11 01	0.56	-63.06	
MW-26							
1Q22	6.70	15.13	1.528	12 68	0.58	127 21	
2Q22	6.76	16.94	1.580	23 64	0.41	19.46	
3Q22	6.58	20.50	1.311	1.06	0.93	127 26	
4Q22	6.73	18.53	1.217	7.84	0.72	23.86	
MW-27							
1Q22	6.91	16.99	0.810	39.42	1.61	104 52	
2Q22	6.87	15.29	0.933	14.72	0.80	25.59	
3Q22	6.77	19.72	0.857	11.48	1.72	38.15	
4Q22	6.78	17.67	0.784	46 38	1.07	53.80	
MW-28							
1Q22	6.74	17.92	1.150	36.79	0.52	-53.21	
2Q22	6.65	17.30	1.129	20 21	0.28	48.40	
3Q22	6.73	21.17	1.124	29.48	0.34	-53.55	
4Q22	6.56	17.88	1.015	32.16	0.65	28.49	
P-114R							
1Q22	6.78	19.93	0.934	45 55	0.55	-133 03	
2Q22	6.70	20.16	1.155	32 51	0.17	-80.19	
3Q22	6.51	25.54	0.893	39 65	0.40	-142.13	
4Q22	6.67	22.20	0.989	25 58	0.39	-99.55	
P-54							
1Q22	6.82	13.91	1.367	1.97	2.87	194 52	
2Q22	6.85	13.38	1.367	6.22	2.03	65.18	
3Q22	6.75	21.62	1.067	9.35	2.31	81.89	
4Q22	6.60	16.71	1.022	12 21	5.08	151 35	

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-55R							
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.
3Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-56							
1Q22	7.02	17.70	1.092	5.85	0.43	-144 60	
2Q22	7.03	17.98	1.097	16.10	0.48	-140 91	
3Q22	7.12	23.09	1.053	9.59	0.28	-129 54	
4Q22	7.20	20.80	1.056	1.71	0.66	-56.35	
P-57							
1Q22	7.01	16.18	1.106	6.75	0.79	-51.21	
2Q22	6.88	18.30	1.067	2.39	0.27	-65.41	
3Q22	6.85	22.10	1.104	0.47	0.43	-134 50	
4Q22	6.96	19.30	0.936	1.02	0.31	-127.10	
P-58							
1Q22	6.83	18.70	1.382	17 01	0.41	-141 30	
2Q22	6.68	18.82	1.434	16 04	0.23	-29.06	
3Q22	6.72	23.15	1.448	43 98	0.17	-148 08	
4Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-59							
1Q22	6.53	19.20	1.397	2.21	0.45	-120 60	
2Q22	6.46	18.42	1.412	2.81	0.30	27.39	
3Q22	6.52	24.71	1.317	3.95	0.28	-111 30	
4Q22	6.51	22.21	1.538	2.65	0.49	-38.03	
P-66							
1Q22	6.66	17.48	1.335	2.70	0.67	-63.28	
2Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-68							
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.
3Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-74							
1Q22	6.43	16.70	0.207	9.12	0.57	69.70	
2Q22	6.69	15.17	0.194	9.89	1.35	106 37	
3Q22	6.38	22.48	0.187	7.58	0.33	-31.81	
4Q22	6.81	20.30	0.209	7.28	0.63	8 60	
P-93A							
1Q22	6.47	18.60	1.398	0.00	0.44	-51.90	
2Q22	6.65	19.84	1.332	2.49	0.47	-51.28	
3Q22	6.43	21.50	1.272	0.00	0.68	114 90	
4Q22	6.50	19.20	1.299	-5.09	0.67	50.44	

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-93B							
1Q22	6.69	17.35	1.362	3.14	0.51	-119 35	
2Q22	6.58	15.20	1.302	2.78	0.31	46.93	
3Q22	6.59	19.72	1.302	3.18	0.46	-68.28	
4Q22	6.64	19.56	1.485	0.20	0.47	-38.51	
P-93C							
1Q22	6.87	15.50	1.067	4.93	0.75	-43.70	
2Q22	7.06	17.80	1.033	5.23	0.56	-117 65	
3Q22	6.92	20.48	1.069	5.27	0.33	-105.41	
4Q22	6.72	17.75	1.056	-3.13	0.73	15.79	
P-93D							
1Q22	7.17	13.50	1.200	6.66	1.06	-11.51	
2Q22	7.11	16.86	1.207	5.39	0.81	-104 23	
3Q22	6.97	19.27	1.110	3.28	0.32	-47.87	
4Q22	6.90	18.60	1.189	3.89	0.47	3 30	
ROST-3-MW							
1Q22	6.76	14.79	1.333	15.79	0.80	-97.52	
2Q22	6.74	16.26	1.273	42.45	0.20	-50.55	
3Q22	6.67	18.71	1.142	2.55	0.80	-99.94	
4Q22	6.67	17.49	1.124	2.78	0.62	-65.21	
ROST-4-PZ(C)							
1Q22	6.91	16.86	1.504	6.73	0.35	-273 00	
2Q22	6.76	16.50	1.393	7.99	0.23	-60.75	
3Q22	6.99	22.33	1.255	19 62	0.42	-108 20	
4Q22	6.94	17.58	1.169	7.60	0.63	-47.89	
ROST-4-PZ(E)							
1Q22	6.82	18.09	1.731	8.60	0.53	-110 05	
2Q22	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q22	6.84	21.15	1.725	3.93	0.30	-110.72	
4Q22	6.88	18.70	1.164	13 99	0.48	-25.70	
ROST-4-PZ(G)							
1Q22	6.91	17.13	1.252	3.65	0.47	-149 28	
2Q22	6.73	16.87	1.296	4.90	0.27	35.93	
3Q22	6.85	20.76	1.159	20 69	0.84	-143 21	
4Q22	6.83	18.69	1.144	28 04	0.59	-84.25	
T-12							
1Q22	7.11	18.15	1.453	5.07	0.64	-99.34	
2Q22	7.02	19.22	1.532	3.87	0.60	-142 30	
3Q22	6.83	22.65	1.570	4.86	0.30	-137.14	
4Q22	6.83	21.41	1.803	-1.93	0.64	-65.45	

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 3a
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	Chloromethane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene
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]		**3**	**0.14**		**0.07**		**0.7** [1]	**0.7** [1]	**0.7** [1]	**0.14** [1]	**0.7** [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-01	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.0039	<0 001	<0.001
	MW1-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW1-ROX-102022	10/20/2022	<0.025	0 00066 J	<0.025	<0.001	<0 001	<0 001	<0.001 UJ	<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
MW-02	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	<0.005	<0.005	0.0059	<0 005	<0.025	0.14	0.057	<0.005	0.019	0.086
	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	<0.001	<0.001	0.0028	<0 001	<0.005	0.072	0.032	<0.001	0.012	0.045
	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	<0.001	<0.001	0.0039	<0 001	<0.005	0.082	0.036	<0.001	0.014	0.054
	MW2-ROX-071422	7/14/2022	<0.13	<0.005	<0.13	<0.005	0.0060	<0 005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0075	<0 005	<0.025	0.42	0.069	<0.005	0.045	0.095
	MW2-ROX-102822	10/28/2022	<0.025	0.0014	0.021 J	0 006	0.0054	0.00066 J	<0.001 UJ	<0.001	<0.001	<0.001	<0.001	<0.001	0 005	<0 001	<0.005	0.09	0.047	<0.001	0.022	0.076
MW-03	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.0005 J	<0 005	<0.001
	MW3-ROX-071422	7/14/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00085 J	<0 005	<0.001
	MW3-ROX-102522	10/25/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<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
MW-04	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00054 J	<0 001	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.0009 J	<0 005	<0.001
	MW4-ROX-071822	7/18/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00044 J	<0 005	<0.001
	MW4-ROX-103122	10/31/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	0.00084 J	<0.001	<0 001	<0 001	<0.005	<0.001	<0.001	0.00036 J	<0 005	<0.001
MW-05	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.0024	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 001	<0.001
	MW5-ROX-071122	7/11/2022	< 0.025	<0.001	<0.025	<0.001	<0 001	0.0022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.003	<0 005	<0.001
	MW5-ROX-102722	10/27/2022	<0.025	<0.001	<0.025	<0.001	<0 001	0.0021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0 001	<0.005	<0.001	<0.001	0 0027	<0 005	<0.001
MW-06A	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	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	0.00054 J	<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	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	0.00041 J	<0 001	<0.001
	MW6A-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	0.00038 J	<0 005	<0.001
	MW6A-ROX-102122	10/21/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001	<0.001	<0 001	<0 001	<0.005	<0.001	<0.001	0.00038 J	<0 005	<0.001
	MW6A-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-06B	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	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	0.00041 J	<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	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	0.00035 J	<0 001	<0.001
	MW6B-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	0.00033 J	<0 005	<0.001
	MW6B-ROX-102122	10/21/2022	<0.025	0 00027 J	<0.025	<0.001	<0 001	<0 001	<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001	<0.001	<0 001	<0 001	<0.005	<0.001	<0.001	0.00035 J	<0 005	<0.001
MW-06C	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00031 J	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00036 J	<0 001	<0.001
	MW6C-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00031 J	<0 005	<0.001
	MW6C-ROX-102122	10/21/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001	<0.001	<0 001	<0 001	<0.005	<0.001	<0.001	0.00026 J	<0 005	<0.001
MW-06D	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 001	<0.001
	MW6D-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.0010	<0 005	<0.001
	MW6D-ROX-102122	10/21/2022	<0.025	0 00021 J	<0.025	<0.001	<0 001	<0 001	<0.001 UJ	<0.001	<0.001 UJ	<0.001	<0.001	<0.001	<0 001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW6D-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3a
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	Chloromethane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene
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]		3	0.14		0.07		0.7 [1]	0.7 [1]	0.07 [1]	0.14 [1]	0.7 [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-07	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	<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
	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	<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
	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	<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
	MW7-ROX-041922-DUP	4/19/2022	<13	950	<13	<0.5	<0.5	<0.5	<0.5	<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
	MW7-ROX-071822	7/18/2022	<25 UJ	560	<25 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<1 UJ	<5 UJ	<1 UJ	<1 UJ	<1 UJ	<5 UJ	<1 UJ
	MW7-ROX-103122	10/31/2022	<13	680	<13	<0.5	<0.5	<0.5	<0.5	<0.5	<0 5	<0 5	<0.5	<0.5	<0.5	<0.5	<2.5	<0.5	<0.5	0.3 J	<2.5	<0.5
	MW7-ROX-103122-DUP	10/31/2022	<13	760	<13	<0.5	<0.5	<0.5	<0.5	<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
MW-08	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	<0.2	<0.2	<0.2	<1	0.16 J	<0.2	<0 2	<0.2	<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	<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
	MW8-ROX-071822	7/18/2022	<1.3	13	<1.3	<0.05	<0.05	<0.05	<0 05	<0 05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0 25	<0 05	<0.05	0.061	<0.25	<0.05
	MW8-ROX-071822-DUP	7/18/2022	<1.3	13	<1.3	<0.05	<0.05	<0.05	<0 05	<0 05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0 25	<0.05	<0.05	0.051	<0.25	<0.05
	MW8-ROX-103122	10/31/2022	<6.3	280	<6.3	<0.25	<0.25	<0.25	<0 25	<0 25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<1.3	0.31	<0.25	<0.25	<1.3	<0.25
MW-09	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 001	<0.001
	MW9-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW9-ROX-102722	10/27/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<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 H UJ	<0.001
MW-10	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW10-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW10-ROX-102022	10/20/2022	<0.025	0.0005 J	<0.025	<0.001	<0 001	<0 001	<0.001 UJ	<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
MW-11	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 001	<0.001
	MW11-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW11-ROX-102022	10/20/2022	<0.025	0 00049 J	<0.025	<0.001	<0 001	<0 001	<0.001 UJ	<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
MW-12	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW12-ROX-070822	7/8/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW12-ROX-102622	10/26/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<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
	MW12-ROX-102622-PAH	10/26/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0023	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00083 J	<0 005	<0.001
	MW13-ROX-071122	7/11/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00069 J	<0 005	<0.001
	MW13-ROX-102422	10/24/2022	<0.025	0.0003 J	<0.025	<0.001	<0 001	<0 001	<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
MW-14	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 001	<0.001
	MW14-ROX-071122	7/11/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW14-ROX-102422	10/24/2022	<0.025	0 00054 J	<0.025	<0.001	<0.001	<0 001	<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
	MW14-ROX-102422-DUP	10/24/2022	<0.025	0.00054 J	<0.025	<0.001	<0.001	<0 001	<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
MW-16	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001
	MW16-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0.005	<0.001
	MW16-ROX-102522	10/25/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<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

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3a
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	Chloromethane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene
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]		**3**	**0.14**		**0.07**		**0.7** [1]	**0.7** [1]	**0.7** [1]	**0.14** [1]	**0.7** [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
MW-22	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	<0.001	<0.001	<0 001	<0.005	0.0014	0.00063 J	<0.001	0.0011	0.00073 J
	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	<0.001	<0.001	0.0012	<0 001	<0.005	0.025	0.0078	<0.001	0.016	0.014
	MW22-ROX-071422	7/14/2022	<0.025	0.0026	<0.025	<0.001	0.0021	0.0028	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0027	<0 001	<0.005	0.055	0.017	<0.001	0.034	0.029
	MW22-ROX-071422-DUP	7/14/2022	<0.025	0.0024	<0.025	<0.001	0.0027	0.0045	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0028	<0 001	<0.005	0.052	0.021	<0.001	0.039	0.037
	MW22-ROX-102822	10/28/2022	<0.025	0.0056	0.0039 J	0.0043	0.0023	0.0045	<0.001 UJ	<0.001	<0.001	<0.001	<0.001	<0.001	0.0029	<0 001	<0.005	0.09	0.02	<0.001	0.046	0.037
MW-23	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00028 J	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00025 J	<0 001	<0.001
	MW23-ROX-071322	7/13/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	0.00021 J	<0.005	<0.001	<0.001	0.00082 J	<0 005	<0.001
	MW23-ROX-102622	10/26/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0 001	<0.005	<0.001	<0.001	0.00042 J	<0 005	<0.001
MW-24	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 001	<0.001
	MW24-ROX-071122	7/11/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW24-ROX-102022	10/20/2022	<0.025	0 00055 J	<0.025	<0.001	<0 001	<0 001	<0.001 UJ	<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
	MW24-ROX-102022-PAH	10/20/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-25	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00039 J	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW25-ROX-071822	7/18/2022	<0.025	0 014	<0.025	<0.001	<0 001	<0 001	<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
	MW25-ROX-103122	10/31/2022	<0.025	0.02	<0.025	<0.001	<0 001	<0 001	0.00069 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00078 J	<0 005	<0.001
MW-26	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00036 J	<0 001	<0.001
	MW26-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW26-ROX-102822	10/28/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<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
MW-27	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 001	<0.001
	MW27-ROX-071122	7/11/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	MW27-ROX-102622	10/26/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<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
MW-28	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0028	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0028	<0 001	<0.001
	MW28-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0064	<0 005	<0.001
	MW28-ROX-102522	10/25/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0014	<0 005	<0.001
	MW28-ROX-102522-DUP	10/25/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0014	<0 005	<0.001
P-54	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 001	<0.001
	P54-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	P54-ROX-102722	10/27/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<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
P-56	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	<0.001	<0.001	0 00092 J	<0 001	<0.005	0.001	0.012	<0.001	0.0017	0.014
	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	<0.001	<0.001	0.0009 J	<0 001	<0.005	0.0012	0.013	<0.001	0.0019	0.014
	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	<0.001	<0.001	0.0013	<0 001	<0.005	0.0033	0.021	<0.001	<0 005	0.024
	P56-ROX-071322	7/13/2022	<0.025	0.0007 J	<0.025	0 00082 J	0.0023	<0 001	0.00074 J	<0.001	<0.001	<0.001	<0.001	0.0014	0.0012	<0 001	<0.005	0.0022	0.017	<0.001	0.0052	0.021
	P56-ROX-110122	11/1/2022	<0.025	0.0005 J	<0.025	<0.001	0.0011	<0 001	<0.001	<0.001	0.0015	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	0.0062	<0.001	<0 005	0.0071

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TABLE 3a
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	Chloromethane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene
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]		**3**	**0.14**		**0.07**		**0.7** [1]	**0.7** [1]	**0.7** [1]	**0.14** [1]	**0.7** [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-57	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	<0.001	<0.025	0 00086 J	<0 025	<0.005	0.00054 J	0.017	<0.001	0.011	0.017
	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	<0.001	<0.001	<0 001	<0.005	0.00052 J	0.0067	<0.001	0.0095	0.0053
	P57-ROX-071522	7/15/2022	<0.025	0 014	<0.025	0.0033	0.0053	0.0074	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	0.00082 J	0.024	<0.001	0.018	0.023
	P57-ROX-102822	10/28/2022	0.02 J *+ J	0 054	<0.025	0.0036	0.0058	0.0078	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00076 J	<0 001	<0.005	0.0014	0.031	<0.001	0.012	0.035
	P57-ROX-102822-PAH	10/28/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
P-58	P58-ROX-011322	1/13/2022	<25	180	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<1	<1
	P58-ROX-011322-DUP	1/13/2022	<25	170	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	<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	<0.5	<0.5	<0.5	<2.5	0.34 J	<0.5	<0 5	<2.5	<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	<0.5	<0.5	<0.5	<2.5	0.43 J	<0.5	<0 5	<2.5	<0.5
	P58-ROX-071422	7/14/2022	<25	230	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	0.69 J	<1	<1	<5	<1
	P58-ROX-071422-DUP	7/14/2022	<25	230	<25	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<5	0.57 J	<1	<1	<5	<1
P-59	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	<0.001	<0.001	<0 001	<0.005	0.16	0.044	<0.001	0.18	0.066
	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	<0.02	<0.02	<0.02	<0.1	0.35	0.054	<0.02	0.17	0.096
	P59-ROX-071422	7/14/2022	<0.5	1.9	<0.5	<0.02	<0.02	<0.02	<0 02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	0 3	0.056	<0.02	0.13	0.086
	P59-ROX-110422	11/4/2022	0.14 J	2.2	<0.25	<0.01	<0.01	<0.01	<0.01 UJ	<0 01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0 05	0.17	0.044	<0.01	0.096	0.077
P-66	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	<0.005	<0.005	<0 005	<0.025	0.062	0.033	<0.005	0.0082	0.041
P-74	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00054 J	<0 001	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00053 J	<0 001	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	P74-ROX-071322	7/13/2022	<0.025	0 041	<0.025	<0.001	<0 001	<0 001	0.00059 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00068 J	<0 005	<0.001
	P74-ROX-102822	10/28/2022	<0.025	0.029 J	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00077 J	<0 005	<0.001
	P74-ROX-102822-DUP	10/28/2022	<0.025	0.022 J	<0.025	<0.001	<0 001	<0 001	<0.001 UJ	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00091 J	<0 005	<0.001
P-93A	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0.001	0.00025 J	<0.001	<0.001	<0.001	<0 005	<0.001
	P93A-ROX-071522	7/15/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	P93A-ROX-110122	11/1/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<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
P-93B	P93B-ROX-011322	1/13/2022	<130	870	<130	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<5	<5
	P93B-ROX-042022	4/20/2022	<130	920	<130	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<25	<5	<5	<5	<25	<5
	P93B-ROX-071522	7/15/2022	<50 UJ	1100	<50 UJ	<2 UJ	<2 UJ	<2 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	<10 UJ	<2 UJ
	P93B-ROX-071522-DUP	7/15/2022	<50 UJ	1100	<50 UJ	<2 UJ	<2 UJ	<2 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	<10 UJ	<2 UJ
	P93B-ROX-110422	11/4/2022	<50 UJ	790	<50 UJ	<2 UJ	<2 UJ	<2 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	<10 UJ	<2 UJ
P-93C	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0063	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.0031	<0 005	<0.001
	P93C-ROX-071322	7/13/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0038	<0 005	<0.001
	P93C-ROX-110122	11/1/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0016	<0 005	<0.001
P-93D	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00082 J	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.001	<0 005	<0.001
	P93D-ROX-071522	7/15/2022	<0.025	0.0043	<0.025	<0.001	<0 001	<0 001	<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
	P93D-ROX-110322	11/3/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	0 0011	<0.001	<0 001	<0 001	<0.005	<0.001	<0.001	0.00073 J	<0 005	<0.001

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TABLE 3a
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	Chloromethane	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	cis-1,2-Dichloroethene	trans-1,3-Dichloropropene	Ethylbenzene	Isopropylbenzene (Cumene)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	n-Propylbenzene
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]		**3**	**0.14**		**0.07**		**0.7** [1]	**0.7** [1]	**0.7** [1]	**0.14** [1]	**0.7** [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																			
P-114R	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0022	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0.00093 J	<0 005	<0.001
	P114R-ROX-071122	7/11/2022	<0.025	<0.001	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	0 0013	<0 005	<0.001
	P114R-ROX-102422	10/24/2022	<0.025	0 00047 J	<0.025	<0.001	<0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0 001	<0.005	<0.001	<0.001	0.00098 J	<0 005	<0.001
ROST-3-MW	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	<0.001	<0.001	<0 001	<0.005	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	ROST3MW-ROX-071222	7/12/2022	<0.025	<0.001	<0.025	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0 001	<0.005	0.00058 J	0.00061 J	<0.001	<0 005	<0.001
	ROST3MW-ROX-102722	10/27/2022	0.023 J	<0.001	<0.025	<0.001	<0.001	<0 001	<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
ROST-4-PZ(C)	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	<0.001	0 001	<0 001	<0 005	0.00089 J	0.0057	<0.001	0.008	0.0095
	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<0.001
	ROST4PZ(C)-ROX-071422	7/14/2022	<0.025	0 0029	<0.025	<0.001	<0.001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00094 J	<0 001	<0.005	0.0027	0.0047	<0.001	0.05	0.0077
	ROST4PZ(C)-ROX-102822	10/28/2022	<0.025	0 0025	0.0041 J	<0.001	<0.001	<0 001	<0.001 UJ	<0.001	<0.001	<0.001	<0.001	<0.001	0 00079 J	<0 001	<0.005	0.0022	0.005	<0.001	0.048	0.0086
ROST-4-PZ(E)	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	<0.002	<0.002	0.0017 J	<0 002	<0 01	0.34	0.013	<0.002	0.11	0.022
	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	<0.002	<0.002	0.0015 J	<0 002	<0 01	0.38	0.015	<0.002	0.11	0.023
	ROST4PZ(E)-ROX-071522	7/15/2022	<0.025	0 021	<0.025	<0.001	0.0012	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0018	<0 001	<0.005	0 2	0.0089 J	<0.001	0.11	0 013 J
	ROST4PZ(E)-ROX-071522-DUP	7/15/2022	<0.025	0.017	<0.025	<0.001	0 001	<0 001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0012	<0 001	<0.005	0.16	0.0068 J	<0.001	0.11	0.0093 J
	ROST4PZ(E)-ROX-102822	10/28/2022	<0.025	0 014	0.076	0 002	0 00077 J	<0 001	<0.001 UJ	<0.001	<0.001	<0.001	<0.001	<0.001	0.0015	<0 001	<0.005	0.09	0.0045	<0.001	0.11	0.0067
	ROST4PZ(E)-ROX-102822-DUP	10/28/2022	<0.025	0.014	0.08	0.0017	<0.001	<0 001	<0.001 UJ	<0.001	<0.001	<0.001	<0.001	<0.001	0.0014	<0 001	<0.005	0.098	0.0046	<0.001	0.12	0.007
ROST-4-PZ(G)	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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 001	<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	<0.001	<0.001	<0 001	<0.005	<0.001	<0.001	<0.001	<0 005	<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	<0.001	<0.001	<0 001	<0 005	<0.001	<0.001	<0.001	<0 005	<0.001
	ROST4PZ(G)-ROX-071222	7/12/2022	<0.025	0.00033 J	<0.025	<0.001	<0.001	<0 001	<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
	ROST4PZ(G)-ROX-102722	10/27/2022	<0.025	0.00047 J	<0.025	<0.001	<0.001	<0 001	<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
	ROST4PZ(G)-ROX-102722-PAH	10/27/2022	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
T-12	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	<0.002	<0.002	<0 002	<0 01	0.0032	0.0014 J	0 0039	0.0021	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	<0.01	<0.01	<0.01	<0 05	0.013	<0.01	0.0028 J	<0.05	0 008 J
	T12-ROX-071422	7/14/2022	<0 25	1.3	<0.25	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0 05	0.012	0.0071 J	<0.01	<0.05	0.014
	T12-ROX-110122	11/1/2022	<0.13	2.2	<0.13	<0.005	<0 005	<0 005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0 005	<0 005	<0.025	0.011	0.005	<0.005	0.02 J	0.0075

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3a
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs						SVOCs												
			Toluene	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	bis(2-Ethylhexyl)phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene
Screening Values (mg/L)			**1.0** [1]	**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]	**0.006** [1]	**0.012** [1]		**0.0003** [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																		
MW-01	MW1-ROX-011222	1/12/2022	<0.001	<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	0.00016 J	<0.0095	<0.00019
	MW1-ROX-041322	4/13/2022	<0.001	<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	<0.00019	<0.0096	<0.00019
	MW1-ROX-070822	7/8/2022	<0.001	<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	<0.00019	<0.0094	<0.00019
	MW1-ROX-102022	10/20/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	0.000081 J	<0.00019 U	<0.00019 U	<0.00019 U	<0.00019	<0.0002 U	<0 029 UJ	<0.0095	<0 00019 U	<0.0095	<0.00019
MW-02	MW2-ROX-011122	1/11/2022	0 005	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	<0.00019	<0.0095	<0.00019
	MW2-ROX-041422	4/14/2022	0.0033	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	<0.00019	<0.0096	<0.00019
	MW2-ROX-041422-DUP	4/14/2022	0.0036	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	<0.00019	<0.0095	<0.00019
	MW2-ROX-071422	7/14/2022	0.0054	0.092	0.049	0.24	0.021 J	0 26	<0.00019	<0.00019	<0.00019	0.000056 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097	<0.00019	<0.0097	<0.00019
	MW2-ROX-102822	10/28/2022	0.0039	0.018	0.026	0.04	0.0037 J	0.044	<0.00096	<0.00096	<0.00019	<0.00019 U	<0.00019	0 00014 J	<0.00019 UJ	0.00016 J	<0.029	<0.0096	0.000081 J	<0.0096	0.000085 J
MW-03	MW3-ROX-011022	1/10/2022	<0.001	<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	<0.00021	<0.01	<0.00021
	MW3-ROX-041222	4/12/2022	<0.001	<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	<0.00019	<0.0096	<0.00019
	MW3-ROX-071422	7/14/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019 UJ	<0.00019	0.023 J	<0.0095	<0.00019	<0.0095	<0.00019 UJ
	MW3-ROX-102522	10/25/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019 U	<0.00019 U	<0.00019	<0 00019 U	<0.028	<0.0093	<0.00019	<0.0093	<0.00019 U
MW-04	MW4-ROX-011122	1/11/2022	0 00049 J	<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	<0.00019	<0.0095	<0.00019
	MW4-ROX-041922	4/19/2022	0 00082 J	<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	<0.00019	<0.0097	<0.00019
	MW4-ROX-071822	7/18/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019 UJ	<0.00019	<0.00019	<0 00019 U	0.00018 J	<0 00019 U	<0.00019	<0.00019	<0.029	<0.0096	<0.00019	<0.0096	0 00011 J
	MW4-ROX-103122	10/31/2022	<0.001	<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	<0.00019	<0.0094	<0.00019
MW-05	MW5-ROX-010722	1/7/2022	<0.001	<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	<0.0002	<0.01	<0.0002
	MW5-ROX-041322	4/13/2022	<0.001	<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	<0.00019	<0.0096	0 00017 J
	MW5-ROX-071122	7/11/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	0.00011 J	0.000078 J	<0.00019	<0.00019	0.016 J F2	0.0053 J	<0.00019	<0.0093	<0.00019
	MW5-ROX-102722	10/27/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0 01	<0 00038 UJ	<0.00038 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0093 H UJ	<0.00019	<0.0094	<0.00019
MW-06A	MW6A-ROX-010722	1/7/2022	<0.001	<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	<0.00019	<0.0097	<0.00019
	MW6A-ROX-041122	4/11/2022	<0.001	<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	0.0001 J	<0.0094	0 00011 J
	MW6A-ROX-070822	7/8/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0 01	<0.0002	<0.0002	<0 0002	<0.0002 U	<0.0002	<0.0002	<0.0002	<0 0002	<0.03	<0.0097 H UJ	<0.00020	<0.0099	<0.00020
	MW6A-ROX-102122	10/21/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	< 0.00018	0.00039	0.00017 J J	0.0034 B	0.0028 B	0.0051 B	0.0016	0.0019 B	< 0.028	< 0 0092	0.0041 B	< 0.0092	< 0.00018
	MW6A-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	<0.00032 H UJ	<0.00032 H UJ	<0.00032 H UJ	<0.00032 H UJ	0.00018 J H J	<0.00032 H UJ	<0.00032 H UJ	<0.00032 H UJ	--	--	0.00014 J H J	--	<0.00032 H UJ
MW-06B	MW6B-ROX-010722	1/7/2022	<0.001	<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	<0.0002	<0.0099	<0.0002
	MW6B-ROX-041122	4/11/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	MW6B-ROX-070822	7/8/2022	<0.001	<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	<0.00019	<0.0096	<0.00019
	MW6B-ROX-102122	10/21/2022	<0.001	<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	<0.0091 H UJ	<0 00019 U	<0.0093	<0.00019
MW-06C	MW6C-ROX-010622	1/6/2022	<0.001	<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	<0.0002	<0.0098	<0.0002
	MW6C-ROX-041122	4/11/2022	<0.001	<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	<0.00019	<0.0093	0.000078 J J
	MW6C-ROX-070822	7/8/2022	<0.001	<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	<0.0096 H UJ	<0 0002	<0.0099	<0.0002
	MW6C-ROX-102122	10/21/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019	<0.00019 U	<0.00019	<0.00019	<0.028	0.0059 J	<0 00019 U	<0.0093	<0.00019
MW-06D	MW6D-ROX-010622	1/6/2022	<0.001	<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	<0.0002	<0.0098	<0.0002
	MW6D-ROX-041122	4/11/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	MW6D-ROX-070822	7/8/2022	<0.001	<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	<0.00019	<0.0094	<0.00019
	MW6D-ROX-102122	10/21/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	0.00013 J	0.00017 J J	0.0043 B	0.0028 B	0.0045 B	0.0015	0.0023 B	<0.028	0.0047 J	0.0056 B	<0.0093	0.00034
	MW6D-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	0.000094 J H J	<0.00019 H UJ	<0.00019 H UJ	0.000093 J H J	--	--	<0.00019 H UJ	--	<0.00019 H UJ

TABLE 3a
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs						SVOCs												
			Toluene	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	bis(2-Ethylhexyl)phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene
Screening Values (mg/L)			1.0 [1]	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]	0.006 [1]	0.012 [1]		0.0003 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																		
MW-07	MW7-ROX-011122	1/11/2022	<0.5 UJ	<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	<0.00019	<0.0096	<0.00019
	MW7-ROX-011122-DUP	1/11/2022	<0.5 UJ	<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	<0.00019	<0.0095	<0.00019
	MW7-ROX-041922	4/19/2022	<0.5 UJ	<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	<0 0002	<0.0099	<0.0002
	MW7-ROX-041922-DUP	4/19/2022	0 24 J	<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	<0.0002	<0.0099	<0.0002
	MW7-ROX-071822	7/18/2022	<1 UJ	<1 UJ	<1 UJ	<5 UJ	<5 UJ	<10 UJ	0.00012 J J	0 00018 J	<0.00019	0 000066 J	<0.00019	<0.00019	<0.00019	<0.00019	0.022 J *1	<0.0096	<0.00019	<0.0096	<0.00019
	MW7-ROX-103122	10/31/2022	0.82	<0.5	<0 5	<2.5	<2.5	<5	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	0.026 J	<0.0092	<0.00018	<0.0092	<0.00018
	MW7-ROX-103122-DUP	10/31/2022	0 36 J	<0.5	<0 5	<2.5	<2.5	<5	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	<0.028	<0.0092	<0.00018	<0.0092	<0.00018
MW-08	MW8-ROX-011122	1/11/2022	0.11 J	<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	<0.00019	<0.0096	<0.00019
	MW8-ROX-041922	4/19/2022	<0.5 UJ	<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	<0.00019	<0.0097	<0.00019
	MW8-ROX-071822	7/18/2022	<0.05	<0 05	<0.05	<0.25	<0.25	<0.5	0.00031 J	<0.00019	<0.00019	0.000070 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0095	<0.00019	<0.0095	<0.00019
	MW8-ROX-071822-DUP	7/18/2022	<0.05	<0 05	<0.05	<0.25	<0.25	<0.5	0.00035 J	0.00015 J	0.000058 J	0.000058 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0094	<0.00019	<0.0094	<0.00019
	MW8-ROX-103122	10/31/2022	0.9	<0 25	<0.25	0.74 J	0.26 J	0.99 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0093	<0.00019	<0.0093	<0.00019
MW-09	MW9-ROX-010622	1/6/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	MW9-ROX-040722	4/7/2022	<0.001	<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	<0.00019	<0.0094	<0.00019
	MW9-ROX-071222	7/12/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019 U	<0.00019 U	0.00018 J	0.00015 J J	<0.028	<0.0094	0.00017 J	<0.0094	0.00022
	MW9-ROX-102722	10/27/2022	<0.001	<0 001 H UJ	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	0.006 J	<0.00019	<0.0094	<0.00019
MW-10	MW10-ROX-011222	1/12/2022	<0.001	<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	<0.00019	<0.0094	<0.00019
	MW10-ROX-041422	4/14/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	MW10-ROX-070822	7/8/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0094	<0.00019	<0.0094	<0.00019
	MW10-ROX-102022	10/20/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	0.000034 J	<0.00025 U	<0.00019 U	<0.00021 U	<0.00019	<0 00021 U	<0.028	<0.0093	<0.0002 U	<0.0093	<0.00019
MW-11	MW11-ROX-010622	1/6/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	MW11-ROX-040722	4/7/2022	<0.001	<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	<0.0002	<0.0098	<0 0002
	MW11-ROX-070822	7/8/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	MW11-ROX-102022	10/20/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019	<0.00019 U	<0.00019	<0 00019 U	<0.029	<0.0096	<0 00019 U	<0.0096	<0.00019
MW-12	MW12-ROX-011222	1/12/2022	<0.001	<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	<0.00019	<0.0094	<0.00019
	MW12-ROX-041222	4/12/2022	<0.001	<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	<0.00019	<0.0097	<0.00019
	MW12-ROX-070822	7/8/2022	<0.001	<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 H UJ	<0.00019	0.0046 J	<0.00019
	MW12-ROX-102622	10/26/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	0.000068 J	<0.00019 U	0.00026	0.00022	0.0002	0.00025	<0.028	<0.0093	0.000072 J	<0.0093	0 00018 J
	MW12-ROX-102622-PAH	10/26/2022	--	--	--	--	--	--	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	--	--	<0.00019 H UJ	--	<0.00019 H UJ
MW-13	MW13-ROX-011022	1/10/2022	<0.001	<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	0.0055 J	<0.00019	<0.0094	<0.00019
	MW13-ROX-041422	4/14/2022	<0.001	<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	<0.00019	<0.0097	<0.00019
	MW13-ROX-071122	7/11/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	MW13-ROX-102422	10/24/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00022 U	<0.00019 U	0.00013 J	<0 00022 U	<0.028	<0.0094	0.00014 J	<0.0094	0 00013 J
MW-14	MW14-ROX-011322	1/13/2022	<0.001	<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	<0.00019	<0.0096	<0.00019
	MW14-ROX-040822	4/8/2022	<0.001	<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	0.00012 J	0.0025 J	0.0001 J
	MW14-ROX-071122	7/11/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0095	<0.00019	<0.0095	<0.00019
	MW14-ROX-102422	10/24/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00018	<0.00018	0.000036 J	<0.00018 U	<0.00027 U	<0.00023 U	0.00015 J	<0 00033 U	<0.028	<0.0092	0.00012 J	<0.0092	0 00014 J
	MW14-ROX-102422-DUP	10/24/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	0.000034 J	<0.00019 U	<0.0002 U	<0.00019 U	<0.00019	<0 00021 U	<0.028	<0.0093	0.00008 J	<0.0093	0.000078 J
MW-16	MW16-ROX-010722	1/7/2022	<0.001	<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	0.0051 J	<0.00019	<0.0096	<0.00019
	MW16-ROX-041222	4/12/2022	<0.001	<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	<0.00019 UJ	<0.0096	<0.00019 UJ
	MW16-ROX-071222	7/12/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	0.00016 J J	<0.00019 U	<0.00019	0.00015 J J	<0.028	<0.0094	<0.00019	<0.0094	<0.00019
	MW16-ROX-102522	10/25/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019	<0 00019 U	<0.028	<0.0094	<0.00019	<0.0094	<0.00019

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3a
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs						SVOCs												
			Toluene	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	bis(2-Ethylhexyl)phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene
Screening Values (mg/L)			1.0 [1]	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]	0.006 [1]	0.012 [1]		0.0003 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																		
MW-22	MW22-ROX-011022	1/10/2022	<0.001	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	<0.0002	<0.01	<0.0002
	MW22-ROX-041522	4/15/2022	0.0027	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	<0.00019	<0.0097	<0.00019
	MW22-ROX-071422	7/14/2022	0.0057	0.15	0.031 J	0.08	0.0076	0.088	<0 00019 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0095 H UJ	<0.00019	<0.0094	<0.00019
	MW22-ROX-071422-DUP	7/14/2022	0.0057	0.18	0.04 J	0.097	0.0080	0.1	<0 00019 UJ	<0.00019	<0.00019	0.0001 J	0.00019	0.000072 J	<0.00019	<0.00019	<0.028	<0.0095	<0.00019	<0.0095	0.000083 J
	MW22-ROX-102822	10/28/2022	0.0099	0.2	0.049	0.27	0.01	0 28	<0.00019	<0.00019	<0.00019	<0.00019 U	0.00013 J	0.0001 J	<0.00019 UJ	0.00013 J	<0.028	<0.0094	<0.00019	<0.0094	0.0001 J
MW-23	MW23-ROX-010722	1/7/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	MW23-ROX-041222	4/12/2022	<0.001	<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	<0.00019	<0.0096	<0.00019
	MW23-ROX-071322	7/13/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	0.000041 J	<0.00019	<0.00019	0.016 J	<0.0095	<0.00019	<0.0095	<0.00019
	MW23-ROX-102622	10/26/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	0.000059 J	<0.00019 U	0.00015 J	0 00011 J	<0.00019	0.00015 J	<0.028	<0.0093	<0.00019	<0.0093	0 00013 J
MW-24	MW24-ROX-010722	1/7/2022	<0.001	<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	<0.00019	<0.0096	<0.00019
	MW24-ROX-040722	4/7/2022	<0.001	<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	<0.00019	<0.0096	<0.00019
	MW24-ROX-071122	7/11/2022	<0.001	<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	<0.00019	<0.0094	<0.00019
	MW24-ROX-102022	10/20/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00018	<0.00018	0.00012 J	0.00094 B	0.00061 B	0.00067 B	0.0003	<0 00059 U	<0.028	<0.0092	0.00098 B	<0.0092	0.000052 J
	MW24-ROX-102022-PAH	10/20/2022	--	--	--	--	--	--	<0.00019 H UJ	<0.00019 H UJ	0.000062 J H J	<0.00019 H UJ	0.00012 J H J	<0.00019 H UJ	<0.00019 H UJ	0.00012 J H J	--	--	0.000072 J H J	--	<0.00019 H UJ
MW-25	MW25-ROX-011122	1/11/2022	<0.001	<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	<0.00019	<0.0096	<0.00019
	MW25-ROX-041922	4/19/2022	<0.001	<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	<0.0002	<0.01	<0.0002
	MW25-ROX-071822	7/18/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019 UJ	<0.00019	<0.00019	0 000055 J	<0.00019	<0.00019	<0.00019	<0.00019	0.0084 J *1	<0.0094	<0.00019	<0.0094	<0.00019
	MW25-ROX-103122	10/31/2022	<0.001	<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	<0.00019	<0.0093	<0.00019
MW-26	MW26-ROX-011122	1/11/2022	<0.001	<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	<0.0002	<0.01	<0.0002
	MW26-ROX-041122	4/11/2022	<0.001	<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	<0.00019	<0.0094	0.00023
	MW26-ROX-071222	7/12/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	0.00012 J J	<0.00019 U	<0.00019	<0.00019	<0.028	<0.0095	<0.00019	<0.0095	0.00016 J J
	MW26-ROX-102822	10/28/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	0.00019	<0 00019 U	<0.00019	0 00011 J	<0.00019 UJ	<0.00019	<0.028	<0.0094	<0.00019	<0.0094	0.000059 J
MW-27	MW27-ROX-011222	1/12/2022	<0.001	<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	<0.00019	<0.0094	<0.00019
	MW27-ROX-040822	4/8/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	MW27-ROX-071122	7/11/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	0.00015 J	0.00018 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0094	<0.00019	<0.0094	<0.00019
	MW27-ROX-102622	10/26/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00018	<0.00018	0.000033 J	<0 00018 U	0.00017 J	0.00012 J	<0.00018	0.00014 J	<0.028	<0.0092	<0.00018	<0.0092	0 00012 J
MW-28	MW28-ROX-011222	1/12/2022	<0.001	<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	<0.0002	<0.01	<0.0002
	MW28-ROX-041322	4/13/2022	<0.001	<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	<0.00019 H UJ	<0.0095	<0.00019 H UJ
	MW28-ROX-071222	7/12/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	0.0001 J J	<0.00019 U	<0.00019	<0.00019	<0.028	<0.0095	<0.00019	<0.0095	<0.00019
	MW28-ROX-102522	10/25/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019 U	<0.00023 U	0.00014 J	<0 00028 U	<0.028	<0.0094	0.00015 J	<0.0094	0 00015 J
	MW28-ROX-102522-DUP	10/25/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019 U	<0.00025 U	0.00016 J	<0 00035 U	<0.028	<0.0094	0.00015 J	<0.0094	0 00013 J
P-54	P54-ROX-011022	1/10/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	P54-ROX-040822	4/8/2022	<0.001	<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	<0.00019	<0.0096	<0.00019
	P54-ROX-071222	7/12/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	0.00014 J	<0.00019 U	0.00015 J	0.00011 J	<0.028	<0.0094	<0.00019	<0.0094	0.0002
	P54-ROX-102722	10/27/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	0.0046 J	<0.00019	<0.0093	<0.00019
P-56	P56-ROX-011222	1/12/2022	0 00082 J	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	<0.00019	<0.0096	<0.00019
	P56-ROX-011222-DUP	1/12/2022	0 00089 J	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	<0.0002	<0.01	<0.0002
	P56-ROX-042022	4/20/2022	0.0012	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	<0 0002	<0.01	<0.0002
	P56-ROX-071322	7/13/2022	0.0014	0.027	0 0071	0.052	0.0017 J	0.054	0.00063	<0.00018	0.000075 J	<0.00018	0.00016 J	0.000053 J	<0.00018	<0.00018	<0.028	<0.0092	<0.00018	<0.0092	<0.00018
	P56-ROX-110122	11/1/2022	0 00042 J	<0.001	<0.001	0.0018 J	<0.005	0 0018 J	0.00046	0.00014 J	<0 0002	<0.0002 U	<0.0002	<0 0002	<0.0002	<0 0002	<0.031	0.0051 J	<0.0002	<0.01	<0.0002

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3a
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs						SVOCs												
			Toluene	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	bis(2-Ethylhexyl)phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene
Screening Values (mg/L)			1.0 [1]	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]	0.006 [1]	0.012 [1]		0.0003 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																		
P-57	P57-ROX-011422	1/14/2022	0.0037	<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	<0.0002	<0.01	<0.0002
	P57-ROX-041522	4/15/2022	0.0023	<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	<0.00019	<0.0096	<0.00019
	P57-ROX-071522	7/15/2022	0.0040	<0.001	<0.001	0.0015 J	<0.005	0 0018 J	0.00015 J J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029 H UJ	<0.0095 H UJ	<0.00019	<0.0095 H UJ	<0.00019
	P57-ROX-102822	10/28/2022	0.0043	<0.001	<0.001	0.0014 J	<0.005	0 0018 J	0.00033 J	<0.00093	<0.00019	<0.0002 U	0.00023	0.00025	<0.00093	0.00026	<0.028	0 0054 J H J	0.00021	<0.0093	0 00014 J
	P57-ROX-102822-PAH	10/28/2022	--	--	--	--	--	--	0.00035 J H J	<0.00038 H UJ	<0.00038 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	0.00011 J H J	--	--	<0.00019 H UJ	--	<0.00019 H UJ
P-58	P58-ROX-011322	1/13/2022	<1	<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	<0.00019	<0.0095	<0.00019
	P58-ROX-011322-DUP	1/13/2022	<1	<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	<0.0002	<0.0098	<0.0002
	P58-ROX-041822	4/18/2022	<0.5	<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	0.00028	<0.0097	<0.00019
	P58-ROX-041822-DUP	4/18/2022	<0.5	<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	0.00024	<0.0097	<0.00019
	P58-ROX-071422	7/14/2022	0.75 J	<1	<1	<5	<5	<10	0.0013	0.00069	0.00075	0.00038	0.00039	0.00028	0.00021	<0.00018	<0.028	<0.0092	0.00049	<0.0092	0.00018
	P58-ROX-071422-DUP	7/14/2022	0 58 J	<1	<1	<5	<5	<10	0.0011	0.00060	0.00072	0.00057	0.00047	0 00023 J	0.00017 J	<0.00037	<0.055	<0 018	0.00035 J	<0.018	0.00014 J
P-59	P59-ROX-011322	1/13/2022	0.13	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 0002	<0.01	<0.0002
	P59-ROX-041822	4/18/2022	0.17	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	<0.00019	<0.019	<0.00019
	P59-ROX-071422	7/14/2022	0.14	0.14	0.064	0.28	<0.1	0 29	0.00046 J	<0.00038	0.00039	0 00025 J	0.00035 J	0 00011 J	<0.00038	<0.00038	<0.056	<0 019	<0.00038	<0.019	<0.00038
	P59-ROX-110422	11/4/2022	0.11	0.069	0.038	0.16	<0.05	0.16	0.00039	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0094	<0.00019	<0.0093	<0.00019
P-66	P66-ROX-011322	1/13/2022	0.78	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	<0.00019	<0.0096	<0.00019
P-74	P74-ROX-011322	1/13/2022	0.0014	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	<0.00019	<0.0095	<0.00019
	P74-ROX-011322-DUP	1/13/2022	0.0012	<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	<0.00021	<0.01	<0.00021
	P74-ROX-041822	4/18/2022	<0.001	<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	<0.00019	<0.0097	<0.00019
	P74-ROX-041822-DUP	4/18/2022	<0.001	<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	<0.00019	<0.0096	<0.00019
	P74-ROX-071322	7/13/2022	0.0013	<0.001	<0.001	0.0011 J	<0.005	<0.01	<0.00019	<0.00019	<0.00019	0.000087 J	0.00017 J	0.000061 J	<0.00019	<0.00019	<0.028	<0.0095	<0.00019	<0.0095	<0.00019
	P74-ROX-102822	10/28/2022	0.0005 J	<0.001	<0.001	<0.005	<0.005	<0 01	<0 00038 UJ	<0.00038 UJ	0.00003 J	<0.00019 U	0.00014 J	0 00011 J	<0.00019 UJ	0.00015 J	<0.028	<0.0094	<0.00019	<0.0094	0.000048 J
	P74-ROX-102822-DUP	10/28/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0 00019 U	<0.00019	<0.00019	<0.00019 UJ	<0.00019	<0.028	<0.0095 H UJ	<0.00019	<0.0094	<0.00019
P-93A	P93A-ROX-011222	1/12/2022	<0.001	<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	<0.0002	<0.0098	<0.0002
	P93A-ROX-041922	4/19/2022	<0.001	<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 H UJ	<0 0002	<0.01	0 00016 J
	P93A-ROX-071522	7/15/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019 UJ	<0.00019	<0.00019	0.00005 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0095	<0.00019	<0.0095	<0.00019
	P93A-ROX-110122	11/1/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0 0002	0.00019 J	0 00016 J	<0.0002	0.00011 J	<0.031	0 0055 J H J	<0.0002	<0.01	<0.0002
P-93B	P93B-ROX-011322	1/13/2022	<5	<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	<0.0002	<0.0098	<0.0002
	P93B-ROX-042022	4/20/2022	<5	<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	0 000078 J	<0.01	<0.00021
	P93B-ROX-071522	7/15/2022	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<10 UJ	<20 UJ	<0.00019 UJ	<0.00019	<0.00019	0 000099 J	0.00018 J	0.000051 J J	<0.00019	<0.00019	<0.028	<0.0093	<0.00019	<0.0093	0.000065 J
	P93B-ROX-071522-DUP	7/15/2022	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<10 UJ	<20 UJ	0.00035 J	0.00036	0 000046 J	0 000082 J	<0.00018	<0.00018	<0.00018	<0.00018	<0.028	<0.0092	<0.00018	<0.0092	<0.00018
	P93B-ROX-110422	11/4/2022	<2 UJ	<2 UJ	<2 UJ	<10 UJ	<10 UJ	<20 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	0.0049 J	<0.00019	<0.0093	<0.00019
P-93C	P93C-ROX-011022	1/10/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	P93C-ROX-041922	4/19/2022	<0.001	<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	<0.00019	<0.0097	0 00013 J
	P93C-ROX-071322	7/13/2022	<0.001	<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	<0.00021	<0.01	<0.00021
	P93C-ROX-110122	11/1/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	<0 0002	<0.0002 U	0.00046	0.00028	<0.0002	0 0003	<0.031	<0.01	<0.0002	<0.01	0.000094 J
P-93D	P93D-ROX-011422	1/14/2022	<0.001	<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	<0.00019	<0.0097	<0.00019
	P93D-ROX-041922	4/19/2022	<0.001	<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	<0.01 H UJ	<0 0002	<0.0099	<0.0002
	P93D-ROX-071522	7/15/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0 00019 UJ	<0.00019	<0.00019	0.00006 J	0.00015 J	<0.00019	<0.00019	<0.00019	<0.028	<0.0094	<0.00019	<0.0094	<0.00019
	P93D-ROX-110322	11/3/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00018	<0.00018	<0.00018	<0.00018	<0.00018	0 00012 J	<0.00018	<0.00018	<0.028	0.0051 J	<0.00018	<0.0092	<0.00018

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3a
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			VOCs						SVOCs												
			Toluene	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	bis(2-Ethylhexyl)phthalate	Chrysene (1,2-Benzphenanthracene)	Dibenzo(a,h)acridine	Dibenzo(a,h)anthracene
Screening Values (mg/L)			1.0 [1]	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]	0.006 [1]	0.012 [1]		0.0003 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																		
P-114R	P114R-ROX-011022	1/10/2022	<0.001	<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	<0.00019	<0.0094	<0.00019
	P114R-ROX-041422	4/14/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	P114R-ROX-071122	7/11/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	0.00028	<0.00019	<0.00019	<0.00019 U	0.000099 J	0.000096 J	<0.00019	<0.00019	0.018 J	<0.0096 H UJ	<0.00019	<0.0094	0.000096 J
	P114R-ROX-102422	10/24/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	0.00043	<0.00019	<0.00019	<0.00021 U	<0.00027 U	<0.00026 U	0.00018 J	<0 00027 U	<0.028	0.005 J	0.00023	<0.0094	0 00016 J
ROST-3-MW	ROST3MW-ROX-010622	1/6/2022	<0.001	<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	<0.00019	<0.0094	<0.00019
	ROST3MW-ROX-041222	4/12/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	ROST3MW-ROX-071222	7/12/2022	<0.001	<0.001	<0.001	0.0026 J	<0.005	0 0026 J	0.000085 J	0.000057 J	<0.00019	<0.00019 U	0.00011 J	<0.00019 U	<0.00019	<0.00019	<0.029	<0.0096	<0.00019	<0.0096	<0.00019
	ROST3MW-ROX-102722	10/27/2022	<0.001	<0.001	<0.001	0.00071 J	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.028	<0.0093	<0.00019	<0.0093	<0.00019
ROST-4-PZ(C)	ROST4PZC-ROX-011122	1/11/2022	<0.001	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	<0.00019	<0.0096	<0.00019
	ROST4PZC-ROX-041522	4/15/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	ROST4PZ(C)-ROX-071422	7/14/2022	0.0075	0.0099	0 0023	0.041	0.0011 J	0.042	0.0015 J	<0.00019	0.00043	0.000082 J	0.00017 J	<0.00019	<0.00019	<0.00019	<0.029	<0.0095	<0.00019	<0.0095	<0.00019
	ROST4PZ(C)-ROX-102822	10/28/2022	0 003	0.011	0 0025	0.023	0.0015 J	0.025	<0.00093	0 00033 J	0.00047	<0 00019 U	<0.00019	<0.00019	<0.00019 UJ	<0.00019	<0.028	<0.0093	<0.00019	<0.0093	0.000065 J
ROST-4-PZ(E)	ROST4PZE-ROX-011222	1/12/2022	0.03	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	<0.00019	<0.0096	<0.00019
	ROST4PZE-ROX-011222-DUP	1/12/2022	0 034	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	<0.0002	<0.0098	<0.0002
	ROST4PZ(E)-ROX-071522	7/15/2022	0 025	0.16 J	0.024 J	0 27 J	0 033	0.31 J	0.0050 J	0.00065	0.0043 J	0.00022	0.00018 J	0.000059 J J	<0.00019	<0.00019	<0.029	<0.0095 H UJ	0.00032	<0.0096	<0.00019
	ROST4PZ(E)-ROX-071522-DUP	7/15/2022	0.02	0.12 J	0.018 J	0 21 J	0 026	0.23 J	0.0029 J	0.00033	0.0012 J	0.000095 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0096	<0.00019	<0.0096	<0.00019
	ROST4PZ(E)-ROX-102822	10/28/2022	0.0089	0.13	0.013	0.21	0 026	0 24	0.003	0.00056 J	<0.00019	<0.00019 U	<0.00019	<0.00019 U	<0.00019 UJ	<0.00019	<0 028 UJ	<0.0094	0.0001 J	<0.0094	<0.00019
	ROST4PZ(E)-ROX-102822-DUP	10/28/2022	0.0093	0.13	0.013	0.22	0 027	0 24	0.003	0.00048 J	<0.00019	<0 00019 U	<0.00019	<0.00019	<0.00019 UJ	<0.00019	<0.028	<0.0093	0.00009 J	<0.0093	<0.00019
ROST-4-PZ(G)	ROST4PZG-ROX-011022	1/10/2022	0 00041 J	<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	<0.0002	<0.0099	<0.0002
	ROST4PZG-ROX-041522	4/15/2022	<0.001	<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	<0.00019	<0.0097	<0.00019
	ROST4PZG-ROX-041522-DUP	4/15/2022	<0.001	<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	<0.00019	<0.0095	<0.00019
	ROST4PZ(G)-ROX-071222	7/12/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019 U	0.00011 J J	<0.00019 U	<0.00019	<0.00019	0.016 J	<0.0095	<0.00019	<0.0095	0.00017 J J
	ROST4PZ(G)-ROX-102722	10/27/2022	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	0.000075 J	<0.00019	0.00044	0.00038	<0.00019	0.00038	<0.028	<0.0094	0.00016 J	<0.0094	0.00024
	ROST4PZ(G)-ROX-102722-PAH	10/27/2022	--	--	--	--	--	--	<0.00019 H UJ	<0.00019 H UJ	0.000067 J H J	<0.00037 H UJ	<0.00037 H UJ	<0.00037 H UJ	<0.00037 H UJ	<0.00037 H UJ	--	--	<0.00037 H UJ	--	<0.00037 H UJ
T-12	T12-ROX-011422	1/14/2022	0 012	<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	<0.0002	<0.01	<0.0002
	T12-ROX-042022	4/20/2022	0 026	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	<0 0002	<0.0099	<0.0002
	T12-ROX-071422	7/14/2022	0.03	<0 01	0.011	0.067	<0.05	0.067 J	<0.0002 UJ	<0.0002	<0 0002	0.00012 J	0.0002	0 000067 J	<0.0002	<0.0002	<0.03	<0.0098	<0.0002	<0.0098	0.000063 J
	T12-ROX-110122	11/1/2022	0 044	0.0059	0.011	0.059	0.0051 J	0.064	0.00027	<0.0002	<0 0002	<0 0002	<0.0002	<0 0002	<0.0002	<0 0002	<0.03	0.0055 J	<0.0002	<0.01	<0.0002

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TABLE 3a
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																	
			Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate	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)	Nitrobenzene	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			**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]	**0.014** [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-011222	1/12/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0 0095 UJ
	MW1-ROX-041322	4/13/2022	<0.0096	<0 0096 U	<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 0096	<0 00019	<0.0096	<0.00019	<0.0096
	MW1-ROX-070822	7/8/2022	<0.0094	<0 0094	<0.0094	<0.0094	0.0038 J	<0 0094	<0.00019	<0.00019	<0 0094	<0.00019	<0.00019	<0.00019	<0.0094	<0.019	<0 0094	<0 00019	<0.0094	<0.00019	<0.0094
	MW1-ROX-102022	10/20/2022	<0.0095	<0 0095	<0.0095	<0.0095	0.0033 J	<0 0095	<0.00019 U	<0.00019	<0 0095	0 000057 J	<0.00019	<0.00019	<0.0095	<0.019	<0 0095	<0.00019 U	<0.0095	<0.00019 U	<0.0095
MW-02	MW2-ROX-011122	1/11/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0.0095
	MW2-ROX-041422	4/14/2022	<0.0096	<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 0096	<0 00019	<0.0096 UJ	<0.00019	<0 0096 UJ
	MW2-ROX-041422-DUP	4/14/2022	<0.0095	<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 0095	<0.00019	<0.0095 UJ	<0.00019	<0 0095 UJ
	MW2-ROX-071422	7/14/2022	<0.0097	0 00035 J	<0.0097	<0.0097	<0.0097	<0 0097	<0.00019	<0.00019	<0 0097	<0.00019	0.011	0.023	<0.0097	<0.019	<0 0097	0 000047 J	<0.0097	<0.00019	<0.0097
	MW2-ROX-102822	10/28/2022	<0.0096	<0 0096	<0.0096	<0.0096	<0.0096	<0 0096	<0.00096	<0.00096	<0 0096	0 000087 J	0.0096	0.017	<0.0096	<0.019	<0 0096	0 000076 J	<0.0096	0.000083 J	<0.0096
MW-03	MW3-ROX-011022	1/10/2022	<0.01	<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	<0.01	<0 00021	<0 01	<0.00021	<0.01 UJ
	MW3-ROX-041222	4/12/2022	<0.0096	<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 0096	<0 00019	<0.0096	<0.00019	<0.0096
	MW3-ROX-071422	7/14/2022	<0.0095	<0 0095	<0.0095	<0.0095	<0.0095	<0 0095	<0.00019	<0.00019	<0 0095	<0.00019 UJ	0.00011 J J	<0.00019	<0.0095	<0.019	<0 0095	<0.00019	<0.0095	<0.00019 UJ	<0.0095
	MW3-ROX-102522	10/25/2022	<0.0093	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	<0.00019	<0.00019	<0 0093	<0 00019 U	<0.00019	<0.00019	<0.0093	<0.019	<0 0093	<0.00019	<0.0093	<0.00019 U	<0.0093
MW-04	MW4-ROX-011122	1/11/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0.0095
	MW4-ROX-041922	4/19/2022	<0.0097	<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 0097	0.00011 J	<0.0097	0.000098 J	<0.0097
	MW4-ROX-071822	7/18/2022	<0.0096	<0 0096	<0.0096	<0.0096	<0.0096	<0 0096	<0.00019	<0.00019	<0 0096	0 000071 J	<0.00019	<0.00019	<0.0096	<0.019	<0 0096	<0.00019	<0.0096	0.000043 J	<0 0096 UJ
	MW4-ROX-103122	10/31/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0.0094
MW-05	MW5-ROX-010722	1/7/2022	<0.01	<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	<0.01	<0.0002	<0 01	<0.0002	<0.01
	MW5-ROX-041322	4/13/2022	<0.0096	<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 0096	<0 00019	<0.0096	<0.00019 U	<0.0096
	MW5-ROX-071122	7/11/2022	<0.0093	<0 0093 U	<0.0093	<0.0093	<0.0093	<0 0093	<0.00019	<0.00019	<0 0093	0 000099 J	<0.00019	<0.00019	<0.0093	<0.019	<0 0093	<0.00019	<0.0093	<0.00019	<0.0093
	MW5-ROX-102722	10/27/2022	<0.0094	0 00046 J	<0.0094	0.00035 J	0.0026 J	<0 0094	<0.00019	<0.00038 UJ	<0 0094	0 000042 J	<0.00019	<0.00019	<0.0094	<0.019	<0 0094	<0.00019	<0.0094	<0.00019	<0.0094
MW-06A	MW6A-ROX-010722	1/7/2022	<0.0097	<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 0097	<0 00019	<0.0097	<0.00019	<0.0097
	MW6A-ROX-041122	4/11/2022	<0.0094	<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 0094	<0 00019	<0.0094	0.000071 J	<0.0094
	MW6A-ROX-070822	7/8/2022	<0.0099	<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 0099	<0.0002	<0.0099	<0.0002	<0.0099
	MW6A-ROX-102122	10/21/2022	< 0.0092	< 0 0092	< 0.0092	< 0.0092	< 0.0092	< 0.0092	0.0012 B	< 0.00018	< 0.0092	0 0015	< 0.00018	< 0.00018	< 0.0092	<0.018	< 0 0092	<0.00025 U	< 0.0092	0.0010 B	< 0.0092
	MW6A-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	<0.00032 H UJ	<0.00032 H UJ	--	<0.00032 H UJ	<0.00032 H UJ	<0.00032 H UJ	--	--	--	<0.00032 H UJ	--	<0.00032 H UJ	--
MW-06B	MW6B-ROX-010722	1/7/2022	<0.0099	<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 0099	<0.0002	<0.0099	<0.0002	<0.0099
	MW6B-ROX-041122	4/11/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0.0095
	MW6B-ROX-070822	7/8/2022	<0.0096	<0 0096 U	<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 0096	<0.00019	<0.0096	<0.00019	<0.0096
	MW6B-ROX-102122	10/21/2022	<0.0093	0.0013 J B	<0.0093 UJ	<0.0093	<0.0093	<0 0093	<0.00019	<0.00019	<0 0093	<0.00019	<0.00019	<0.00019	<0.0093 UJ	<0.019 UJ	<0.0093	<0.00019	<0.0093 UJ	<0.00019 U	<0.0093
MW-06C	MW6C-ROX-010622	1/6/2022	<0.0098	<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 0098	<0.0002	<0.0098	<0.0002	<0.0098
	MW6C-ROX-041122	4/11/2022	<0.0093	<0 0093 U	<0.0093	<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 0093	<0 00019	<0.0093	<0.00019	<0.0093
	MW6C-ROX-070822	7/8/2022	<0.0099	<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 0099	<0.0002	<0.0099	<0.0002	<0.0099
	MW6C-ROX-102122	10/21/2022	<0.0093	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	<0.00019 U	<0.00019	<0 0093	<0.00019	<0.00019	<0.00019	<0.0093	<0.019	<0 0093	<0.00019 U	<0.0093	<0.00019 U	<0.0093
MW-06D	MW6D-ROX-010622	1/6/2022	<0.0098	<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 0098	<0.0002	<0.0098	<0.0002	<0.0098
	MW6D-ROX-041122	4/11/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0.0095
	MW6D-ROX-070822	7/8/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0.0094
	MW6D-ROX-102122	10/21/2022	<0.0093	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	0.0029 B	<0.00019	<0 0093	0 0015	<0.00019	<0.00019	<0.0093	<0.019	<0 0093	<0.00025 U	<0.0093	0.0029 B	<0.0093
	MW6D-ROX-102122-PAH	10/21/2022	--	--	--	--	--	--	<0.00019 H UJ	<0.00019 H UJ	--	<0.00019 H UJ	<0.00019 H UJ	0.0001 J H J	--	--	--	<0.00019 H UJ	--	<0.00019 H UJ	--

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3a
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																	
			Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate	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)	Nitrobenzene	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			**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]	**0.014** [1]	**0.21** [3]	**0.1** [1]	**0.21** [1]	**0.007** [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																	
MW-07	MW7-ROX-011122	1/11/2022	<0.0096	<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 0096	<0 00019	0.14	<0.00019	<0.0096
	MW7-ROX-011122-DUP	1/11/2022	<0.0095	<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	<0.0095	<0.00019	0.12	<0.00019	<0.0095
	MW7-ROX-041922	4/19/2022	<0.0099	0 00069 J	<0.0099	<0.0099	<0.0099	<0 0099	<0.0002	<0.0002	<0 0099	<0 0002	0.0015	0.0023	<0.0099	<0.02	<0.0099	0.00021	0.082	0.000091 J	<0.0099
	MW7-ROX-041922-DUP	4/19/2022	<0.0099	<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	<0.0099	0.00024	0.084	<0.0002	<0.0099
	MW7-ROX-071822	7/18/2022	<0.0096	<0 0096	<0.0096	<0.0096	<0.0096	<0 0096	<0.00019	0.00020	<0 0096	<0.00019	0.0019	0.0030	<0.0096	<0.019	<0.0096	0.00027	0.086	0.000054 J	<0.0096
	MW7-ROX-103122	10/31/2022	<0.0092	<0 0092	<0.0092	<0.0092	<0.0092	<0 0092	<0.00018	<0.00018	<0 0092	<0.00018	0.00098	0.0017	<0.0092	0.0014 J	<0.0092	<0.00018	0.12	<0.00018	<0.0092
	MW7-ROX-103122-DUP	10/31/2022	<0.0092	0 00082 J	<0.0092	<0.0092	<0.0092	<0 0092	<0.00018	<0.00018	<0 0092	<0.00018	0 001	0.0017	<0.0092	0.0013 J	<0.0092	0.00012 J	0.11	<0.00018	<0.0092
MW-08	MW8-ROX-011122	1/11/2022	<0.0096	<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	<0.0096	<0.00019	0.39	<0.00019	<0.0096
	MW8-ROX-041922	4/19/2022	<0.0097	<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	<0.0097	<0.00019	0.26	<0.00019	<0.0097
	MW8-ROX-071822	7/18/2022	<0.0095	<0 0095	<0.0095	<0.0095	<0.0095	<0 0095	<0.00019	0.00032	<0 0095	<0.00019	0.0065	0.00046	<0.0095	<0.019	<0.0095	0 000058 J	0.12	<0.00019	<0 0095 UJ
	MW8-ROX-071822-DUP	7/18/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	<0.00019	0.00046	<0 0094	<0.00019	0.0070	0.00041	<0.0094	<0.019	<0 0094	0 000071 J	0.1	<0.00019	<0 0094 UJ
	MW8-ROX-103122	10/31/2022	<0.0093	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	0.000097 J	<0.00019	<0 0093	<0.00019	0.014	0.0061	<0.0093	<0.019	<0 0093	<0 00019	0.26	<0.00019	<0.0093
MW-09	MW9-ROX-010622	1/6/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0.0095
	MW9-ROX-040722	4/7/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0.0094
	MW9-ROX-071222	7/12/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	0.000089 J	<0.00019	<0 0094	0.00021	<0.00019	<0.00019	<0.0094	<0.019	<0 0094	<0 00019	<0.0094	<0.00019	<0.0094
	MW9-ROX-102722	10/27/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0.0094
MW-10	MW10-ROX-011222	1/12/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0 0094 UJ
	MW10-ROX-041422	4/14/2022	<0.0095	<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 0095	<0.00019	<0.0095 UJ	<0.00019	<0 0095 UJ
	MW10-ROX-070822	7/8/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0.0094
	MW10-ROX-102022	10/20/2022	<0.0093	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	<0.00032 U	<0.00019	<0 0093	0 000044 J	<0.00019	<0.00019	<0.0093	<0.019	<0 0093	<0.00019 U	<0.0093	<0.00024 U	<0.0093
MW-11	MW11-ROX-010622	1/6/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0.0095
	MW11-ROX-040722	4/7/2022	<0.0098	<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 0098	<0.0002	<0.0098	<0.0002	<0.0098
	MW11-ROX-070822	7/8/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0.0095
	MW11-ROX-102022	10/20/2022	<0.0096	<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 0096	<0.00019 U	<0.0096	<0.00019 U	0.0058 J
MW-12	MW12-ROX-011222	1/12/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0 0094 UJ
	MW12-ROX-041222	4/12/2022	<0.0097	<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 0097	<0 00019	<0.0097	<0.00019	<0.0097
	MW12-ROX-070822	7/8/2022	<0.0095	<0 0095 U	<0.0095	<0.0095	<0.0095	<0 0095	<0.00019	<0.00019	<0 0095	<0.00019	<0.00019	<0.00019	<0.0095	<0.019	0.00048 J	<0.00019	<0.0095	<0.00019	<0.0095
	MW12-ROX-102622	10/26/2022	<0.0093	0 00057 J	<0.0093	<0.0093	<0.0093	<0 0093	0.000088 J J	<0.00019 UJ	<0 0093	0.00017 J	<0.00019	<0.00019	<0.0093	<0.019	<0 0093	0 000097 J	<0.0093	0 00008 J	<0 0093 UJ
	MW12-ROX-102622-PAH	10/26/2022	--	--	--	--	--	--	<0.00019 H UJ	<0.00019 H UJ	--	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	--	--	--	<0.00019 H UJ	--	<0.00019 H UJ	--
MW-13	MW13-ROX-011022	1/10/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0 0094 UJ
	MW13-ROX-041422	4/14/2022	<0.0097	<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 0097	<0.00019	<0.0097 UJ	<0.00019	<0 0097 UJ
	MW13-ROX-071122	7/11/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0.0095
	MW13-ROX-102422	10/24/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	<0.00019	<0.00019	<0 0094	<0 00019 U	<0.00019	<0.00019	<0.0094	<0.019	<0 0094	<0.00019	<0.0094	<0.00019	<0.0094
MW-14	MW14-ROX-011322	1/13/2022	<0.0096	<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 0096	<0 00019	<0.0096	<0.00019	<0.0096
	MW14-ROX-040822	4/8/2022	<0.0096	<0 0096 U	<0.0096	<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 0096	<0 00019	<0.0096	0 00012 J	<0.0096
	MW14-ROX-071122	7/11/2022	<0.0095	<0 0095 U	<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 0095	<0.00019	<0.0095	<0.00019	<0.0095
	MW14-ROX-102422	10/24/2022	<0.0092	<0 0092	<0.0092	<0.0092	<0.0092	<0 0092	0.000063 J	<0.00018	<0 0092	<0 00018 U	<0.00018	0.000074 J	<0.0092	<0.018	<0 0092	<0.00018 U	<0.0092	<0.00018 U	<0.0092
	MW14-ROX-102422-DUP	10/24/2022	<0.0093	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	<0.00019	<0.00019	<0 0093	<0 00019 U	<0.00019	<0.00019	<0.0093	<0.019	<0 0093	<0.00019 U	<0.0093	<0.00019 U	<0.0093
MW-16	MW16-ROX-010722	1/7/2022	<0.0096	<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 0096	<0 00019	<0.0096	<0.00019	<0.0096
	MW16-ROX-041222	4/12/2022	<0.0096	<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 0096	<0 00019	<0.0096	0.000055 J J	<0.0096
	MW16-ROX-071222	7/12/2022	<0.0094	0.0014 J	<0.0094 UJ	<0.0094	<0.0094	<0 0094	0 000075 J J	<0.00019	<0 0094	<0.00019	<0.00019	<0.00019	<0.0094 UJ	<0.019 UJ	<0 0094	0.000046 J J	<0.0094 UJ	<0.00019	<0.0094
	MW16-ROX-102522	10/25/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0.0094

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3a
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																	
			Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate	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)	Nitrobenzene	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			**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]	**0.014** [1]	**0.21** [3]	**0.1** [1]	**0.21** [1]	**0.007** [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																	
MW-22	MW22-ROX-011022	1/10/2022	<0.01	<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	<0.01	<0.0002	<0 01	<0.0002	<0.01 UJ
	MW22-ROX-041522	4/15/2022	<0.0097	<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 0097	<0.00019	<0.0097 UJ	0.000073 J	<0 0097 UJ
	MW22-ROX-071422	7/14/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	<0.00019	<0.00019	<0 0094	<0.00019	0.0042	0.0046 J	<0.0094	<0.019	<0 0094	0 000054 J	<0.0094	<0.00019	<0.0094
	MW22-ROX-071422-DUP	7/14/2022	<0.0095	<0 0095	<0.0095	<0.0095	<0.0095	<0 0095	0.000073 J	<0.00019	<0 0095	0 000065 J	0.0051	0.006 J	<0.0095	<0.019	<0 0095	0.00011 J	<0.0095	0.000067 J	<0.0095
	MW22-ROX-102822	10/28/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	<0.00019	<0.00019 UJ	<0 0094	0.0001 J	0.0072	0.0082	<0.0094	<0.019	<0 0094	0.00008 J	<0.0094	0 00007 J	<0.0094
MW-23	MW23-ROX-010722	1/7/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0.0095
	MW23-ROX-041222	4/12/2022	<0.0096	<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 0096	<0 00019	<0.0096	<0.00019	<0.0096
	MW23-ROX-071322	7/13/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0.0095
	MW23-ROX-102622	10/26/2022	<0.0093	0 00057 J	<0.0093	0.00052 J	<0.0093	<0 0093	0.000083 J	<0.00019	<0 0093	0.00012 J	<0.00019	0.000056 J	<0.0093	<0.019	<0 0093	0 000056 J	<0.0093	0.000062 J	<0.0093
MW-24	MW24-ROX-010722	1/7/2022	<0.0096	<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 0096	<0 00019	<0.0096	<0.00019	<0.0096
	MW24-ROX-040722	4/7/2022	<0.0096	<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 0096	<0 00019	<0.0096	<0.00019	<0.0096
	MW24-ROX-071122	7/11/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0.0094
	MW24-ROX-102022	10/20/2022	<0.0092	<0 0092	<0.0092	<0.0092	<0.0092	<0 0092	0.00098 B	<0.00018	<0 0092	0.00027	<0.00018	<0.00018	<0.0092	<0.018	<0 0092	<0.00028 U	<0.0092	0.00076 B	<0.0092
	MW24-ROX-102022-PAH	10/20/2022	--	--	--	--	--	--	<0.00019 H UJ	<0.00019 H UJ	--	<0.00019 H UJ	<0.00019 H UJ	<0.00019 H UJ	--	--	--	<0.00019 H UJ	--	<0.00019 H UJ	--
MW-25	MW25-ROX-011122	1/11/2022	<0.0096	<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 0096	<0 00019	<0.0096	<0.00019	<0.0096
	MW25-ROX-041922	4/19/2022	<0.01	0 00061 J	<0.01	<0 01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0 0002	<0 0002	<0.0002	<0.01	<0.02	<0.01	<0.0002	<0 01	<0.0002	<0.01
	MW25-ROX-071822	7/18/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0 0094 UJ
	MW25-ROX-103122	10/31/2022	<0.0093	<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 0093	<0 00019	<0.0093	<0.00019	<0.0093
MW-26	MW26-ROX-011122	1/11/2022	<0.01	<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	<0.01	<0.0002	<0 01	<0.0002	<0.01
	MW26-ROX-041122	4/11/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0.0094
	MW26-ROX-071222	7/12/2022	<0.0095	<0 0095	<0.0095	<0.0095	<0.0095	<0 0095	<0.00019	<0.00019	<0 0095	0.00015 J J	<0.00019	<0.00019	<0.0095	<0.019	<0 0095	<0.00019	<0.0095	<0.00019	<0.0095
	MW26-ROX-102822	10/28/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.00019	<0.00019 UJ	<0 0094	0 000048 J	<0.00019	0.000066 J	<0.0094	<0.019	<0 0094	0 000044 J	<0.0094	0.000046 J	<0.0094
MW-27	MW27-ROX-011222	1/12/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0 0094 UJ
	MW27-ROX-040822	4/8/2022	<0.0095	<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 0095	<0 00019	<0.0095	0.000047 J	<0.0095
	MW27-ROX-071122	7/11/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	<0.00019	<0.00019	<0 0094	<0.00019	0.0002	0.00024	<0.0094	<0.019	<0 0094	0 000051 J	<0.0094	<0.00019	<0.0094
	MW27-ROX-102622	10/26/2022	<0.0092	0.0006 J	<0.0092	0.00045 J	<0.0092	<0.0092	<0.00018	<0.00018 UJ	<0 0092	0.00014 J	<0.00018	<0.00018	<0.0092	<0.018	<0 0092	0 000044 J	<0.0092	0.000039 J	<0 0092 UJ
MW-28	MW28-ROX-011222	1/12/2022	<0.01	<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	<0.01	<0.0002	<0 01	<0.0002	<0.01
	MW28-ROX-041322	4/13/2022	<0.0095	<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 0095	0.000055 J H *+ J	<0.0095	<0.00019 H UJ	<0.0095
	MW28-ROX-071222	7/12/2022	<0.0095	0 00031 J	<0.0095	<0.0095	<0.0095	<0 0095	<0.00019	<0.00019	<0 0095	0.00014 J J	<0.00019	<0.00019	<0.0095	<0.019	<0 0095	<0.00019	<0.0095	<0.00019	<0.0095
	MW28-ROX-102522	10/25/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	<0.00019	<0.00019	<0 0094	<0 00019 U	<0.00019	0.000069 J	<0.0094	<0.019	<0 0094	<0.00019	<0.0094	<0.00019	<0.0094
	MW28-ROX-102522-DUP	10/25/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	<0.00019	<0.00019	<0 0094	<0 00019 U	<0.00019	<0.00019	<0.0094	<0.019	<0 0094	<0.00019	<0.0094	<0.00019 U	<0.0094
P-54	P54-ROX-011022	1/10/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0 0095 UJ
	P54-ROX-040822	4/8/2022	<0.0096	<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 0096	<0 00019	<0.0096	<0.00019	<0.0096
	P54-ROX-071222	7/12/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	0.000066 J	<0.00019	<0 0094	0.00019	<0.00019	<0.00019	<0.0094	<0.019	<0 0094	<0 00019	<0.0094	<0.00019	<0.0094
	P54-ROX-102722	10/27/2022	<0.0093	0 00032 J	<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 0093	0 000039 J	<0.0093	<0.00019	<0.0093
P-56	P56-ROX-011222	1/12/2022	<0.0096	<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 0096	0.00076	<0.0096	<0.00019	<0.0096
	P56-ROX-011222-DUP	1/12/2022	<0.01	<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	<0.01	0.00093	<0 01	<0.0002	<0.01
	P56-ROX-042022	4/20/2022	0.00053 J	<0.01	<0.01	<0 01	<0.01	<0.01	<0.0002	0.00045	<0.01	<0 0002	0.017	0.016	<0.01	<0.02	<0.01	0.001	<0 01	0.000046 J	<0.01 UJ
	P56-ROX-071322	7/13/2022	<0.0092	<0 0092	<0.0092	<0.0092	<0.0092	<0 0092	<0.00018	0.00034	<0 0092	<0.00018	0.01	0.0092	<0.0092	0.0006 J	<0 0092	0.00073	<0.0092	0.000045 J	<0.0092
	P56-ROX-110122	11/1/2022	<0.01	<0.01	<0.01	<0 01	<0.01	<0.01	0.000091 J	0.0003	<0.01	<0 0002	0.0038	0.002	<0.01	<0.02	<0.01	0.00042	<0 01	0.000064 J	<0.01

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3a
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																	
			Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate	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)	Nitrobenzene	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			**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]	**0.014** [1]	**0.21** [3]	**0.1** [1]	**0.21** [1]	**0.007** [3]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																	
P-57	P57-ROX-011422	1/14/2022	<0.01	<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	<0.01	<0.0002	<0 01	<0.0002	<0.01 UJ
	P57-ROX-041522	4/15/2022	0.00055 J	<0 0096	<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 0096	0.00036	<0.0096 UJ	<0.00019	<0 0096 UJ
	P57-ROX-071522	7/15/2022	<0.0095 H J	<0 0095 H J	0.023 H J	<0.0095 H J	<0.0095 H J	<0.0095 H J	<0.00019	0.00027	<0 0095 H UJ	<0.00019	0.0096	0.012	<0.0095 H J	0.0015 H J	<0 0095 H J	0.00018 J	<0.0095 H J	<0.00019	<0.0095 H J
	P57-ROX-102822	10/28/2022	<0.0093	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	<0.00093	<0.00093 UJ	<0 0093	0.00014 J	0.022	0.029	<0.0093	<0.019	<0 0093	0.00055	<0.0093	0.0002	<0.0093
	P57-ROX-102822-PAH	10/28/2022	--	--	--	--	--	--	<0.00038 H UJ	0.0008 H J	--	<0.00019 H UJ	0.025 H J	0.027 H J	--	--	--	0 00028 J H J	--	<0.00019 H UJ	--
P-58	P58-ROX-011322	1/13/2022	<0.0095	<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 0095	0 0015	0.57	<0.00019 UJ	<0.0095
	P58-ROX-011322-DUP	1/13/2022	<0.0098	<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 0098	0 0018	0.45	0 00087 J	<0.0098
	P58-ROX-041822	4/18/2022	0.0014 J	<0 0097	<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 0097	0 0016	0.6	0.00058	<0.0097
	P58-ROX-041822-DUP	4/18/2022	0.0016 J	<0 0097	<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 0097	0 0014	0.67	0.00053	<0.0097
	P58-ROX-071422	7/14/2022	0.0026 J	<0 0092	0.013	<0.0092	<0.0092	<0 0092	0.00025	0 0030 J	<0 0092	0.00017 J	0.071	0.059	0.024	0.018	<0 0092	0 0026	0.31 J	0.0011	<0.0092
	P58-ROX-071422-DUP	7/14/2022	<0.018	<0.018	0.012 J	<0.018	<0.018	<0.018	0.00029 J	0 0017 J	<0.018	0 000088 J	0.088	0.051	0.023	0.016 J	<0.018	0 0024	0.13 J	0.0013	<0.018
P-59	P59-ROX-011322	1/13/2022	<0.01	<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	<0.01	<0.0002	0.059	<0.0002	<0.01
	P59-ROX-041822	4/18/2022	<0.019	<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	<0.019	0.00088	0.028	<0.00019	<0.019
	P59-ROX-071422	7/14/2022	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	0.00023 J	0.00044	<0.019	<0.00038	0.014	0.02	<0.019	<0.038	<0.019	0 0013	0.023	0.00047	<0.019
	P59-ROX-110422	11/4/2022	<0.0093	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	0.00045	<0.00019	<0 0093	<0.00019	0.013	0.019	<0.0093	<0.019	<0 0093	0 0011	0.024	<0.00019	<0.0093
P-66	P66-ROX-011322	1/13/2022	0.00086 J	<0 0096	<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 0096	<0.00019	0.019	<0.00019	<0.0096
P-74	P74-ROX-011322	1/13/2022	<0 0095	<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 0095	<0.00019	<0.0095	<0.00019	<0.0095
	P74-ROX-011322-DUP	1/13/2022	<0.01	<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	<0.01	<0.00021	0.0032 J	<0.00021	<0.01
	P74-ROX-041822	4/18/2022	<0 0097	0 00033 J	<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 0097	<0.00019	<0.0097	<0.00019	<0.0097
	P74-ROX-041822-DUP	4/18/2022	<0 0096	<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 0096	0 000037 J	<0.0096	<0.00019 U	<0.0096
	P74-ROX-071322	7/13/2022	<0 0095	<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 0095	0 000048 J	<0.0095	0.000069 J	<0.0095
	P74-ROX-102822	10/28/2022	<0 0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	<0.00038 UJ	<0.00038 UJ	<0 0094	<0.00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	0 000052 J	<0.0094	0.000055 J	<0.0094
	P74-ROX-102822-DUP	10/28/2022	<0 0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	<0.00019	<0.00019 UJ	<0 0094	<0.00019	<0.00019	<0.00019	<0.0094	<0.019	<0 0094	<0.00019	<0.0094	<0.00019	<0.0094
P-93A	P93A-ROX-011222	1/12/2022	<0 0098	<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 0098	<0.0002	<0.0098	<0.0002	<0.0098
	P93A-ROX-041922	4/19/2022	<0.01	<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	<0.01	0 000079 J	<0 01	<0.0002	<0.01
	P93A-ROX-071522	7/15/2022	<0 0095	<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 0095	<0.00019	<0.0095	<0.00019	<0 0095 UJ
	P93A-ROX-110122	11/1/2022	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0 0002	<0 0002	0.000098 J	<0.01	<0.02	<0.01	<0.0002	<0 01	<0.0002	<0.01
P-93B	P93B-ROX-011322	1/13/2022	<0 0098	<0 0098	0 0039 J	<0.0098	<0.0098	<0 0098	<0.0002	<0.0002	<0 0098	<0 0002	<0 0002	<0.0002	<0.0098	0.002 J	<0 0098	<0.0002	0.37	<0.0002	<0.0098
	P93B-ROX-042022	4/20/2022	<0.01	<0.01	0 0042 J	<0 01	<0.01	<0.01	0.00036	<0.00021	<0.01	<0.00021	0.00012 J	0.00012 J	<0.01	0.0025 J	<0.01	0.00043	0.4	0.00026	<0.01
	P93B-ROX-071522	7/15/2022	<0.0093	<0 0093	0.005 J	<0.0093	<0.0093	<0 0093	<0.00019	<0.00019 UJ	<0 0093	0 000061 J	<0.00019 UJ	0.00012 J J	<0.0093	0.0012 J	<0.0093	0 000041 J	0.32	0 00004 J	<0 0093 UJ
	P93B-ROX-071522-DUP	7/15/2022	0.00042 J J	0.0015 J	0 0054 J	<0.0092	<0.0092	<0 0092	<0.00018	0 0004 J	0.0013 J	<0.00018	0.012 J	0.015 J	<0.0092	0.0015 J	<0 0092	0.00027	0 3	<0.00018	<0.0092
	P93B-ROX-110422	11/4/2022	<0.0093	<0 0093	0 0044 J	<0.0093	<0.0093	<0 0093	<0.00019	<0.00019	<0 0093	<0.00019	0.00016 J	<0.00019	<0.0093	0.0012 J	<0 0093	<0.00019	0.31	<0.00019	<0.0093
P-93C	P93C-ROX-011022	1/10/2022	<0.0095	<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 0095	<0 00019	<0.0095	<0.00019	<0 0095 UJ
	P93C-ROX-041922	4/19/2022	<0.0097	<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 0097	0 000045 J	<0.0097	<0.00019	<0.0097
	P93C-ROX-071322	7/13/2022	<0.01	<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	<0.01	<0.00021	<0 01	<0.00021	<0.01
	P93C-ROX-110122	11/1/2022	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002 U	<0 0002	0.000082 J	<0.01	<0.02	<0.01	<0.0002	<0 01	0.000064 J	<0.01
P-93D	P93D-ROX-011422	1/14/2022	<0.0097	<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 0097	<0 00019	<0.0097	<0.00019	<0 0097 UJ
	P93D-ROX-041922	4/19/2022	<0.0099	0 00039 J	<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 0099	<0.0002	<0.0099	<0.0002	<0.0099
	P93D-ROX-071522	7/15/2022	<0 0094	0 00083 J	<0.0094 UJ	<0.0094	<0.0094	<0 0094	<0.00019	<0.00019	<0.0094	<0.00019	<0.00019	<0.00019	<0.0094 UJ	<0.019 UJ	<0.0094	<0.00019	<0.0094 UJ	0.000039 J	0 0036 J J
	P93D-ROX-110322	11/3/2022	<0.0092	0 00084 J	<0.0092	<0.0092	0.0026 J	<0 0092	0.000092 J	<0.00018	<0 0092	<0.00018	<0.00018	<0.00018	<0.0092	<0.018	<0 0092	<0.00018	<0.0092	0.000068 J	<0.0092

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3a
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL RESULTS AND EXCEEDANCES

			SVOCs																	
			Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Dimethyl phthalate	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)	Nitrobenzene	Phenanthrene	Phenol	Pyrene	Pyridine
Screening Values (mg/L)			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]	0.014 [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-011022	1/10/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0 0094 UJ
	P114R-ROX-041422	4/14/2022	<0.0095	<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 0095	<0.00019	<0.0095 UJ	<0.00019	<0 0095 UJ
	P114R-ROX-071122	7/11/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	0.000091 J	<0.00019	<0 0094	0.00011 J	<0.00019	<0.00019	<0.0094	<0.019	<0 0094	0 000062 J	<0.0094	<0.00019	<0.0094
	P114R-ROX-102422	10/24/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	0.00022	<0.00019	<0 0094	<0.0002 U	<0.00019	<0.00019	<0.0094	<0.019	<0 0094	<0.00019 U	<0.0094	0.00022 B	<0.0094
ROST-3-MW	ROST3MW-ROX-010622	1/6/2022	<0.0094	<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 0094	<0 00019	<0.0094	<0.00019	<0.0094
	ROST3MW-ROX-041222	4/12/2022	<0.0095	<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 0095	<0 00019	<0.0095	0.000041 J J	<0.0095
	ROST3MW-ROX-071222	7/12/2022	<0.0096	0 00052 J	<0.0096 UJ	<0.0096	<0.0096	<0 0096	<0.00019	<0.00019	<0 0096	<0.00019	0 00016 J	0.000063 J	<0.0096 UJ	<0.019 UJ	<0 0096	<0.00019	<0.0096 UJ	<0.00019	<0.0096
	ROST3MW-ROX-102722	10/27/2022	<0.0093	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	<0.00019	<0.00019	<0 0093	<0.00019	0.0002	<0.00019	<0.0093	<0.019	<0 0093	<0 00019	<0.0093	<0.00019	<0 0093 UJ
ROST-4-PZ(C)	ROST4PZC-ROX-011122	1/11/2022	0.00046 J	<0 0096	<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 0096	0 0031	<0.0096	0.000084 J	<0.0096
	ROST4PZC-ROX-041522	4/15/2022	0.00082 J	<0 0095 U	<0.0095	<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 0095	0 0028	<0.0095 UJ	0.000098 J	<0 0095 UJ
	ROST4PZ(C)-ROX-071422	7/14/2022	0.00077 J	<0 0095	<0.0095	<0.0095	<0.0095	<0 0095	0.000075 J	0.0011	<0 0095	<0.00019	0.034	0.011	<0.0095	0.00066 J	<0 0095	0 0030	<0.0095	0 00015 J	<0.0095
	ROST4PZ(C)-ROX-102822	10/28/2022	0.00064 J	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	<0.00093	0.0013	<0 0093	0 000066 J	0.027	0.0084	<0.0093	<0.019	<0 0093	0 0029	<0.0093	0 00012 J	<0.0093
ROST-4-PZ(E)	ROST4PZE-ROX-011222	1/12/2022	0.00039 J	<0 0096	<0.0096 UJ	<0.0096	<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 0096	0 0024	<0.0096 UJ	<0.00019	<0.0096
	ROST4PZE-ROX-011222-DUP	1/12/2022	0.00089 J	<0 0098	<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 0098	0 0023	<0.0098	0 00012 J	<0 0098 UJ
	ROST4PZ(E)-ROX-071522	7/15/2022	0.0036 J	<0 0096	0.024	<0.0096	<0.0096	<0 0096	0.00072 J	0 0046 J	<0 0096	<0.00019	0.077	0.075 J	<0.0096	0.0021 J	<0 0096	0.019 J	0.0026 J	0.0017 J	<0 0096 UJ
	ROST4PZ(E)-ROX-071522-DUP	7/15/2022	0.0020 J	<0 0096	0.019	<0.0096	<0.0096	<0 0096	0.00017 J J	0 0024 J	0.0032 J	<0.00019	0.066	0.058 J	<0.0096	0.0017 J	<0 0096	0.0054 J	<0.0096	0 00042 J	<0 0096 UJ
	ROST4PZ(E)-ROX-102822	10/28/2022	0.0011 J	<0 0094	<0.0094 UJ	<0.0094	<0.0094	<0 0094	<0.00094	0.0021	0.0017 J	0 000044 J	0.038 J	0.033 J	<0.0094 UJ	<0.019 UJ	<0.0094	0 0044	<0.0094 UJ	0.00029	<0.0094
	ROST4PZ(E)-ROX-102822-DUP	10/28/2022	0.001 J	<0 0093	<0.0093	<0.0093	<0.0093	<0 0093	<0.00093	0.002	0.0021 J	<0.00019	0.064 J	0.057 J	<0.0093	<0.019	<0 0093	0 0047	<0.0093	0.00035	<0.0093
ROST-4-PZ(G)	ROST4PZG-ROX-011022	1/10/2022	<0.0099	<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 0099	<0.0002	<0.0099	<0.0002	<0 0099 UJ
	ROST4PZG-ROX-041522	4/15/2022	<0.0097	<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 0097	<0 00019	<0.0097 UJ	0.000051 J	<0 0097 UJ
	ROST4PZG-ROX-041522-DUP	4/15/2022	<0.0095	<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 0095	0 000055 J	<0.0095 UJ	<0.00019	<0 0095 UJ
	ROST4PZ(G)-ROX-071222	7/12/2022	<0.0095	0 00043 J	<0.0095	<0.0095	<0.0095	<0 0095	<0.00019	<0.00019	<0 0095	0.00016 J J	<0.00019	<0.00019	<0.0095	<0.019	<0 0095	0.000044 J J	<0.0095	<0.00019	<0.0095
	ROST4PZ(G)-ROX-102722	10/27/2022	<0.0094	<0 0094	<0.0094	<0.0094	<0.0094	<0 0094	0.00012 J	<0.00019	<0 0094	0.00025	<0.00019	<0.00019	<0.0094	<0.019	<0 0094	0.00012 J	<0.0094	0 00012 J	<0.0094
	ROST4PZG-ROX-102722-PAH	10/27/2022	--	--	--	--	--	--	<0.00019 H UJ	<0.00019 H UJ	--	<0.00037 H UJ	<0.00019 H UJ	0.00012 J H J	--	--	--	<0.00019 H UJ	--	<0.00037 H UJ	--
T-12	T12-ROX-011422	1/14/2022	<0.01	<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	<0.01	<0.0002	0.036	<0.0002	<0.01 UJ
	T12-ROX-042022	4/20/2022	<0.0099	<0 0099	<0.0099 UJ	<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	<0.0099	<0.0002	0.0076 J J	<0.0002	<0 0099 UJ
	T12-ROX-071422	7/14/2022	<0.0098	<0 0098	0.006 J	0 006 J	<0.0098	<0 0098	0.00007 J	<0.0002	0.0031 J	0 000042 J	<0 0002	<0.00020	<0.0098	0.00062 J	<0 0098	<0.0002	0.13	0.000084 J	<0.0098
	T12-ROX-110122	11/1/2022	<0.01	<0.01	<0.01	<0 01	0.0029 J	<0.01	<0.0002	<0.0002	<0.01	<0 0002	0.013	0.016	<0.01	<0.02	<0.01	0.00019 J	0.12	<0.0002	<0.01

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, P-66, 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

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

H = Analyzed or extracted out of holding time criteria.

F2 = Indicates MS/MSD RPD 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.

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 3b
SUMMARY OF GROUNDWATER MONITORING WELLS MW-18 THROUGH MW-21
VOC ANALYTICAL RESULTS

			VOCs																
			Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Cymene (p-Isopropyltoluene)	Ethylbenzene	Isopropylbenzene (Cumene)	Naphthalene	n-Propylbenzene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	m,p-Xylenes	o-Xylenes	Xylenes (total)
Screening Values (mg/L)			6.3 [1]	0.005 [1]	0.35 [3]	0.7 [3]	0.7 [3]	0.7 [1]		0.7 [1]	0.7 [1]	0.14 [1]	0.7 [3]	1.0 [1]	0.07 [3]	0.07 [3]	10 [1]		10 [1]
Location	**Sample ID**	**Sample Date**	**Analytical Results (mg/L)**																
MW-18	MW18-ROX-103122	10/31/2022	< 0.025	0.0007 J	< 0.001	0.00077 J	0.00084 J	< 0.001	0.0011	0.013	0.0022	< 0.005	0.0038	0.0025	0.023	0.0024	0.02	0.012	0.032
MW-19	MW19-ROX-103122	10/31/2022	< 0.025	0.00059 J	0.0014	0.0014	0.00094 J	0.00053 J	0.001	0.017	0.013	0.0030 J	0.025	0.00061 J	0.053	0.0082	0.00094 J	0.0048 J	0.0058 J
MW-20	MW20-ROX-103122	10/31/2022	< 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	< 0.005	< 0.005	< 0.01
MW-21	MW21-ROX-103122	10/31/2022	< 0.025	0.00063 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01
	MW21-ROX-103122-DUP	10/31/2022	0.019 J J	0.00060 J	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.005	< 0.005	< 0.01

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).

LABORATORY QUALIFIERS

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

<#.## 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.

Indicates a current exceedance of screening criteria.

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

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:

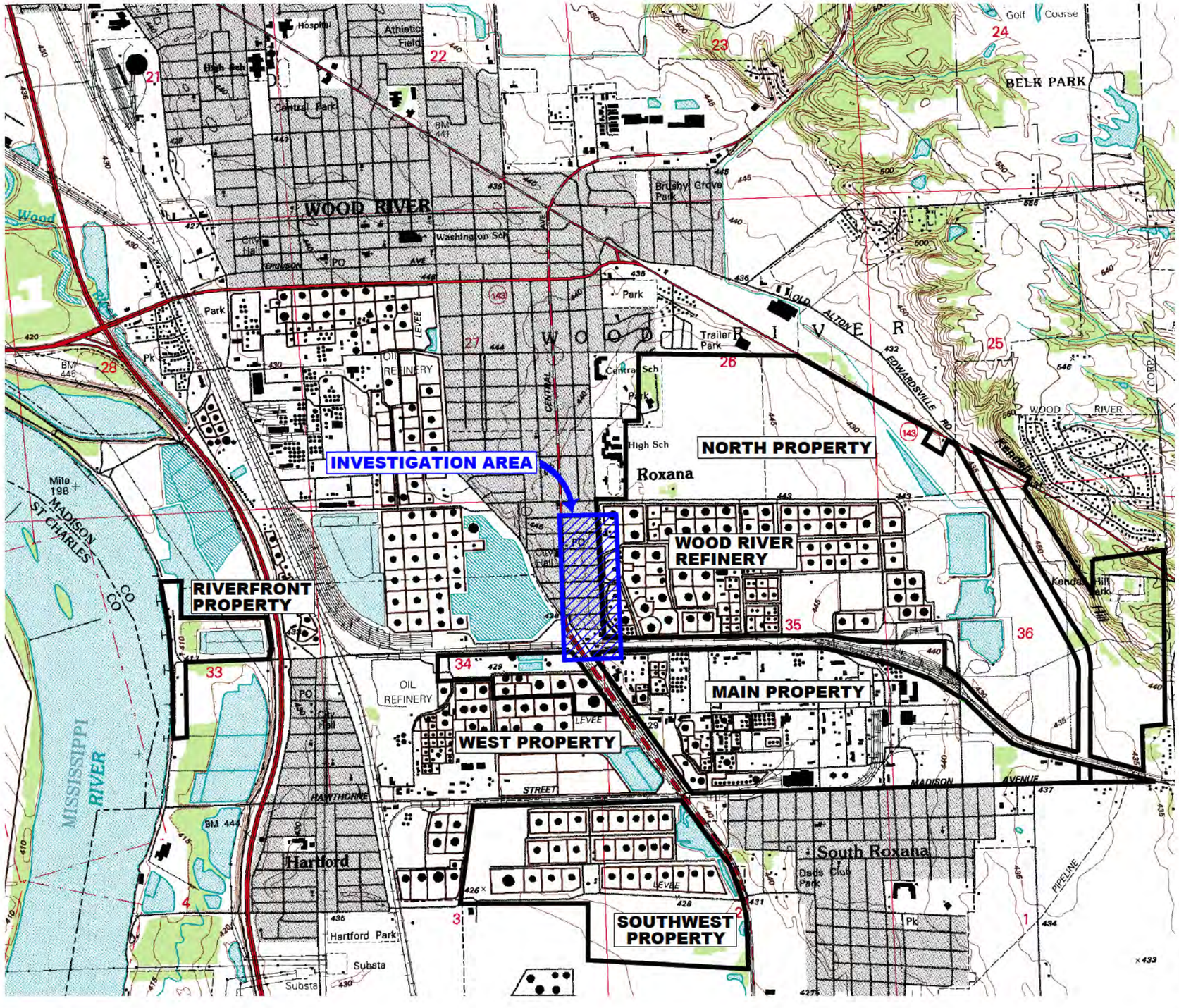
Plan View Model Output – The data input for the plan view model was not limited by depth and was modeled in two dimensions (2D). Regardless of sample depth, benzene concentrations were modeled on a flat horizontal plane.

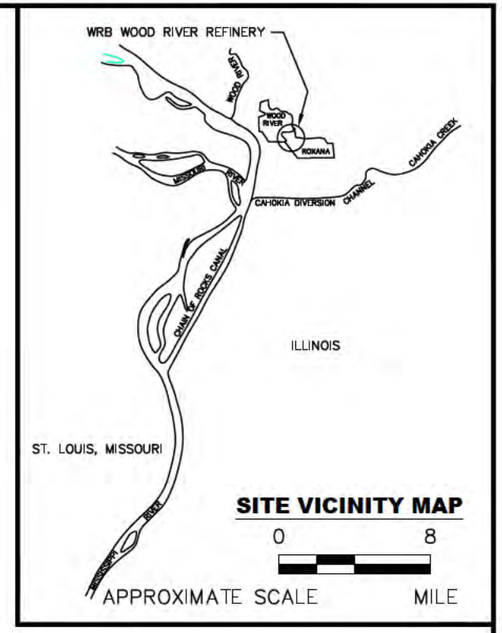
Inward Kriging / Boundary Cut-off – This method of Kriging limits the horizontal extent of data modeling to the extent of the data on the x/y plane in a convex hull.

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

N

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

PROJECT NO. 60674381

AECOM

DRN. BY:gds January 2023
DSGN. BY: mar
CHKD. BY: wmp

Investigation Area Location Map

FIG. NO. 1

File: C:\USERS\BRIEBENACV\ADOM\GDS GIS SERVICES - DOCUMENTS\SHELL\ILLINOIS\60606 - WOOD_R_CENTRAL_AFC - ROXANA - IL\ROXANA 4222.dwt (MPT) PART 2 01/09/2023\WORKSPACE\FIGURE 1 INVESTIGATION AREA LOCATION MAP.DWG Last edited: 01/09/23 ● 9:08 PM ● WCC-ST.LOUIS

File: C:\USERS\BREBEANUC\ACCOM\GDS GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 4Q22 GW RPT\PART 2 01.09.2023\WORKSPACE\FIGURE 2 GROUNDWATER MONITORING WELL SAMPLING LOCATIONS.DWG Last edited: Jan. 17, 23 @ 4:21 PM by: lorenle

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
NORTH PROPERTY
WEST PROPERTY
MAIN PROPERTY
VILLAGE OF ROXANA
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-17
T-12 *
MW-24 *
MW-22 *
P-69
A-27
P-70
MW-18
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 *
SIXTH STREET
DAY STREET
SEVENTH STREET
MW-26 *
MW-21
T-6
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-28
T-24
T-1

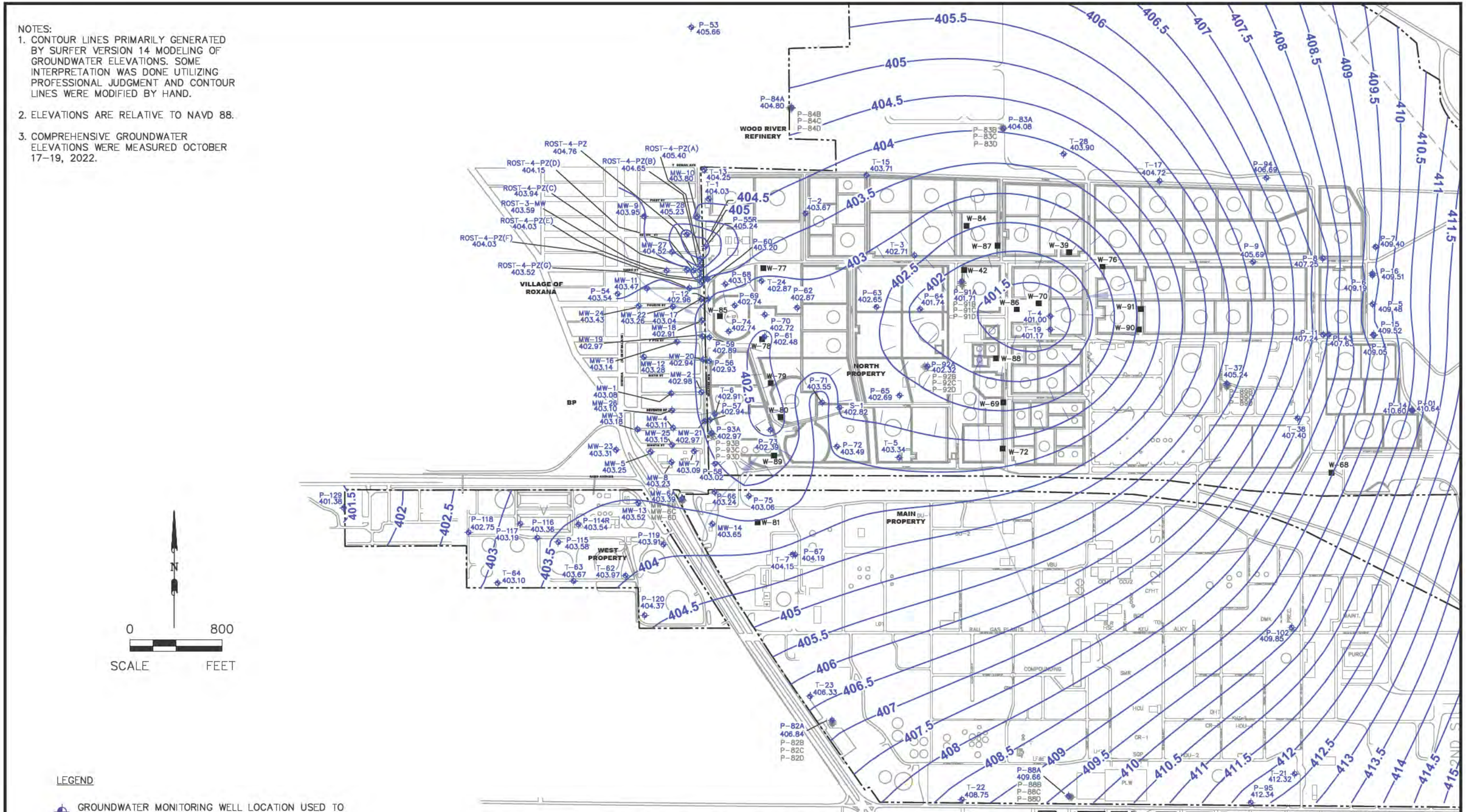
0 200
SCALE FEET
N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60674381
AECOM		
DRN. BY:gds January 2023 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 OCTOBER 17–19, 2022.



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 January 2023
DSGN. BY:gds
CHKD. BY:mr/bh

Groundwater Contours
4Q22

FIG. NO. 3a

File: C:\USERS\BREBEANUC\AECOM\GDS GIS SERVICES – DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 4Q22 GW RPT\PART 2 01.09.2023\WORKSPACE\FIGURE 3A ROX 4Q22 CONTOUR MAP (800 SCALE).DWG Last edited: Jan. 17, 23 @ 4:21 PM by: brebeanuc

File: C:\USERS\BREBEANUC\AECOM\GDS GIS SERVICES – DCS AMERICAS\SHELL\ILLINOIS\USF00666-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 4Q22 GW RPT\PART 2 01.09.2023\WORKSPACE\FIGURE 3B GW CONTOURS 4Q22 WF.DWG Last edited: Jan. 17, 23 @ 6:37 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 OCTOBER 17–19, 2022.

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

T-13 404 25
T-1 404 03
T-2 403 67
MW-9 403.95
MW-10 403.80
ROST-4-PZ(A) 405.40
ROST-4-PZ(B) 404.65
MW-28 405.23
MW-27 404 52
P-55R 405 24
ROST-4-PZ(D) 404.15
ROST-4-PZ(C) 403.94
ROST-4-PZ 404.76
ROST-3-MW 403 59
ROST-4-PZ(E) 404.03
ROST-4-PZ(F) 404.03
P-68 403.13
P-60 403 20
P-54 403.54
MW-11 403.47
ROST-4-PZ(G) 403.52
T-12 402.96
MW-17 403.04
P-62 402.87
MW-24 403.43
MW-22 403 26
P-69 402.74
W-85
P-70 402.72
MW-18 402.91
P-74 402.74
P-61 402.48
MW-19 402 97
P-59 402.89
W-78
MW-16 403.14
MW-20 402.94
P-56 402.93
MW-12 403.28
W-79
MW-2 402 98
MW-1 403 08
T-6 402.91
W-80
P-57 402.94
P-73 402.39
MW-4 403.11
MW-21 402.97
MW-3 403.18
P-93A 402 97
P-93B
P-93C
P-93D
P-72 403.49
MW-25 403.15
MW-7 403.09
MW-23 403.31
MW-5 403 25
MW-8 403 23
W-89
P-58 403.02
MW-6A 403.39
MW-6B
MW-6C
MW-6D
P-66 403.24
P-75 403.06
MW-13 403 52
P-117 403.19
P-114R 403 54
MW-14 403.65
W-81
P-116 403.36
P-115 403 58
P-119 403 91
P-67 404.19
T-7 404.15
T-64 403.10
T-63 403.67
T-62 403.97
A-147

404.5
404
405
403.5
402.5
403
403.5
404
404.5
405

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 January 2023 DSGN. BY: gds CHKD. BY: mr/bh	Groundwater Contours 4Q22– West Fenceline
	FIG. NO. 3b

File: C:\USERS\BRISCANUC\AECOM\QDS GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\USF00686-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 4Q22 GW RPT\PART 2 01.09.2023\WORKSPACE\FIGURE 4A THICKNESS OF LNAPL (WEST FENCLINE) 4Q22.DWG Last edited: Jan. 6, 23 @ 10:09 PM by: lorente

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 OCTOBER 17–19, 2022.

TYDEMAN AVE
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
BP
NORTH PROPERTY
WOOD RIVER REFINERY
MAIN PROPERTY
WEST PROPERTY
PUBLIC WORKS YARD
1986 APPROXIMATE BENZENE RELEASE SITE
2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

P-84A P-84B P-84C P-84D
T-13 T-1 T-2 T-24 T-12 T-6 T-7
MW-9 MW-10 ROST-4-PZ(A) MW-28 ROST-4-PZ(B) ROST-4-PZ(D) MW-27 ROST-4-PZ(C) ROST-3-MW ROST-4-PZ ROST-4-PZ(E) ROST-4-PZ(F) MW-11 ROST-4-PZ(G) MW-17 MW-24 MW-22 MW-18 MW-19 MW-16 MW-12 MW-20 MW-2 MW-1 MW-26 MW-21 MW-3 MW-4 MW-25 MW-5 MW-7 MW-8 MW-23 MW-13 MW-6 MW-14
P-54 P-60 P-68 0.01 0.04* P-69 W-85 P-70 P-74 P-61 R-78 W-78 P-59 P-56 P-57 P-73 P-93A P-93B P-93C P-93D P-72 P-71 S-1 0.07 R-80 W-80 W-79 R-79 P-62 0.02* 0.01 P-55R 0.08* R-77 W-77 A-28 A-33 A-27 P-75 P-66 1.02* 1.00 P-58 0.05 R-89 W-89 R-81 W-81 P-67 0.01* P-117 P-114R P-116 P-115 P-119

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 January 2023 DSGN. BY:mr CHKD. BY:bh	4Q22 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 OCTOBER 17-19, 2022.

VILLAGE OF ROXANA

NORTH PROPERTY

WEST PROPERTY

MAIN PROPERTY

SOUTHWEST PROPERTY

RAND AVE.

MAIN OFFICE ROAD

ILLINOIS TERMINAL RAILROAD

0 800

SCALE FEET

N

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS		PROJECT NO. 60674381
AECOM		
DRN. BY: gds January 2023 DSGN. BY: mr CHKD. BY: bh	4Q22 Thickness of LNAPL	FIG. NO. 4b

FILE: V:\60674381\ENVIRONMENTAL\ROXANA_AIR_ROXANA_GETNAM_S_SOIL_GW_DATA\GW_DATA\2022_4Q_GW_MONITORING_REPORT\PART 2 01.09.2023\WORKSPACE\FIGURE 4B THICKNESS OF LNAPL (REFINERY) 4Q22.DWG Last edited: Jan. 06, 23 @ 10:21 PM by: larenta

File: G:\USERS\LORENTE\AECOM\GOS GIS SERVICES - GIS CAD PROJECTS\DCS AMERICAS\SHELL\ILLINOIS\US60660-930_S_CENTRAL_AVE-ROXANA-IL\ROXANA 4Q22 GW RPT\PART 2 DT.09.2023\WORKSPACE\FIGURE 5 4Q22 GROUNDWATER ANALYTICAL RESULTS SUMMARY.DWG Last edited: ago. 18, 23 @ 10:53 AM by: brebeaguc

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
Methyl tert-Butyl Ether (MTBE)	0.07
1,2,4-Trimethylbenzene	0.07
Benzo(a)pyrene	0.0002
Benzo(b)fluoranthene	0.00018
Benzo(k)fluoranthene	0.00017
2-Methylnaphthalene	0.028
Phenol	0.1

3. J = THE RESULT IS ESTIMATED.
4. MULTIPLE RESULTS (e.g., 680 / 760) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
5. WELLS IDENTIFIED IN BLUE WITH NO DATA BOX INDICATE THE RESULTS DID NOT EXCEED SCREENING CRITERIA.
6. WELLS P-55R, P-58, P-66 AND P-68 WERE NOT SAMPLED DURING 4Q22 DUE TO THE PRESENCE OF LNAPL.
7. DATA FROM THE SVOC 8270_LL CONFIRMATION RE-ANALYSIS WAS USED FOR WELLS MW-6A, MW-6D, MW-12, MW-24, P-57, AND ROST-4-PZ(G); SEE TABLE 3 FOR ORIGINAL AND CONFIRMATION SVOC 8270_LL RESULTS.
8. DATA FROM THE BIS(2-ETHYLHEXYL)PHTHALATE CONFIRMATION RE-ANALYSIS WAS USED FOR WELLS MW-5, MW-6B, P-57, P-59, P-74, AND P-93A; SEE APPENDIX C FOR ORIGINAL AND CONFIRMATION BIS(2-ETHYLHEXYL)PHTHALATE RESULTS.

MW-9 MW-10 SECOND ST MW-28 P-55R MW-27 ROST-4-PZ(A) ROST-4-PZ(B) ROST-4-PZ(C) ROST-4-PZ THIRD ST ROST-3-MW ROST-4-PZ(D) ROST-4-PZ(E) ROST-4-PZ(F) MW-11 ROST-4-PZ(G) P-54 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 MW-2 MW-1 SEVENTH ST MW-26 MW-4 MW-3 EIGHTH ST MW-5 MW-25 MW-7 MW-8 MW-23 HIGHWAY 111 (S. CENTRAL AVE) CHAFFER AVE 1ST STREET 2ND STREET

1986 APPROXIMATE BENZENE RELEASE SITE

RAND AVENUE

2020 APPROXIMATE BUCKEYE PIPELINE GASOLINE RELEASE SITE

NORTH PROPERTY

WEST PROPERTY

MAIN PROPERTY

WOOD RIVER REFINERY

P-60 T-12 P-69 P-70 P-74 P-61 P-59 P-56 P-57 T-8 P-73 P-93A P-93B P-93C P-93D P-66 P-75 MW-6A MW-6B MW-6C MW-6D MW-13 MW-14 P-114R

Sample Location	ROST-4-PZ(E)
Sampled 10/28/2022	Result (mg/L)
Benzene	0.014 / 0.014
1,2,4-Trimethylbenzene	0.13 / 0.13
2-Methylnaphthalene	0.033 J / 0.057 J

Sample Location	T-12
Sampled 11/1/2022	Result (mg/L)
Benzene	2.2
Phenol	0.12

Sample Location	MW-22
Sampled 10/28/2022	Result (mg/L)
Benzene	0.0056
1,2,4-Trimethylbenzene	0.2

Sample Location	P-74
Sampled 10/28/2022	Result (mg/L)
Benzene	0.029 / 0.022

Sample Location	P-59
Sampled 11/4/2022	Result (mg/L)
Benzene	2.2

Sample Location	MW-7
Sampled 10/31/2022	Result (mg/L)
Benzene	680 / 760
Methyl tert-Butyl Ether (MTBE)	**0.3 J** / <0.5
Phenol	0.12 / 0.11

Sample Location	MW-25
Sampled 10/31/2022	Result (mg/L)
Benzene	0.02

Sample Location	MW-8
Sampled 10/31/2022	Result (mg/L)
Benzene	280
Phenol	0.26

Sample Location	P-57
Sampled 10/28/2022	Result (mg/L)
Benzene	0.054

Sample Location	P-93B	P-93C
Sampled 11/4, 11/1/2022	Result (mg/L)	Result (mg/L)
Benzene	790	
Phenol	0.31	
Benzo(a)pyrene		0.00046
Benzo(b)fluoranthene		0.0028
Benzo(k)fluoranthene		0.0003

N

0 200

SCALE FEET

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

PROJECT NO. 60674381

AECOM

DRN. BY:gds January 2023
DSGN. BY:mr
CHKD. BY:bh

4Q22 Groundwater Monitoring Well Analytical Exceedances

FIG. NO. 5

File: C:\USERS\BREBEANUC\AECOM\GDS GIS SERVICES - DCS AMERICAS\SHELL\ILLINOIS\USF00668-900_S_CENTRAL_AVE-ROXANA-IL\ROXANA 4Q22 GW RPT\PART 2 01.09.2023\WORKSPACE\FIGURE 6 4Q22 DISSOLVED PHASE BENZENE CONCENTRATIONS IN GROUNDWATER.DWG Last edited: Jan. 17, 23 @ 8:44 PM by: lorenle

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. 680 / 760) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
6. CONTOUR LINES IN AREA OF P-55R, P-58 AND P-66 ADJUSTED BASED ON AVAILABLE 4Q22 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
VILLAGE OF ROXANA
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
HIGHWAY 111 (S. CENTRAL AVE)
CHAFFER AVE
1ST STREET
2ND STREET
NORTH PROPERTY
WOOD RIVER REFINERY
MAIN PROPERTY
WEST PROPERTY
PUBLIC WORKS YARD
RAND AVENUE
BP

PZ-1(101) PZ-1(85) MW-9 <0.001 MW-10 0.0005 J MW-28 <0.001
MW-27 <0.001 ROST-4-PZ(A) ROST-4-PZ(B) ROST-4-PZ(C) 0.0025 ROST-3-MW <0.001 ROST-4-PZ(D) ROST-4-PZ(E) 0.014 / 0.014 ROST-4-PZ(F) ROST-4-PZ(G) 0.00047 J MW-11 0.00049 J
P-54 <0.001 MW-24 0.00055 J MW-22 0.0056 MW-18 0.0007 J MW-19 0.00059 J MW-16 <0.001
MW-12 <0.001 PZ-2(84) PZ-2(70.5) MW-20 <0.001 P-56 0.0005 J
MW-2 0.0014 MW-01 0.00066 J
MW-26 <0.001 MW-21 0.00063 J /0.0006 J MW-4 <0.001 MW-3 <0.001 MW-25 0.02
MW-5 <0.001 MW-7 680 / 760 MW-8 280 MW-23 <0.001
MW-13 0.0003 J MW-6A <0.001 MW-6B 0.00027 J MW-6C <0.001 MW-6D 0.00021 J MW-14 0.00054 J /0.00054 J P-114R 0.00047 J

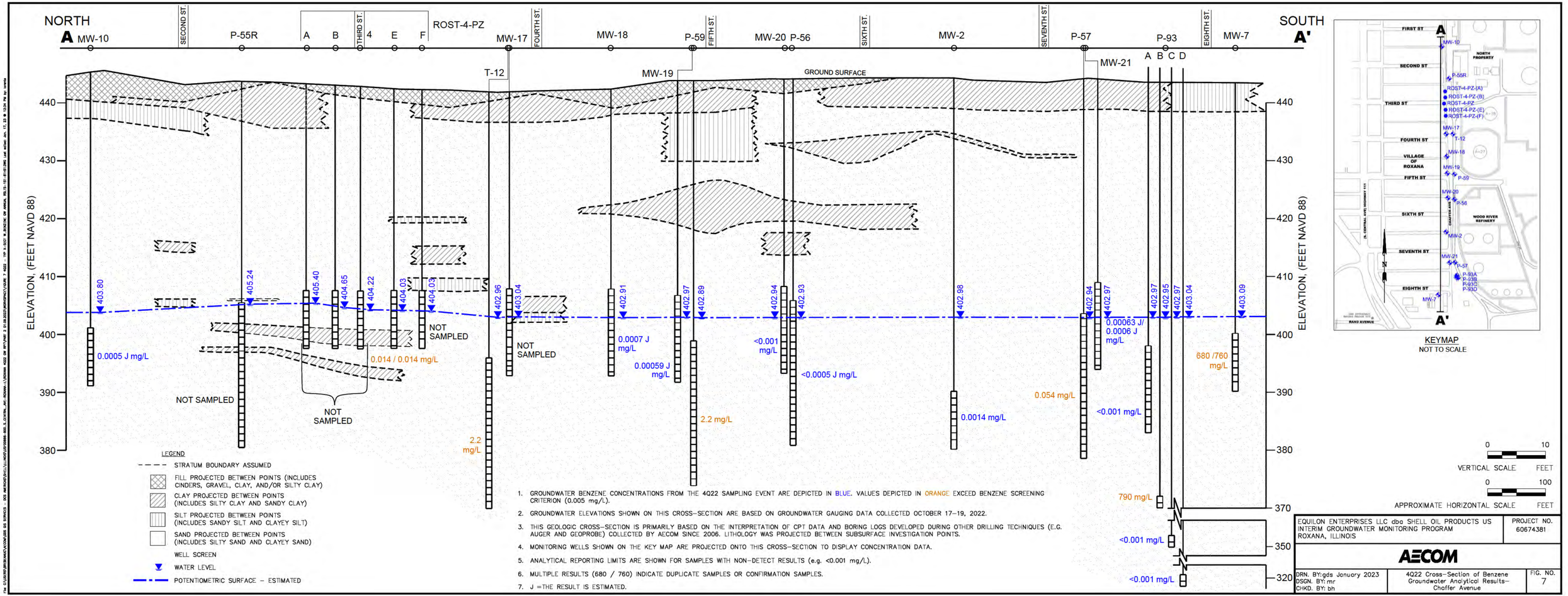
0.01 P-55R 0.08*
P-60-11 P-60-S P-60 P-60-12 P-60-13
0.01 P-68 0.04*
MW-17 T-12 2.2
R-85 W-85 P-69
P-74 0.029 /0.022
P-59 2.2
R-78 W-78 P-61
R-79 W-79
R-80 W-80
R-89 W-89
P-73 P-70 P-75
P-57 0.054
P-93A <0.001 P-93B 790 P-93C <0.001 P-93D <0.001
P-58 0.05 0.01
P-66 1.02* 1.00
R-81 W-81
R-77 W-77 T-24

A-34 A-28 A-33 A-27 A-22 F-76 F-77 F-78 F-73 F-74 F-75 T-6

0.005 0.05 0.5 5 50 500

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 January 2023 DSGN. BY:mr CHKD. BY:bh	4Q22 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
MW-21
A B C D
GROUND SURFACE
ELEVATION, (FEET NAVD 88)
440
430
420
410
400
390
380
370
350
320
403.80
405.24
405.40
404.65
404.22
404.03
404.03
402.96
403.04
402.91
402.97
402.89
402.94
402.93
402.98
402.94
402.97
402.97
402.95
402.97
403.04
403.09
0.0005 J mg/L
NOT SAMPLED
0.014 / 0.014 mg/L
NOT SAMPLED
NOT SAMPLED
NOT SAMPLED
2.2 mg/L
0.0007 J mg/L
0.00059 J mg/L
2.2 mg/L
<0.001 mg/L
<0.0005 J mg/L
0.0014 mg/L
0.054 mg/L
0.00063 J/ 0.0006 J mg/L
<0.001 mg/L
680 /760 mg/L
790 mg/L
<0.001 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 4Q22 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 OCTOBER 17–19, 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 (680 / 760) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
7. J =THE RESULT IS ESTIMATED.
FIRST ST
SECOND ST
THIRD ST
FOURTH ST
VILLAGE OF ROXANA
FIFTH ST
SIXTH ST
SEVENTH ST
EIGHTH ST
NORTH PROPERTY
WOOD RIVER REFINERY
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
N
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 January 2023
DSGN. BY: mr
CHKD. BY: bh
4Q22 Cross-Section of Benzene Groundwater Analytical Results– Chaffer Avenue
FIG. NO. 7

CROSS SECTION LINE - SOME FEATURES HAVE BEEN PROJECTED

WEST B — B' EAST

MW-6D MW-6C MW-6B MW-6A SVE-27 MW-7 P-93A P-93B P-93C P-93D T-6

(S. CENTARL AVE) HIGHWAY 111 — EIGHTH ST — SEVENTH ST

GROUND SURFACE

ELEVATION, FEET NAVD 88

440 420 400 380 360 340 320

403.44 403.42 403.40 403.39 403.09 402.97 402.95 402.97 403.04 402.91

<0.001 mg/L

0.00027 J mg/L

< 0.001 mg/L

0.00021 J mg/L

680 / 760 mg/L

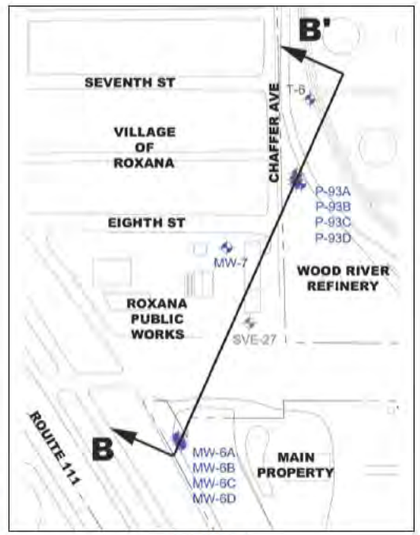
<0.001 mg/L

790 mg/L

<0.001 mg/L

<0.001 mg/L

NOT SAMPLED



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 4Q22 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 OCTOBER 17-19, 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 (680 / 760) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
9. J – THE RESULT IS ESTIMATED.

EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60674381
AECOM	
DRN. BY:gds January 2023 DSGN. BY:mr CHKD. BY:bh	4Q22 Cross-Section of Benzene Groundwater Analytical Results–Roxana Public Works Yard
	FIG. NO. 8

File: C:\USERS\MREMACKY\DOCUMENTS\DOCUMENTS - DCS_ANTARCUS\SHELL\ILLINOIS\60606666-RGO_S_COUNTRY_MFC-ROXANA-IL\ROXANA 4Q22 GW MPT\PART 2 01.09.2023\WORKSPACE\FIGURE 8 4Q22 TYP X-SECT W_BENZENE GW ANAL RSLTS-HW111-CHATTER.DWG Last edited: Jan. 17, 23 @ 4:07 PM by: mremacky

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 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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSA, S. BEADLE

DATE: 10/20/22 WEATHER: 58°F, CLEAR

MONITORING WELL ID: MW-1 SAMPLE ID: MW1 - ROX - 102022

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): NS 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 (WHIEVER 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

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	1236	39.68	CLEAR	NONE	17.57	1.07	0.964 mS/cm uS/cm	7.07	37.06	9.109
300	1237				17.67	1.22	0.965 mS/cm uS/cm	7.00	40.05	8.75
600	1238				17.82	0.96	0.965 mS/cm uS/cm	6.95	43.60	6.73
900	1239				17.95	0.81	0.965 mS/cm uS/cm	6.93	45.09	5.45
1200	1240				18.02	0.72	0.966 mS/cm uS/cm	6.91	45.78	4.88
1500	1241				18.09	0.68	0.966 mS/cm uS/cm	6.91	45.90	4.57
1800	1242				18.14	0.63	0.966 mS/cm uS/cm	6.90	45.45	4.53
							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			

SB 10/20/22

Start Time: 1236 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 517609 / 468101

Stop Time: 1242 Average Purge Rate (mL/min): 300 Date Calibrated: 10/20/22

SAMPLING DATA

Sample Date: 10/20/22 Sample Time: 1245 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: SB

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 4Q22 GW **PROJECT NUMBER:** 60674381 - 3.4.1/2/3 **FIELD PERSONNEL:** M.IMASSA, S.BEADLE

DATE: 10/28/22 **WEATHER:** 55°F, CLEAR

MONITORING WELL ID: MW-2 **SAMPLE ID:** MW2-ROX-102822

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): 41.17 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: SB 10/28/22 54.87 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: 121.5 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 19.08 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 (STABLE: over 4 readings)	Odor (STABLE: over 4 readings)	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	1128	41.18	CLEAR	~~CLEAR~~ SB 10/28/22 SLIGHT	17.72	2.01	0.820 mS/cm uS/cm	7.25	-12.43	3.90
300	1129	↓	↓	SLIGHT	17.87	1.36	0.822 mS/cm uS/cm	7.20	-20.57	4.40
600	1130			↓	18.03	0.99	0.823 mS/cm uS/cm	7.17	-30.49	4.72
900	1131				18.07	0.90	0.824 mS/cm uS/cm	7.17	-33.94	5.09
1200	1132				18.23	0.80	0.823 mS/cm uS/cm	7.16	-38.82	5.47
1500	1133				18.29	0.77	0.824 mS/cm uS/cm	7.16	-43.43	5.64
1800	1134				18.15	0.67	0.823 mS/cm uS/cm	7.15	-47.03	5.87
2100	1135	↓	↓	↓	18.22	0.63	0.823 mS/cm uS/cm	7.15	-50.56	10.14
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
			SB 10/28/22				mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1124 **Elapsed Time (min):** 7 **Water Quality Meter ID & SN:** YSI ProDSS -- 517609/468861

Stop Time: 1135 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 10/28/22

SAMPLING DATA

Sample Date: 10/28/22 **Sample Time:** 1140 **Lab Analysis:** VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ **Initials:** SB

COMMENTS:

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

Estimated Total Purge Volume: 2,100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSA, S. BEADLE

DATE: 10/25/22 WEATHER: 60°F, LIGHT RAIN

MONITORING WELL ID: MW-3 SAMPLE ID: MW3-ROX-102522

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 39.07 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): 20.94 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): 18.06 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

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	0932	20.95	CLEAR	NONE	18.29	1.16	1.251 mS/cm uS/cm	6.40	31.00	4.28
300	0933				18.39	1.08	1.261 mS/cm uS/cm	6.40	-3.57	2.37
600	0934				18.48	0.88	1.273 mS/cm uS/cm	6.50	-21.04	2.98
900	0935				18.57	0.77	1.279 mS/cm uS/cm	6.53	-34.04	1.90
1200	0936				18.62	0.68	1.286 mS/cm uS/cm	6.55	-46.12	2.26
1500	0937				18.67	0.62	1.293 mS/cm uS/cm	6.57	-54.34	1.65
1800	0938				18.74	0.58	1.291 mS/cm uS/cm	6.58	-61.20	1.04
2100	0939				18.72	0.55	1.292 mS/cm uS/cm	6.60	-67.57	0.77
2400	0940	↓	↓	↓	18.72	0.52	1.293 mS/cm uS/cm	6.61	-72.06	0.00
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
			SB	10/25/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0932 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS -- S17H09|46861

Stop Time: 0940 Average Purge Rate (mL/min): 300 Date Calibrated: 10/25/22

SAMPLING DATA

Sample Date: 10/25/22 Sample Time: 0945 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: ~~NA~~ EB SB 10/24/22

VOA Vials, No Headspace ☒ Initials: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSA, S. BEADLE

DATE: 10/31/22 WEATHER: 55°F, OVERCAST

MONITORING WELL ID: MW-4 SAMPLE ID: MW4-ROX-103122

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 50.00 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): 38.28 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): 45.06 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): 17.11 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) (Monitor Temp. +/-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	0928	38.30	CLEAR	SLIGHT	17.49	2.80	1.173 mS/cm uS/cm	6.30	114.89	4.52
300	0929				17.93	1.65	1.147 mS/cm uS/cm	6.48	95.28	5.56
600	0930				18.40	1.11	1.152 mS/cm uS/cm	6.60	71.55	4.96
900	0931				18.70	0.89	1.151 mS/cm uS/cm	6.606	52.98	4.31
1200	0932				18.84	0.75	1.140 mS/cm uS/cm	6.71	36.24	3.54
1500	0933				18.86	0.65	1.139 mS/cm uS/cm	6.74	19.16	3.19
1800	0934				18.88	0.59	1.129 mS/cm uS/cm	6.78	3.58	2.70
2100	0935				18.88	0.55	1.125 mS/cm uS/cm	6.80	-8.32	2.83
2400	0936				18.75	0.53	1.122 mS/cm uS/cm	6.92	-19.11	2.50
2700	0937				18.77	0.51	1.119 mS/cm uS/cm	6.83	-26.73	2.47
3000	0938				18.66	0.50	1.117 mS/cm uS/cm	6.85	-33.10	2.59
3300	0939	↓	↓	↓	18.56	0.49	1.116 mS/cm uS/cm	6.86	-38.50	2.82
							mS/cm uS/cm			
			SB	10/31/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0928 Elapsed Time (min): 11 Water Quality Meter ID & SN: YSI ProDSS -- 617609/408061

Stop Time: 0939 Average Purge Rate (mL/min): 300 Date Calibrated: 10/31/22

SAMPLING DATA

Sample Date: 10/31/22 Sample Time: 0940 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M.MASSIA, S.BEADLE

DATE: 10/27/22 WEATHER: 45°F, CLEAR

MONITORING WELL ID: MW-5 SAMPLE ID: MW5-RDX-102722

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): 26.83 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): NS 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): 17.42 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

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	1004	26.90	CLEAR	NONE	17.44	1.90	0.987 mS/cm uS/cm	6.03	-20.85	6.69
300	1005				17.43	1.72	0.987 mS/cm uS/cm	6.00	-23.04	6.17
600	1006				17.45	1.14	0.985 mS/cm uS/cm	6.00	-38.97	6.30
900	1007				17.36	0.97	0.984 mS/cm uS/cm	6.01	-49.45	6.418
1200	1008				17.48	0.88	0.983 mS/cm uS/cm	6.02	-55.94	6.24
1500	1009				17.54	0.79	0.983 mS/cm uS/cm	6.03	-63.98	6.33
1800	1010				17.56	0.73	0.984 mS/cm uS/cm	6.04	-67.61	6.18
2100	1011	↓	↓	↓	17.107	0.108	0.984 mS/cm uS/cm	6.05	-72.15	6.48
~~2400~~ SB	~~1017~~						mS/cm uS/cm			
~~2700~~ 10/27/22	~~1015~~						mS/cm uS/cm			
~~3000~~							mS/cm uS/cm			
			SB 10/27/22				mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1004 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 17609/468161

Stop Time: 1011 Average Purge Rate (mL/min): 300 Date Calibrated: 10/27/22

SAMPLING DATA

Sample Date: 10/27/22 Sample Time: 1015 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace [X] Initials: SB

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 4Q22 GW **PROJECT NUMBER:** 60674381 - 3.4.1/2/3 **FIELD PERSONNEL:** M. MASSA, S. BEADLE

DATE: 10/21/22 **WEATHER:** ~73°F, O

MONITORING WELL ID: MW-6A **SAMPLE ID:** MW06A - ROX-102122

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): 28.80 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): NS 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 15.38 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	1221	28.80	CLOUDY	NONE	20.104	1.27	1.055 ~~mS/cm~~ uS/cm	6.69	-37.16	99.66
300	1224	"	"	"	SB 20.0 20.074	0.90	1.063 mS/cm uS/cm	6.72	-52.94	78.00
600	1227				20.09	0.79	1.063 mS/cm uS/cm	6.73	-59.08	71.22
900	1224				20.75	0.67	1.061 mS/cm uS/cm	6.75	-65.64	69.12
1200	1235				20.37	0.60	1.061 mS/cm uS/cm	6.75	-70.59	73.89
1500	1240				20.36	0.54	1.056 mS/cm uS/cm	6.76	-76.07	93.94
1800	1247				20.38	0.51	1.055 mS/cm uS/cm	6.76	-78.84	94.16
2100	1248				20.90	0.47	1.054 mS/cm uS/cm	6.76	-81.22	97.77
2400	1249				20.87	0.45	1.054 mS/cm uS/cm	6.77	-83.80	91.90
2700	1250				20.83	0.43	1.054 mS/cm uS/cm	6.77	-810.04	77.17
3000	1251				20.97	0.41	1.053 mS/cm uS/cm	6.77	-88.07	70.13
3300	1252				21.03	0.40	1.054 mS/cm uS/cm	6.77	-89.88	64.60
3600	1253				20.96	0.39	1.055 mS/cm uS/cm	6.77	-91.01	60.03
3900	1254				20.91	0.37	1.052 mS/cm uS/cm	6.76	-92.39	53.59
4200	1255				20.94	0.37	1.058 mS/cm uS/cm	6.77	-93.50	49.24
4500	1256	"	"	"	20.95	0.36	1.060 mS/cm uS/cm	6.77	-94.95	45.30

Start Time: 1221 **Elapsed Time (min):** 17 **Water Quality Meter ID & SN:** YSI ProDSS -- 517609 / 468061

Stop Time: 1238 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 10/21/22

SAMPLING DATA

Sample Date: 10/21/22 **Sample Time:** 1240 **Lab Analysis:** VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ **Initials:** SB

COMMENTS:

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

Estimated Total Purge Volume: 5100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: ROMANA 4072 GW **PROJECT NUMBER:** 60167438 | -3.4.1|2|3 **FIELD PERSONNEL:** M. MASSA, S. BEADLE

DATE: 10/21/22 **MONITORING WELL ID:** MW-10A **SAMPLE ID:** MW10A-RUX-102122

				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)
4200	1237	78.80	CLEAR	NONE	20.96	0.35	1.0103 ~~mS/cm~~ uS/cm	6.78	-96.25	47.58
5100	1238	78.80	CLEAR	NONE	20.86	0.34	1.0105 ~~mS/cm~~ uS/cm	6.78	-97.21	40.67
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm		

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M.MASSA, S.BEADLE

DATE: 10/21/22 WEATHER: 67°F, CLEAR

MONITORING WELL ID: MW-6B SAMPLE ID: MW6B-ROX-102122

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 616.55 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): 28.87 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): NA ft		
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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.1 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 40.91 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) (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	1140	28.87	CLEAR	NONE	20.03	1.37	0.774 mS/cm uS/cm	6.99	-35.105	9.50
300	1141				20.12	1.09	0.774 mS/cm uS/cm	7.00	-48.30	7.70
600	1142				20.20	0.92	0.773 mS/cm uS/cm	7.00	-57.13	7.57
900	1143				20.27	0.83	0.773 mS/cm uS/cm	7.01	-63.63	7.07
1200	1144				20.25	0.76	0.773 mS/cm uS/cm	7.01	-68.18	10.03
1500	1145				20.32	0.68	0.772 mS/cm uS/cm	7.03	-73.77	10.25
1800	1146	↓	↓	↓	20.33	0.65	0.772 mS/cm uS/cm	7.03	-78.19	5.101
							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			

SB 10/24/22

Start Time: 1140 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 21769/468161

Stop Time: 1146 Average Purge Rate (mL/min): 300 Date Calibrated: 10/21/22

SAMPLING DATA

Sample Date: 10/21/22 Sample Time: 1150 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

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 4Q22 GW **PROJECT NUMBER:** 60674381 - 3.4.1/2/3 **FIELD PERSONNEL:** M. IMASSA, S. BEADLE

DATE: 10/21/22 **WEATHER:** 60°F, CLEAR

MONITORING WELL ID: MW-6C **SAMPLE ID:** MW6C-RDX-102122

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): 78.610 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 11.67 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	1011	78.608	CLEAR	NONE	18.95	2.04	0.737 (mS/cm) uS/cm	6.95	-30.03	2.46
300	1012	↓	↓	↓	18.86	1.36	0.753 (mS/cm) uS/cm	6.91	-48.08	2.86
600	1013				18.90	1.04	0.7101 (mS/cm) uS/cm	6.94	-59.45	2.78
900	1014				18.95	0.87	0.7108 (mS/cm) uS/cm	6.96	-67.16	1.44
1200	1015				19.02	0.76	0.772 (mS/cm) uS/cm	6.98	-73.60	1.13
1500	1016				19.03	0.68	0.775 (mS/cm) uS/cm	6.99	-79.05	0.60
1800	1017				19.04	0.63	0.777 (mS/cm) uS/cm	7.00	-82.83	0.26
2100	1018				19.10	0.59	0.779 (mS/cm) uS/cm	7.00	-86.88	0.00
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
			SB	10/21/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1011 **Elapsed Time (min):** 7 **Water Quality Meter ID & SN:** YSI ProDSS -- 21769/16861

Stop Time: 1018 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 10/21/22

SAMPLING DATA

Sample Date: 10/21/22 **Sample Time:** 1070 **Lab Analysis:** VOC, SVOC, PAH

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

VOA Vials, No Headspace [X] **Initials:** SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSH, S. BEHDLE

DATE: 10/21/22 WEATHER: 57°F, CLEAR

MONITORING WELL ID: MW-6D SAMPLE ID: MW6D-ROX-102122

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): 28.53 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 5 ft		
Water Column Height (not including NAPL): 81.52 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	

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	0927	28.54	CLEAR	NONE	18.26	1.58	0.931 mS/cm uS/cm	6.53	74.23	41.32
300	0928				18.23	1.18	0.934 mS/cm uS/cm	6.64	43.54	40.04
600	0929				18.30	0.98	0.937 mS/cm uS/cm	6.71	19.72	35.63
900	0930				18.36	0.87	0.939 mS/cm uS/cm	6.76	-1.57	37.04
1200	0931				18.44	0.73	0.941 mS/cm uS/cm	6.80	-13.15	30.81
1500	0932				18.44	0.72	0.943 mS/cm uS/cm	6.83	-29.57	26.31
1800	0933				18.49	0.66	0.945 mS/cm uS/cm	6.85	-40.44	22.28
2100	0934				18.45	0.62	0.947 mS/cm uS/cm	6.87	-49.46	17.49
2400	0935				18.49	0.59	0.950 mS/cm uS/cm	6.89	-54.67	15.35
2700	0936	↓	↓	↓	18.54	0.56	0.952 mS/cm uS/cm	6.90	-60.72	14.01
							mS/cm uS/cm			
							mS/cm uS/cm			
			SB 10/21/22				mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0927 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS -- 517169/4108101

Stop Time: 0936 Average Purge Rate (mL/min): 300 Date Calibrated: 10/21/22

SAMPLING DATA

Sample Date: 10/21/22 Sample Time: 0940 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M.MASSA, S.BEIADLE

DATE: 10/31/22 WEATHER: 57°, OVERCAST

MONITORING WELL ID: MW-7 SAMPLE ID: ~~MW-7~~ SB 10/31/22 MW-ROX-103122

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): 40.31 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.7 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 12.61 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	1325	40.34	CLEAR	STRONG	18.07	0.86	1.328 ~~mS/cm~~ uS/cm	6.105	-18.22	0.00
300	1326	↓	↓	↓	18.26	0.606	1.323 ~~mS/cm~~ uS/cm	6.104	-21.05	↓
600	1327				18.40	0.61	1.319 ~~mS/cm~~ uS/cm	6.104	-23.03	
900	1328				18.56	0.56	1.311 ~~mS/cm~~ uS/cm	6.104	-26.46	
1200	1329	↓	↓	↓ SB 10/31/22	18.66	0.50	1.298 ~~mS/cm~~ uS/cm	6.105	-29.52	↓
							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			

SB 10/31/22

Start Time: 1325 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 51709/468601

Stop Time: 1329 Average Purge Rate (mL/min): 300 Date Calibrated: 10/31/22

SAMPLING DATA

Sample Date: 10/31/22 Sample Time: 1330 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: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M.MASSA, S.BEADLE

DATE: 10/31/22 WEATHER: 57°F, OVERCAST

MONITORING WELL ID: MW-8 SAMPLE ID: MW8-ROX-103122

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): 31.28 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): 33.60 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): 12.32 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	1231	31.31	CLEAR	MODERATE	17.67	1.96	1.431 mS/cm uS/cm	6.73	-7.78	7.17
300	1232				18.07	1.17	1.454 mS/cm uS/cm	6.71	-26.70	8.51
600	1233				18.30	0.87	1.456 mS/cm uS/cm	6.71	-40.57	9.43
900	1234				18.40	0.70	1.456 mS/cm uS/cm	6.71	-52.16	11.47
1200	1235				18.46	0.61	1.450 mS/cm uS/cm	6.72	-61.02	12.06
1500	1236				18.53	0.56	1.444 mS/cm uS/cm	6.73	-67.96	14.03
1800	1237				18.57	0.53	1.438 mS/cm uS/cm	6.73	-73.44	13.39
2100	1238	↓	↓	↓	18.46	0.50	1.433 mS/cm uS/cm	6.74	-78.14	15.48
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
		SB	10/31/22				mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1231 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 17609/16861

Stop Time: 1238 Average Purge Rate (mL/min): 300 Date Calibrated: 10/31/22

SAMPLING DATA

Sample Date: 10/31/22 Sample Time: 1240 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace [X] Initials: SB

COMMENTS:

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

Estimated Total Purge Volume: 2,100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M.MASSA, S.BEADLE

DATE: 10/27/22 WEATHER: 55°F, PARTLY CLOUDY

MONITORING WELL ID: MW-9 SAMPLE ID: MW9-ROX-102722

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): 41.50 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): 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 14.87 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	1115	41.52	CLEAR	NONE	17.21	2.02	1.016 mS/cm uS/cm	6.85	-18.79	0.00
300	1116				17.38	1.61	1.023 mS/cm uS/cm	6.80	-24.69	
600	1117				17.54	1.20	1.025 mS/cm uS/cm	6.78	-29.87	
900	1118				17.58	1.02	1.027 mS/cm uS/cm	6.77	-34.02	
1200	1119				17.65	0.88	1.027 mS/cm uS/cm		-38.10	
1500	1120				17.75	0.80	1.029 mS/cm uS/cm		-40.84	0.04
1800	1121				17.87	0.72	1.030 mS/cm uS/cm		-43.96	0.00
2100	1122				17.92	0.67	1.031 mS/cm uS/cm		-46.30	
2400	1123				17.95	0.67	1.031 mS/cm uS/cm		-49.16	
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
				SB	10/27/22		mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1115 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS -- 17609/16861

Stop Time: 1123 Average Purge Rate (mL/min): 300 Date Calibrated: 10/27/22

SAMPLING DATA

Sample Date: 10/27/22 Sample Time: 1125 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

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 4Q22 GW **PROJECT NUMBER:** 60674381 - 3.4.1/2/3 **FIELD PERSONNEL:** M. MASSA, S. BEADLE

DATE: 10/20/22 **WEATHER:** 50°F, CLEAR

MONITORING WELL ID: MW-10 **SAMPLE ID:** MW10-ROX-102022

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): 41.12 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): 13.04 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: 0.1 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	1333	41.16	CLEAR	NONE	18.41	2.40	1.890 mS/cm uS/cm	6.84	65.55	70.45
300	1334				18.50	1.44	1.910 mS/cm uS/cm	6.83	49.92	63.03
600	1335				18.58	1.07	1.914 mS/cm uS/cm	6.82	36.00	60.47
900	1336				18.60	0.87	1.915 mS/cm uS/cm	6.82	23.79	58.98
1200	1337				18.65	0.75	1.919 mS/cm uS/cm	6.82	12.87	54.74
1500	1338				18.75	0.66	1.911 mS/cm uS/cm	6.82	3.23	50.65
1800	1339				18.79	0.61	1.907 mS/cm uS/cm	6.82	-3.26	47.24
2100	1340				18.79	0.56	1.900 mS/cm uS/cm	6.82	-10.86	43.07
2400	1341				18.77	0.55	1.896 mS/cm uS/cm	6.83	-13.88	SB 43.24 43.79
2700	1342				18.82	0.51	1.886 mS/cm uS/cm	6.83	-18.52	SB 41.07 40.59
3000	1343				18.81	0.48	1.880 mS/cm uS/cm	6.84	-21.51	37.01
3300	1344	↓	↓	↓	18.98	0.47	1.874 mS/cm uS/cm	6.84	-23.18	35.08
							mS/cm uS/cm			
				SB 10/20/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1333 **Elapsed Time (min):** 11 **Water Quality Meter ID & SN:** YSI ProDSS -- 517609/408661

Stop Time: 1344 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 10/20/22

SAMPLING DATA

Sample Date: 10/20/22 **Sample Time:** 1345 **Lab Analysis:** VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ **Initials:** SB

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 4Q22 GW **PROJECT NUMBER:** 60674381 - 3.4.1/2/3 **FIELD PERSONNEL:** M. MASSA, S. BEADLE

DATE: 10/20/22 **WEATHER:** 45° F, CLEAR

MONITORING WELL ID: MW-11 **SAMPLE ID:** MW11-ROX-102022

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): 38.93 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): 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	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 13.06 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

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	0938	38.93	CLEAR	NONE	14.58	3.48	1.302 (mS/cm) uS/cm	6.35	100.53	6.32
300	0939				15.28	2.25	1.325 (mS/cm) uS/cm	6.37	79.25	6.73
600	0940				15.90	1.62	1.337 (mS/cm) uS/cm	6.40	53.06	7.45
900	0941				15.77	1.24	1.334 (mS/cm) uS/cm	6.43	28.71	9.44
1200	0942				15.86	1.05	1.333 (mS/cm) uS/cm	6.45	15.16	15.12
1500	0943				15.69	0.90	1.335 (mS/cm) uS/cm	6.48	3.15	17.89
1800	0944				15.88	0.84	1.332 (mS/cm) uS/cm	6.50	-4.71	17.45
2100	0945				16.01	0.76	1.331 (mS/cm) uS/cm	6.51	-11.97	15.95
2400	0946				15.99	0.70	1.329 (mS/cm) uS/cm	6.53	-17.78	14.34
2700	0947	↓	↓	↓	16.18	0.65	1.327 (mS/cm) uS/cm	6.54	-23.09	13.53
							mS/cm uS/cm			
							mS/cm uS/cm			
		SB 10/20/22					mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0938 **Elapsed Time (min):** 9 **Water Quality Meter ID & SN:** YSI ProDSS -- 517769 | ~~416801~~ 468161 SB 10/20/22

Stop Time: 0947 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 10/20/22

SAMPLING DATA

Sample Date: 10/20/22 **Sample Time:** 0950 **Lab Analysis:** VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

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 4Q22 GW **PROJECT NUMBER:** 60674381 - 3.4.1/2/3 **FIELD PERSONNEL:** M. MASSIA, S. BEIDLE

DATE: 10/26/22 **WEATHER:** 45°F, CLEAR

MONITORING WELL ID: MW-12 **SAMPLE ID:** MW12-ROX-102622

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): 39.34 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): 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	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 12.91 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

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	0917	39.99	CLEAR	NONE	16.20	2.49	0.815 mS/cm uS/cm	6.54	130.08	17.99
300	0918	↓	↓	↓	16.53	1.97	0.920 mS/cm uS/cm	6.52	126.24	12.63
600	0919				17.20	1.47	0.928 mS/cm uS/cm	6.51	123.33	8.04
900	0920				17.25	1.16	0.935 mS/cm uS/cm	6.51	121.46	5.09
1200	0921				17.33	0.92	0.946 mS/cm uS/cm	6.52	119.75	2.43
1500	0922				17.33	0.83	0.950 mS/cm uS/cm	6.52	118.80	1.93
1800	0923				17.34	0.75	0.950 mS/cm uS/cm	6.54	117.24	1.58
2100	0924				17.15	0.72	0.960 mS/cm uS/cm	6.55	116.45	1.49
2400	0925	↓	↓	↓	17.18	0.67	0.965 mS/cm uS/cm	6.56	115.08	1.29
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
				SB 10/26/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0917 **Elapsed Time (min):** 8 **Water Quality Meter ID & SN:** YSI ProDSS -- 917609/16B101

Stop Time: 0925 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 10/26/22

SAMPLING DATA

Sample Date: 10/26/22 **Sample Time:** 0930 **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:** SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSA, S. BEHADE

DATE: 10/24/22 WEATHER: 70°F, OVERCAST

MONITORING WELL ID: MW-13 SAMPLE ID: MW13-ROX-102422

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): 35.05 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 26.79 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 30.92 ft btoc	Ambient PID/FID Reading: 0.0 ppm
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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 8.71 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	

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	1135	26.79	CLEAR	SLIGHT	20.16	1.37	1.429 (mS/cm) uS/cm	6.38	-30.57	32.06
300	1136	↓	↓	↓	20.79	1.41	0.018 (mS/cm) uS/cm	6.40	-55.50	26.71
600	1137				21.01	2.67	1.433 (mS/cm) uS/cm	6.43	-65.31	31.44
900	1138				20.95	1.41	1.439 (mS/cm) uS/cm	6.42	-69.46	30.62
1200	1139				20.97	0.79	1.443 (mS/cm) uS/cm	6.43	-76.90	29.86
1500	1140				20.98	0.66	1.443 (mS/cm) uS/cm	6.44	-81.77	26.74
1800	1141				20.99	0.57	1.442 (mS/cm) uS/cm	6.45	-86.02	22.64
2100	1142				20.97	0.53	1.437 (mS/cm) uS/cm	6.46	-89.29	21.10
2400	1143				20.99	0.50	1.430 (mS/cm) uS/cm	6.47	-92.33	19.39
							(mS/cm) uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
			SB 10/24/22				mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1135 Elapsed Time (min): 8 Water Quality Meter ID & SN: YSI ProDSS -- 21769/19B101

Stop Time: 1143 Average Purge Rate (mL/min): 300 Date Calibrated: 10/24/22

SAMPLING DATA

Sample Date: 10/24/22 Sample Time: 1145 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSA, S. BEADLE

DATE: 10/24/22 WEATHER: 65°F, CLEAR

MONITORING WELL ID: MW-14 SAMPLE ID: MW14 - RDX - 102422

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): 31.08 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 64.8 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 12.92 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	

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	0927	31.10	CLEAR	SLIGHT	19.19	0.90	1.121 mS/cm uS/cm	6.06	-29.82	23.98
300	0928	↓	↓	↓	19.29	0.77	1.121 mS/cm uS/cm	6.07	-39.15	23.15
600	0929				19.32	0.68	1.121 mS/cm uS/cm	6.06	-45.72	22.41
900	0930				19.34	0.62	1.121 mS/cm uS/cm	6.70	-51.67	20.45
1200	0931				19.39	0.58	1.120 mS/cm uS/cm	6.71	-56.03	22.71
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
			SB	10/24/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0927 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 21F109/468161

Stop Time: 0931 Average Purge Rate (mL/min): 300 Date Calibrated: 10/24/22

SAMPLING DATA

Sample Date: 10/24/22 Sample Time: 0935 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: SB

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 4Q22 GW **PROJECT NUMBER:** 60674381 - 3.4.1/2/3 **FIELD PERSONNEL:** M. MASSA, S. BEADLE

DATE: 10/25/22 **WEATHER:** 55°F, LIGHT RAIN

MONITORING WELL ID: MW-16 **SAMPLE ID:** MW16-RDX-102522

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): 40.42 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.09 ft btoc	
Depth to LNAPL/DNAPL (btoc): NE ft		Ambient PID/FID Reading: 0.0 ppm
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	
Screen Length: 10 ft		Wellbore PID/FID Reading: 0.0 ppm
Water Column Height (not including NAPL): 7.33 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	1318	40.44	CLEAR	NONE	16.59	1.89	0.861 ~~mS/cm~~ uS/cm	6.92	62.88	30.70
300	1324	↓	↓	↓	16.70	1.78	0.861 ~~mS/cm~~ uS/cm	6.77	60.32	26.07
600	1330				16.80	0.99	0.862 ~~mS/cm~~ uS/cm	6.75	57.07	28.12
900	1331				17.02	0.85	0.861 ~~mS/cm~~ uS/cm	6.74	53.60	27.14
1200	1332				17.12	0.75	0.861 ~~mS/cm~~ uS/cm	6.73	49.14	27.09
1500	1333				17.17	0.69	0.861 ~~mS/cm~~ uS/cm	6.72	45.83	26.18
1800	1334	↓	↓	↓	17.28	0.65	0.860 ~~mS/cm~~ uS/cm	6.72	43.10	19.96
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
			SB 10/25/22				mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1318 **Elapsed Time (min):** 16 **Water Quality Meter ID & SN:** YSI ProDSS -- 57769 / 16861

Stop Time: 1334 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 10/25/22

SAMPLING DATA

Sample Date: 10/25/22 **Sample Time:** 1335 **Lab Analysis:** VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ **Initials:** SB

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 4Q22 GW **PROJECT NUMBER:** 60674381 - 3.4.1/2/3 **FIELD PERSONNEL:** S. BEADLE, M. MASSA

DATE: 10/28/22 **WEATHER:** 45°F, CLEAR

MONITORING WELL ID: MW-22 **SAMPLE ID:** MW22-ROX-102822

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): 48.68 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 39.35 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 44.02 ft btoc	Ambient PID/FID Reading: 0.0 ppm	
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 (WHICHEVER IS DEEPER): ____ ft btoc	Wellbore PID/FID Reading: 0.0 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 9.33 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	0920	39.36	CLEAR	SLIGHT	17.15	2.87	0.935 mS/cm uS/cm	6.54	113.48	27.41
300	0921				17.24	1.63	0.935 mS/cm uS/cm	6.60	93.42	24.69
600	0922				17.57	1.28	0.935 mS/cm uS/cm	6.62	78.39	24.04
900	0923				17.66	1.05	0.936 mS/cm uS/cm	6.65	62.73	23.96
1200	0924				17.71	0.92	0.938 mS/cm uS/cm	6.67	47.27	22.87
1500	0925				17.95	0.82	0.937 mS/cm uS/cm	6.69	31.93	21.55
1800	0926				18.02	0.77	0.939 mS/cm uS/cm	6.70	19.23	21.12
2100	0927				17.94	0.74	0.940 mS/cm uS/cm	6.72	8.33	19.56
2400	0928				17.90	0.71	0.941 mS/cm uS/cm	6.73	-2.25	17.47
2700	0929				17.94	0.68	0.939 mS/cm uS/cm	6.74	-9.64	15.76
3000	0930				17.96	0.66	0.939 mS/cm uS/cm	6.75	-15.95	14.18
3300	0931				18.10	0.63	0.938 mS/cm uS/cm	6.76	-21.70	12.40
							mS/cm uS/cm			
			SB	10/28/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0920 **Elapsed Time (min):** 11 **Water Quality Meter ID & SN:** YSI ProDSS -- 51769/18086

Stop Time: 0931 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 10/28/22

SAMPLING DATA

Sample Date: 10/28/22 **Sample Time:** 0935 **Lab Analysis:** VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ **Initials:** SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MIASSA, S. BEHDLE

DATE: 10/26/22 WEATHER: 40°F, CLEAR

MONITORING WELL ID: MW-23 SAMPLE ID: MW23-ROX-102622

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 34.07 ft btoc	Volume of Flow Through Cell: 320* mL
Total Well Depth (btoc): 39.27 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 28.38 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): 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	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 10.89 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	1314	28.40	CLEAR	SLIGHT	17.99	1.03	1.054 mS/cm uS/cm	10.48	-8.35	47.03
300	1315	↓	↓	↓	18.09	0.85	1.059 mS/cm uS/cm	10.47	-17.99	43.01
600	1310				18.22	0.75	1.0103 mS/cm uS/cm	10.47	-24.74	46.33
900	1317				18.29	0.68	1.0108 mS/cm uS/cm	10.46	-30.17	43.97
1200	1318				18.31	0.63	1.071 mS/cm uS/cm	10.47	-34.90	41.17
1500	1319				18.42	0.58	1.073 mS/cm uS/cm	10.47	-39.10	39.89
							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			

SB 10/26/22

Start Time: 1314 Elapsed Time (min): 5 Water Quality Meter ID & SN: YSI ProDSS -- 517609 / 408161

Stop Time: 1319 Average Purge Rate (mL/min): 300 Date Calibrated: 10/26/22

SAMPLING DATA

Sample Date: 10/26/22 Sample Time: 1320 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

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 4Q22 GW **PROJECT NUMBER:** 60674381 - 3.4.1/2/3 **FIELD PERSONNEL:** M. MASSA, S. BEADLE

DATE: 10/20/22 **WEATHER:** 50°F

MONITORING WELL ID: MW-24 **SAMPLE ID:** MW24-ROX-102022

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): 49.86 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 40.23 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 45.04 ft btoc	Ambient PID/FID Reading: 0.0 ppm	
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	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)
0	1058	40.21	CLEAR	NONE	17.35	3.65	1.577 ~~mS/cm~~ uS/cm	7.21	41.41	24.22
300	1059	↓	↓	↓	17.60	2.42	1.589 ~~mS/cm~~ uS/cm	7.10	40.43	21.94
600	1100				17.86	1.86	1.592 ~~mS/cm~~ uS/cm	7.04	40.14	20.14
900	1101				18.08	1.56	1.5910 ~~mS/cm~~ uS/cm	7.00	39.90	18.17
1200	1102				18.19	1.37	1.599 ~~mS/cm~~ uS/cm	6.98	39.75	17.73
1500	1103				18.24	1.25	1.600 ~~mS/cm~~ uS/cm	6.97	39.73	17.78
1800	1104				18.29	1.15	1.601 ~~mS/cm~~ uS/cm	6.95	39.57	13.67
2100	1105				18.38	1.08	1.1003 ~~mS/cm~~ uS/cm	6.94	39.42	12.316
2400	1106				18.35	1.02	1.1006 ~~mS/cm~~ uS/cm	6.93	39.32	10.107
2700	1107	↓	↓	↓	18.28	0.98	1.1010 ~~mS/cm~~ uS/cm	6.92	39.40	9.65
							mS/cm uS/cm			
				SB	10/20/22		mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1058 **Elapsed Time (min):** 9 **Water Quality Meter ID & SN:** YSI ProDSS -- 21769/469061

Stop Time: 1107 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 10/20/22

SAMPLING DATA

Sample Date: 10/20/22 **Sample Time:** 1110 **Lab Analysis:** VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ **Initials:** SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSA, S. BEADLE

DATE: 10/31/22 WEATHER: 57F, OVERCAST

MONITORING WELL ID: MW-25 SAMPLE ID: MW25-ROX-103122

INITIAL DATA

Well Diameter): 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 40.59 ft btoc	Volume of Flow Through Cell : 320* mL	
Total Well Depth (btoc): 45.84 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL	
Depth to Water (btoc): 35.44 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): 35.59 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: 99.3 ppm	
Screen Length: 10 ft			
Water Column Height (not including NAPL): 10.40 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	1031	35.46	CLEAR	SLIGHT	18.53	1.27	1.051 (mS/cm) uS/cm	6.86	-24.41	17.31
300	1032				18.65	0.98	1.050 (mS/cm) uS/cm	6.86	-33.95	15.32
600	1033				18.76	0.82	1.048 (mS/cm) uS/cm	6.86	-41.82	14.21
900	1034				18.92	0.71	1.046 (mS/cm) uS/cm	6.87	-48.68	13.27
1200	1035				19.01	0.64	1.044 (mS/cm) uS/cm	6.87	-55.65	12.79
1500	1036				19.06	0.59	1.042 (mS/cm) uS/cm	6.88	-58.72	11.99
1800	1037	↓	↓	↓	19.14	0.55	1.039 (mS/cm) uS/cm	6.88	-63.06	11.01
							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			

SB 10/31/22

Start Time: 1031 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 51769/16861

Stop Time: 1037 Average Purge Rate (mL/min): 300 Date Calibrated: 10/31/22

SAMPLING DATA

Sample Date: 10/31/22 Sample Time: 1040 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSH, S. BEHDLE

DATE: 10/28/22 WEATHER: 55°F, CLEAR

MONITORING WELL ID: MW-26 SAMPLE ID: MW26-ROX-102822

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): 38.30 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 43.80 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NB 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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 10.10 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	1232	38.32	CLEAR	NONE	17.07	2.42	1.218 mS/cm uS/cm	6.88	23.27	21.52
300	1233				17.82	1.57	1.221 mS/cm uS/cm	6.79	24.67	15.49
600	1234				17.95	1.20	1.221 mS/cm uS/cm	6.76	24.90	10.66
900	1235				18.14	1.07	1.220 mS/cm uS/cm	6.75	24.90	10.66
1200	1236				18.30	0.91	1.220 mS/cm uS/cm	6.73	24.61	9.13
1500	1237				18.42	0.81	1.219 mS/cm uS/cm	6.73	24.37	8.01
1800	1238				18.48	0.75	1.217 mS/cm uS/cm	6.73	24.08	7.65
2100	1239				18.52	0.72	1.216 mS/cm uS/cm	6.72	23.86	7.54
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
			SB 10/28/22				mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1232 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 517691 468161

Stop Time: 1239 Average Purge Rate (mL/min): 300 Date Calibrated: 10/28/22

SAMPLING DATA

Sample Date: 10/28/22 Sample Time: 1240 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☑ Initials: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSH, S. BEHDLE

DATE: 10/26/22 WEATHER: 50°F, CLEAR

MONITORING WELL ID: MW-27 SAMPLE ID: MW27-ROX-102622

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	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: ft btoc	Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.74 ft		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): 10.80 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	1103	39.45	CLOUDY	NONE	17.68	1.70	0.781 (mS/cm) uS/cm	6.79	910.22	105.13
300	1109				17.57	1.46	0.781 (mS/cm) uS/cm	6.77	91.34	85.27
6000	1110				17.63	1.36	0.781 mS/cm uS/cm		76.07	74.02
9600	1111				17.53	1.27	0.781 mS/cm uS/cm		71.016	59.716
12000	1113				17.67	1.21	0.782 mS/cm uS/cm		66.106	48.10
1500	1113				17.74	1.15	0.781 mS/cm uS/cm		61.33	41.94
1800	1114				17.70	1.09	0.781 mS/cm uS/cm		56.91	44.53
2100	1115				17.67	1.060	0.783 mS/cm uS/cm		53.80	41.37
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
				SB 10/26/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1108 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 17609/468061

Stop Time: 1115 Average Purge Rate (mL/min): 300 Date Calibrated: 10/26/22

SAMPLING DATA

Sample Date: 10/26/22 Sample Time: 1170 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace [X] Initials: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M.MASSA, S.BEARDLE

DATE: 10/25/22 WEATHER: 65°F, RAIN SHOWERS

MONITORING WELL ID: MW-28 SAMPLE ID: MW28-RDX-102522

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): 43.86 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: 41.07 ft btoc	Ambient PID/FID Reading: 0.0 ppm
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 (WHIEVER IS DEEPER): ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 5.59 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	1200	38.36	CLEAR	NONE	17.77	2.34	1.002 ~~mS/cm~~ uS/cm	8.70	41.89	78.11
300	1201	↓	↓	↓	17.76	1.49	1.003 ~~mS/cm~~ uS/cm	8.59	45.91	109.79
600	1202				17.51	1.12	1.006 ~~mS/cm~~ uS/cm	8.55	45.87	81.73
900	1203				17.73	0.94	1.007 ~~mS/cm~~ uS/cm	8.54	47.97	52.13
1200	1204				17.86	0.83	1.009 ~~mS/cm~~ uS/cm	8.55	39.97	49.71
1500	1205				17.85	0.75	1.01 ~~mS/cm~~ uS/cm	8.55	36.41	41.31
1800	1206				17.87	0.69	1.013 ~~mS/cm~~ uS/cm	8.55	32.59	38.78
2100	1207	↓	↓	↓	17.88	0.64	1.015 ~~mS/cm~~ uS/cm	8.56	28.49	32.16
							~~mS/cm~~ uS/cm			
							~~mS/cm~~ uS/cm			
							~~mS/cm~~ uS/cm			
			SB	10/25/22	22		~~mS/cm~~ uS/cm			
							~~mS/cm~~ uS/cm			
							~~mS/cm~~ uS/cm			
							~~mS/cm~~ uS/cm			
							~~mS/cm~~ uS/cm			

Start Time: 1200 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 517609/468161

Stop Time: 1207 Average Purge Rate (mL/min): 300 Date Calibrated: 10/25/22

SAMPLING DATA

Sample Date: 10/25/22 Sample Time: 1210 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: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSA, S. BEADLE

DATE: 10/27/22 WEATHER: 40°F, CLEAR

MONITORING WELL ID: P-54 SAMPLE ID: PSA - ROX - 102722

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): 63.00 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.18 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): 38.00 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): 44.18 ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 23.82 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: 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	39.19	CLEAR	NONE	15.816	6.50	1.001 (mS/cm) uS/cm	6.57	170.14	31.79
300	0906	↓	↓	↓	15.93	6.19	1.004 (mS/cm) uS/cm	6.516	166.46	28.42
600	0907				16.08	5.97	1.007 (mS/cm) uS/cm	6.55	163.81	25.32
900	0908				16.24	5.77	1.010 (mS/cm) uS/cm	6.55	161.51	22.90
1200	0909				16.36	5.60	1.012 (mS/cm) uS/cm	6.56	159.27	21.41
1500	0910				16.44	5.47	1.013 (mS/cm) uS/cm	6.57	157.27	19.40
1800	0911				16.55	5.39	1.015 (mS/cm) uS/cm	6.57	156.13	17.96
2100	0912				16.64	5.32	1.017 (mS/cm) uS/cm	6.58	154.89	16.30
2400	0913				16.69	5.26	1.018 (mS/cm) uS/cm	6.58	154.05	15.18
2700	0914				16.72	5.19	1.020 (mS/cm) uS/cm	6.59	153.03	14.39
3000	0915				16.75	5.12	1.020 (mS/cm) uS/cm	6.59	152.05	12.93
3300	0916	↓	↓	↓	16.70	5.07	1.021 (mS/cm) uS/cm	6.60	151.35	12.20
		SB 10/27/22					(mS/cm) uS/cm			
							(mS/cm) uS/cm			
							(mS/cm) uS/cm			
							(mS/cm) uS/cm			

Start Time: 0905 Elapsed Time (min): 11 Water Quality Meter ID & SN: YSI ProDSS -- 17G9/46861

Stop Time: 0916 Average Purge Rate (mL/min): 300 Date Calibrated: 10/27/22

SAMPLING DATA

Sample Date: 10/27/22 Sample Time: 0920 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: J. MAYER, S. BEADLE

DATE: 11/1/22 WEATHER: 70°F, CLEAR

MONITORING WELL ID: P-55R SAMPLE ID: ~~P55~~ SB 11/1/22 NA

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): 39.24 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): 39.15 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: 106.3 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 11.44 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	

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			

NA SB 11/1/22

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

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

SAMPLING DATA

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

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

VOA Vials, No Headspace ☐ Initials: NA

COMMENTS:

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

NOT SAMPLED DUE TO PRESENCE OF PRODUCT. Estimated Total Purge Volume: NA mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: J. MAYER, S. BEADLE

DATE: 11/1/22 WEATHER: 60°F, CLEAR

MONITORING WELL ID: P56 SAMPLE ID: P56 - ROX - 110122

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): 43.161 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): 40.82 ft	IF SCREEN & WATER COLUMN >10 FT – PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): 48.161 ft btoc	Wellbore PID/FID Reading: 192.7 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 22.21 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	1156	43.103	CLEAR	MODERATE	19.772	2.93	1.052 mS/cm uS/cm	7.20	49.16	4.00
300	1157	43.107	↓	↓	19.816	1.63	1.055 mS/cm uS/cm	7.19	20.65	7.30
600	1158	↓			20.04	1.21	1.056 mS/cm uS/cm	↓	-1.76	4.90
900	1159				20.21	0.97	↓ mS/cm uS/cm		-21.80	4.20
1200	1200				20.38	0.82	mS/cm uS/cm		-36.37	3.81
1500	1201				20.53	0.74	mS/cm uS/cm	↓	-45.09	3.44
1800	1202				20.67	0.700	mS/cm uS/cm	7.20	-51.00	2.84
2100	1203	↓	↓	↓	20.79	0.65	↓ mS/cm uS/cm	7.20	-56.35	1.70
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
				SB	11/1/22		mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1156 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 517169 | 468861

Stop Time: 1203 Average Purge Rate (mL/min): 300 Date Calibrated: 11/1/22

SAMPLING DATA

Sample Date: 11/1/22 Sample Time: 1205 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

COMMENTS:

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

Estimated Total Purge Volume: 2,100 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: T. Jones J. Mayer

DATE: 10-28-2022 WEATHER: 70° Clear

MONITORING WELL ID: P-57 SAMPLE ID: P57-Rox-102822

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): 44.40 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 49.30 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NSP 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 (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 141.9 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 9.79 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 (STABLE: over 4 readings)	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	1218	44.75	Clear	Slight	19.4	0.39	0.941 mS/cm uS/cm	6.96	-114.4	1.40
300	1219	44.75	↓	↓	19.4	0.36	0.940 mS/cm uS/cm	6.91	-118.0	1.27
600	1220	↓			19.3	0.34	0.938 mS/cm uS/cm	6.96	-121.9	1.24
900	1221				19.3	0.32	0.936 mS/cm uS/cm	6.96	-125.4	1.17
1200	1222				19.4	0.31	0.936 mS/cm uS/cm	6.96	-127.1	1.02
							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			

Start Time: 1218 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 51284/46864

Stop Time: 1222 Average Purge Rate (mL/min): 300 Date Calibrated: 10-28-22

SAMPLING DATA

Sample Date: 10-28-22 Sample Time: 1225 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: JM

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: T. Jones J. Mayer

DATE: 10-28-22 WEATHER: 65° Clear

MONITORING WELL ID: P-58 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): 65.21 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 42.28 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): 42.27 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): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 22.93 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			

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: —

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TJones

DATE: 11/4/22 WEATHER: OVERCAST 65°

MONITORING WELL ID: P-59 SAMPLE ID: P59-ROX-110422

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): 44.27 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): NE 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: 206.3 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 28.64 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	1009	44.28	Clear	Moderate HC	21.5	1.47	1.549 mS/cm uS/cm	6.31	82.53	11.29
300	1010	44.23			21.7	1.01	1.545 mS/cm uS/cm	6.37	55.17	10.44
600	1011	44.25			21.7	0.83	1.544 mS/cm uS/cm	6.40	33.28	9.44
900	1012	44.28			21.8	0.72	1.541 mS/cm uS/cm	6.43	14.23	7.94
1200	1013				21.9	0.65	1.540 mS/cm uS/cm	6.45	0.93	6.65
1500	1014				22.0	0.60	1.539 mS/cm uS/cm	6.47	-10.95	5.58
1800	1015				22.1	0.57	1.540 mS/cm uS/cm	6.48	-19.44	4.70
2100	1016				22.2	0.53	1.539 mS/cm uS/cm	6.49	-27.08	3.84
2400	1017				22.2	0.50	1.538 mS/cm uS/cm	6.50	-32.88	3.11
2700	1018	↓	↓	↓	22.2	0.48	1.538 mS/cm uS/cm	6.51	-38.02	2.64
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Monitored through 11/4/22

Start Time: 1009 Elapsed Time (min): 9 Water Quality Meter ID & SN: YSI ProDSS -- 16861/51769

Stop Time: 1018 Average Purge Rate (mL/min): 300 Date Calibrated: 11/4/22

SAMPLING DATA

Sample Date: 11/4/22 Sample Time: 1025 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 TJ

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSA, S. BEADLE

DATE: 10/24/22 WEATHER: 70°F, OVERCAST.

MONITORING WELL ID: P-66 SAMPLE ID: NA

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): 34.81 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): 33.40 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 (WHIEVER IS DEEPER): ____ ft btoc	Wellbore PID/FID Reading: 159.1 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 24.91 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

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			
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							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

NA SB 10/24/22

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

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

SAMPLING DATA

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

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

VOA Vials, No Headspace ☐ Initials: NA

COMMENTS:

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

NO SAMPLING DUE TO PRODUCT IN WELL.

Estimated Total Purge Volume: NA mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TJones

DATE: 11/3/22 WEATHER: clear 73°

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): 42.32 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): 42.23 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: 176.8 ppm
Screen Length: 25 ft		
Water Column Height (not including NAPL): 26.44 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	

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			
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							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

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: —

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: Tony Sons, Joe Mayer

DATE: 10-28-22 WEATHER: 65° Clear

MONITORING WELL ID: P-74 SAMPLE ID: P74-ROX-102822

INITIAL DATA

Well Diameter: 4 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: — ft btoc
Total Well Depth (btoc): 68.83 ft	
Depth to Water (btoc): 40.32 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: — ft btoc
Depth to LNAPL/DNAPL (btoc): ~~40~~ NS 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 (WHICHEVER IS DEEPER): 48.83 ft btoc
Screen Length: 25 ft	
Water Column Height (not including NAPL): 28.51 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	1315	40.46	clear	slight	20.1	2.14	0.190 mS/cm uS/cm	7.55	-15.8	8.12
1100	1319	40.54	↓	↓	20.3	0.78	0.204 mS/cm uS/cm	6.93	2.8	7.71
1500	1320	40.54			20.3	0.72	0.205 mS/cm uS/cm	6.88	4.7	7.51
1800	1321	40.54			20.3	0.67	0.207 mS/cm uS/cm	6.84	7.0	7.54
2100	1322	40.54			20.3	0.63	0.209 mS/cm uS/cm	6.81	8.6	7.28
							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			

Start Time: 1315 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS - 51284/46864

Stop Time: 1322 Average Purge Rate (mL/min): 300 Date Calibrated: 10-28-22

SAMPLING DATA

Sample Date: 10-28-22 Sample Time: 1325 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: JM

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 4Q22 GW **PROJECT NUMBER:** 60674381 - 3.4.1/2/3 **FIELD PERSONNEL:** J. MAYER, S.BEAD

DATE: 11/01/22 **WEATHER:** 55°F, CLEAR

MONITORING WELL ID: P-93A **SAMPLE ID:** P93A-ROX-110122

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤10 FT & WATER ABOVE TOP OF SCREEN – PUMP INTAKE AT MIDPOINT OF SCREEN: 48.07 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): 47.61 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): 43.07 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): 10.46 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	1031	47.70	CLEAR	NONE	18.37	2.25	1.296 mS/cm uS/cm	6.518	44.84	0.00
300	1032	↓	↓	↓	18.53	1.49	1.301 mS/cm uS/cm	6.49	48.10	↓
600	1033				18.74	1.17	SB 1.300 mS/cm uS/cm	6.48	50.23	
900	1034				18.94	0.93	↓ mS/cm uS/cm	6.48	50.89	
1200	1035				18.99	0.84	↓ mS/cm uS/cm	6.48	51.07	
1500	1036				19.07	0.77	↓ mS/cm uS/cm	6.49	50.91	
1800	1037				19.12	0.71	1.299 mS/cm uS/cm	6.49	50.71	
2100	1038	↓	↓	↓	19.19	0.666	1.299 mS/cm uS/cm	6.49	50.44	↓
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
				SB	11/1/22		mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1031 **Elapsed Time (min):** 7 **Water Quality Meter ID & SN:** YSI ProDSS -- 517109/416861

Stop Time: 1038 **Average Purge Rate (mL/min):** 300 **Date Calibrated:** 11/1/22

SAMPLING DATA

Sample Date: 11/1/22 **Sample Time:** 1040 **Lab Analysis:** VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ **Initials:** SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: Mmassa TJones

DATE: 11/4/22 WEATHER: OVERCAST 69°

MONITORING WELL ID: P-93B SAMPLE ID: P93B-BOX-110422

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): 43.81 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): 32.97 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	1140	43.82	clear	slight HC	20.0	2.34	1.423 ~~mS/cm~~ uS/cm	6.62	16 ~~55~~	19.46
300	1141	43.82	↓	↓	19.4	1.17	1.463 ~~mS/cm~~ uS/cm	6.63	1.18	10.34
600	1142	43.82			19.5	0.79	1.470 ~~mS/cm~~ uS/cm	6.63	-9.95	5.25
900	1143	43.82			19.7	0.63	1.475 ~~mS/cm~~ uS/cm	6.63	-19.11	2.58
1200	1144	↓			19.6	0.55	1.479 ~~mS/cm~~ uS/cm	6.63	-26.80	0.92
1500	1145				19.6	0.51	1.483 ~~mS/cm~~ uS/cm	6.63	-33.13	0.42
1800	1146				19.5	0.47	1.485 ~~mS/cm~~ uS/cm	6.64	-38.51	0.19
							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			

11/4/22

Start Time: 1140 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- 468611/S17609

Stop Time: 1146 Average Purge Rate (mL/min): 300 Date Calibrated: ~~NONE~~ mm 11/4/22

SAMPLING DATA

Sample Date: 11/4/22 Sample Time: 1150 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 [X] Initials: MM TJ

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: J. MAYER, S. BEADLE

DATE: 11/1/22 WEATHER: 55°F, CLEAR

MONITORING WELL ID: P-93C SAMPLE ID: P93C-ROX-110122

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): 97.88 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 43.79 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): 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	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 2 ft		
Water Column Height (not including NAPL): 54.09 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	

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	0926	43.82	CLEAR	NONE	17.13	2.26	1.051 ~~mS/cm~~ uS/cm	6.53	98.12	3.33
300	0927				17.32	1.76	1.048 ~~mS/cm~~ uS/cm	6.56	97.63	2.42
600	0928				17.35	1.48	1.046 ~~mS/cm~~ uS/cm	6.59	87.19	1.84
900	0929				17.46	1.28	1.046 ~~mS/cm~~ uS/cm	6.62	72.96	0.32
1200	0930				17.59	1.10	1.046 ~~mS/cm~~ uS/cm	6.64	63.28	0.00
1500	0931				17.60	0.99	1.046 ~~mS/cm~~ uS/cm	6.646	53.55	
1800	0932				17.69	0.88	1.049 ~~mS/cm~~ uS/cm	6.647	47.646	
2100	0933				17.68	0.84	1.050 ~~mS/cm~~ uS/cm	6.649	35.17	
2400	0934				17.70	0.80	1.052 ~~mS/cm~~ uS/cm	6.670	28.59	
2700	0935				17.71	0.76	1.054 ~~mS/cm~~ uS/cm	6.671	21.516	
3000	0936	↓	↓	↓	17.74	0.73	1.055 ~~mS/cm~~ uS/cm	6.672	15.79	↓
							mS/cm uS/cm			
			SB	11/01/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0926 Elapsed Time (min): 10 Water Quality Meter ID & SN: YSI ProDSS -- 517609/446861

Stop Time: 0936 Average Purge Rate (mL/min): 300 Date Calibrated: 11/1/22

SAMPLING DATA

Sample Date: 11/01/22 Sample Time: 0940 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

COMMENTS:

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

Estimated Total Purge Volume: 3000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: MMassa TJones

DATE: 11/3/22 WEATHER: 68° clear

MONITORING WELL ID: P-93D SAMPLE ID: P93D-ROX-10322

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): 44.03 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): 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): 83.88 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): 126.66 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	1245	44.03	clear	slight HC	18.8	2.51	1.229 mS/cm uS/cm	6.88	127.0	0.0
300	1246				18.8	1.58	1.218 mS/cm uS/cm	6.87	116.8	0.0
600	1247				18.7	1.15	1.206 mS/cm uS/cm	6.87	104.5	0.0
900	1248				18.7	0.95	1.201 mS/cm uS/cm	6.87	93.7	0.0
1200	1249				18.6	0.83	1.198 mS/cm uS/cm	6.87	83.0	0.0
1500	1250				18.6	0.73	1.196 mS/cm uS/cm	6.87	72.5	0.0
1800	1251				18.6	0.66	1.194 mS/cm uS/cm	6.88	60.2	0.0
2100	1252				18.6	0.62	1.193 mS/cm uS/cm	6.88	53.5	0.0
2400	1253				18.6	0.59	1.193 mS/cm uS/cm	6.88	46.4	0.0
2700	1254				18.6	0.56	1.192 mS/cm uS/cm	6.89	39.0	0.0
3000	1255				18.6	0.54	1.191 mS/cm uS/cm	6.89	30.0	0.0
3300	1256				18.6	0.52	1.190 mS/cm uS/cm	6.89	18.6	1.79
3600	1257				18.6	0.50	1.190 mS/cm uS/cm	6.90	14.0	2.50
3900	1258				18.6	0.48	1.189 mS/cm uS/cm	6.90	9.1	3.41
4200	1259				18.6	0.47	1.189 mS/cm uS/cm	6.90	3.3	3.89
							mS/cm uS/cm			

MMassa 11/3/22

Start Time: 1245 Elapsed Time (min): 14 Water Quality Meter ID & SN: YSI ProDSS -- 16861/51769

Stop Time: 1259 Average Purge Rate (mL/min): 300 Date Calibrated: 11/3/22

SAMPLING DATA

Sample Date: 11/3/22 Sample Time: 1305 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: MM TJ

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSA, S. BEADLE

DATE: 10/24/22 WEATHER: 70°F, OVERCAST

MONITORING WELL ID: P-114R SAMPLE ID: P114R-ROX-102422

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): 25.93 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 29.65 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NF 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: 17.7 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 7.33 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	1233	26.06	CLEAR	SLIGHT	22.05	1.07	1.017 mS/cm uS/cm	6.107	-45.41	89.91
300	1237	26.05			22.05	0.90	1.018 mS/cm uS/cm	6.103	-57.76	76.96
600	1240	26.04			22.09	0.66	1.015 mS/cm uS/cm	6.103	-66.51	65.92
900	1241				22.12	0.59	1.013 mS/cm uS/cm	6.104	-72.54	58.45
1200	1247				22.10	0.54	1.011 mS/cm uS/cm	6.104	-77.70	52.37
1500	1243				22.14	0.50	1.011 mS/cm uS/cm	6.105	-81.94	46.07
1800	1244				22.18	0.46	1.004 mS/cm uS/cm	6.105	-87.41	58.60
2100	1245				22.19	0.45	1.007 mS/cm uS/cm	6.105	-89.72	53.24
2400	1246				22.19	0.43	1.000 mS/cm uS/cm	6.106	-92.71	43.98
2700	1247				22.20	0.41	0.998 mS/cm uS/cm	6.106	-94.89	37.06
3000	1248				22.23	0.40	0.993 mS/cm uS/cm	6.106	-97.31	30.53
3000	1249	V	V	V	22.19	0.38	0.988 mS/cm uS/cm	6.107	-99.55	25.58
							mS/cm uS/cm			
		SB	10/24/22				mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1239 Elapsed Time (min): 11 Water Quality Meter ID & SN: YSI ProDSS -- 21A | 16861

Stop Time: 1249 Average Purge Rate (mL/min): 300 Date Calibrated: 10/24/22

SAMPLING DATA

Sample Date: 10/24/22 Sample Time: 1250 Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow Sample Flow Rate (mL/min): 300 QA/QCSamples: ~~EB~~ NA SB 10/24/22

VOA Vials, No Headspace ☒ Initials: SB

COMMENTS:

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

Estimated Total Purge Volume: 3000 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M.MASSA, S.BEADLE

DATE: 10/27/22 WEATHER: 55°F, PARTLY CLOUDY

MONITORING WELL ID: ROST-3-MW SAMPLE ID: ~~ROST-3~~ SB 10/27/22 ROST3MW-ROX-102722

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): 39.10 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 43.58 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): ft		
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	Wellbore PID/FID Reading: 37.2 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 8.98 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	1216	39.15	CLEAR	NONE	17.07	1.46	1.118 (mS/cm) uS/cm	6.69	-47.72	5.34
300	1217				17.16	1.11	1.120 (mS/cm) uS/cm	6.68	-51.52	4.93
600	1218				17.27	0.92	1.120 (mS/cm) uS/cm	6.67	-55.17	4.716
900	1219				17.33	0.81	1.120 (mS/cm) uS/cm		-57.81	4.09
1200	1220				17.39	0.72	1.121 (mS/cm) uS/cm		-60.73	3.95
1500	1221				17.49	0.66	1.122 (mS/cm) uS/cm		-63.13	3.30
1800	1222				17.49	0.62	1.123 (mS/cm) uS/cm		-65.20	2.77
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
				SB	10/27/22		mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1216 Elapsed Time (min): 6 Water Quality Meter ID & SN: YSI ProDSS -- S17H9/46861

Stop Time: 1222 Average Purge Rate (mL/min): 300 Date Calibrated: 10/27/22

SAMPLING DATA

Sample Date: 10/27/22 Sample Time: 1225 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 [X] Initials: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M. MASSA, S. BEADLE

DATE: 10/28/22 WEATHER: 50°F, CLEAR

MONITORING WELL ID: ROST-4-PZ(C) SAMPLE ID: ROST4PZC - ROX - 102822

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): 45.20 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 39.13 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 42.17 ft btoc	Ambient PID/FID Reading: 0.0 ppm
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	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 6.07 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	1026	39.52	CLEAR	SLIGHT	16.68	1.99	1.158 mS/cm uS/cm	6.96	-14.59	10.09
300	1027				17.07	1.78	1.165 mS/cm uS/cm	6.93	-22.12	12.97
600	1028				17.11	1.11	1.164 mS/cm uS/cm	6.92	-25.45	11.87
900	1029				17.34	0.91	1.1616 mS/cm uS/cm	6.92	-31.13	11.17
1200	1030				17.43	0.80	1.167 mS/cm uS/cm	6.92	-35.54	10.32
1500	1031				17.46	0.72	1.1609 mS/cm uS/cm	6.92	-39.72	9.07
1800	1032				17.43	0.66	1.1608 mS/cm uS/cm	6.93	-43.91	8.14
2100	1033				17.57	0.62	1.168 mS/cm uS/cm	6.93	-47.89	7.59
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
				SB 10/28/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1026 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- 51709 / 21080

Stop Time: 1033 Average Purge Rate (mL/min): 300 Date Calibrated: 10/28/22

SAMPLING DATA

Sample Date: 10/28/22 Sample Time: 1035 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace [X] Initials: SB

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: T. Jones J. Mayer

DATE: 10-28-2022 WEATHER: 50° F Clear

MONITORING WELL ID: ROST-4-PZ(E) SAMPLE ID: ROST4PZE-ROX-102822

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): 38.04 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 41.52 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE 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 (WHIEVER IS DEEPER): — ft btoc	Wellbore PID/FID Reading: 0.0 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 6.96 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	1002	38.22	Clear	Strong	18.6	~~6.60~~ 0.60	1.148	mS/cm uS/cm	6.87	-8.5	19.07
300	1003	38.27	↓	↓	18.6	0.57	1.152	mS/cm uS/cm	6.87	-11.9	18.50
600	1004	38.21			18.7	0.54	1.153	mS/cm uS/cm	6.87	-15.1	17.87
900	1005	38.21			18.7	0.52	1.157	mS/cm uS/cm	6.88	-18.3	16.27
1200	1006	38.21			18.7	0.48	1.164	mS/cm uS/cm	6.88	-25.7	13.99
								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			

Start Time: 1002 Elapsed Time (min): 4 Water Quality Meter ID & SN: YSI ProDSS -- 51284/46864

Stop Time: 1006 Average Purge Rate (mL/min): 300 Date Calibrated: 10-28-22

SAMPLING DATA

Sample Date: 10/28/22 Sample Time: 1010 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: JM

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 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: M.MASSA, S.BEATLE

DATE: 10/27/22 WEATHER: 60°F, OVERR

MONITORING WELL ID: ROST-4-PZ(G) SAMPLE ID: ROST4PZG-ROX-102722

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): 39.11 ft	IF SCREEN ≤10 FT & WATER WITHIN SCREEN – PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: 41.82 ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE 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: 0.4 ppm
Screen Length: 10 ft		
Water Column Height (not including NAPL): 5.42 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	1350	39.15	CLOUDY/BLACK	NONE	18.67	1.47	1.093 (mS/cm) uS/cm	6.85	-33.70	49.46
300	1351	↓	↓	↓	18.71	1.08	1.104 (mS/cm) uS/cm	6.87	-52.83	44.10
600	1352				18.65	0.89	1.112 (mS/cm) uS/cm	6.82	-101.97	41.44
900	1353				18.65	0.79	1.110 (mS/cm) uS/cm	6.81	-107.50	41.57
1200	1354				18.69	0.69	1.123 (mS/cm) uS/cm	6.81	-74.48	34.35
1500	1355				18.65	0.63	1.132 (mS/cm) uS/cm	6.81	-79.64	32.07
1800	1356	↓	↓	↓	18.69	0.59	1.144 (mS/cm) uS/cm	6.82	-84.25	28.03
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
			SB 10/27/22				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			

Start Time: 1350 Elapsed Time (min): 10 Water Quality Meter ID & SN: YSI ProDSS -- 517629 / 468061

Stop Time: 1356 Average Purge Rate (mL/min): 300 Date Calibrated: 10/27/22

SAMPLING DATA

Sample Date: 10/27/22 Sample Time: 1400 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace ☒ Initials: SB

COMMENTS:

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

Estimated Total Purge Volume: 1300 mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q22 GW PROJECT NUMBER: 60674381 - 3.4.1/2/3 FIELD PERSONNEL: J. MAYER, S. BEADLE

DATE: 11/1/22 WEATHER: 60°F, CLEAR

MONITORING WELL ID: T-12 SAMPLE ID: T12-ROX-110122

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): 42.19 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): NE 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: 15.3 ppm
Screen Length: 26 ft		
Water Column Height (not including NAPL): 30.65 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	1305	42.21	CLEAR	SLIGHT	21.15	2.54	1.787 (mS/cm) uS/cm	6.87	10.53	0.00
300	1306	↓	↓	↓	21.33	1.46	1.794 (mS/cm) uS/cm	6.84	-10.42	↓
600	1307				21.33	1.13	1.800 (mS/cm) uS/cm	6.83	-32.59	
900	1308				21.32	0.96	1.801 (mS/cm) uS/cm	6.82	-42.31	
1200	1309				21.30	0.87	1.800 (mS/cm) uS/cm	↓	-51.20	
1500	1310				21.46	0.75	1.801 (mS/cm) uS/cm		-56.09	
1800	1311				21.48	0.69	1.802 (mS/cm) uS/cm		-61.36	
2100	1312	↓	↓	↓	21.41	0.64	1.802 (mS/cm) uS/cm	6.83	-65.45	↓
							mS/cm uS/cm			
							mS/cm uS/cm			
			SB	11/1/22			mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 1305 Elapsed Time (min): 7 Water Quality Meter ID & SN: YSI ProDSS -- SN69/468061

Stop Time: 1312 Average Purge Rate (mL/min): 300 Date Calibrated: 11/1/22

SAMPLING DATA

Sample Date: 11/1/22 Sample Time: 1315 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials, No Headspace [X] Initials: SB

COMMENTS:

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

Estimated Total Purge Volume: 2100 mL

Appendix C

Data Review Forms and Laboratory Analytical Reports

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-227645-1-Rev.1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/13/2022

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

Sample Identification	Sample Identification
TB-R0X-102022-8260	TB-R0X-102022-8011
MW11-ROX-102022-EB	MW11-ROX-102022
MW24-ROX-102022	MW1-ROX-102022
MW10-ROX-102022	

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 PAHs in sample MW24-ROX-102022 were re-extracted outside of the extraction time criteria. Several PAHs were detected in equipment blank MW11-ROX-102022-EB, and diethyl phthalate and several PAHs were detected in the method blank. LCS/LCSD recoveries for 1,2-dibromo-3-chloropropane and benzenethiol, and the LCS/LCSD RPD for benzenethiol, were outside evaluation criteria. MS/MSD recoveries for 2-chloroethyl vinyl ether and several SVOCs, and MS/MSD RPDs, were outside evaluation criteria in sample MW1-ROX-102022. The SVOC internal standard recovery for perylene-d_{12} was outside criteria in the LCSD. The continuing calibration verification (CCV) for hexachlorocyclopentadiene, and the initial calibration verification (ICV) for carbon disulfide, 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 November 29, 2022, to report confirmation PAH results for sample MW24-ROX-102022; both original and reanalysis results are reported.

Three of 70 (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.

Although the cooler receipt form indicated an unidentified sample was not received due to a shipping delay, all samples specified on the COC were received and analyzed per project requirements. Samples were collected October 20, 2022 and received by the laboratory on October 21, 2022; no qualification of data was required.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

No, PAHs in sample MW24-ROX-102022 were re-extracted 22 days outside extraction time criteria (7 days) and then re-analyzed for confirmation due to method blank

detections. 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 following table. Benzo(a)anthracene, benzo(b)fluoranthene, pyrene and fluoranthene in the secondary run for sample MW24-ROX-102022 are further qualified in Section 4.0 of this data review due to blank contamination.

Sample ID	Parameter	Analyte	Qualification
MW24-ROX-102022 - Run #2	PAHs	Acenaphthene	UJ
MW24-ROX-102022- Run #2	PAHs	Acenaphthylene	UJ
MW24-ROX-102022 - Run #2	PAHs	Anthracene	J
MW24-ROX-102022 - Run #2	PAHs	Benzo(a)anthracene	J
MW24-ROX-102022 - Run #2	PAHs	Benzo[a]pyrene	J
MW24-ROX-102022 - Run #2	PAHs	Benzo(b)fluoranthene	J
MW24-ROX-102022 - Run #2	PAHs	Benzo[g,h,i]perylene	UJ
MW24-ROX-102022 - Run #2	PAHs	Benzo[k]fluoranthene	J
MW24-ROX-102022 - Run #2	PAHs	Chrysene	J
MW24-ROX-102022 - Run #2	PAHs	Dibenz(a,h)anthracene	UJ
MW24-ROX-102022 - Run #2	PAHs	Fluoranthene	J
MW24-ROX-102022 - Run #2	PAHs	Fluorene	UJ
MW24-ROX-102022 - Run #2	PAHs	Indeno[1,2,3-cd]pyrene	UJ
MW24-ROX-102022 - Run #2	PAHs	1-Methylnaphthalene	UJ
MW24-ROX-102022 - Run #2	PAHs	2-Methylnaphthalene	UJ
MW24-ROX-102022 - Run #2	PAHs	Phenanthrene	UJ
MW24-ROX-102022 - Run #2	PAHs	Pyrene	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
MW11-ROX-102022-EB	PAHs	Acenaphthylene	0.1 µg/L
MW11-ROX-102022-EB	PAHs	Anthracene	0.23 µg/L
MW11-ROX-102022-EB	PAHs	Benzo[a]anthracene	1.9 µg/L
MW11-ROX-102022-EB	PAHs	Benzo[a]pyrene	1.3 µg/L
MW11-ROX-102022-EB	PAHs	Benzo[b]fluoranthene	2.2 µg/L
MW11-ROX-102022-EB	PAHs	Benzo[g,h,i]perylene	0.66 µg/L
MW11-ROX-102022-EB	PAHs	Benzo[k]fluoranthene	1.6 µg/L
MW11-ROX-102022-EB	PAHs	Chrysene	2.1 µg/L
MW11-ROX-102022-EB	PAHs	Dibenz(a,h)anthracene	0.23 µg/L
MW11-ROX-102022-EB	PAHs	Fluoranthene	3 µg/L
MW11-ROX-102022-EB	PAHs	Indeno[1,2,3-cd]pyrene	0.62 µg/L
MW11-ROX-102022-EB	PAHs	Phenanthrene	1.1 µg/L
MW11-ROX-102022-EB	PAHs	Pyrene	2.3 µg/L
MB 400-597676/1-A	SVOCs	Diethyl phthalate	0.247 µg/L
MB 400-597676/1-A	PAHs	Benzo[a]anthracene	0.114 µg/L
MB 400-597676/1-A	PAHs	Benzo[a]pyrene	0.119 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-597676/1-A	PAHs	Benzo[b]fluoranthene	0.124 µg/L
MB 400-597676/1-A	PAHs	Benzo[k]fluoranthene	0.143 µg/L
MB 400-597676/1-A	PAHs	Chrysene	0.0773 µg/L
MB 400-597676/1-A	PAHs	Fluoranthene	0.116 µg/L
MB 400-597676/1-A	PAHs	2-Methylnaphthalene	0.0804 µg/L
MB 400-597676/1-A	PAHs	Phenanthrene	0.1 µg/L
MB 400-597676/1-A	PAHs	Pyrene	0.086 µg/L
MB 400-601337/1-A	PAHs	Benzo[a]anthracene	0.0963 µg/L
MB 400-601337/1-A	PAHs	Benzo[b]fluoranthene	0.148 µg/L
MB 400-601337/1-A	PAHs	Fluoranthene	0.133 µg/L
MB 400-601337/1-A	PAHs	Pyrene	0.0867 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
MW11-ROX-102022	PAHs	Benzo[a]anthracene	-	U
MW11-ROX-102022	PAHs	Benzo[b]fluoranthene	-	U
MW11-ROX-102022	PAHs	Benzo[k]fluoranthene	-	U
MW11-ROX-102022	PAHs	Chrysene	-	U
MW11-ROX-102022	PAHs	Phenanthrene	-	U
MW11-ROX-102022	PAHs	Pyrene	-	U
MW1-ROX-102022	PAHs	Benzo[a]anthracene	-	U
MW1-ROX-102022	PAHs	Benzo[a]pyrene	-	U
MW1-ROX-102022	PAHs	Benzo[b]fluoranthene	-	U
MW1-ROX-102022	PAHs	Benzo[k]fluoranthene	0.20 µg/L	U
MW1-ROX-102022	PAHs	Chrysene	-	U
MW1-ROX-102022	PAHs	Fluoranthene	-	U
MW1-ROX-102022	PAHs	Phenanthrene	-	U
MW1-ROX-102022	PAHs	Pyrene	-	U
MW10-ROX-102022	PAHs	Benzo[a]anthracene	0.25 µg/L	U
MW10-ROX-102022	PAHs	Benzo[a]pyrene	-	U
MW10-ROX-102022	PAHs	Benzo[b]fluoranthene	0.21 µg/L	U
MW10-ROX-102022	PAHs	Benzo[k]fluoranthene	0.21 µg/L	U
MW10-ROX-102022	PAHs	Chrysene	0.20 µg/L	U
MW10-ROX-102022	PAHs	Fluoranthene	0.32 µg/L	U
MW10-ROX-102022	PAHs	Phenanthrene	-	U
MW10-ROX-102022	PAHs	Pyrene	0.24 µg/L	U
MW24-ROX-102022 - Run #1	PAHs	Benzo[k]fluoranthene	0.59 µg/L	U
MW24-ROX-102022 - Run #1	PAHs	Phenanthrene	0.28 µg/L	U
MW24-ROX-102022 - Run #2	PAHs	Benzo[a]anthracene	-	U
MW24-ROX-102022 - Run #2	PAHs	Benzo[b]fluoranthene	-	U
MW24-ROX-102022 - Run #2	PAHs	Fluoranthene	-	U

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW24-ROX-102022 - Run #2	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 400-597676/3-A/4-A	SVOCs	Benzenethiol	**3/2**	**32**	10-120/30
LCS/LCSD 400-598053/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	137/**148**	8	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
MW11-ROX-102022	SVOCs	Benzenethiol	**UJ**
MW24-ROX-102022	SVOCs	Benzenethiol	**UJ**
MW1-ROX-102022	SVOCs	Benzenethiol	**UJ**
MW10-ROX-102022	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?

Yes, sample MW1-ROX-102022 was spiked and analyzed for VOCs, SVOCs, and VOC by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW1-ROX-102022 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
MW1-ROX-102022 MS/MSD	SVOCs	Benzoic acid	33/**6**	**137**	10-149/58

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW1-ROX-102022 MS/MSD	SVOCs	3,3'-Dichlorobenzidine	**135/132**	2	10-120/40
MW1-ROX-102022 MS/MSD	SVOCs	4,6-Dinitro-ortho-cresol	**191/164**	15	25-120/42
MW1-ROX-102022 MS/MSD	SVOCs	2,4-Dinitrophenol	**157**/99	**45**	15-140/36
MW1-ROX-102022 MS/MSD	SVOCs	Hexachlorobenzene	**126**/119	6	38-122/33
MW1-ROX-102022 MS/MSD	SVOCs	4-Nitrophenol	**165/144**	14	10-120/82

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-102022	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW1-ROX-102022	SVOCs	Benzoic acid	**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 400-597676/4-A	SVOCs	Perylene-d_{12}	**355003**	1187213	593607-2374426

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 initial calibration verification (ICV) for carbon disulfide and the continuing calibration verification for hexachlorocyclopentadiene were outside evaluation criteria, biased low. 2-Methylnaphthalene, 1-methylnaphthalene, acenaphthylene, fluoranthene, and benzo[g,h,i]perylene in secondary run for sample MW24-ROX-102022 were previously qualified in Section 3.0 of this data review due to hold time exceedance; no further qualification is required. Fluoranthene was previously qualified in Section 4.0 of this data review due to blank contamination; no further qualification is required. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW1-ROX-102022	VOCs	Carbon disulfide	**UJ**
MW11-ROX-102022	VOCs	Carbon disulfide	**UJ**
MW24-ROX-102022	VOCs	Carbon disulfide	**UJ**
MW10-ROX-102022	VOCs	Carbon disulfide	**UJ**
MW11-ROX-102022	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW24-ROX-102022	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW1-ROX-102022	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW10-ROX-102022	SVOCs	Hexachlorocyclopentadiene	**UJ**

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 11/29/2022 9:26:57 AM Revision 1

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-227645-1

Reviewed
12/13/2022
A.V.

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Eurofins Pensacola

Job Notes

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Authorization

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Job ID: 400-227645-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-227645-1

Comments
Revised Report
Report revised to report reanalysis results for confirmation purposes for MW24-ROX-102022 (400-227645-5). Both sets of data are reported.
Supersedes report dated 11-3-2022.

Receipt
The samples were received on 10/21/2022 9:06 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, 0.0°C and 0.0°C

Receipt Exceptions
The following sample(s) was listed on the Chain-of-Custody (COC); however, due to a shipping delay, the sample was not received. Only 1 of Possibly 2 coolers were received.

GC/MS VOA
Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-597840 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 400-597840 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

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-R0X-102022-8260 (400-227645-1), MW11-ROX-102022-EB (400-227645-3), MW11-ROX-102022 (400-227645-4), MW24-ROX-102022 (400-227645-5), MW1-ROX-102022 (400-227645-6) and MW10-ROX-102022 (400-227645-7). 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 400-597676 and analytical batch 400-598292 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 400-597676 and analytical batch 400-598292 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-597676 and analytical batch 400-598292 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 400-597676 and analytical batch 400-598292 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 400-598292 recovered outside acceptance criteria, low biased, for 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: Internal standard (ISTD) response for Perylene-d12 for the following sample in analytical batch 400-598292 was outside

Job ID: 400-227645-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

acceptance criteria: (LCSD 400-597676/4-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 method blank for preparation batch 400-597676 and analytical batch 400-598292 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: The method blank for preparation batch 400-597676 and analytical batch 400-598120 contained 2-Methylnaphthalene, Pyrene, Benzo[b]fluoranthene, Fluoranthene, Phenanthrene, Benzo[k]fluoranthene, Chrysene, Benzo[a]anthracene and Benzo[a]pyrene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: The method blank for preparation batch 400-601337 and analytical batch 400-602027 contained Pyrene, Benzo[b]fluoranthene, Fluoranthene and Benzo[a]anthracene above the method detection limit. This target analyte concentratic was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: The following sample was re-prepared outside of preparation holding time due to client requested verification MW24-ROX-102022 (400-227645-5). 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 laboratory control sample duplicate (LCSD) for preparation batch 400-598053 and analytical batch 400-598150 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.

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

Sample Summary

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

Job ID: 400-227645-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-227645-1	TB-ROX-102022-8260	Water	10/20/22 12:00	10/21/22 09:06
400-227645-2	TB-ROX-102022-8011	Water	10/20/22 12:00	10/21/22 09:06
400-227645-3	MW11-ROX-102022-EB	Water	10/20/22 08:40	10/21/22 09:06
400-227645-4	MW11-ROX-102022	Water	10/20/22 09:50	10/21/22 09:06
400-227645-5	MW24-ROX-102022	Water	10/20/22 11:10	10/21/22 09:06
400-227645-6	MW1-ROX-102022	Water	10/20/22 12:45	10/21/22 09:06
400-227645-7	MW10-ROX-102022	Water	10/20/22 13:45	10/21/22 09:06

Detection Summary

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

Job ID: 400-227645-1

Client Sample ID: TB-R0X-102022-8260

Lab Sample ID: 400-227645-1

No Detections.

Client Sample ID: TB-R0X-102022-8011

Lab Sample ID: 400-227645-2

No Detections.

Client Sample ID: MW11-ROX-102022-EB

Lab Sample ID: 400-227645-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.10	J	0.18	0.041	ug/L	1		8270D LL	Total/NA
Anthracene	0.23		0.18	0.029	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	1.9	B	0.18	0.042	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	1.3	B	0.18	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	2.2	B	0.18	0.031	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.66		0.18	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	1.6	B	0.18	0.092	ug/L	1		8270D LL	Total/NA
Chrysene	2.1	B	0.18	0.068	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.23		0.18	0.046	ug/L	1		8270D LL	Total/NA
Fluoranthene	3.0	B	0.18	0.063	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.62		0.18	0.040	ug/L	1		8270D LL	Total/NA
Phenanthrene	1.1	B	0.18	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	2.3	B	0.18	0.037	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW11-ROX-102022

Lab Sample ID: 400-227645-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.49	J	1.0	0.13	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	~~0.098~~	J B U	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.097~~	J B U	0.19	0.033	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.14~~	J B U	0.19	0.096	ug/L	1		8270D LL	Total/NA
Chrysene	~~0.082~~	J B U	0.19	0.071	ug/L	1		8270D LL	Total/NA
Phenanthrene	~~0.035~~	J B U	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.047~~	J B U	0.19	0.038	ug/L	1		8270D LL	Total/NA
Pyridine	5.8	J	9.6	3.1	ug/L	1		8270D	Total/NA

Client Sample ID: MW24-ROX-102022

Lab Sample ID: 400-227645-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.55	J	1.0	0.13	ug/L	1		8260B	Total/NA
Anthracene	0.12	J	0.18	0.029	ug/L	1		8270D LL	Total/NA
Anthracene	0.062	J H J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.94	B	0.18	0.042	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.12~~	J H B UJ	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.61	B	0.18	0.039	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.12	J H J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.67	B	0.18	0.031	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.15~~	J H B UJ	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.30		0.18	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.59~~	B U J	~~0.18~~ 0.59	0.092	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.12	J H J	0.19	0.094	ug/L	1		8270D LL	Total/NA
Chrysene	0.98	B	0.18	0.068	ug/L	1		8270D LL	Total/NA
Chrysene	0.072	J H J	0.19	0.070	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.052	J	0.18	0.046	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.98	B	0.18	0.063	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW24-ROX-102022 (Continued)

Lab Sample ID: 400-227645-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoranthene	~~0.10~~	J H B U	0.19	0.064	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.27		0.18	0.040	ug/L	1		8270D LL	Total/NA
Phenanthrene	~~0.28~~	B U	~~0.18~~ 0.28	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	0.76	B	0.18	0.037	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.063~~	J H B U	0.19	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW1-ROX-102022

Lab Sample ID: 400-227645-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.66	J	1.0	0.13	ug/L	1		8260B	Total/NA
Anthracene	0.081	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.16~~	J B U	0.19	0.044	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	~~0.18~~	J B U	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.18~~	J B U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.20~~	B U	~~0.19~~ 0.2	0.095	ug/L	1		8270D LL	Total/NA
Chrysene	~~0.14~~	J B U	0.19	0.070	ug/L	1		8270D LL	Total/NA
Fluoranthene	~~0.16~~	J B U	0.19	0.065	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.057	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Phenanthrene	~~0.090~~	J B U	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.14~~	J B U	0.19	0.038	ug/L	1		8270D LL	Total/NA
Di-n-butyl phthalate	3.3	J	9.5	2.6	ug/L	1		8270D	Total/NA

Client Sample ID: MW10-ROX-102022

Lab Sample ID: 400-227645-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.50	J	1.0	0.13	ug/L	1		8260B	Total/NA
Anthracene	0.034	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.25~~	B U	~~0.19~~ 0.25	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	~~0.19~~	B U	0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.21~~	B U	~~0.19~~ 0.21	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.21~~	B U	~~0.18~~ 0.21	0.093	ug/L	1		8270D LL	Total/NA
Chrysene	~~0.20~~	B U	~~0.19~~ 0.2	0.069	ug/L	1		8270D LL	Total/NA
Fluoranthene	~~0.32~~	B U	~~0.19~~ 0.32	0.063	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.044	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Phenanthrene	~~0.11~~	J B U	0.19	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.24~~	B U	~~0.19~~ 0.24	0.037	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-R0X-102022-8260
Date Collected: 10/20/22 12:00
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/22 08:34	1
Acrolein	ND		20	3.3	ug/L			10/26/22 08:34	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/22 08:34	1
Benzene	ND		1.0	0.13	ug/L			10/26/22 08:34	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/22 08:34	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/26/22 08:34	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/26/22 08:34	1
Bromoform	ND		5.0	0.25	ug/L			10/26/22 08:34	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/22 08:34	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/22 08:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/22 08:34	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/26/22 08:34	1
Chlorobenzene	ND		1.0	0.15	ug/L			10/26/22 08:34	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/26/22 08:34	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/22 08:34	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/22 08:34	1
Chloroform	ND		1.0	1.0	ug/L			10/26/22 08:34	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/26/22 08:34	1
Chloromethane	ND		1.0	0.32	ug/L			10/26/22 08:34	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/26/22 08:34	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/22 08:34	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/22 08:34	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/22 08:34	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/22 08:34	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/22 08:34	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/22 08:34	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/26/22 08:34	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 08:34	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 08:34	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 08:34	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 08:34	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/22 08:34	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/22 08:34	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/22 08:34	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/22 08:34	1
2-Hexanone	ND		25	1.4	ug/L			10/26/22 08:34	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/22 08:34	1
Methylene bromide	ND		5.0	0.22	ug/L			10/26/22 08:34	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/22 08:34	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/22 08:34	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/26/22 08:34	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/26/22 08:34	1
Naphthalene	ND		5.0	3.0	ug/L			10/26/22 08:34	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/22 08:34	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/22 08:34	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/22 08:34	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/22 08:34	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/22 08:34	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/22 08:34	1

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

Job ID: 400-227645-1

Client Sample ID: TB-R0X-102022-8260
Date Collected: 10/20/22 12:00
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-1
Matrix: Water

Method: SW846 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			10/26/22 08:34	1
Styrene	ND		1.0	1.0	ug/L			10/26/22 08:34	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/22 08:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/26/22 08:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/22 08:34	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/26/22 08:34	1
Toluene	ND		1.0	0.41	ug/L			10/26/22 08:34	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 08:34	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/26/22 08:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/26/22 08:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/22 08:34	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/26/22 08:34	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/26/22 08:34	1
Trichloroethene	ND		1.0	0.15	ug/L			10/26/22 08:34	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/22 08:34	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/22 08:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/26/22 08:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/22 08:34	1
Vinyl acetate	ND		25	0.93	ug/L			10/26/22 08:34	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/22 08:34	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/22 08:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*10/26/22 08:34*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*10/26/22 08:34*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*10/26/22 08:34*	*1*

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

Job ID: 400-227645-1

Client Sample ID: TB-R0X-102022-8011
Date Collected: 10/20/22 12:00
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-2
Matrix: Water

Method: EPA 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		10/27/22 11:04	10/28/22 16:54	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/27/22 11:04	10/28/22 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*51 - 149*	*10/27/22 11:04*	*10/28/22 16:54*	*1*

Client Sample ID: MW11-ROX-102022-EB
Date Collected: 10/20/22 08:40
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/22 08:58	1
Acrolein	ND		20	3.3	ug/L			10/26/22 08:58	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/22 08:58	1
Benzene	ND		1.0	0.13	ug/L			10/26/22 08:58	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/22 08:58	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/26/22 08:58	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/26/22 08:58	1
Bromoform	ND		5.0	0.25	ug/L			10/26/22 08:58	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/22 08:58	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/22 08:58	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/22 08:58	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/26/22 08:58	1
Chlorobenzene	ND		1.0	0.15	ug/L			10/26/22 08:58	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/26/22 08:58	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/22 08:58	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/22 08:58	1
Chloroform	ND		1.0	1.0	ug/L			10/26/22 08:58	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/26/22 08:58	1
Chloromethane	ND		1.0	0.32	ug/L			10/26/22 08:58	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/26/22 08:58	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/22 08:58	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/22 08:58	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/22 08:58	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/22 08:58	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/22 08:58	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/22 08:58	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/26/22 08:58	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 08:58	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 08:58	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 08:58	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 08:58	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/22 08:58	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/22 08:58	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/22 08:58	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/22 08:58	1
2-Hexanone	ND		25	1.4	ug/L			10/26/22 08:58	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/22 08:58	1
Methylene bromide	ND		5.0	0.22	ug/L			10/26/22 08:58	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/22 08:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/22 08:58	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/26/22 08:58	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/26/22 08:58	1
Naphthalene	ND		5.0	3.0	ug/L			10/26/22 08:58	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/22 08:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/22 08:58	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/22 08:58	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/22 08:58	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/22 08:58	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/22 08:58	1

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

Job ID: 400-227645-1

Client Sample ID: MW11-ROX-102022-EB
Date Collected: 10/20/22 08:40
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-3
Matrix: Water

Method: SW846 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			10/26/22 08:58	1
Styrene	ND		1.0	1.0	ug/L			10/26/22 08:58	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/22 08:58	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/26/22 08:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/22 08:58	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/26/22 08:58	1
Toluene	ND		1.0	0.41	ug/L			10/26/22 08:58	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 08:58	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/26/22 08:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/26/22 08:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/22 08:58	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/26/22 08:58	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/26/22 08:58	1
Trichloroethene	ND		1.0	0.15	ug/L			10/26/22 08:58	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/22 08:58	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/22 08:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/26/22 08:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/22 08:58	1
Vinyl acetate	ND		25	0.93	ug/L			10/26/22 08:58	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/22 08:58	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/22 08:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*10/26/22 08:58*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*10/26/22 08:58*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*10/26/22 08:58*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.029	ug/L		10/25/22 08:03	10/28/22 01:25	1
Acenaphthylene	0.10	J	0.18	0.041	ug/L		10/25/22 08:03	10/28/22 01:25	1
Anthracene	0.23		0.18	0.029	ug/L		10/25/22 08:03	11/01/22 20:50	1
Benzo[a]anthracene	1.9	B	0.18	0.042	ug/L		10/25/22 08:03	10/28/22 01:25	1
Benzo[a]pyrene	1.3	B	0.18	0.039	ug/L		10/25/22 08:03	10/28/22 01:25	1
Benzo[b]fluoranthene	2.2	B	0.18	0.031	ug/L		10/25/22 08:03	10/28/22 01:25	1
Benzo[g,h,i]perylene	0.66		0.18	0.12	ug/L		10/25/22 08:03	10/28/22 01:25	1
Benzo[k]fluoranthene	1.6	B	0.18	0.092	ug/L		10/25/22 08:03	10/28/22 01:25	1
Chrysene	2.1	B	0.18	0.068	ug/L		10/25/22 08:03	10/28/22 01:25	1
Dibenz(a,h)anthracene	0.23		0.18	0.046	ug/L		10/25/22 08:03	10/28/22 01:25	1
Fluoranthene	3.0	B	0.18	0.063	ug/L		10/25/22 08:03	10/28/22 01:25	1
Fluorene	ND		0.18	0.10	ug/L		10/25/22 08:03	10/28/22 01:25	1
Indeno[1,2,3-cd]pyrene	0.62		0.18	0.040	ug/L		10/25/22 08:03	10/28/22 01:25	1
1-Methylnaphthalene	ND		0.18	0.068	ug/L		10/25/22 08:03	10/28/22 01:25	1
2-Methylnaphthalene	ND		0.18	0.055	ug/L		10/25/22 08:03	10/28/22 01:25	1
Phenanthrene	1.1	B	0.18	0.033	ug/L		10/25/22 08:03	10/28/22 01:25	1
Pyrene	2.3	B	0.18	0.037	ug/L		10/25/22 08:03	10/28/22 01:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*15 - 122*	*10/25/22 08:03*	*10/28/22 01:25*	*1*
Nitrobenzene-d5	*100*		*19 - 130*	*10/25/22 08:03*	*10/28/22 01:25*	*1*

Client Sample ID: MW11-ROX-102022-EB
Date Collected: 10/20/22 08:40
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*97*		*33 - 138*	*10/25/22 08:03*	*10/28/22 01:25*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		10/25/22 08:03	10/28/22 20:04	1
Benzenethiol	ND	*- *1	9.2	1.6	ug/L		10/25/22 08:03	10/28/22 20:04	1
Benzoic acid	ND		28	6.7	ug/L		10/25/22 08:03	10/28/22 20:04	1
Benzyl alcohol	ND		9.2	1.8	ug/L		10/25/22 08:03	10/28/22 20:04	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		10/25/22 08:03	10/28/22 20:04	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		10/25/22 08:03	10/28/22 20:04	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		10/25/22 08:03	10/28/22 20:04	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		10/25/22 08:03	10/28/22 20:04	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		10/25/22 08:03	10/28/22 20:04	1
Butyl benzyl phthalate	ND		9.2	0.18	ug/L		10/25/22 08:03	10/28/22 20:04	1
4-Chloroaniline	ND		9.2	3.1	ug/L		10/25/22 08:03	10/28/22 20:04	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		10/25/22 08:03	10/28/22 20:04	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		10/25/22 08:03	10/28/22 20:04	1
2-Chlorophenol	ND		9.2	2.0	ug/L		10/25/22 08:03	10/28/22 20:04	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		10/25/22 08:03	10/28/22 20:04	1
Dibenz[a,h]acridine	ND		9.2	0.92	ug/L		10/25/22 08:03	10/28/22 20:04	1
Dibenzofuran	ND		9.2	0.16	ug/L		10/25/22 08:03	10/28/22 20:04	1
3,3'-Dichlorobenzidine	ND		9.2	2.4	ug/L		10/25/22 08:03	10/28/22 20:04	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		10/25/22 08:03	10/28/22 20:04	1
Diethyl phthalate	ND		9.2	0.22	ug/L		10/25/22 08:03	10/28/22 20:04	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		10/25/22 08:03	10/28/22 20:04	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		10/25/22 08:03	10/28/22 20:04	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		10/25/22 08:03	10/28/22 20:04	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		10/25/22 08:03	10/28/22 20:04	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		10/25/22 08:03	10/28/22 20:04	1
2,4-Dinitrotoluene	ND		9.2	1.8	ug/L		10/25/22 08:03	10/28/22 20:04	1
2,6-Dinitrotoluene	ND		9.2	1.8	ug/L		10/25/22 08:03	10/28/22 20:04	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		10/25/22 08:03	10/28/22 20:04	1
1,4-Dioxane	ND		9.2	0.92	ug/L		10/25/22 08:03	10/28/22 20:04	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		10/25/22 08:03	10/28/22 20:04	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		10/25/22 08:03	10/28/22 20:04	1
Hexachlorocyclopentadiene	ND		18	2.4	ug/L		10/25/22 08:03	10/28/22 20:04	1
Hexachloroethane	ND		9.2	3.9	ug/L		10/25/22 08:03	10/28/22 20:04	1
Indene	ND		9.2	0.92	ug/L		10/25/22 08:03	10/28/22 20:04	1
Isophorone	ND		9.2	0.13	ug/L		10/25/22 08:03	10/28/22 20:04	1
2-Methylphenol	ND		9.2	1.7	ug/L		10/25/22 08:03	10/28/22 20:04	1
3 & 4 Methylphenol	ND		18	0.36	ug/L		10/25/22 08:03	10/28/22 20:04	1
2-Nitroaniline	ND		9.2	2.0	ug/L		10/25/22 08:03	10/28/22 20:04	1
3-Nitroaniline	ND		9.2	1.7	ug/L		10/25/22 08:03	10/28/22 20:04	1
4-Nitroaniline	ND		9.2	1.4	ug/L		10/25/22 08:03	10/28/22 20:04	1
Nitrobenzene	ND		9.2	0.12	ug/L		10/25/22 08:03	10/28/22 20:04	1
2-Nitrophenol	ND		9.2	4.8	ug/L		10/25/22 08:03	10/28/22 20:04	1
4-Nitrophenol	ND		9.2	1.9	ug/L		10/25/22 08:03	10/28/22 20:04	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		10/25/22 08:03	10/28/22 20:04	1

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

Job ID: 400-227645-1

Client Sample ID: MW11-ROX-102022-EB
Date Collected: 10/20/22 08:40
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		10/25/22 08:03	10/28/22 20:04	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		10/25/22 08:03	10/28/22 20:04	1
Pentachlorophenol	ND		18	1.3	ug/L		10/25/22 08:03	10/28/22 20:04	1
Phenol	ND		9.2	2.4	ug/L		10/25/22 08:03	10/28/22 20:04	1
Pyridine	ND		9.2	2.9	ug/L		10/25/22 08:03	10/28/22 20:04	1
Quinoline	ND		9.2	4.1	ug/L		10/25/22 08:03	10/28/22 20:04	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		10/25/22 08:03	10/28/22 20:04	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		10/25/22 08:03	10/28/22 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*46 - 124*	*10/25/22 08:03*	*10/28/22 20:04*	*1*
2-Fluorophenol	*24*		*13 - 113*	*10/25/22 08:03*	*10/28/22 20:04*	*1*
Nitrobenzene-d5	*95*		*36 - 126*	*10/25/22 08:03*	*10/28/22 20:04*	*1*
Phenol-d5	*70*		*17 - 127*	*10/25/22 08:03*	*10/28/22 20:04*	*1*
Terphenyl-d14	*110*		*44 - 149*	*10/25/22 08:03*	*10/28/22 20:04*	*1*
2,4,6-Tribromophenol	*67*		*26 - 150*	*10/25/22 08:03*	*10/28/22 20:04*	*1*

Method: EPA 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		10/27/22 11:04	10/28/22 17:15	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		10/27/22 11:04	10/28/22 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*79*		*51 - 149*	*10/27/22 11:04*	*10/28/22 17:15*	*1*

Client Sample ID: MW11-ROX-102022
Date Collected: 10/20/22 09:50
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/22 11:48	1
Acrolein	ND		20	3.3	ug/L			10/26/22 11:48	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/22 11:48	1
Benzene	0.49	J	1.0	0.13	ug/L			10/26/22 11:48	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/22 11:48	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/26/22 11:48	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/26/22 11:48	1
Bromoform	ND		5.0	0.25	ug/L			10/26/22 11:48	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/22 11:48	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/22 11:48	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/22 11:48	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/26/22 11:48	1
Chlorobenzene	ND		1.0	0.15	ug/L			10/26/22 11:48	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/26/22 11:48	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/22 11:48	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/22 11:48	1
Chloroform	ND		1.0	1.0	ug/L			10/26/22 11:48	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/26/22 11:48	1
Chloromethane	ND		1.0	0.32	ug/L			10/26/22 11:48	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/26/22 11:48	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/22 11:48	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/22 11:48	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/22 11:48	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/22 11:48	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/22 11:48	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/22 11:48	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/26/22 11:48	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 11:48	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 11:48	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 11:48	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 11:48	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/22 11:48	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/22 11:48	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/22 11:48	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/22 11:48	1
2-Hexanone	ND		25	1.4	ug/L			10/26/22 11:48	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/22 11:48	1
Methylene bromide	ND		5.0	0.22	ug/L			10/26/22 11:48	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/22 11:48	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/22 11:48	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/26/22 11:48	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/26/22 11:48	1
Naphthalene	ND		5.0	3.0	ug/L			10/26/22 11:48	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/22 11:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/22 11:48	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/22 11:48	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/22 11:48	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/22 11:48	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/22 11:48	1

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

Job ID: 400-227645-1

Client Sample ID: MW11-ROX-102022
Date Collected: 10/20/22 09:50
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-4
Matrix: Water

Method: SW846 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			10/26/22 11:48	1
Styrene	ND		1.0	1.0	ug/L			10/26/22 11:48	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/22 11:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/26/22 11:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/22 11:48	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/26/22 11:48	1
Toluene	ND		1.0	0.41	ug/L			10/26/22 11:48	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 11:48	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/26/22 11:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/26/22 11:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/22 11:48	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/26/22 11:48	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/26/22 11:48	1
Trichloroethene	ND		1.0	0.15	ug/L			10/26/22 11:48	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/22 11:48	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/22 11:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/26/22 11:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/22 11:48	1
Vinyl acetate	ND		25	0.93	ug/L			10/26/22 11:48	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/22 11:48	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/22 11:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*10/26/22 11:48*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*10/26/22 11:48*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*10/26/22 11:48*	*1*

Method: SW846 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		10/25/22 08:03	10/28/22 01:43	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/25/22 08:03	10/28/22 01:43	1
Anthracene	ND		0.19	0.031	ug/L		10/25/22 08:03	10/28/22 01:43	1
Benzo[a]anthracene	~~0.098~~	J B	0.19	0.044	ug/L		10/25/22 08:03	10/28/22 01:43	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/25/22 08:03	10/28/22 01:43	1
Benzo[b]fluoranthene	~~0.097~~	J B	0.19	0.033	ug/L		10/25/22 08:03	10/28/22 01:43	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/25/22 08:03	10/28/22 01:43	1
Benzo[k]fluoranthene	~~0.14~~	J B	0.19	0.096	ug/L		10/25/22 08:03	10/28/22 01:43	1
Chrysene	~~0.082~~	J B	0.19	0.071	ug/L		10/25/22 08:03	10/28/22 01:43	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/25/22 08:03	10/28/22 01:43	1
Fluoranthene	ND		0.19	0.065	ug/L		10/25/22 08:03	10/28/22 01:43	1
Fluorene	ND		0.19	0.11	ug/L		10/25/22 08:03	10/28/22 01:43	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/25/22 08:03	10/28/22 01:43	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		10/25/22 08:03	10/28/22 01:43	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		10/25/22 08:03	10/28/22 01:43	1
Phenanthrene	~~0.035~~	J B	0.19	0.034	ug/L		10/25/22 08:03	10/28/22 01:43	1
Pyrene	~~0.047~~	J B	0.19	0.038	ug/L		10/25/22 08:03	10/28/22 01:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*15 - 122*	*10/25/22 08:03*	*10/28/22 01:43*	*1*
Nitrobenzene-d5	*100*		*19 - 130*	*10/25/22 08:03*	*10/28/22 01:43*	*1*

Client Sample ID: MW11-ROX-102022
Date Collected: 10/20/22 09:50
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*86*		*33 - 138*	*10/25/22 08:03*	*10/28/22 01:43*	*1*

Method: SW846 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		10/25/22 08:03	10/28/22 20:25	1
Benzenethiol	ND	*- *1 UJ	9.6	1.6	ug/L		10/25/22 08:03	10/28/22 20:25	1
Benzoic acid	ND		29	7.0	ug/L		10/25/22 08:03	10/28/22 20:25	1
Benzyl alcohol	ND		9.6	1.9	ug/L		10/25/22 08:03	10/28/22 20:25	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		10/25/22 08:03	10/28/22 20:25	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		10/25/22 08:03	10/28/22 20:25	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		10/25/22 08:03	10/28/22 20:25	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		10/25/22 08:03	10/28/22 20:25	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		10/25/22 08:03	10/28/22 20:25	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		10/25/22 08:03	10/28/22 20:25	1
4-Chloroaniline	ND		9.6	3.3	ug/L		10/25/22 08:03	10/28/22 20:25	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		10/25/22 08:03	10/28/22 20:25	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		10/25/22 08:03	10/28/22 20:25	1
2-Chlorophenol	ND		9.6	2.1	ug/L		10/25/22 08:03	10/28/22 20:25	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		10/25/22 08:03	10/28/22 20:25	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		10/25/22 08:03	10/28/22 20:25	1
Dibenzofuran	ND		9.6	0.16	ug/L		10/25/22 08:03	10/28/22 20:25	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		10/25/22 08:03	10/28/22 20:25	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		10/25/22 08:03	10/28/22 20:25	1
Diethyl phthalate	ND		9.6	0.23	ug/L		10/25/22 08:03	10/28/22 20:25	1
2,4-Dimethylphenol	ND		9.6	3.3	ug/L		10/25/22 08:03	10/28/22 20:25	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		10/25/22 08:03	10/28/22 20:25	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		10/25/22 08:03	10/28/22 20:25	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		10/25/22 08:03	10/28/22 20:25	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		10/25/22 08:03	10/28/22 20:25	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		10/25/22 08:03	10/28/22 20:25	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		10/25/22 08:03	10/28/22 20:25	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		10/25/22 08:03	10/28/22 20:25	1
1,4-Dioxane	ND		9.6	0.96	ug/L		10/25/22 08:03	10/28/22 20:25	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		10/25/22 08:03	10/28/22 20:25	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		10/25/22 08:03	10/28/22 20:25	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		10/25/22 08:03	10/28/22 20:25	1
Hexachloroethane	ND		9.6	4.0	ug/L		10/25/22 08:03	10/28/22 20:25	1
Indene	ND		9.6	0.96	ug/L		10/25/22 08:03	10/28/22 20:25	1
Isophorone	ND		9.6	0.13	ug/L		10/25/22 08:03	10/28/22 20:25	1
2-Methylphenol	ND		9.6	1.7	ug/L		10/25/22 08:03	10/28/22 20:25	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/25/22 08:03	10/28/22 20:25	1
2-Nitroaniline	ND		9.6	2.1	ug/L		10/25/22 08:03	10/28/22 20:25	1
3-Nitroaniline	ND		9.6	1.7	ug/L		10/25/22 08:03	10/28/22 20:25	1
4-Nitroaniline	ND		9.6	1.4	ug/L		10/25/22 08:03	10/28/22 20:25	1
Nitrobenzene	ND		9.6	0.12	ug/L		10/25/22 08:03	10/28/22 20:25	1
2-Nitrophenol	ND		9.6	5.0	ug/L		10/25/22 08:03	10/28/22 20:25	1
4-Nitrophenol	ND		9.6	2.0	ug/L		10/25/22 08:03	10/28/22 20:25	1
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L		10/25/22 08:03	10/28/22 20:25	1

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

Job ID: 400-227645-1

Client Sample ID: MW11-ROX-102022
Date Collected: 10/20/22 09:50
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-4
Matrix: Water

Method: SW846 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		10/25/22 08:03	10/28/22 20:25	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		10/25/22 08:03	10/28/22 20:25	1
Pentachlorophenol	ND		19	1.3	ug/L		10/25/22 08:03	10/28/22 20:25	1
Phenol	ND		9.6	2.5	ug/L		10/25/22 08:03	10/28/22 20:25	1
Pyridine	5.8	J	9.6	3.1	ug/L		10/25/22 08:03	10/28/22 20:25	1
Quinoline	ND		9.6	4.3	ug/L		10/25/22 08:03	10/28/22 20:25	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		10/25/22 08:03	10/28/22 20:25	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		10/25/22 08:03	10/28/22 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*10/25/22 08:03*	*10/28/22 20:25*	*1*
2-Fluorophenol	*34*		*13 - 113*	*10/25/22 08:03*	*10/28/22 20:25*	*1*
Nitrobenzene-d5	*92*		*36 - 126*	*10/25/22 08:03*	*10/28/22 20:25*	*1*
Phenol-d5	*76*		*17 - 127*	*10/25/22 08:03*	*10/28/22 20:25*	*1*
Terphenyl-d14	*107*		*44 - 149*	*10/25/22 08:03*	*10/28/22 20:25*	*1*
2,4,6-Tribromophenol	*75*		*26 - 150*	*10/25/22 08:03*	*10/28/22 20:25*	*1*

Method: EPA 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		10/27/22 11:04	10/28/22 17:57	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/27/22 11:04	10/28/22 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*10/27/22 11:04*	*10/28/22 17:57*	*1*

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

Job ID: 400-227645-1

Client Sample ID: MW24-ROX-102022
Date Collected: 10/20/22 11:10
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/22 12:13	1
Acrolein	ND		20	3.3	ug/L			10/26/22 12:13	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/22 12:13	1
Benzene	**0.55**	**J**	1.0	0.13	ug/L			10/26/22 12:13	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/22 12:13	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/26/22 12:13	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/26/22 12:13	1
Bromoform	ND		5.0	0.25	ug/L			10/26/22 12:13	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/22 12:13	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/22 12:13	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/22 12:13	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/26/22 12:13	1
Chlorobenzene	ND		1.0	0.15	ug/L			10/26/22 12:13	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/26/22 12:13	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/22 12:13	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/22 12:13	1
Chloroform	ND		1.0	1.0	ug/L			10/26/22 12:13	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/26/22 12:13	1
Chloromethane	ND		1.0	0.32	ug/L			10/26/22 12:13	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/26/22 12:13	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/22 12:13	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/22 12:13	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/22 12:13	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/22 12:13	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/22 12:13	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/22 12:13	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/26/22 12:13	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 12:13	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 12:13	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 12:13	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 12:13	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/22 12:13	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/22 12:13	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/22 12:13	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/22 12:13	1
2-Hexanone	ND		25	1.4	ug/L			10/26/22 12:13	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/22 12:13	1
Methylene bromide	ND		5.0	0.22	ug/L			10/26/22 12:13	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/22 12:13	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/22 12:13	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/26/22 12:13	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/26/22 12:13	1
Naphthalene	ND		5.0	3.0	ug/L			10/26/22 12:13	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/22 12:13	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/22 12:13	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/22 12:13	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/22 12:13	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/22 12:13	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/22 12:13	1

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

Job ID: 400-227645-1

Client Sample ID: MW24-ROX-102022
Date Collected: 10/20/22 11:10
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-5
Matrix: Water

Method: SW846 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			10/26/22 12:13	1
Styrene	ND		1.0	1.0	ug/L			10/26/22 12:13	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/22 12:13	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/26/22 12:13	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/22 12:13	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/26/22 12:13	1
Toluene	ND		1.0	0.41	ug/L			10/26/22 12:13	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 12:13	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/26/22 12:13	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/26/22 12:13	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/22 12:13	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/26/22 12:13	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/26/22 12:13	1
Trichloroethene	ND		1.0	0.15	ug/L			10/26/22 12:13	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/22 12:13	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/22 12:13	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/26/22 12:13	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/22 12:13	1
Vinyl acetate	ND		25	0.93	ug/L			10/26/22 12:13	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/22 12:13	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/22 12:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*10/26/22 12:13*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*10/26/22 12:13*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*10/26/22 12:13*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.029	ug/L		10/25/22 08:03	10/28/22 02:00	1
Acenaphthene	ND	H UJ	0.19	0.030	ug/L		11/18/22 09:46	11/22/22 21:10	1
Acenaphthylene	ND		0.18	0.041	ug/L		10/25/22 08:03	10/28/22 02:00	1
Acenaphthylene	ND	H UJ	0.19	0.042	ug/L		11/18/22 09:46	11/22/22 21:10	1
Anthracene	0.12	J	0.18	0.029	ug/L		10/25/22 08:03	10/28/22 02:00	1
Anthracene	0.062	J H J	0.19	0.030	ug/L		11/18/22 09:46	11/22/22 21:10	1
Benzo[a]anthracene	0.94	B	0.18	0.042	ug/L		10/25/22 08:03	10/28/22 02:00	1
Benzo[a]anthracene	~~0.12~~	J H B UJ	0.19	0.043	ug/L		11/18/22 09:46	11/22/22 21:10	1
Benzo[a]pyrene	0.61	B	0.18	0.039	ug/L		10/25/22 08:03	10/28/22 02:00	1
Benzo[a]pyrene	0.12	J H J	0.19	0.040	ug/L		11/18/22 09:46	11/22/22 21:10	1
Benzo[b]fluoranthene	0.67	B	0.18	0.031	ug/L		10/25/22 08:03	10/28/22 02:00	1
Benzo[b]fluoranthene	~~0.15~~	J H B UJ	0.19	0.032	ug/L		11/18/22 09:46	11/22/22 21:10	1
Benzo[g,h,i]perylene	0.30		0.18	0.12	ug/L		10/25/22 08:03	10/28/22 02:00	1
Benzo[g,h,i]perylene	ND	H UJ	0.19	0.12	ug/L		11/18/22 09:46	11/22/22 21:10	1
Benzo[k]fluoranthene	~~0.59~~	B J	~~0.18~~ 0.59	0.092	ug/L		10/25/22 08:03	10/28/22 02:00	1
Benzo[k]fluoranthene	0.12	J H J	0.19	0.094	ug/L		11/18/22 09:46	11/22/22 21:10	1
Chrysene	0.98	B	0.18	0.068	ug/L		10/25/22 08:03	10/28/22 02:00	1
Chrysene	0.072	J H J	0.19	0.070	ug/L		11/18/22 09:46	11/22/22 21:10	1
Dibenz(a,h)anthracene	0.052	J	0.18	0.046	ug/L		10/25/22 08:03	10/28/22 02:00	1
Dibenz(a,h)anthracene	ND	H UJ	0.19	0.047	ug/L		11/18/22 09:46	11/22/22 21:10	1
Fluoranthene	0.98	B	0.18	0.063	ug/L		10/25/22 08:03	10/28/22 02:00	1

Client Sample ID: MW24-ROX-102022
Date Collected: 10/20/22 11:10
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	~~0.10~~	J H B U	0.19	0.064	ug/L		11/18/22 09:46	11/22/22 21:10	1
Fluorene	ND		0.18	0.10	ug/L		10/25/22 08:03	10/28/22 02:00	1
Fluorene	ND	H U	0.19	0.10	ug/L		11/18/22 09:46	11/22/22 21:10	1
Indeno[1,2,3-cd]pyrene	0.27		0.18	0.040	ug/L		10/25/22 08:03	10/28/22 02:00	1
Indeno[1,2,3-cd]pyrene	ND	H U	0.19	0.040	ug/L		11/18/22 09:46	11/22/22 21:10	1
1-Methylnaphthalene	ND		0.18	0.068	ug/L		10/25/22 08:03	10/28/22 02:00	1
1-Methylnaphthalene	ND	H U	0.19	0.070	ug/L		11/18/22 09:46	11/22/22 21:10	1
2-Methylnaphthalene	ND		0.18	0.055	ug/L		10/25/22 08:03	10/28/22 02:00	1
2-Methylnaphthalene	ND	H U	0.19	0.056	ug/L		11/18/22 09:46	11/22/22 21:10	1
Phenanthrene	~~0.28~~	B U	~~0.18~~ 0.29	0.033	ug/L		10/25/22 08:03	10/28/22 02:00	1
Phenanthrene	ND	H U	0.19	0.034	ug/L		11/18/22 09:46	11/22/22 21:10	1
Pyrene	0.76	B	0.18	0.037	ug/L		10/25/22 08:03	10/28/22 02:00	1
Pyrene	~~0.063~~	J H B U	0.19	0.038	ug/L		11/18/22 09:46	11/22/22 21:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*15 - 122*	*10/25/22 08:03*	*10/28/22 02:00*	*1*
2-Fluorobiphenyl	*115*		*15 - 122*	*11/18/22 09:46*	*11/22/22 21:10*	*1*
Nitrobenzene-d5	*95*		*19 - 130*	*10/25/22 08:03*	*10/28/22 02:00*	*1*
Nitrobenzene-d5	*76*		*19 - 130*	*11/18/22 09:46*	*11/22/22 21:10*	*1*
Terphenyl-d14	*82*		*33 - 138*	*10/25/22 08:03*	*10/28/22 02:00*	*1*
Terphenyl-d14	*107*		*33 - 138*	*11/18/22 09:46*	*11/22/22 21:10*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		10/25/22 08:03	10/28/22 20:46	1
Benzenethiol	ND	*-*1 U	9.2	1.6	ug/L		10/25/22 08:03	10/28/22 20:46	1
Benzoic acid	ND		28	6.7	ug/L		10/25/22 08:03	10/28/22 20:46	1
Benzyl alcohol	ND		9.2	1.8	ug/L		10/25/22 08:03	10/28/22 20:46	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		10/25/22 08:03	10/28/22 20:46	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		10/25/22 08:03	10/28/22 20:46	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		10/25/22 08:03	10/28/22 20:46	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		10/25/22 08:03	10/28/22 20:46	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		10/25/22 08:03	10/28/22 20:46	1
Butyl benzyl phthalate	ND		9.2	0.18	ug/L		10/25/22 08:03	10/28/22 20:46	1
4-Chloroaniline	ND		9.2	3.1	ug/L		10/25/22 08:03	10/28/22 20:46	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		10/25/22 08:03	10/28/22 20:46	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		10/25/22 08:03	10/28/22 20:46	1
2-Chlorophenol	ND		9.2	2.0	ug/L		10/25/22 08:03	10/28/22 20:46	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		10/25/22 08:03	10/28/22 20:46	1
Dibenz[a,h]acridine	ND		9.2	0.92	ug/L		10/25/22 08:03	10/28/22 20:46	1
Dibenzofuran	ND		9.2	0.16	ug/L		10/25/22 08:03	10/28/22 20:46	1
3,3'-Dichlorobenzidine	ND		9.2	2.4	ug/L		10/25/22 08:03	10/28/22 20:46	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		10/25/22 08:03	10/28/22 20:46	1
Diethyl phthalate	ND		9.2	0.22	ug/L		10/25/22 08:03	10/28/22 20:46	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		10/25/22 08:03	10/28/22 20:46	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		10/25/22 08:03	10/28/22 20:46	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		10/25/22 08:03	10/28/22 20:46	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		10/25/22 08:03	10/28/22 20:46	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		10/25/22 08:03	10/28/22 20:46	1
2,4-Dinitrotoluene	ND		9.2	1.8	ug/L		10/25/22 08:03	10/28/22 20:46	1

Client Sample ID: MW24-ROX-102022
Date Collected: 10/20/22 11:10
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,6-Dinitrotoluene	ND		9.2	1.8	ug/L		10/25/22 08:03	10/28/22 20:46	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		10/25/22 08:03	10/28/22 20:46	1
1,4-Dioxane	ND		9.2	0.92	ug/L		10/25/22 08:03	10/28/22 20:46	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		10/25/22 08:03	10/28/22 20:46	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		10/25/22 08:03	10/28/22 20:46	1
Hexachlorocyclopentadiene	ND	us	18	2.4	ug/L		10/25/22 08:03	10/28/22 20:46	1
Hexachloroethane	ND		9.2	3.9	ug/L		10/25/22 08:03	10/28/22 20:46	1
Indene	ND		9.2	0.92	ug/L		10/25/22 08:03	10/28/22 20:46	1
Isophorone	ND		9.2	0.13	ug/L		10/25/22 08:03	10/28/22 20:46	1
2-Methylphenol	ND		9.2	1.7	ug/L		10/25/22 08:03	10/28/22 20:46	1
3 & 4 Methylphenol	ND		18	0.36	ug/L		10/25/22 08:03	10/28/22 20:46	1
2-Nitroaniline	ND		9.2	2.0	ug/L		10/25/22 08:03	10/28/22 20:46	1
3-Nitroaniline	ND		9.2	1.7	ug/L		10/25/22 08:03	10/28/22 20:46	1
4-Nitroaniline	ND		9.2	1.4	ug/L		10/25/22 08:03	10/28/22 20:46	1
Nitrobenzene	ND		9.2	0.12	ug/L		10/25/22 08:03	10/28/22 20:46	1
2-Nitrophenol	ND		9.2	4.8	ug/L		10/25/22 08:03	10/28/22 20:46	1
4-Nitrophenol	ND		9.2	1.9	ug/L		10/25/22 08:03	10/28/22 20:46	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		10/25/22 08:03	10/28/22 20:46	1
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		10/25/22 08:03	10/28/22 20:46	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		10/25/22 08:03	10/28/22 20:46	1
Pentachlorophenol	ND		18	1.3	ug/L		10/25/22 08:03	10/28/22 20:46	1
Phenol	ND		9.2	2.4	ug/L		10/25/22 08:03	10/28/22 20:46	1
Pyridine	ND		9.2	2.9	ug/L		10/25/22 08:03	10/28/22 20:46	1
Quinoline	ND		9.2	4.1	ug/L		10/25/22 08:03	10/28/22 20:46	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		10/25/22 08:03	10/28/22 20:46	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		10/25/22 08:03	10/28/22 20:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*10/25/22 08:03*	*10/28/22 20:46*	*1*
2-Fluorophenol	*42*		*13 - 113*	*10/25/22 08:03*	*10/28/22 20:46*	*1*
Nitrobenzene-d5	*90*		*36 - 126*	*10/25/22 08:03*	*10/28/22 20:46*	*1*
Phenol-d5	*73*		*17 - 127*	*10/25/22 08:03*	*10/28/22 20:46*	*1*
Terphenyl-d14	*106*		*44 - 149*	*10/25/22 08:03*	*10/28/22 20:46*	*1*
2,4,6-Tribromophenol	*77*		*26 - 150*	*10/25/22 08:03*	*10/28/22 20:46*	*1*

Method: EPA 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		10/27/22 11:04	10/28/22 18:18	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/27/22 11:04	10/28/22 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*51 - 149*	*10/27/22 11:04*	*10/28/22 18:18*	*1*

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

Job ID: 400-227645-1

Client Sample ID: MW1-ROX-102022
Date Collected: 10/20/22 12:45
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/22 09:23	1
Acrolein	ND		20	3.3	ug/L			10/26/22 09:23	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/22 09:23	1
Benzene	0.66	J	1.0	0.13	ug/L			10/26/22 09:23	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/22 09:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/26/22 09:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/26/22 09:23	1
Bromoform	ND		5.0	0.25	ug/L			10/26/22 09:23	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/22 09:23	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/22 09:23	1
Carbon disulfide	ND	us	1.0	0.50	ug/L			10/26/22 09:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/26/22 09:23	1
Chlorobenzene	ND		1.0	0.15	ug/L			10/26/22 09:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/26/22 09:23	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/22 09:23	1
2-Chloroethyl vinyl ether	ND	F1 us	5.0	2.0	ug/L			10/26/22 09:23	1
Chloroform	ND		1.0	1.0	ug/L			10/26/22 09:23	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/26/22 09:23	1
Chloromethane	ND		1.0	0.32	ug/L			10/26/22 09:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/26/22 09:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/22 09:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/22 09:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/22 09:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/22 09:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/22 09:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/22 09:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/26/22 09:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 09:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 09:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 09:23	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 09:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/22 09:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/22 09:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/22 09:23	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/22 09:23	1
2-Hexanone	ND		25	1.4	ug/L			10/26/22 09:23	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/22 09:23	1
Methylene bromide	ND		5.0	0.22	ug/L			10/26/22 09:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/22 09:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/22 09:23	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/26/22 09:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/26/22 09:23	1
Naphthalene	ND		5.0	3.0	ug/L			10/26/22 09:23	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/22 09:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/22 09:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/22 09:23	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/22 09:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/22 09:23	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/22 09:23	1

Client Sample ID: MW1-ROX-102022
Date Collected: 10/20/22 12:45
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-6
Matrix: Water

Method: SW846 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			10/26/22 09:23	1
Styrene	ND		1.0	1.0	ug/L			10/26/22 09:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/22 09:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/26/22 09:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/22 09:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/26/22 09:23	1
Toluene	ND		1.0	0.41	ug/L			10/26/22 09:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 09:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/26/22 09:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/26/22 09:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/22 09:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/26/22 09:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/26/22 09:23	1
Trichloroethene	ND		1.0	0.15	ug/L			10/26/22 09:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/22 09:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/22 09:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/26/22 09:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/22 09:23	1
Vinyl acetate	ND		25	0.93	ug/L			10/26/22 09:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/22 09:23	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/22 09:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*10/26/22 09:23*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*10/26/22 09:23*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*10/26/22 09:23*	*1*

Method: SW846 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		10/25/22 08:03	10/28/22 01:08	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/25/22 08:03	10/28/22 01:08	1
Anthracene	0.081	J	0.19	0.030	ug/L		10/25/22 08:03	10/28/22 01:08	1
Benzo[a]anthracene	~~0.16~~	J B U	0.19	0.044	ug/L		10/25/22 08:03	10/28/22 01:08	1
Benzo[a]pyrene	~~0.18~~	J B U	0.19	0.040	ug/L		10/25/22 08:03	10/28/22 01:08	1
Benzo[b]fluoranthene	~~0.18~~	J B U	0.19	0.032	ug/L		10/25/22 08:03	10/28/22 01:08	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/25/22 08:03	10/28/22 01:08	1
Benzo[k]fluoranthene	~~0.20~~	B U	~~0.19~~ 0.2	0.095	ug/L		10/25/22 08:03	10/28/22 01:08	1
Chrysene	~~0.14~~	J B U	0.19	0.070	ug/L		10/25/22 08:03	10/28/22 01:08	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/25/22 08:03	10/28/22 01:08	1
Fluoranthene	~~0.16~~	J B U	0.19	0.065	ug/L		10/25/22 08:03	10/28/22 01:08	1
Fluorene	ND		0.19	0.10	ug/L		10/25/22 08:03	10/28/22 01:08	1
Indeno[1,2,3-cd]pyrene	0.057	J	0.19	0.041	ug/L		10/25/22 08:03	10/28/22 01:08	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		10/25/22 08:03	10/28/22 01:08	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		10/25/22 08:03	10/28/22 01:08	1
Phenanthrene	~~0.090~~	J B U	0.19	0.034	ug/L		10/25/22 08:03	10/28/22 01:08	1
Pyrene	~~0.14~~	J B U	0.19	0.038	ug/L		10/25/22 08:03	10/28/22 01:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*15 - 122*	*10/25/22 08:03*	*10/28/22 01:08*	*1*
Nitrobenzene-d5	*100*		*19 - 130*	*10/25/22 08:03*	*10/28/22 01:08*	*1*

Client Sample ID: MW1-ROX-102022
Date Collected: 10/20/22 12:45
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*98*		*33 - 138*	*10/25/22 08:03*	*10/28/22 01:08*	*1*

Method: SW846 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		10/25/22 08:03	10/28/22 21:07	1
Benzenethiol	ND	*- *1 UJ	9.5	1.6	ug/L		10/25/22 08:03	10/28/22 21:07	1
Benzoic acid	ND	F1 F2 UJ	29	6.9	ug/L		10/25/22 08:03	10/28/22 21:07	1
Benzyl alcohol	ND		9.5	1.9	ug/L		10/25/22 08:03	10/28/22 21:07	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		10/25/22 08:03	10/28/22 21:07	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/25/22 08:03	10/28/22 21:07	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/25/22 08:03	10/28/22 21:07	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		10/25/22 08:03	10/28/22 21:07	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/25/22 08:03	10/28/22 21:07	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/25/22 08:03	10/28/22 21:07	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/25/22 08:03	10/28/22 21:07	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/25/22 08:03	10/28/22 21:07	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/25/22 08:03	10/28/22 21:07	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/25/22 08:03	10/28/22 21:07	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/25/22 08:03	10/28/22 21:07	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/25/22 08:03	10/28/22 21:07	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/25/22 08:03	10/28/22 21:07	1
3,3'-Dichlorobenzidine	ND	F1	9.5	2.5	ug/L		10/25/22 08:03	10/28/22 21:07	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		10/25/22 08:03	10/28/22 21:07	1
Diethyl phthalate	ND		9.5	0.23	ug/L		10/25/22 08:03	10/28/22 21:07	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/25/22 08:03	10/28/22 21:07	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/25/22 08:03	10/28/22 21:07	1
Di-n-butyl phthalate	**3.3**	J	9.5	2.6	ug/L		10/25/22 08:03	10/28/22 21:07	1
4,6-Dinitro-ortho-cresol	ND	F1	9.5	1.5	ug/L		10/25/22 08:03	10/28/22 21:07	1
2,4-Dinitrophenol	ND	F1 F2	29	3.2	ug/L		10/25/22 08:03	10/28/22 21:07	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/25/22 08:03	10/28/22 21:07	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/25/22 08:03	10/28/22 21:07	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/25/22 08:03	10/28/22 21:07	1
1,4-Dioxane	ND		9.5	0.95	ug/L		10/25/22 08:03	10/28/22 21:07	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/25/22 08:03	10/28/22 21:07	1
Hexachlorobenzene	ND	F1	9.5	0.16	ug/L		10/25/22 08:03	10/28/22 21:07	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		10/25/22 08:03	10/28/22 21:07	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/25/22 08:03	10/28/22 21:07	1
Indene	ND		9.5	0.95	ug/L		10/25/22 08:03	10/28/22 21:07	1
Isophorone	ND		9.5	0.13	ug/L		10/25/22 08:03	10/28/22 21:07	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/25/22 08:03	10/28/22 21:07	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/25/22 08:03	10/28/22 21:07	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/25/22 08:03	10/28/22 21:07	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/25/22 08:03	10/28/22 21:07	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/25/22 08:03	10/28/22 21:07	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/25/22 08:03	10/28/22 21:07	1
2-Nitrophenol	ND		9.5	5.0	ug/L		10/25/22 08:03	10/28/22 21:07	1
4-Nitrophenol	ND	F1	9.5	2.0	ug/L		10/25/22 08:03	10/28/22 21:07	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/25/22 08:03	10/28/22 21:07	1

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

Job ID: 400-227645-1

Client Sample ID: MW1-ROX-102022
Date Collected: 10/20/22 12:45
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-6
Matrix: Water

Method: SW846 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		10/25/22 08:03	10/28/22 21:07	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/25/22 08:03	10/28/22 21:07	1
Pentachlorophenol	ND		19	1.3	ug/L		10/25/22 08:03	10/28/22 21:07	1
Phenol	ND		9.5	2.5	ug/L		10/25/22 08:03	10/28/22 21:07	1
Pyridine	ND		9.5	3.0	ug/L		10/25/22 08:03	10/28/22 21:07	1
Quinoline	ND		9.5	4.3	ug/L		10/25/22 08:03	10/28/22 21:07	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/25/22 08:03	10/28/22 21:07	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/25/22 08:03	10/28/22 21:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*10/25/22 08:03*	*10/28/22 21:07*	*1*
2-Fluorophenol	*33*		*13 - 113*	*10/25/22 08:03*	*10/28/22 21:07*	*1*
Nitrobenzene-d5	*97*		*36 - 126*	*10/25/22 08:03*	*10/28/22 21:07*	*1*
Phenol-d5	*76*		*17 - 127*	*10/25/22 08:03*	*10/28/22 21:07*	*1*
Terphenyl-d14	*110*		*44 - 149*	*10/25/22 08:03*	*10/28/22 21:07*	*1*
2,4,6-Tribromophenol	*82*		*26 - 150*	*10/25/22 08:03*	*10/28/22 21:07*	*1*

Method: EPA 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		10/27/22 11:04	10/28/22 18:39	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/27/22 11:04	10/28/22 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*10/27/22 11:04*	*10/28/22 18:39*	*1*

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

Job ID: 400-227645-1

Client Sample ID: MW10-ROX-102022
Date Collected: 10/20/22 13:45
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/22 12:37	1
Acrolein	ND		20	3.3	ug/L			10/26/22 12:37	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/22 12:37	1
Benzene	**0.50**	**J**	1.0	0.13	ug/L			10/26/22 12:37	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/22 12:37	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/26/22 12:37	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/26/22 12:37	1
Bromoform	ND		5.0	0.25	ug/L			10/26/22 12:37	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/22 12:37	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/22 12:37	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/22 12:37	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/26/22 12:37	1
Chlorobenzene	ND		1.0	0.15	ug/L			10/26/22 12:37	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/26/22 12:37	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/22 12:37	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/22 12:37	1
Chloroform	ND		1.0	1.0	ug/L			10/26/22 12:37	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/26/22 12:37	1
Chloromethane	ND		1.0	0.32	ug/L			10/26/22 12:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/26/22 12:37	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/22 12:37	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/22 12:37	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/22 12:37	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/22 12:37	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/22 12:37	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/22 12:37	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/26/22 12:37	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 12:37	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 12:37	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 12:37	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 12:37	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/22 12:37	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/22 12:37	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/22 12:37	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/22 12:37	1
2-Hexanone	ND		25	1.4	ug/L			10/26/22 12:37	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/22 12:37	1
Methylene bromide	ND		5.0	0.22	ug/L			10/26/22 12:37	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/22 12:37	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/22 12:37	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/26/22 12:37	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/26/22 12:37	1
Naphthalene	ND		5.0	3.0	ug/L			10/26/22 12:37	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/22 12:37	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/22 12:37	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/22 12:37	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/22 12:37	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/22 12:37	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/22 12:37	1

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

Job ID: 400-227645-1

Client Sample ID: MW10-ROX-102022
Date Collected: 10/20/22 13:45
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-7
Matrix: Water

Method: SW846 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			10/26/22 12:37	1
Styrene	ND		1.0	1.0	ug/L			10/26/22 12:37	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/22 12:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/26/22 12:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/22 12:37	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/26/22 12:37	1
Toluene	ND		1.0	0.41	ug/L			10/26/22 12:37	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 12:37	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/26/22 12:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/26/22 12:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/22 12:37	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/26/22 12:37	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/26/22 12:37	1
Trichloroethene	ND		1.0	0.15	ug/L			10/26/22 12:37	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/22 12:37	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/22 12:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/26/22 12:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/22 12:37	1
Vinyl acetate	ND		25	0.93	ug/L			10/26/22 12:37	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/22 12:37	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/22 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*10/26/22 12:37*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*10/26/22 12:37*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*10/26/22 12:37*	*1*

Method: SW846 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		10/25/22 08:03	10/28/22 02:17	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/25/22 08:03	10/28/22 02:17	1
Anthracene	0.034	J	0.19	0.030	ug/L		10/25/22 08:03	10/28/22 02:17	1
Benzo[a]anthracene	~~0.25~~	B U	~~0.19~~ 0.25	0.043	ug/L		10/25/22 08:03	10/28/22 02:17	1
Benzo[a]pyrene	~~0.19~~	B U	0.19	0.039	ug/L		10/25/22 08:03	10/28/22 02:17	1
Benzo[b]fluoranthene	~~0.21~~	B U	0.19 0.21	0.032	ug/L		10/25/22 08:03	10/28/22 02:17	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/25/22 08:03	10/28/22 02:17	1
Benzo[k]fluoranthene	~~0.21~~	B U	~~0.19~~ 0.21	0.093	ug/L		10/25/22 08:03	10/28/22 02:17	1
Chrysene	~~0.20~~	B U	~~0.19~~ 0.2	0.069	ug/L		10/25/22 08:03	10/28/22 02:17	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		10/25/22 08:03	10/28/22 02:17	1
Fluoranthene	~~0.32~~	B U	~~0.19~~ 0.32	0.063	ug/L		10/25/22 08:03	10/28/22 02:17	1
Fluorene	ND		0.19	0.10	ug/L		10/25/22 08:03	10/28/22 02:17	1
Indeno[1,2,3-cd]pyrene	0.044	J	0.19	0.040	ug/L		10/25/22 08:03	10/28/22 02:17	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		10/25/22 08:03	10/28/22 02:17	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		10/25/22 08:03	10/28/22 02:17	1
Phenanthrene	~~0.11~~	J B U	0.19	0.033	ug/L		10/25/22 08:03	10/28/22 02:17	1
Pyrene	~~0.24~~	B U	~~0.19~~ 0.24	0.037	ug/L		10/25/22 08:03	10/28/22 02:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*15 - 122*	*10/25/22 08:03*	*10/28/22 02:17*	*1*
Nitrobenzene-d5	*92*		*19 - 130*	*10/25/22 08:03*	*10/28/22 02:17*	*1*

Client Sample ID: MW10-ROX-102022
Date Collected: 10/20/22 13:45
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-7
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	87		33 - 138	10/25/22 08:03	10/28/22 02:17	1

Method: SW846 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		10/25/22 08:03	10/28/22 22:10	1
Benzenethiol	ND	*- *1	9.3	1.6	ug/L		10/25/22 08:03	10/28/22 22:10	1
Benzoic acid	ND		28	6.8	ug/L		10/25/22 08:03	10/28/22 22:10	1
Benzyl alcohol	ND		9.3	1.9	ug/L		10/25/22 08:03	10/28/22 22:10	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		10/25/22 08:03	10/28/22 22:10	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		10/25/22 08:03	10/28/22 22:10	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		10/25/22 08:03	10/28/22 22:10	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.6	ug/L		10/25/22 08:03	10/28/22 22:10	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		10/25/22 08:03	10/28/22 22:10	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		10/25/22 08:03	10/28/22 22:10	1
4-Chloroaniline	ND		9.3	3.2	ug/L		10/25/22 08:03	10/28/22 22:10	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		10/25/22 08:03	10/28/22 22:10	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		10/25/22 08:03	10/28/22 22:10	1
2-Chlorophenol	ND		9.3	2.0	ug/L		10/25/22 08:03	10/28/22 22:10	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		10/25/22 08:03	10/28/22 22:10	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		10/25/22 08:03	10/28/22 22:10	1
Dibenzofuran	ND		9.3	0.16	ug/L		10/25/22 08:03	10/28/22 22:10	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		10/25/22 08:03	10/28/22 22:10	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		10/25/22 08:03	10/28/22 22:10	1
Diethyl phthalate	ND		9.3	0.22	ug/L		10/25/22 08:03	10/28/22 22:10	1
2,4-Dimethylphenol	ND		9.3	3.2	ug/L		10/25/22 08:03	10/28/22 22:10	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		10/25/22 08:03	10/28/22 22:10	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		10/25/22 08:03	10/28/22 22:10	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		10/25/22 08:03	10/28/22 22:10	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/25/22 08:03	10/28/22 22:10	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		10/25/22 08:03	10/28/22 22:10	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		10/25/22 08:03	10/28/22 22:10	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		10/25/22 08:03	10/28/22 22:10	1
1,4-Dioxane	ND		9.3	0.93	ug/L		10/25/22 08:03	10/28/22 22:10	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		10/25/22 08:03	10/28/22 22:10	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		10/25/22 08:03	10/28/22 22:10	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		10/25/22 08:03	10/28/22 22:10	1
Hexachloroethane	ND		9.3	3.9	ug/L		10/25/22 08:03	10/28/22 22:10	1
Indene	ND		9.3	0.93	ug/L		10/25/22 08:03	10/28/22 22:10	1
Isophorone	ND		9.3	0.13	ug/L		10/25/22 08:03	10/28/22 22:10	1
2-Methylphenol	ND		9.3	1.7	ug/L		10/25/22 08:03	10/28/22 22:10	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		10/25/22 08:03	10/28/22 22:10	1
2-Nitroaniline	ND		9.3	2.0	ug/L		10/25/22 08:03	10/28/22 22:10	1
3-Nitroaniline	ND		9.3	1.7	ug/L		10/25/22 08:03	10/28/22 22:10	1
4-Nitroaniline	ND		9.3	1.4	ug/L		10/25/22 08:03	10/28/22 22:10	1
Nitrobenzene	ND		9.3	0.12	ug/L		10/25/22 08:03	10/28/22 22:10	1
2-Nitrophenol	ND		9.3	4.8	ug/L		10/25/22 08:03	10/28/22 22:10	1
4-Nitrophenol	ND		9.3	1.9	ug/L		10/25/22 08:03	10/28/22 22:10	1
N-Nitrosodimethylamine	ND		9.3	3.2	ug/L		10/25/22 08:03	10/28/22 22:10	1

Client Sample ID: MW10-ROX-102022
Date Collected: 10/20/22 13:45
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-7
Matrix: Water

Method: SW846 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		10/25/22 08:03	10/28/22 22:10	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		10/25/22 08:03	10/28/22 22:10	1
Pentachlorophenol	ND		19	1.3	ug/L		10/25/22 08:03	10/28/22 22:10	1
Phenol	ND		9.3	2.4	ug/L		10/25/22 08:03	10/28/22 22:10	1
Pyridine	ND		9.3	3.0	ug/L		10/25/22 08:03	10/28/22 22:10	1
Quinoline	ND		9.3	4.2	ug/L		10/25/22 08:03	10/28/22 22:10	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		10/25/22 08:03	10/28/22 22:10	1
2,4,6-Trichlorophenol	ND		9.3	3.2	ug/L		10/25/22 08:03	10/28/22 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*10/25/22 08:03*	*10/28/22 22:10*	*1*
2-Fluorophenol	*21*		*13 - 113*	*10/25/22 08:03*	*10/28/22 22:10*	*1*
Nitrobenzene-d5	*87*		*36 - 126*	*10/25/22 08:03*	*10/28/22 22:10*	*1*
Phenol-d5	*53*		*17 - 127*	*10/25/22 08:03*	*10/28/22 22:10*	*1*
Terphenyl-d14	*103*		*44 - 149*	*10/25/22 08:03*	*10/28/22 22:10*	*1*
2,4,6-Tribromophenol	*53*		*26 - 150*	*10/25/22 08:03*	*10/28/22 22:10*	*1*

Method: EPA 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		10/27/22 11:04	10/28/22 19:42	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		10/27/22 11:04	10/28/22 19:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*10/27/22 11:04*	*10/28/22 19:42*	*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.
*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.
F2	MS/MSD RPD exceeds control limits
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.
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: 400-227645-1

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)
400-227645-1	TB-R0X-102022-8260	102	104	105
400-227645-3	MW11-ROX-102022-EB	96	104	102
400-227645-4	MW11-ROX-102022	99	106	103
400-227645-5	MW24-ROX-102022	98	105	102
400-227645-6	MW1-ROX-102022	101	100	102
400-227645-6 MS	MW1-ROX-102022	99	97	97
400-227645-6 MSD	MW1-ROX-102022	99	96	98
400-227645-7	MW10-ROX-102022	97	103	101
LCS 400-597840/1002	Lab Control Sample	101	101	98
MB 400-597840/4	Method Blank	100	102	101

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)
400-227645-3	MW11-ROX-102022-EB	85	24	95	70	110	67
400-227645-4	MW11-ROX-102022	84	34	92	76	107	75
400-227645-5	MW24-ROX-102022	81	42	90	73	106	77
400-227645-6	MW1-ROX-102022	87	33	97	76	110	82
400-227645-6 MS	MW1-ROX-102022	91	49	95	87	109	131
400-227645-6 MSD	MW1-ROX-102022	86	62	92	91	104	123
400-227645-7	MW10-ROX-102022	79	21	87	53	103	53
LCS 400-597676/2-A	Lab Control Sample	84	48	87	82	103	118
LCS 400-597676/3-A	Lab Control Sample	76	54	85	81	99	51
LCSD 400-597676/4-A	Lab Control Sample Dup	83	54	91	80	114	97
MB 400-597676/1-A	Method Blank	89	20	97	69	115	80

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)
400-227645-3	MW11-ROX-102022-EB	82	100	97
400-227645-4	MW11-ROX-102022	74	100	86
400-227645-5	MW24-ROX-102022	75	95	82

Surrogate Summary

Client: AECOM Technical Services Inc.
Job ID: 400-227645-1
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)
400-227645-5	MW24-ROX-102022	115	76	107
400-227645-6	MW1-ROX-102022	89	100	98
400-227645-6 MS	MW1-ROX-102022	110	100	117
400-227645-6 MSD	MW1-ROX-102022	108	100	115
400-227645-7	MW10-ROX-102022	74	92	87
LCS 400-597676/2-A	Lab Control Sample	100	97	107
LCS 400-601337/2-A	Lab Control Sample	98	92	111
LCSD 400-601337/3-A	Lab Control Sample Dup	100	91	112
MB 400-597676/1-A	Method Blank	74	98	78
MB 400-601337/1-A	Method Blank	120	72	112

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)
400-227645-2	TB-R0X-102022-8011	83
400-227645-3	MW11-ROX-102022-EB	79
400-227645-4	MW11-ROX-102022	81
400-227645-5	MW24-ROX-102022	83
400-227645-6	MW1-ROX-102022	81
400-227645-6 MS	MW1-ROX-102022	89
400-227645-6 MSD	MW1-ROX-102022	93
400-227645-7	MW10-ROX-102022	81
LCS 400-598053/2-A	Lab Control Sample	76
LCSD 400-598053/3-A	Lab Control Sample Dup	88
MB 400-598053/1-A	Method Blank	67

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-227645-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Client Sample ID: TB-R0X-102022-8260

Lab Sample ID: 400-227645-1

Date Collected: 10/20/22 12:00
Date Received: 10/21/22 09:06

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	597840	10/26/22 08:34	WPD	EET PEN

Client Sample ID: TB-R0X-102022-8011

Lab Sample ID: 400-227645-2

Date Collected: 10/20/22 12:00
Date Received: 10/21/22 09:06

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			34.2 mL	35 mL	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 16:54	JAW	EET PEN

Client Sample ID: MW11-ROX-102022-EB

Lab Sample ID: 400-227645-3

Date Collected: 10/20/22 08:40
Date Received: 10/21/22 09:06

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	597840	10/26/22 08:58	WPD	EET PEN
Total/NA	Prep	3520C			271.4 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 20:04	S1B	EET PEN
Total/NA	Prep	3520C			271.4 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 01:25	PP1	EET PEN
Total/NA	Prep	3520C			271.4 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598704	11/01/22 20:50	PP1	EET PEN
Total/NA	Prep	8011			31.4 mL	35 mL	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 17:15	JAW	EET PEN

Client Sample ID: MW11-ROX-102022

Lab Sample ID: 400-227645-4

Date Collected: 10/20/22 09:50
Date Received: 10/21/22 09:06

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	597840	10/26/22 11:48	WPD	EET PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 20:25	S1B	EET PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 01:43	PP1	EET PEN
Total/NA	Prep	8011			35.7 mL	35 mL	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 17:57	JAW	EET PEN

Client Sample ID: MW24-ROX-102022

Lab Sample ID: 400-227645-5

Date Collected: 10/20/22 11:10
Date Received: 10/21/22 09:06

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	597840	10/26/22 12:13	WPD	EET PEN

Client Sample ID: MW24-ROX-102022

Lab Sample ID: 400-227645-5

Date Collected: 10/20/22 11:10
Matrix: Water
Date Received: 10/21/22 09:06

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			271.4 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 20:46	S1B	EET PEN
Total/NA	Prep	3520C			271.4 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 02:00	PP1	EET PEN
Total/NA	Prep	3520C			265.8 mL	1 mL	601337	11/18/22 09:46	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	602027	11/22/22 21:10	PP1	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 18:18	JAW	EET PEN

Client Sample ID: MW1-ROX-102022

Lab Sample ID: 400-227645-6

Date Collected: 10/20/22 12:45
Matrix: Water
Date Received: 10/21/22 09:06

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	597840	10/26/22 09:23	WPD	EET PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 21:07	S1B	EET PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 01:08	PP1	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 18:39	JAW	EET PEN

Client Sample ID: MW10-ROX-102022

Lab Sample ID: 400-227645-7

Date Collected: 10/20/22 13:45
Matrix: Water
Date Received: 10/21/22 09:06

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	597840	10/26/22 12:37	WPD	EET PEN
Total/NA	Prep	3520C			269.8 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 22:10	S1B	EET PEN
Total/NA	Prep	3520C			269.8 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 02:17	PP1	EET PEN
Total/NA	Prep	8011			34.1 mL	35 mL	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 19:42	JAW	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-597676/1-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	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 18:40	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 00:00	PP1	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-597840/4
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	597840	10/26/22 08:08	WPD	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-598053/1-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	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 15:51	JAW	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-601337/1-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	601337	11/18/22 09:46	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	602027	11/22/22 20:18	PP1	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-597676/2-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	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 19:43	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	598120	10/28/22 00:17	PP1	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-597676/3-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	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 19:01	S1B	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-597840/1002
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	597840	10/26/22 07:13	WPD	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-598053/2-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	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 16:12	JAW	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-601337/2-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	3520C			250 mL	1 mL	601337	11/18/22 09:46	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	602027	11/22/22 20:35	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-597676/4-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	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 19:22	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-598053/3-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	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 16:33	JAW	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-601337/3-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	601337	11/18/22 09:46	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	602027	11/22/22 20:52	PP1	EET PEN

Client Sample ID: MW1-ROX-102022

Lab Sample ID: 400-227645-6 MS

Date Collected: 10/20/22 12:45
Date Received: 10/21/22 09:06

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	597840	10/26/22 14:15	WPD	EET PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 21:28	S1B	EET PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	598120	10/28/22 00:34	PP1	EET PEN

Lab Chronicle

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

Job ID: 400-227645-1

Client Sample ID: MW1-ROX-102022
Date Collected: 10/20/22 12:45
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-6 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			34.8 mL	35 mL	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 19:00	JAW	EET PEN

Client Sample ID: MW1-ROX-102022
Date Collected: 10/20/22 12:45
Date Received: 10/21/22 09:06

Lab Sample ID: 400-227645-6 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	597840	10/26/22 15:08	WPD	EET PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 21:49	S1B	EET PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	598120	10/28/22 00:51	PP1	EET PEN
Total/NA	Prep	8011			33.5 mL	35 mL	598053	10/27/22 11:04	JAW	EET PEN
Total/NA	Analysis	8011		1			598150	10/28/22 19:21	JAW	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 597840

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227645-1	TB-R0X-102022-8260	Total/NA	Water	8260B	
400-227645-3	MW11-ROX-102022-EB	Total/NA	Water	8260B	
400-227645-4	MW11-ROX-102022	Total/NA	Water	8260B	
400-227645-5	MW24-ROX-102022	Total/NA	Water	8260B	
400-227645-6	MW1-ROX-102022	Total/NA	Water	8260B	
400-227645-7	MW10-ROX-102022	Total/NA	Water	8260B	
MB 400-597840/4	Method Blank	Total/NA	Water	8260B	
LCS 400-597840/1002	Lab Control Sample	Total/NA	Water	8260B	
400-227645-6 MS	MW1-ROX-102022	Total/NA	Water	8260B	
400-227645-6 MSD	MW1-ROX-102022	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 597676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227645-3	MW11-ROX-102022-EB	Total/NA	Water	3520C	
400-227645-4	MW11-ROX-102022	Total/NA	Water	3520C	
400-227645-5	MW24-ROX-102022	Total/NA	Water	3520C	
400-227645-6	MW1-ROX-102022	Total/NA	Water	3520C	
400-227645-7	MW10-ROX-102022	Total/NA	Water	3520C	
MB 400-597676/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-597676/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-597676/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-597676/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-227645-6 MS	MW1-ROX-102022	Total/NA	Water	3520C	
400-227645-6 MSD	MW1-ROX-102022	Total/NA	Water	3520C	

Analysis Batch: 598120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227645-3	MW11-ROX-102022-EB	Total/NA	Water	8270D LL	597676
400-227645-4	MW11-ROX-102022	Total/NA	Water	8270D LL	597676
400-227645-5	MW24-ROX-102022	Total/NA	Water	8270D LL	597676
400-227645-6	MW1-ROX-102022	Total/NA	Water	8270D LL	597676
400-227645-7	MW10-ROX-102022	Total/NA	Water	8270D LL	597676
MB 400-597676/1-A	Method Blank	Total/NA	Water	8270D LL	597676
LCS 400-597676/2-A	Lab Control Sample	Total/NA	Water	8270D LL	597676
400-227645-6 MS	MW1-ROX-102022	Total/NA	Water	8270D LL	597676
400-227645-6 MSD	MW1-ROX-102022	Total/NA	Water	8270D LL	597676

Analysis Batch: 598292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227645-3	MW11-ROX-102022-EB	Total/NA	Water	8270D	597676
400-227645-4	MW11-ROX-102022	Total/NA	Water	8270D	597676
400-227645-5	MW24-ROX-102022	Total/NA	Water	8270D	597676
400-227645-6	MW1-ROX-102022	Total/NA	Water	8270D	597676
400-227645-7	MW10-ROX-102022	Total/NA	Water	8270D	597676
MB 400-597676/1-A	Method Blank	Total/NA	Water	8270D	597676
LCS 400-597676/2-A	Lab Control Sample	Total/NA	Water	8270D	597676
LCS 400-597676/3-A	Lab Control Sample	Total/NA	Water	8270D	597676
LCSD 400-597676/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	597676
400-227645-6 MS	MW1-ROX-102022	Total/NA	Water	8270D	597676

GC/MS Semi VOA (Continued)

Analysis Batch: 598292 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227645-6 MSD	MW1-ROX-102022	Total/NA	Water	8270D	597676

Analysis Batch: 598704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227645-3	MW11-ROX-102022-EB	Total/NA	Water	8270D LL	597676

Prep Batch: 601337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227645-5	MW24-ROX-102022	Total/NA	Water	3520C	
MB 400-601337/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-601337/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-601337/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 602027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227645-5	MW24-ROX-102022	Total/NA	Water	8270D LL	601337
MB 400-601337/1-A	Method Blank	Total/NA	Water	8270D LL	601337
LCS 400-601337/2-A	Lab Control Sample	Total/NA	Water	8270D LL	601337
LCSD 400-601337/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	601337

GC Semi VOA

Prep Batch: 598053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227645-2	TB-R0X-102022-8011	Total/NA	Water	8011	
400-227645-3	MW11-ROX-102022-EB	Total/NA	Water	8011	
400-227645-4	MW11-ROX-102022	Total/NA	Water	8011	
400-227645-5	MW24-ROX-102022	Total/NA	Water	8011	
400-227645-6	MW1-ROX-102022	Total/NA	Water	8011	
400-227645-7	MW10-ROX-102022	Total/NA	Water	8011	
MB 400-598053/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-598053/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-598053/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-227645-6 MS	MW1-ROX-102022	Total/NA	Water	8011	
400-227645-6 MSD	MW1-ROX-102022	Total/NA	Water	8011	

Analysis Batch: 598150

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227645-2	TB-R0X-102022-8011	Total/NA	Water	8011	598053
400-227645-3	MW11-ROX-102022-EB	Total/NA	Water	8011	598053
400-227645-4	MW11-ROX-102022	Total/NA	Water	8011	598053
400-227645-5	MW24-ROX-102022	Total/NA	Water	8011	598053
400-227645-6	MW1-ROX-102022	Total/NA	Water	8011	598053
400-227645-7	MW10-ROX-102022	Total/NA	Water	8011	598053
MB 400-598053/1-A	Method Blank	Total/NA	Water	8011	598053
LCS 400-598053/2-A	Lab Control Sample	Total/NA	Water	8011	598053
LCSD 400-598053/3-A	Lab Control Sample Dup	Total/NA	Water	8011	598053
400-227645-6 MS	MW1-ROX-102022	Total/NA	Water	8011	598053
400-227645-6 MSD	MW1-ROX-102022	Total/NA	Water	8011	598053

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

Lab Sample ID: MB 400-597840/4
Matrix: Water
Analysis Batch: 597840

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			10/26/22 08:08	1
Acrolein	ND		20	3.3	ug/L			10/26/22 08:08	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/22 08:08	1
Benzene	ND		1.0	0.13	ug/L			10/26/22 08:08	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/22 08:08	1
Bromochloromethane	ND		1.0	0.21	ug/L			10/26/22 08:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/26/22 08:08	1
Bromoform	ND		5.0	0.25	ug/L			10/26/22 08:08	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/22 08:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/22 08:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/22 08:08	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			10/26/22 08:08	1
Chlorobenzene	ND		1.0	0.15	ug/L			10/26/22 08:08	1
Dibromochloromethane	ND		1.0	0.24	ug/L			10/26/22 08:08	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/22 08:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/22 08:08	1
Chloroform	ND		1.0	1.0	ug/L			10/26/22 08:08	1
1-Chlorohexane	ND		1.0	0.32	ug/L			10/26/22 08:08	1
Chloromethane	ND		1.0	0.32	ug/L			10/26/22 08:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			10/26/22 08:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/22 08:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/22 08:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/22 08:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/22 08:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/22 08:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/22 08:08	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			10/26/22 08:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 08:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 08:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 08:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/22 08:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/22 08:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/22 08:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/22 08:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/22 08:08	1
2-Hexanone	ND		25	1.4	ug/L			10/26/22 08:08	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/22 08:08	1
Methylene bromide	ND		5.0	0.22	ug/L			10/26/22 08:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/22 08:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/22 08:08	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			10/26/22 08:08	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			10/26/22 08:08	1
Naphthalene	ND		5.0	3.0	ug/L			10/26/22 08:08	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/22 08:08	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/22 08:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/22 08:08	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/22 08:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/22 08:08	1

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

Lab Sample ID: MB 400-597840/4
Matrix: Water
Analysis Batch: 597840

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			10/26/22 08:08	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/26/22 08:08	1
Styrene	ND		1.0	1.0	ug/L			10/26/22 08:08	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/22 08:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			10/26/22 08:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/22 08:08	1
Tetrachloroethene	ND		1.0	0.90	ug/L			10/26/22 08:08	1
Toluene	ND		1.0	0.41	ug/L			10/26/22 08:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/22 08:08	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			10/26/22 08:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			10/26/22 08:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/22 08:08	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			10/26/22 08:08	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			10/26/22 08:08	1
Trichloroethene	ND		1.0	0.15	ug/L			10/26/22 08:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/22 08:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/22 08:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/26/22 08:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/22 08:08	1
Vinyl acetate	ND		25	0.93	ug/L			10/26/22 08:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/22 08:08	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/22 08:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*10/26/22 08:08*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*10/26/22 08:08*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*10/26/22 08:08*	*1*

Lab Sample ID: LCS 400-597840/1002
Matrix: Water
Analysis Batch: 597840

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	283		ug/L		141	43 - 160
Acrolein	500	502		ug/L		100	38 - 160
Acrylonitrile	500	520		ug/L		104	64 - 142
Benzene	50.0	47.2		ug/L		94	70 - 130
Bromobenzene	50.0	47.3		ug/L		95	70 - 132
Bromochloromethane	50.0	46.3		ug/L		93	70 - 130
Bromodichloromethane	50.0	47.1		ug/L		94	67 - 133
Bromoform	50.0	46.1		ug/L		92	57 - 140
Bromomethane	50.0	50.9		ug/L		102	10 - 160
2-Butanone (MEK)	200	214		ug/L		107	61 - 145
Carbon disulfide	50.0	39.5		ug/L		79	61 - 137
Carbon tetrachloride	50.0	45.3		ug/L		91	61 - 137
Chlorobenzene	50.0	48.2		ug/L		96	70 - 130
Dibromochloromethane	50.0	48.2		ug/L		96	67 - 135
Chloroethane	50.0	49.6		ug/L		99	55 - 141

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

Lab Sample ID: LCS 400-597840/1002
Matrix: Water
Analysis Batch: 597840

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	28.5		ug/L		57	10 - 160
Chloroform	50.0	47.6		ug/L		95	69 - 130
1-Chlorohexane	50.0	48.0		ug/L		96	69 - 130
Chloromethane	50.0	54.2		ug/L		108	58 - 137
cis-1,2-Dichloroethene	50.0	45.9		ug/L		92	68 - 130
cis-1,3-Dichloropropene	50.0	47.5		ug/L		95	69 - 132
1,2-Dichlorobenzene	50.0	48.9		ug/L		98	67 - 130
1,3-Dichlorobenzene	50.0	49.9		ug/L		100	70 - 130
1,4-Dichlorobenzene	50.0	49.4		ug/L		99	70 - 130
Dichlorodifluoromethane	50.0	52.7		ug/L		105	41 - 146
1,1-Dichloroethane	50.0	46.3		ug/L		93	70 - 130
1,2-Dichloroethane	50.0	46.6		ug/L		93	69 - 130
1,1-Dichloroethene	50.0	49.4		ug/L		99	63 - 134
1,2-Dichloropropane	50.0	48.9		ug/L		98	70 - 130
1,3-Dichloropropane	50.0	49.5		ug/L		99	70 - 130
2,2-Dichloropropane	50.0	41.7		ug/L		83	52 - 135
1,1-Dichloropropene	50.0	45.3		ug/L		91	70 - 130
Ethylbenzene	50.0	48.6		ug/L		97	70 - 130
Ethyl methacrylate	50.0	48.5		ug/L		97	68 - 130
Hexachlorobutadiene	50.0	51.2		ug/L		102	53 - 140
2-Hexanone	200	204		ug/L		102	65 - 137
Isopropylbenzene	50.0	48.0		ug/L		96	70 - 130
Methylene bromide	50.0	48.2		ug/L		96	70 - 130
Methylene Chloride	50.0	45.8		ug/L		92	66 - 135
4-Methyl-2-pentanone (MIBK)	200	209		ug/L		105	69 - 138
Methyl tert-butyl ether	50.0	45.6		ug/L		91	66 - 130
m-Xylene & p-Xylene	50.0	46.8		ug/L		94	70 - 130
Naphthalene	50.0	45.9		ug/L		92	47 - 149
n-Butylbenzene	50.0	53.5		ug/L		107	67 - 130
N-Propylbenzene	50.0	51.8		ug/L		104	70 - 130
o-Chlorotoluene	50.0	49.7		ug/L		99	70 - 130
o-Xylene	50.0	47.8		ug/L		96	70 - 130
p-Chlorotoluene	50.0	51.2		ug/L		102	70 - 130
p-Isopropyltoluene	50.0	50.4		ug/L		101	65 - 130
sec-Butylbenzene	50.0	51.6		ug/L		103	66 - 130
Styrene	50.0	48.0		ug/L		96	70 - 130
tert-Butylbenzene	50.0	48.6		ug/L		97	64 - 139
1,1,1,2-Tetrachloroethane	50.0	47.1		ug/L		94	67 - 131
1,1,2,2-Tetrachloroethane	50.0	51.2		ug/L		102	70 - 131
Tetrachloroethene	50.0	45.3		ug/L		91	65 - 130
Toluene	50.0	47.2		ug/L		94	70 - 130
trans-1,2-Dichloroethene	50.0	44.5		ug/L		89	70 - 130
trans-1,3-Dichloropropene	50.0	48.2		ug/L		96	63 - 130
1,2,3-Trichlorobenzene	50.0	47.1		ug/L		94	60 - 138
1,2,4-Trichlorobenzene	50.0	48.6		ug/L		97	60 - 140
1,1,1-Trichloroethane	50.0	44.8		ug/L		90	68 - 130
1,1,2-Trichloroethane	50.0	50.0		ug/L		100	70 - 130
Trichloroethene	50.0	45.3		ug/L		91	70 - 130
Trichlorofluoromethane	50.0	49.5		ug/L		99	65 - 138

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

Lab Sample ID: LCS 400-597840/1002
Matrix: Water
Analysis Batch: 597840

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	50.6		ug/L		101	70 - 130
1,2,4-Trimethylbenzene	50.0	49.3		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	50.0	50.1		ug/L		100	69 - 130
Vinyl acetate	100	97.2		ug/L		97	26 - 160
Vinyl chloride	50.0	50.1		ug/L		100	59 - 136
Xylenes, Total	100	94.5		ug/L		95	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: 400-227645-6 MS
Matrix: Water
Analysis Batch: 597840

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	233		ug/L		116	43 - 150
Acrolein	ND		500	487		ug/L		97	38 - 150
Acrylonitrile	ND		500	531		ug/L		106	62 - 149
Benzene	0.66	J	50.0	50.0		ug/L		99	56 - 142
Bromobenzene	ND		50.0	47.6		ug/L		95	59 - 136
Bromochloromethane	ND		50.0	48.5		ug/L		97	64 - 140
Bromodichloromethane	ND		50.0	49.5		ug/L		99	59 - 143
Bromoform	ND		50.0	43.1		ug/L		86	50 - 140
Bromomethane	ND		50.0	56.9		ug/L		114	10 - 150
2-Butanone (MEK)	ND		200	210		ug/L		105	55 - 150
Carbon disulfide	ND		50.0	39.7		ug/L		79	48 - 150
Carbon tetrachloride	ND		50.0	46.2		ug/L		92	55 - 145
Chlorobenzene	ND		50.0	48.0		ug/L		96	64 - 130
Dibromochloromethane	ND		50.0	47.4		ug/L		95	56 - 143
Chloroethane	ND		50.0	57.1		ug/L		114	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	49.0		ug/L		98	60 - 141
1-Chlorohexane	ND		50.0	46.8		ug/L		94	56 - 136
Chloromethane	ND		50.0	53.2		ug/L		106	49 - 148
cis-1,2-Dichloroethene	ND		50.0	47.3		ug/L		95	59 - 143
cis-1,3-Dichloropropene	ND		50.0	47.8		ug/L		96	57 - 140
1,2-Dichlorobenzene	ND		50.0	49.6		ug/L		99	52 - 137
1,3-Dichlorobenzene	ND		50.0	49.3		ug/L		99	54 - 135
1,4-Dichlorobenzene	ND		50.0	48.7		ug/L		97	53 - 135
Dichlorodifluoromethane	ND		50.0	49.5		ug/L		99	16 - 150
1,1-Dichloroethane	ND		50.0	47.2		ug/L		94	61 - 144
1,2-Dichloroethane	ND		50.0	48.6		ug/L		97	60 - 141
1,1-Dichloroethene	ND		50.0	48.3		ug/L		97	54 - 147
1,2-Dichloropropane	ND		50.0	50.7		ug/L		101	66 - 137
1,3-Dichloropropane	ND		50.0	50.0		ug/L		100	66 - 133
2,2-Dichloropropane	ND		50.0	43.2		ug/L		86	42 - 144

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

Lab Sample ID: 400-227645-6 MS
Matrix: Water
Analysis Batch: 597840

Client Sample ID: MW1-ROX-102022
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	46.2		ug/L		92	65 - 136
Ethylbenzene	ND		50.0	47.2		ug/L		94	58 - 131
Ethyl methacrylate	ND		50.0	47.2		ug/L		94	64 - 130
Hexachlorobutadiene	ND		50.0	47.3		ug/L		95	31 - 149
2-Hexanone	ND		200	194		ug/L		97	65 - 140
Isopropylbenzene	ND		50.0	44.9		ug/L		90	56 - 133
Methylene bromide	ND		50.0	49.3		ug/L		99	63 - 138
Methylene Chloride	ND		50.0	47.6		ug/L		95	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	210		ug/L		105	63 - 146
Methyl tert-butyl ether	ND		50.0	45.6		ug/L		91	59 - 137
m-Xylene & p-Xylene	ND		50.0	45.4		ug/L		91	57 - 130
Naphthalene	ND		50.0	43.0		ug/L		86	25 - 150
n-Butylbenzene	ND		50.0	50.5		ug/L		101	41 - 142
N-Propylbenzene	ND		50.0	51.1		ug/L		102	51 - 138
o-Chlorotoluene	ND		50.0	49.9		ug/L		100	53 - 134
o-Xylene	ND		50.0	46.7		ug/L		93	61 - 130
p-Chlorotoluene	ND		50.0	50.9		ug/L		102	54 - 133
p-Isopropyltoluene	ND		50.0	49.3		ug/L		99	48 - 139
sec-Butylbenzene	ND		50.0	49.2		ug/L		98	50 - 138
Styrene	ND		50.0	47.0		ug/L		94	58 - 131
tert-Butylbenzene	ND		50.0	49.2		ug/L		98	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	47.1		ug/L		94	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	53.0		ug/L		106	66 - 135
Tetrachloroethene	ND		50.0	42.9		ug/L		86	52 - 133
Toluene	ND		50.0	46.5		ug/L		93	65 - 130
trans-1,2-Dichloroethene	ND		50.0	45.7		ug/L		91	61 - 143
trans-1,3-Dichloropropene	ND		50.0	45.8		ug/L		92	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	44.8		ug/L		90	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	44.5		ug/L		89	39 - 148
1,1,1-Trichloroethane	ND		50.0	46.4		ug/L		93	57 - 142
1,1,2-Trichloroethane	ND		50.0	49.0		ug/L		98	66 - 131
Trichloroethene	ND		50.0	44.6		ug/L		89	64 - 136
Trichlorofluoromethane	ND		50.0	53.7		ug/L		107	54 - 150
1,2,3-Trichloropropane	ND		50.0	53.4		ug/L		107	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	48.6		ug/L		97	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	49.4		ug/L		99	52 - 135
Vinyl acetate	ND		100	95.1		ug/L		95	26 - 150
Vinyl chloride	ND		50.0	51.4		ug/L		103	46 - 150
Xylenes, Total	ND		100	92.1		ug/L		92	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*72 - 119*
Dibromofluoromethane	*97*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

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

Lab Sample ID: 400-227645-6 MSD
Matrix: Water
Analysis Batch: 597840

Client Sample ID: MW1-ROX-102022
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	238		ug/L		119	43 - 150	2	30
Acrolein	ND		500	512		ug/L		102	38 - 150	5	31
Acrylonitrile	ND		500	569		ug/L		114	62 - 149	7	30
Benzene	0.66	J	50.0	50.9		ug/L		100	56 - 142	2	30
Bromobenzene	ND		50.0	47.5		ug/L		95	59 - 136	0	30
Bromochloromethane	ND		50.0	48.5		ug/L		97	64 - 140	0	30
Bromodichloromethane	ND		50.0	49.1		ug/L		98	59 - 143	1	30
Bromoform	ND		50.0	45.5		ug/L		91	50 - 140	5	30
Bromomethane	ND		50.0	59.1		ug/L		118	10 - 150	4	50
2-Butanone (MEK)	ND		200	221		ug/L		111	55 - 150	5	30
Carbon disulfide	ND		50.0	41.9		ug/L		84	48 - 150	5	30
Carbon tetrachloride	ND		50.0	47.1		ug/L		94	55 - 145	2	30
Chlorobenzene	ND		50.0	49.2		ug/L		98	64 - 130	2	30
Dibromochloromethane	ND		50.0	48.7		ug/L		97	56 - 143	3	30
Chloroethane	ND		50.0	54.8		ug/L		110	50 - 150	4	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	49.9		ug/L		100	60 - 141	2	30
1-Chlorohexane	ND		50.0	48.7		ug/L		97	56 - 136	4	30
Chloromethane	ND		50.0	58.2		ug/L		116	49 - 148	9	31
cis-1,2-Dichloroethene	ND		50.0	48.4		ug/L		97	59 - 143	2	30
cis-1,3-Dichloropropene	ND		50.0	49.0		ug/L		98	57 - 140	2	30
1,2-Dichlorobenzene	ND		50.0	49.8		ug/L		100	52 - 137	0	30
1,3-Dichlorobenzene	ND		50.0	49.4		ug/L		99	54 - 135	0	30
1,4-Dichlorobenzene	ND		50.0	48.7		ug/L		97	53 - 135	0	30
Dichlorodifluoromethane	ND		50.0	55.4		ug/L		111	16 - 150	11	31
1,1-Dichloroethane	ND		50.0	48.6		ug/L		97	61 - 144	3	30
1,2-Dichloroethane	ND		50.0	48.6		ug/L		97	60 - 141	0	30
1,1-Dichloroethene	ND		50.0	51.4		ug/L		103	54 - 147	6	30
1,2-Dichloropropane	ND		50.0	51.4		ug/L		103	66 - 137	1	30
1,3-Dichloropropane	ND		50.0	50.3		ug/L		101	66 - 133	1	30
2,2-Dichloropropane	ND		50.0	44.0		ug/L		88	42 - 144	2	31
1,1-Dichloropropene	ND		50.0	47.0		ug/L		94	65 - 136	2	30
Ethylbenzene	ND		50.0	48.8		ug/L		98	58 - 131	3	30
Ethyl methacrylate	ND		50.0	49.2		ug/L		98	64 - 130	4	30
Hexachlorobutadiene	ND		50.0	47.2		ug/L		94	31 - 149	0	36
2-Hexanone	ND		200	208		ug/L		104	65 - 140	7	30
Isopropylbenzene	ND		50.0	47.1		ug/L		94	56 - 133	5	30
Methylene bromide	ND		50.0	50.8		ug/L		102	63 - 138	3	30
Methylene Chloride	ND		50.0	48.8		ug/L		98	60 - 146	2	32
4-Methyl-2-pentanone (MIBK)	ND		200	222		ug/L		111	63 - 146	5	30
Methyl tert-butyl ether	ND		50.0	47.5		ug/L		95	59 - 137	4	30
m-Xylene & p-Xylene	ND		50.0	47.0		ug/L		94	57 - 130	3	30
Naphthalene	ND		50.0	45.6		ug/L		91	25 - 150	6	30
n-Butylbenzene	ND		50.0	52.3		ug/L		105	41 - 142	3	31
N-Propylbenzene	ND		50.0	52.1		ug/L		104	51 - 138	2	30
o-Chlorotoluene	ND		50.0	52.5		ug/L		105	53 - 134	5	30
o-Xylene	ND		50.0	48.1		ug/L		96	61 - 130	3	30
p-Chlorotoluene	ND		50.0	51.5		ug/L		103	54 - 133	1	30

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

Lab Sample ID: 400-227645-6 MSD
Matrix: Water
Analysis Batch: 597840

Client Sample ID: MW1-ROX-102022
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	50.6		ug/L		101	48 - 139	3	30
sec-Butylbenzene	ND		50.0	51.6		ug/L		103	50 - 138	5	30
Styrene	ND		50.0	47.7		ug/L		95	58 - 131	2	30
tert-Butylbenzene	ND		50.0	50.0		ug/L		100	54 - 146	2	30
1,1,1,2-Tetrachloroethane	ND		50.0	47.8		ug/L		96	59 - 137	2	30
1,1,2,2-Tetrachloroethane	ND		50.0	54.1		ug/L		108	66 - 135	2	30
Tetrachloroethene	ND		50.0	44.6		ug/L		89	52 - 133	4	30
Toluene	ND		50.0	48.4		ug/L		97	65 - 130	4	30
trans-1,2-Dichloroethene	ND		50.0	48.2		ug/L		96	61 - 143	5	30
trans-1,3-Dichloropropene	ND		50.0	47.6		ug/L		95	53 - 133	4	30
1,2,3-Trichlorobenzene	ND		50.0	43.9		ug/L		88	43 - 145	2	30
1,2,4-Trichlorobenzene	ND		50.0	42.2		ug/L		84	39 - 148	5	30
1,1,1-Trichloroethane	ND		50.0	47.6		ug/L		95	57 - 142	3	30
1,1,2-Trichloroethane	ND		50.0	52.3		ug/L		105	66 - 131	6	30
Trichloroethene	ND		50.0	47.4		ug/L		95	64 - 136	6	30
Trichlorofluoromethane	ND		50.0	54.5		ug/L		109	54 - 150	1	30
1,2,3-Trichloropropane	ND		50.0	53.9		ug/L		108	65 - 133	1	30
1,2,4-Trimethylbenzene	ND		50.0	49.2		ug/L		98	50 - 139	1	30
1,3,5-Trimethylbenzene	ND		50.0	50.6		ug/L		101	52 - 135	2	30
Vinyl acetate	ND		100	104		ug/L		104	26 - 150	9	33
Vinyl chloride	ND		50.0	53.8		ug/L		108	46 - 150	4	30
Xylenes, Total	ND		100	95.2		ug/L		95	59 - 130	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

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

Lab Sample ID: MB 400-597676/1-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 597676

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/25/22 08:03	10/28/22 18:40	1
Benzenethiol	ND		10	1.7	ug/L		10/25/22 08:03	10/28/22 18:40	1
Benzoic acid	ND		30	7.3	ug/L		10/25/22 08:03	10/28/22 18:40	1
Benzyl alcohol	ND		10	2.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/25/22 08:03	10/28/22 18:40	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/25/22 08:03	10/28/22 18:40	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/25/22 08:03	10/28/22 18:40	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/25/22 08:03	10/28/22 18:40	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Chloroaniline	ND		10	3.4	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/25/22 08:03	10/28/22 18:40	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/25/22 08:03	10/28/22 18:40	1
2-Chlorophenol	ND		10	2.2	ug/L		10/25/22 08:03	10/28/22 18:40	1

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

Lab Sample ID: MB 400-597676/1-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 597676

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Dibenzofuran	ND		10	0.17	ug/L		10/25/22 08:03	10/28/22 18:40	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Diethyl phthalate	0.247	J	10	0.24	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/25/22 08:03	10/28/22 18:40	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/25/22 08:03	10/28/22 18:40	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/25/22 08:03	10/28/22 18:40	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/25/22 08:03	10/28/22 18:40	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/25/22 08:03	10/28/22 18:40	1
1,4-Dioxane	ND		10	1.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/25/22 08:03	10/28/22 18:40	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/25/22 08:03	10/28/22 18:40	1
Hexachloroethane	ND		10	4.2	ug/L		10/25/22 08:03	10/28/22 18:40	1
Indene	ND		10	1.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Isophorone	ND		10	0.14	ug/L		10/25/22 08:03	10/28/22 18:40	1
2-Methylphenol	ND		10	1.8	ug/L		10/25/22 08:03	10/28/22 18:40	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/25/22 08:03	10/28/22 18:40	1
2-Nitroaniline	ND		10	2.2	ug/L		10/25/22 08:03	10/28/22 18:40	1
3-Nitroaniline	ND		10	1.8	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Nitroaniline	ND		10	1.5	ug/L		10/25/22 08:03	10/28/22 18:40	1
Nitrobenzene	ND		10	0.13	ug/L		10/25/22 08:03	10/28/22 18:40	1
2-Nitrophenol	ND		10	5.2	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Nitrophenol	ND		10	2.1	ug/L		10/25/22 08:03	10/28/22 18:40	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/25/22 08:03	10/28/22 18:40	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/25/22 08:03	10/28/22 18:40	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/25/22 08:03	10/28/22 18:40	1
Pentachlorophenol	ND		20	1.4	ug/L		10/25/22 08:03	10/28/22 18:40	1
Phenol	ND		10	2.6	ug/L		10/25/22 08:03	10/28/22 18:40	1
Pyridine	ND		10	3.2	ug/L		10/25/22 08:03	10/28/22 18:40	1
Quinoline	ND		10	4.5	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/25/22 08:03	10/28/22 18:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*46 - 124*	*10/25/22 08:03*	*10/28/22 18:40*	*1*
2-Fluorophenol	*20*		*13 - 113*	*10/25/22 08:03*	*10/28/22 18:40*	*1*
Nitrobenzene-d5	*97*		*36 - 126*	*10/25/22 08:03*	*10/28/22 18:40*	*1*
Phenol-d5	*69*		*17 - 127*	*10/25/22 08:03*	*10/28/22 18:40*	*1*
Terphenyl-d14	*115*		*44 - 149*	*10/25/22 08:03*	*10/28/22 18:40*	*1*
2,4,6-Tribromophenol	*80*		*26 - 150*	*10/25/22 08:03*	*10/28/22 18:40*	*1*

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

Lab Sample ID: LCS 400-597676/2-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	102		ug/L		85	21 - 120
Benzoic acid	513	123		ug/L		24	10 - 144
Benzyl alcohol	120	128		ug/L		107	28 - 120
Bis(2-chloroethoxy)methane	120	90.2		ug/L		75	47 - 120
Bis(2-chloroethyl)ether	120	92.7		ug/L		77	44 - 120
bis (2-chloroisopropyl) ether	120	118		ug/L		99	33 - 121
Bis(2-ethylhexyl) phthalate	120	123		ug/L		103	52 - 147
4-Bromophenyl phenyl ether	120	130		ug/L		109	54 - 122
Butyl benzyl phthalate	120	114		ug/L		95	54 - 133
4-Chloroaniline	120	88.8		ug/L		74	26 - 120
4-Chloro-3-methylphenol	120	115		ug/L		96	48 - 131
2-Chloronaphthalene	120	108		ug/L		90	52 - 121
2-Chlorophenol	120	97.2		ug/L		81	40 - 120
4-Chlorophenyl phenyl ether	120	117		ug/L		97	56 - 125
Dibenz[a,h]acridine	120	125		ug/L		104	31 - 150
Dibenzofuran	120	110		ug/L		92	56 - 122
3,3'-Dichlorobenzidine	160	201		ug/L		126	36 - 132
2,4-Dichlorophenol	120	107		ug/L		89	49 - 120
Diethyl phthalate	120	130		ug/L		108	50 - 137
2,4-Dimethylphenol	120	110		ug/L		91	48 - 120
Dimethyl phthalate	120	116		ug/L		96	57 - 124
Di-n-butyl phthalate	120	129		ug/L		107	58 - 126
4,6-Dinitro-ortho-cresol	240	315		ug/L		131	23 - 148
2,4-Dinitrophenol	240	249		ug/L		104	10 - 150
2,4-Dinitrotoluene	120	117		ug/L		98	54 - 142
2,6-Dinitrotoluene	120	107		ug/L		89	55 - 130
Di-n-octyl phthalate	120	133		ug/L		111	57 - 138
1,4-Dioxane	120	81.7		ug/L		68	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	119		ug/L		99	45 - 124
Hexachlorobenzene	120	138		ug/L		115	52 - 129
Hexachlorocyclopentadiene	120	57.4		ug/L		48	10 - 134
Hexachloroethane	120	116		ug/L		97	20 - 120
Indene	120	96.9		ug/L		81	49 - 120
Isophorone	120	96.8		ug/L		81	48 - 120
2-Methylphenol	120	113		ug/L		94	46 - 124
3 & 4 Methylphenol	120	112		ug/L		93	45 - 120
2-Nitroaniline	120	119		ug/L		99	51 - 145
3-Nitroaniline	120	111		ug/L		92	37 - 127
4-Nitroaniline	120	129		ug/L		107	36 - 137
Nitrobenzene	120	98.2		ug/L		82	45 - 120
2-Nitrophenol	120	101		ug/L		84	40 - 124
4-Nitrophenol	240	333		ug/L		139	23 - 146
N-Nitrosodimethylamine	120	131		ug/L		109	29 - 137
N-Nitrosodi-n-propylamine	120	119		ug/L		99	45 - 120
N-Nitrosodiphenylamine	119	120		ug/L		101	54 - 120
Pentachlorophenol	240	229		ug/L		95	31 - 130
Phenol	120	110		ug/L		92	11 - 120
Pyridine	240	160		ug/L		66	16 - 120

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

Lab Sample ID: LCS 400-597676/2-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Quinoline	120	94.9		ug/L		79	49 - 130
2,4,5-Trichlorophenol	120	116		ug/L		97	51 - 136
2,4,6-Trichlorophenol	120	119		ug/L		99	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*48*		*13 - 113*
Nitrobenzene-d5	*87*		*36 - 126*
Phenol-d5	*82*		*17 - 127*
Terphenyl-d14	*103*		*44 - 149*
2,4,6-Tribromophenol	*118*		*26 - 150*

Lab Sample ID: LCS 400-597676/3-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	3.14	J *-	ug/L		3	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*46 - 124*
2-Fluorophenol	*54*		*13 - 113*
Nitrobenzene-d5	*85*		*36 - 126*
Phenol-d5	*81*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*51*		*26 - 150*

Lab Sample ID: LCSD 400-597676/4-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	2.26	J *- *1	ug/L		2	10 - 120	32	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*54*		*13 - 113*
Nitrobenzene-d5	*91*		*36 - 126*
Phenol-d5	*80*		*17 - 127*
Terphenyl-d14	*114*		*44 - 149*
2,4,6-Tribromophenol	*97*		*26 - 150*

Lab Sample ID: 400-227645-6 MS
Matrix: Water
Analysis Batch: 598292

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		112	102		ug/L		91	10 - 120

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

Lab Sample ID: 400-227645-6 MS
Matrix: Water
Analysis Batch: 598292

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzoic acid	ND	F1 F2	480	160		ug/L		33	10 - 149
Benzyl alcohol	ND		112	133		ug/L		118	33 - 120
Bis(2-chloroethoxy)methane	ND		112	92.8		ug/L		83	26 - 120
Bis(2-chloroethyl)ether	ND		112	94.0		ug/L		84	42 - 120
bis (2-chloroisopropyl) ether	ND		112	121		ug/L		108	28 - 120
Bis(2-ethylhexyl) phthalate	ND		112	125		ug/L		111	39 - 120
4-Bromophenyl phenyl ether	ND		112	132		ug/L		118	40 - 120
Butyl benzyl phthalate	ND		112	115		ug/L		102	45 - 120
4-Chloroaniline	ND		112	61.8		ug/L		55	10 - 120
4-Chloro-3-methylphenol	ND		112	117		ug/L		105	34 - 120
2-Chloronaphthalene	ND		112	112		ug/L		100	39 - 120
2-Chlorophenol	ND		112	98.2		ug/L		88	25 - 120
4-Chlorophenyl phenyl ether	ND		112	121		ug/L		108	44 - 120
Dibenz[a,h]acridine	ND		112	128		ug/L		114	50 - 150
Dibenzofuran	ND		112	115		ug/L		103	25 - 130
3,3'-Dichlorobenzidine	ND	F1	149	202	F1	ug/L		135	10 - 120
2,4-Dichlorophenol	ND		112	110		ug/L		98	31 - 120
Diethyl phthalate	ND		112	135		ug/L		120	46 - 120
2,4-Dimethylphenol	ND		112	111		ug/L		99	21 - 120
Dimethyl phthalate	ND		112	120		ug/L		107	38 - 120
Di-n-butyl phthalate	3.3	J	112	137		ug/L		120	49 - 120
4,6-Dinitro-ortho-cresol	ND	F1	224	428	F1	ug/L		191	25 - 120
2,4-Dinitrophenol	ND	F1 F2	224	351	F1	ug/L		157	15 - 140
2,4-Dinitrotoluene	ND		112	122		ug/L		109	53 - 120
2,6-Dinitrotoluene	ND		112	112		ug/L		100	43 - 120
Di-n-octyl phthalate	ND		112	134		ug/L		119	35 - 121
1,4-Dioxane	ND		112	79.9		ug/L		71	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		112	121		ug/L		108	50 - 150
Hexachlorobenzene	ND	F1	112	141	F1	ug/L		126	38 - 122
Hexachlorocyclopentadiene	ND		112	66.5		ug/L		59	10 - 120
Hexachloroethane	ND		112	110		ug/L		98	10 - 150
Indene	ND		112	98.8		ug/L		88	50 - 150
Isophorone	ND		112	99.4		ug/L		89	42 - 120
2-Methylphenol	ND		112	118		ug/L		105	28 - 120
3 & 4 Methylphenol	ND		112	116		ug/L		104	31 - 120
2-Nitroaniline	ND		112	120		ug/L		107	45 - 120
3-Nitroaniline	ND		112	116		ug/L		103	10 - 130
4-Nitroaniline	ND		112	129		ug/L		115	10 - 132
Nitrobenzene	ND		112	103		ug/L		92	39 - 120
2-Nitrophenol	ND		112	105		ug/L		94	33 - 120
4-Nitrophenol	ND	F1	224	371	F1	ug/L		165	10 - 120
N-Nitrosodimethylamine	ND		112	133		ug/L		118	10 - 139
N-Nitrosodi-n-propylamine	ND		112	122		ug/L		109	37 - 124
N-Nitrosodiphenylamine	ND		111	116		ug/L		105	10 - 150
Pentachlorophenol	ND		224	257		ug/L		115	29 - 130
Phenol	ND		112	111		ug/L		99	10 - 150
Pyridine	ND		224	169		ug/L		75	10 - 120
Quinoline	ND		112	98.3		ug/L		88	51 - 120

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

Lab Sample ID: 400-227645-6 MS
Matrix: Water
Analysis Batch: 598292

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	ND		112	121		ug/L		108	34 - 120
2,4,6-Trichlorophenol	ND		112	121		ug/L		108	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*49*		*13 - 113*
Nitrobenzene-d5	*95*		*36 - 126*
Phenol-d5	*87*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*131*		*26 - 150*

Lab Sample ID: 400-227645-6 MSD
Matrix: Water
Analysis Batch: 598292

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		112	103		ug/L		92	10 - 120	1	63
Benzoic acid	ND	F1 F2	480	29.6	F1 F2	ug/L		6	10 - 149	137	49
Benzyl alcohol	ND		112	129		ug/L		115	33 - 120	3	37
Bis(2-chloroethoxy)methane	ND		112	90.2		ug/L		80	26 - 120	3	70
Bis(2-chloroethyl)ether	ND		112	93.5		ug/L		83	42 - 120	0	42
bis (2-chloroisopropyl) ether	ND		112	116		ug/L		104	28 - 120	4	41
Bis(2-ethylhexyl) phthalate	ND		112	119		ug/L		106	39 - 120	5	35
4-Bromophenyl phenyl ether	ND		112	125		ug/L		112	40 - 120	5	30
Butyl benzyl phthalate	ND		112	110		ug/L		98	45 - 120	4	32
4-Chloroaniline	ND		112	69.1		ug/L		62	10 - 120	11	94
4-Chloro-3-methylphenol	ND		112	111		ug/L		99	34 - 120	5	40
2-Chloronaphthalene	ND		112	105		ug/L		93	39 - 120	7	29
2-Chlorophenol	ND		112	103		ug/L		92	25 - 120	5	42
4-Chlorophenyl phenyl ether	ND		112	114		ug/L		102	44 - 120	5	27
Dibenz[a,h]acridine	ND		112	122		ug/L		109	50 - 150	4	40
Dibenzofuran	ND		112	109		ug/L		97	25 - 130	6	29
3,3'-Dichlorobenzidine	ND	F1	149	197	F1	ug/L		132	10 - 120	2	58
2,4-Dichlorophenol	ND		112	107		ug/L		95	31 - 120	3	43
Diethyl phthalate	ND		112	128		ug/L		114	46 - 120	5	40
2,4-Dimethylphenol	ND		112	108		ug/L		96	21 - 120	3	47
Dimethyl phthalate	ND		112	114		ug/L		102	38 - 120	5	36
Di-n-butyl phthalate	3.3	J	112	132		ug/L		115	49 - 120	4	32
4,6-Dinitro-ortho-cresol	ND	F1	224	368	F1	ug/L		164	25 - 120	15	42
2,4-Dinitrophenol	ND	F1 F2	224	223	F2	ug/L		99	15 - 140	45	36
2,4-Dinitrotoluene	ND		112	117		ug/L		105	53 - 120	4	28
2,6-Dinitrotoluene	ND		112	106		ug/L		94	43 - 120	6	28
Di-n-octyl phthalate	ND		112	128		ug/L		114	35 - 121	5	35
1,4-Dioxane	ND		112	83.9		ug/L		75	50 - 150	5	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		112	115		ug/L		103	50 - 150	5	40
Hexachlorobenzene	ND	F1	112	133		ug/L		119	38 - 122	6	33
Hexachlorocyclopentadiene	ND		112	74.2		ug/L		66	10 - 120	11	50
Hexachloroethane	ND		112	108		ug/L		97	10 - 150	1	41

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

Lab Sample ID: 400-227645-6 MSD
Matrix: Water
Analysis Batch: 598292

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indene	ND		112	96.0		ug/L		86	50 - 150	3	40
Isophorone	ND		112	95.2		ug/L		85	42 - 120	4	33
2-Methylphenol	ND		112	113		ug/L		101	28 - 120	4	47
3 & 4 Methylphenol	ND		112	114		ug/L		101	31 - 120	2	47
2-Nitroaniline	ND		112	114		ug/L		101	45 - 120	6	33
3-Nitroaniline	ND		112	115		ug/L		102	10 - 130	1	39
4-Nitroaniline	ND		112	124		ug/L		111	10 - 132	4	50
Nitrobenzene	ND		112	98.8		ug/L		88	39 - 120	4	35
2-Nitrophenol	ND		112	104		ug/L		92	33 - 120	2	43
4-Nitrophenol	ND	F1	224	323	F1	ug/L		144	10 - 120	14	82
N-Nitrosodimethylamine	ND		112	133		ug/L		119	10 - 139	0	62
N-Nitrosodi-n-propylamine	ND		112	116		ug/L		104	37 - 124	5	36
N-Nitrosodiphenylamine	ND		111	111		ug/L		99	10 - 150	5	34
Pentachlorophenol	ND		224	218		ug/L		97	29 - 130	16	42
Phenol	ND		112	113		ug/L		101	10 - 150	2	52
Pyridine	ND		224	159		ug/L		71	10 - 120	5	55
Quinoline	ND		112	94.7		ug/L		84	51 - 120	4	40
2,4,5-Trichlorophenol	ND		112	114		ug/L		102	34 - 120	6	42
2,4,6-Trichlorophenol	ND		112	114		ug/L		102	33 - 120	6	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*46 - 124*
2-Fluorophenol	*62*		*13 - 113*
Nitrobenzene-d5	*92*		*36 - 126*
Phenol-d5	*91*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*123*		*26 - 150*

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

Lab Sample ID: MB 400-597676/1-A
Matrix: Water
Analysis Batch: 598120

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 597676

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		10/25/22 08:03	10/28/22 00:00	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/25/22 08:03	10/28/22 00:00	1
Anthracene	ND		0.20	0.032	ug/L		10/25/22 08:03	10/28/22 00:00	1
Benzo[a]anthracene	0.114	J	0.20	0.046	ug/L		10/25/22 08:03	10/28/22 00:00	1
Benzo[a]pyrene	0.119	J	0.20	0.042	ug/L		10/25/22 08:03	10/28/22 00:00	1
Benzo[b]fluoranthene	0.124	J	0.20	0.034	ug/L		10/25/22 08:03	10/28/22 00:00	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		10/25/22 08:03	10/28/22 00:00	1
Benzo[k]fluoranthene	0.143	J	0.20	0.10	ug/L		10/25/22 08:03	10/28/22 00:00	1
Chrysene	0.0773	J	0.20	0.074	ug/L		10/25/22 08:03	10/28/22 00:00	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		10/25/22 08:03	10/28/22 00:00	1
Fluoranthene	0.116	J	0.20	0.068	ug/L		10/25/22 08:03	10/28/22 00:00	1
Fluorene	ND		0.20	0.11	ug/L		10/25/22 08:03	10/28/22 00:00	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		10/25/22 08:03	10/28/22 00:00	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		10/25/22 08:03	10/28/22 00:00	1

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

Lab Sample ID: MB 400-597676/1-A
Matrix: Water
Analysis Batch: 598120

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 597676

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.0804	J	0.20	0.060	ug/L		10/25/22 08:03	10/28/22 00:00	1
Phenanthrene	0.100	J	0.20	0.036	ug/L		10/25/22 08:03	10/28/22 00:00	1
Pyrene	0.0860	J	0.20	0.040	ug/L		10/25/22 08:03	10/28/22 00:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*15 - 122*	*10/25/22 08:03*	*10/28/22 00:00*	*1*
Nitrobenzene-d5	*98*		*19 - 130*	*10/25/22 08:03*	*10/28/22 00:00*	*1*
Terphenyl-d14	*78*		*33 - 138*	*10/25/22 08:03*	*10/28/22 00:00*	*1*

Lab Sample ID: LCS 400-597676/2-A
Matrix: Water
Analysis Batch: 598120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	121		ug/L		101	41 - 120
Acenaphthylene	120	124		ug/L		103	44 - 120
Anthracene	120	136		ug/L		113	49 - 120
Benzo[a]anthracene	120	125		ug/L		104	61 - 135
Benzo[a]pyrene	120	115		ug/L		96	52 - 120
Benzo[b]fluoranthene	120	115		ug/L		96	53 - 134
Benzo[g,h,i]perylene	120	97.5		ug/L		81	47 - 133
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134
Chrysene	120	121		ug/L		101	55 - 122
Dibenz(a,h)anthracene	120	110		ug/L		92	48 - 146
Fluoranthene	120	138		ug/L		115	54 - 128
Fluorene	120	120		ug/L		100	45 - 125
Indeno[1,2,3-cd]pyrene	120	112		ug/L		94	43 - 142
1-Methylnaphthalene	120	103		ug/L		86	41 - 120
2-Methylnaphthalene	120	109		ug/L		91	32 - 124
Phenanthrene	120	114		ug/L		95	48 - 120
Pyrene	120	114		ug/L		95	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*100*		*15 - 122*
Nitrobenzene-d5	*97*		*19 - 130*
Terphenyl-d14	*107*		*33 - 138*

Lab Sample ID: 400-227645-6 MS
Matrix: Water
Analysis Batch: 598120

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		112	125		ug/L		112	35 - 113
Acenaphthylene	ND		112	127		ug/L		113	41 - 118
Anthracene	0.081	J	112	135		ug/L		120	45 - 122
Benzo[a]anthracene	0.16	J B	112	131		ug/L		117	55 - 133
Benzo[a]pyrene	0.18	J B	112	119		ug/L		106	50 - 108
Benzo[b]fluoranthene	0.18	J B	112	120		ug/L		107	50 - 128

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

Lab Sample ID: 400-227645-6 MS
Matrix: Water
Analysis Batch: 598120

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[g,h,i]perylene	ND		112	101		ug/L		90	46 - 133
Benzo[k]fluoranthene	0.20	B	112	117		ug/L		104	52 - 128
Chrysene	0.14	J B	112	128		ug/L		114	52 - 116
Dibenz(a,h)anthracene	ND		112	117		ug/L		104	52 - 143
Fluoranthene	0.16	J B	112	136		ug/L		121	32 - 150
Fluorene	ND		112	125		ug/L		111	15 - 150
Indeno[1,2,3-cd]pyrene	0.057	J	112	119		ug/L		106	41 - 141
1-Methylnaphthalene	ND		112	105		ug/L		94	10 - 150
2-Methylnaphthalene	ND		112	111		ug/L		99	10 - 150
Phenanthrene	0.090	J B	112	115		ug/L		103	36 - 125
Pyrene	0.14	J B	112	121		ug/L		108	41 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*110*		*15 - 122*
Nitrobenzene-d5	*100*		*19 - 130*
Terphenyl-d14	*117*		*33 - 138*

Lab Sample ID: 400-227645-6 MSD
Matrix: Water
Analysis Batch: 598120

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		112	123		ug/L		109	35 - 113	2	49
Acenaphthylene	ND		112	124		ug/L		111	41 - 118	2	48
Anthracene	0.081	J	112	133		ug/L		119	45 - 122	1	56
Benzo[a]anthracene	0.16	J B	112	126		ug/L		113	55 - 133	4	57
Benzo[a]pyrene	0.18	J B	112	115		ug/L		103	50 - 108	3	59
Benzo[b]fluoranthene	0.18	J B	112	120		ug/L		106	50 - 128	0	62
Benzo[g,h,i]perylene	ND		112	89.2		ug/L		80	46 - 133	12	58
Benzo[k]fluoranthene	0.20	B	112	117		ug/L		104	52 - 128	0	58
Chrysene	0.14	J B	112	125		ug/L		111	52 - 116	3	59
Dibenz(a,h)anthracene	ND		112	101		ug/L		90	52 - 143	15	60
Fluoranthene	0.16	J B	112	136		ug/L		121	32 - 150	0	59
Fluorene	ND		112	120		ug/L		107	15 - 150	3	49
Indeno[1,2,3-cd]pyrene	0.057	J	112	103		ug/L		92	41 - 141	14	58
1-Methylnaphthalene	ND		112	97.7		ug/L		87	10 - 150	7	66
2-Methylnaphthalene	ND		112	107		ug/L		95	10 - 150	4	66
Phenanthrene	0.090	J B	112	114		ug/L		102	36 - 125	1	69
Pyrene	0.14	J B	112	117		ug/L		104	41 - 127	4	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*108*		*15 - 122*
Nitrobenzene-d5	*100*		*19 - 130*
Terphenyl-d14	*115*		*33 - 138*

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

Lab Sample ID: MB 400-601337/1-A
Matrix: Water
Analysis Batch: 602027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/18/22 09:46	11/22/22 20:18	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/18/22 09:46	11/22/22 20:18	1
Anthracene	ND		0.20	0.032	ug/L		11/18/22 09:46	11/22/22 20:18	1
Benzo[a]anthracene	0.0963	J	0.20	0.046	ug/L		11/18/22 09:46	11/22/22 20:18	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/18/22 09:46	11/22/22 20:18	1
Benzo[b]fluoranthene	0.148	J	0.20	0.034	ug/L		11/18/22 09:46	11/22/22 20:18	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/18/22 09:46	11/22/22 20:18	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/18/22 09:46	11/22/22 20:18	1
Chrysene	ND		0.20	0.074	ug/L		11/18/22 09:46	11/22/22 20:18	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/18/22 09:46	11/22/22 20:18	1
Fluoranthene	0.133	J	0.20	0.068	ug/L		11/18/22 09:46	11/22/22 20:18	1
Fluorene	ND		0.20	0.11	ug/L		11/18/22 09:46	11/22/22 20:18	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/18/22 09:46	11/22/22 20:18	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/18/22 09:46	11/22/22 20:18	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/18/22 09:46	11/22/22 20:18	1
Phenanthrene	ND		0.20	0.036	ug/L		11/18/22 09:46	11/22/22 20:18	1
Pyrene	0.0867	J	0.20	0.040	ug/L		11/18/22 09:46	11/22/22 20:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*120*		*15 - 122*	*11/18/22 09:46*	*11/22/22 20:18*	*1*
Nitrobenzene-d5	*72*		*19 - 130*	*11/18/22 09:46*	*11/22/22 20:18*	*1*
Terphenyl-d14	*112*		*33 - 138*	*11/18/22 09:46*	*11/22/22 20:18*	*1*

Lab Sample ID: LCS 400-601337/2-A
Matrix: Water
Analysis Batch: 602027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	123		ug/L		103	41 - 120
Acenaphthylene	120	127		ug/L		106	44 - 120
Anthracene	120	124		ug/L		104	49 - 120
Benzo[a]anthracene	120	123		ug/L		103	61 - 135
Benzo[a]pyrene	120	107		ug/L		89	52 - 120
Benzo[b]fluoranthene	120	105		ug/L		87	53 - 134
Benzo[g,h,i]perylene	120	140		ug/L		117	47 - 133
Benzo[k]fluoranthene	120	101		ug/L		84	57 - 134
Chrysene	120	116		ug/L		96	55 - 122
Dibenz(a,h)anthracene	120	131		ug/L		110	48 - 146
Fluoranthene	120	132		ug/L		110	54 - 128
Fluorene	120	125		ug/L		104	45 - 125
Indeno[1,2,3-cd]pyrene	120	137		ug/L		114	43 - 142
1-Methylnaphthalene	120	67.8		ug/L		57	41 - 120
2-Methylnaphthalene	120	69.2		ug/L		58	32 - 124
Phenanthrene	120	120		ug/L		100	48 - 120
Pyrene	120	123		ug/L		103	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*15 - 122*

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

Lab Sample ID: LCS 400-601337/2-A
Matrix: Water
Analysis Batch: 602027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601337

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	92		19 - 130
Terphenyl-d14	111		33 - 138

Lab Sample ID: LCSD 400-601337/3-A
Matrix: Water
Analysis Batch: 602027

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 601337

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	124		ug/L		103	41 - 120	1	56
Acenaphthylene	120	127		ug/L		106	44 - 120	0	56
Anthracene	120	123		ug/L		103	49 - 120	1	51
Benzo[a]anthracene	120	125		ug/L		104	61 - 135	1	49
Benzo[a]pyrene	120	107		ug/L		89	52 - 120	0	50
Benzo[b]fluoranthene	120	105		ug/L		88	53 - 134	0	54
Benzo[g,h,i]perylene	120	140		ug/L		117	47 - 133	0	50
Benzo[k]fluoranthene	120	101		ug/L		84	57 - 134	1	52
Chrysene	120	117		ug/L		98	55 - 122	1	50
Dibenz(a,h)anthracene	120	130		ug/L		108	48 - 146	1	50
Fluoranthene	120	133		ug/L		111	54 - 128	0	52
Fluorene	120	125		ug/L		105	45 - 125	0	56
Indeno[1,2,3-cd]pyrene	120	136		ug/L		113	43 - 142	1	51
1-Methylnaphthalene	120	67.2		ug/L		56	41 - 120	1	55
2-Methylnaphthalene	120	66.2		ug/L		55	32 - 124	4	57
Phenanthrene	120	120		ug/L		100	48 - 120	0	56
Pyrene	120	126		ug/L		105	48 - 132	2	52

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	100		15 - 122
Nitrobenzene-d5	91		19 - 130
Terphenyl-d14	112		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-598053/1-A
Matrix: Water
Analysis Batch: 598150

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598053

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		10/27/22 11:04	10/28/22 15:51	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		10/27/22 11:04	10/28/22 15:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	67		51 - 149	10/27/22 11:04	10/28/22 15:51	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-598053/2-A
Matrix: Water
Analysis Batch: 598150

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598053

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.137	p	ug/L		137	60 - 140
1,2-Dibromoethane	0.101	0.106		ug/L		105	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*76*		*51 - 149*

Lab Sample ID: LCSD 400-598053/3-A
Matrix: Water
Analysis Batch: 598150

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598053

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.149	p *+	ug/L		148	60 - 140	8	30
1,2-Dibromoethane	0.101	0.113		ug/L		112	60 - 140	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*51 - 149*

Lab Sample ID: 400-227645-6 MS
Matrix: Water
Analysis Batch: 598150

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA
Prep Batch: 598053

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	ND	*+	0.101	0.142		ug/L		140	10 - 150
1,2-Dibromoethane	ND		0.101	0.118		ug/L		117	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*51 - 149*

Lab Sample ID: 400-227645-6 MSD
Matrix: Water
Analysis Batch: 598150

Client Sample ID: MW1-ROX-102022
Prep Type: Total/NA
Prep Batch: 598053

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	*+	0.105	0.157		ug/L		150	10 - 150	10	20
1,2-Dibromoethane	ND		0.105	0.123		ug/L		117	39 - 150	4	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*93*		*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	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 10/20/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.4.2	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 – 3.4.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, S. Beadle
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

400-227645 COC

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-102022-8260	10/20/2022	0000	Water	2					2	X			
	TB-ROX-102022-8011	10/20/2022	0000	Water	2					2		X		
	MW11-ROX-1020222-EB	10/20/2022	0840	Water	6			2		8	X	X	X	X
	MW11-ROX-1020222	10/20/2022	0950	Water	6			2		8	X	X	X	X
	MW24-ROX-102022	10/20/2022	1110	Water	6			2		8	X	X	X	X
	MW1-ROX-102022	10/20/2022	1245	Water	6			2		8	X	X	X	X
	MW1-ROX-102022-MS	10/20/2022	1245	Water	6			2		8	X	X	X	X
	MW1-ROX-102022-MSD	10/20/2022	1245	Water	6			2		8	X	X	X	X
	MW10-ROX-102022	10/20/2022	1345	Water	6			2		8	X	X	X	X

Sam Beadle 10/20/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 148238130962, 148238130892, 148238130881	10/20/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 10/21/22	Time: 0900

Version: 13Oct22

CUSTODY SEALS: 1699408, 1699409, 1699410, 1699411, 2066838, 2066839

0.0,0.0 0.0°C IR-8

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11/29/2022 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-227645-1

Login Number: 227645
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	
COC is present.	True	0.0, 0.0, 0.0°C IR9
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: 400-227645-1

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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-227708-1-Rev.1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/16/2022

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

Sample Identification	Sample Identification
TB-ROX-102122-8260	MW6C-ROX-102122
TB-ROX-102122-8011	MW6B-ROX-102122
MW6D-ROX-102122-EB	MW6A-ROX-102122
MW6D-ROX-102122	

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 PAHs in samples MW6D-ROX-102122 and MW6A-ROX-102122 were re-extracted outside extraction time criteria. Benzo[a]anthracene and benzo[a]pyrene were detected in equipment blank MW6D-ROX-102122-EB, and diethyl phthalate and several PAHs were detected in the method blanks. LCS/LCSD recoveries for 1,2-dibromo-3-chloropropane and benzenethiol, and the LCS/LCSD RPD for benzenethiol, were outside evaluation criteria. Acid SVOC surrogate recoveries were outside criteria in sample MW6B-ROX-102122. The SVOC internal standard recovery for perylene-d_{12} was outside criteria in the LCSD. The initial and continuing calibration verifications for several analytes were outside evaluation criteria. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on November 29, 2022, to report confirmation PAH results for samples MW6D-ROX-102122 and MW6A-ROX-102122; both original and reanalysis results are reported.

Three of 70 (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 MW6D-ROX-102122 and MW6A-ROX-102122 were re-extracted 21 days outside extraction time criteria (7 days) and then re-analyzed for confirmation due to method blank detections. 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 following table. Benzo(a)anthracene and benzo(b)fluoranthene in the secondary run for sample MW6D-ROX-102122 are further qualified in Section 4.0 of this data review due to blank contamination. Benzo(a)anthracene, benzo(b)fluoranthene, fluoranthene and pyrene in the secondary run for sample MW6A-ROX-102122 are also further qualified in Section 4.0 of this data review due to blank contamination.

Additionally, bis(2-ethylhexyl) phthalate in sample MW6B-ROX-102122 was re-extracted 3 days outside extraction holding time criteria (7 days) and then re-analyzed for confirmation.

Sample ID	Parameter	Analyte	Qualification
MW6D-ROX-102122 – Run #2	PAHs	Acenaphthene	UJ
MW6D-ROX-102122 – Run #2	PAHs	Acenaphthylene	UJ
MW6D-ROX-102122 – Run #2	PAHs	Anthracene	UJ
MW6D-ROX-102122 – Run #2	PAHs	Benzo(a)anthracene	J
MW6D-ROX-102122 – Run #2	PAHs	Benzo[a]pyrene	J
MW6D-ROX-102122 – Run #2	PAHs	Benzo(b)fluoranthene	J
MW6D-ROX-102122 – Run #2	PAHs	Benzo[g,h,i]perylene	UJ
MW6D-ROX-102122 – Run #2	PAHs	Benzo[k]fluoranthene	J
MW6D-ROX-102122 – Run #2	PAHs	Chrysene	UJ
MW6D-ROX-102122 – Run #2	PAHs	Dibenz(a,h)anthracene	UJ
MW6D-ROX-102122 – Run #2	PAHs	Fluoranthene	UJ
MW6D-ROX-102122 – Run #2	PAHs	Fluorene	UJ
MW6D-ROX-102122 – Run #2	PAHs	Indeno[1,2,3-cd]pyrene	UJ
MW6D-ROX-102122 – Run #2	PAHs	1-Methylnaphthalene	UJ
MW6D-ROX-102122 – Run #2	PAHs	2-Methylnaphthalene	J
MW6D-ROX-102122 – Run #2	PAHs	Phenanthrene	UJ
MW6D-ROX-102122 – Run #2	PAHs	Pyrene	UJ
MW6B-ROX-102122 – RE	SVOCs	Bis(2-ethylhexyl) phthalate	UJ
MW6A-ROX-102122 – Run #2	PAHs	Acenaphthene	UJ
MW6A-ROX-102122 – Run #2	PAHs	Acenaphthylene	UJ
MW6A-ROX-102122 – Run #2	PAHs	Anthracene	UJ
MW6A-ROX-102122 – Run #2	PAHs	Benzo(a)anthracene	J
MW6A-ROX-102122 – Run #2	PAHs	Benzo[a]pyrene	J
MW6A-ROX-102122 – Run #2	PAHs	Benzo(b)fluoranthene	J
MW6A-ROX-102122 – Run #2	PAHs	Benzo[g,h,i]perylene	UJ
MW6A-ROX-102122 – Run #2	PAHs	Benzo[k]fluoranthene	UJ
MW6A-ROX-102122 – Run #2	PAHs	Chrysene	J
MW6A-ROX-102122 – Run #2	PAHs	Dibenz(a,h)anthracene	UJ
MW6A-ROX-102122 – Run #2	PAHs	Fluoranthene	J
MW6A-ROX-102122 – Run #2	PAHs	Fluorene	UJ
MW6A-ROX-102122 – Run #2	PAHs	Indeno[1,2,3-cd]pyrene	UJ
MW6A-ROX-102122 – Run #2	PAHs	1-Methylnaphthalene	UJ
MW6A-ROX-102122 – Run #2	PAHs	2-Methylnaphthalene	UJ
MW6A-ROX-102122 – Run #2	PAHs	Phenanthrene	UJ
MW6A-ROX-102122 – Run #2	PAHs	Pyrene	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
MB 400-597676/1-A	SVOCs	Diethyl phthalate	0.247 µg/L
MB 400-597676/1-A	PAHs	Benzo[a]anthracene	0.114 µg/L
MB 400-597676/1-A	PAHs	Benzo[a]pyrene	0.119 µg/L
MB 400-597676/1-A	PAHs	Benzo[b]fluoranthene	0.124 µg/L
MB 400-597676/1-A	PAHs	Benzo[k]fluoranthene	0.143 µg/L
MB 400-597676/1-A	PAHs	Chrysene	0.0773 µg/L
MB 400-597676/1-A	PAHs	Fluoranthene	0.116 µg/L
MB 400-597676/1-A	PAHs	2-Methylnaphthalene	0.0804 µg/L
MB 400-597676/1-A	PAHs	Phenanthrene	0.100 µg/L
MB 400-597676/1-A	PAHs	Pyrene	0.0860 µg/L
MB 400-601337/1-A	PAHs	Benzo[a]anthracene	0.0963 µg/L
MB 400-601337/1-A	PAHs	Benzo[b]fluoranthene	0.148 µg/L
MB 400-601337/1-A	PAHs	Fluoranthene	0.133 µg/L
MB 400-601337/1-A	PAHs	Pyrene	0.0867 µg/L
MW6D-ROX-102122-EB	PAHs	Benzo[a]anthracene	0.081 µg/L
MW6D-ROX-102122-EB	PAHs	Benzo[a]pyrene	0.11 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-102122	PAHs	Phenanthrene	0.25 µg/L	**U**
MW6D-ROX-102122 – Run #2	PAHs	Benzo[a]anthracene	-	**U**
MW6D-ROX-102122 – Run #2	PAHs	Benzo[b]fluoranthene	-	**U**
MW6C-ROX-102122	PAHs	Benzo[a]anthracene	-	**U**
MW6C-ROX-102122	PAHs	Benzo[b]fluoranthene	-	**U**
MW6C-ROX-102122	PAHs	Chrysene	-	**U**
MW6C-ROX-102122	PAHs	Fluoranthene	-	**U**
MW6C-ROX-102122	PAHs	Phenanthrene	-	**U**
MW6C-ROX-102122	PAHs	Pyrene	-	**U**
MW6B-ROX-102122	PAHs	Chrysene	-	**U**
MW6B-ROX-102122	PAHs	Pyrene	-	**U**
MW6A-ROX-102122	PAHs	Phenanthrene	0.25 µg/L	**U**
MW6A-ROX-102122 – Run #2	PAHs	Benzo[a]anthracene	-	**U**
MW6A-ROX-102122 – Run #2	PAHs	Benzo[b]fluoranthene	-	**U**
MW6A-ROX-102122 – Run #2	PAHs	Fluoranthene	-	**U**
MW6A-ROX-102122 – Run #2	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 400-598726 /2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	133/**144**	8	60-140/30
LCS/LCSD 400-597676/3-A/4-A	SVOCs	Benzenethiol	**3/2**	**32**	10-120/30

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-102122	SVOCs	Benzenethiol	**UJ**
MW6C-ROX-102122	SVOCs	Benzenethiol	**UJ**
MW6B-ROX-102122	SVOCs	Benzenethiol	**UJ**
MW6A-ROX-102122	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW6B-ROX-102122	SVOCs	2-Fluorophenol	**0**	13-113
MW6B-ROX-102122	SVOCs	Phenol-d5	**0.4**	17-127
MW6B-ROX-102122	SVOCs	2,4,6-Tribromophenol	**0**	26-150

Analytical data that required qualification based on surrogate data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
MW6B-ROX-102122	SVOCs	Phenol	**UJ**
MW6B-ROX-102122	SVOCs	2,4,5-Trichlorophenol	**UJ**
MW6B-ROX-102122	SVOCs	2,4-Dichlorophenol	**UJ**
MW6B-ROX-102122	SVOCs	2,4-Dimethylphenol	**UJ**
MW6B-ROX-102122	SVOCs	2,4-Dinitrophenol	**UJ**
MW6B-ROX-102122	SVOCs	2-Chlorophenol	**UJ**
MW6B-ROX-102122	SVOCs	2-Nitrophenol	**UJ**
MW6B-ROX-102122	SVOCs	3 & 4 Methylphenol	**UJ**
MW6B-ROX-102122	SVOCs	4-Chloro-3-methylphenol	**UJ**

Sample ID	Parameter	Analyte	Qualification
MW6B-ROX-102122	SVOCs	4-Nitrophenol	**UJ**
MW6B-ROX-102122	SVOCs	Benzoic Acid	**UJ**
MW6B-ROX-102122	SVOCs	Benzyl Alcohol	**UJ**
MW6B-ROX-102122	SVOCs	Pentachlorophenol	**UJ**
MW6B-ROX-102122	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
MW6B-ROX-102122	SVOCs	2-Methylphenol	**UJ**
MW6B-ROX-102122	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?

No

Sample ID	Parameter	Analyte	IS Area Recovery	12/24 Hour Standard	IS Criteria
LCSD 400-597676/4-A	SVOCs	Perylene-d_{12}	**355003**	1187213	593607-2374426

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 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 initial calibration verification (ICV) for carbon disulfide, and the continuing calibration verification (CCV) for 1,1-dichloroethane, chloroform, and hexachlorocyclopentadiene were outside evaluation criteria, biased low. The CCV for anthracene was outside evaluation criteria, biased high.

The CCV for 1-methylnaphthalene and 2-methylnaphthalene were outside evaluation criteria, biased low. Affected samples, secondary run MW6D-ROX-102122 and MW6A-ROX-102122 were previously qualified in Section 3.0 of this data review due to hold time exceedances; no further qualification is required.

The CCV for fluoranthene was outside evaluation criteria, biased high. Affected sample, secondary run MW6A-ROX-102122 was previously qualified in Section 4.0 of this data review due to method blank contamination; no further qualification is required.

Sample ID	Parameter	Analyte	Qualification
MW6D-ROX-102122	VOCs	Carbon disulfide	**UJ**
MW6C-ROX-102122	VOCs	Carbon disulfide	**UJ**
MW6B-ROX-102122	VOCs	Carbon disulfide	**UJ**
MW6A-ROX-102122	VOCs	Carbon disulfide	**UJ**
MW6D-ROX-102122	VOCs	1,1-Dichloroethane	**UJ**
MW6C-ROX-102122	VOCs	1,1-Dichloroethane	**UJ**
MW6B-ROX-102122	VOCs	1,1-Dichloroethane	**UJ**
MW6A-ROX-102122	VOCs	1,1-Dichloroethane	**UJ**
MW6D-ROX-102122	VOCs	Chloroform	**UJ**
MW6C-ROX-102122	VOCs	Chloroform	**UJ**
MW6B-ROX-102122	VOCs	Chloroform	**UJ**
MW6A-ROX-102122	VOCs	Chloroform	**UJ**
MW6D-ROX-102122	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6C-ROX-102122	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6B-ROX-102122	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6A-ROX-102122	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW6A-ROX-102122	PAHs	Anthracene	**J**
MW6D-ROX-102122	PAHs	Anthracene	**J**

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ANALYTICAL REPORT

PREPARED FOR

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

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JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-227708-1

Reviewed
12/16/2022
A.N.

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Job Notes

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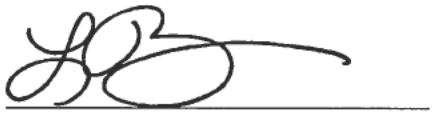

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Job ID: 400-227708-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-227708-1

Comments
Revised Report
Report revised to report reanalysis results for confirmation purposes for MW6D-ROX-102122 (400-227708-4), MW6A-ROX-102122 (400-227708-7). Both sets of data are reported.
Supersedes report dated 11-7-2022.

Receipt
The samples were received on 10/22/2022 8:55 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 0.6° C, 1.3° C and 2.1° C.

GC/MS VOA
Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-588950 was outside method criteria for the following analyte(s): Carbon disulfide. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-598653 recovered outside acceptance criteria, low biased, for 1,1-Dichloroethane and Chloroform. 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-102122-8260 (400-227708-1), MW6D-ROX-102122-EB (400-227708-3), MW6D-ROX-102122 (400-227708-4), MW6C-ROX-102122 (400-227708-5), MW6B-ROX-102122 (400-227708-6) and MW6A-ROX-102122 (400-227708-7). 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 400-597676 and analytical batch 400-598292 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 400-597676 and analytical batch 400-598292 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-598292 recovered above the upper control limit for N-Nitrosodimethylamine, 4-Nitrophenol, Phenol, 4,6-Dinitro-2-methylphenol and Benzyl alcohol. 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 400-598292 recovered outside acceptance criteria, low biased, for 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: 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: (400-227692-G-1-A). These results have been reported and qualified.

Method 8270D: Internal standard (ISTD) response for Perylene-d12 for the following sample in analytical batch 400-598292 was outside acceptance criteria: (LCSD 400-597676/4-A). This ISTD does not correspond to any of the requested target compounds reported from this analytical batch; therefore, the data have been reported.

Job ID: 400-227708-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D: The sample was re-extracted due to the confirmation of Bis(2-ethylhexyl) Phthalate was detected above the method detection limit (MDL)(6.0 ug/L) for the following sample: MW6B-ROX-102122 (400-227708-6). Samples were re-prepared and/or re-analyzed outside holding time, and both sets of data have been reported.

Method 8270D: Surrogate recovery for the following sample was outside control limits: MW6B-ROX-102122 (400-227708-6). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-598120 recovered above the upper control limit for Anthracene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The method blank for preparation batch 400-597676 and analytical batch 400-598120 contained 2-Methylnaphthalene, Pyrene, Benzo[b]fluoranthene, Fluoranthene, Phenanthrene, Benzo[k]fluoranthene, Chrysene, Benzo[a]anthracene and Benzo[a]pyrene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method detction; therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-598294 recovered above the upper control limit for Anthracene. The samples associated with this CCV were less than the reporting limit (RL) for the affected analytes; therefore, the data have been reporteMethod 8270D LL: The method blank for preparation batch 400-601337 and analytical batch 400-602027 contained Pyrene, Benzo[b]fluoranthene, Fluoranthene 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 continuing calibration verification (CCV) associated with batch 400-602027 recovered outside acceptance criteria, low biased, for 1-Methylnaphthalene and 2-Methylnaphthalene. 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 400-602027 recovered above the upper control limit for Indeno[1,2,3-cd]pyrene, Fluoranthene, Benzo[g,h,i]perylene and Acenaphthylene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The following samples were re-prepared outside of preparation holding time due to client requested verification: MW6D-ROX-102122 (400-227708-4) and MW6A-ROX-102122 (400-227708-7). 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 400-598749 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 duplicate (LCSD) for preparation batch 400-598726 and analytical batch 400-598749 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.

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: 400-227708-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-227708-1	TB-ROX-102122-8260	Water	10/21/22 12:00	10/22/22 08:55
400-227708-2	TB-ROX-102122-8011	Water	10/21/22 12:00	10/22/22 08:55
400-227708-3	MW6D-ROX-102122-EB	Water	10/21/22 08:35	10/22/22 08:55
400-227708-4	MW6D-ROX-102122	Water	10/21/22 09:40	10/22/22 08:55
400-227708-5	MW6C-ROX-102122	Water	10/21/22 10:20	10/22/22 08:55
400-227708-6	MW6B-ROX-102122	Water	10/21/22 11:50	10/22/22 08:55
400-227708-7	MW6A-ROX-102122	Water	10/21/22 12:40	10/22/22 08:55

Detection Summary

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

Job ID: 400-227708-1

Client Sample ID: TB-ROX-102122-8260

Lab Sample ID: 400-227708-1

No Detections.

Client Sample ID: TB-ROX-102122-8011

Lab Sample ID: 400-227708-2

No Detections.

Client Sample ID: MW6D-ROX-102122-EB

Lab Sample ID: 400-227708-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.081	J B	0.18	0.042	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.11	J B	0.18	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW6D-ROX-102122

Lab Sample ID: 400-227708-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.21	J	1.0	0.13	ug/L	1		8260B	Total/NA
Acenaphthylene	0.13	J	0.19	0.042	ug/L	1		8270D LL	Total/NA
Anthracene	0.17	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	4.3	B	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.097~~	J H B	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	2.8	B	0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.094	J H	0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	4.5	B	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.11~~	J H B	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	1.5		0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	2.3	B	0.19	0.093	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.093	J H	0.19	0.093	ug/L	1		8270D LL	Total/NA
Chrysene	5.6	B	0.19	0.069	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.34		0.19	0.046	ug/L	1		8270D LL	Total/NA
Fluoranthene	2.9	B	0.19	0.063	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	1.5		0.19	0.040	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.10	J H	0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	~~0.25~~	B	~~0.19~~ 0.25	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	2.9	B	0.19	0.037	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	4.7	J	9.3	4.6	ug/L	1		8270D	Total/NA

Client Sample ID: MW6C-ROX-102122

Lab Sample ID: 400-227708-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.26	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	~~0.11~~	J B	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.13~~	J B	0.19	0.032	ug/L	1		8270D LL	Total/NA
Chrysene	~~0.090~~	J B	0.19	0.069	ug/L	1		8270D LL	Total/NA
Fluoranthene	~~0.073~~	J B	0.19	0.063	ug/L	1		8270D LL	Total/NA
Phenanthrene	~~0.036~~	J B	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.051~~	J B	0.19	0.037	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	5.9	J	9.3	4.7	ug/L	1		8270D	Total/NA

Client Sample ID: MW6B-ROX-102122

Lab Sample ID: 400-227708-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.27	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.35	J	1.0	0.22	ug/L	1		8260B	Total/NA
Chrysene	~~0.074~~	J B	0.19	0.069	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.048~~	J B	0.19	0.037	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW6B-ROX-102122 (Continued)

Lab Sample ID: 400-227708-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bis(2-ethylhexyl) phthalate	7.3	J	9.3	4.7	ug/L	1		8270D	Total/NA
Diethyl phthalate	1.3	J B	9.3	0.22	ug/L	1		8270D	Total/NA

Client Sample ID: MW6A-ROX-102122

Lab Sample ID: 400-227708-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.38	J	1.0	0.22	ug/L	1		8260B	Total/NA
Acenaphthylene	0.39		0.18	0.042	ug/L	1		8270D LL	Total/NA
Anthracene	0.17	J J	0.18	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	3.4	B	0.18	0.042	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.21~~	J H B UJ	0.32	0.074	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	2.8	B	0.18	0.039	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.18	J H J	0.32	0.067	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	5.1	B	0.18	0.031	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.24~~	J H B UJ	0.32	0.054	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	1.6		0.18	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	1.9	B	0.18	0.092	ug/L	1		8270D LL	Total/NA
Chrysene	4.1	B	0.18	0.068	ug/L	1		8270D LL	Total/NA
Chrysene	0.14	J H J	0.32	0.12	ug/L	1		8270D LL	Total/NA
Fluoranthene	1.2	B	0.18	0.063	ug/L	1		8270D LL	Total/NA
Fluoranthene	~~0.26~~	J H B UJ	0.32	0.11	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	1.5		0.18	0.040	ug/L	1		8270D LL	Total/NA
Phenanthrene	~~0.25~~	B U	~~0.18~~ 0.25	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	1.0	B	0.18	0.037	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.17~~	J H B UJ	0.32	0.064	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-227708-1

Client Sample ID: TB-ROX-102122-8260
Date Collected: 10/21/22 12:00
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/01/22 10:05	1
Acrolein	ND		20	3.3	ug/L			11/01/22 10:05	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/22 10:05	1
Benzene	ND		1.0	0.13	ug/L			11/01/22 10:05	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/22 10:05	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/22 10:05	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/22 10:05	1
Bromoform	ND		5.0	0.25	ug/L			11/01/22 10:05	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/22 10:05	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/22 10:05	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/01/22 10:05	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/22 10:05	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/01/22 10:05	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/22 10:05	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/22 10:05	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/22 10:05	1
Chloroform	ND		1.0	1.0	ug/L			11/01/22 10:05	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/22 10:05	1
Chloromethane	ND		1.0	0.32	ug/L			11/01/22 10:05	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/22 10:05	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/22 10:05	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/22 10:05	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/22 10:05	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/22 10:05	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/22 10:05	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/01/22 10:05	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/22 10:05	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 10:05	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 10:05	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 10:05	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 10:05	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/22 10:05	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/22 10:05	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/22 10:05	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/01/22 10:05	1
2-Hexanone	ND		25	1.4	ug/L			11/01/22 10:05	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/22 10:05	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/22 10:05	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/22 10:05	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/22 10:05	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/01/22 10:05	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/22 10:05	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/22 10:05	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/22 10:05	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/22 10:05	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/22 10:05	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/22 10:05	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/22 10:05	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/01/22 10:05	1

Client Sample ID: TB-ROX-102122-8260
Date Collected: 10/21/22 12:00
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-1
Matrix: Water

Method: SW846 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			11/01/22 10:05	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/22 10:05	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/22 10:05	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/22 10:05	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/22 10:05	1
Toluene	ND		1.0	0.41	ug/L			11/01/22 10:05	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 10:05	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/22 10:05	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/22 10:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/22 10:05	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/22 10:05	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/22 10:05	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/22 10:05	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/22 10:05	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/22 10:05	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/22 10:05	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/22 10:05	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/22 10:05	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/22 10:05	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/22 10:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*11/01/22 10:05*	*1*
Dibromofluoromethane	*90*		*75 - 126*		*11/01/22 10:05*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/01/22 10:05*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			11/02/22 11:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*11/02/22 11:31*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*11/02/22 11:31*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/02/22 11:31*	*1*

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

Job ID: 400-227708-1

Client Sample ID: TB-ROX-102122-8011
Date Collected: 10/21/22 12:00
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-2
Matrix: Water

Method: EPA 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		11/01/22 13:29	11/02/22 00:18	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/02/22 00:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*11/01/22 13:29*	*11/02/22 00:18*	*1*

Client Sample ID: MW6D-ROX-102122-EB
Date Collected: 10/21/22 08:35
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/01/22 09:43	1
Acrolein	ND		20	3.3	ug/L			11/01/22 09:43	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/22 09:43	1
Benzene	ND		1.0	0.13	ug/L			11/01/22 09:43	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/22 09:43	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/22 09:43	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/22 09:43	1
Bromoform	ND		5.0	0.25	ug/L			11/01/22 09:43	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/22 09:43	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/22 09:43	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/01/22 09:43	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/22 09:43	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/01/22 09:43	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/22 09:43	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/22 09:43	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/22 09:43	1
Chloroform	ND		1.0	1.0	ug/L			11/01/22 09:43	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/22 09:43	1
Chloromethane	ND		1.0	0.32	ug/L			11/01/22 09:43	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/22 09:43	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/22 09:43	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/22 09:43	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/22 09:43	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/22 09:43	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/22 09:43	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/01/22 09:43	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/22 09:43	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 09:43	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 09:43	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 09:43	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 09:43	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/22 09:43	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/22 09:43	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/22 09:43	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/01/22 09:43	1
2-Hexanone	ND		25	1.4	ug/L			11/01/22 09:43	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/22 09:43	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/22 09:43	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/22 09:43	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/22 09:43	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/01/22 09:43	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/22 09:43	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/22 09:43	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/22 09:43	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/22 09:43	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/22 09:43	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/22 09:43	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/22 09:43	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/01/22 09:43	1

Client Sample ID: MW6D-ROX-102122-EB
Date Collected: 10/21/22 08:35
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-3
Matrix: Water

Method: SW846 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			11/01/22 09:43	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/22 09:43	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/22 09:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/22 09:43	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/22 09:43	1
Toluene	ND		1.0	0.41	ug/L			11/01/22 09:43	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 09:43	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/22 09:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/22 09:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/22 09:43	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/22 09:43	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/22 09:43	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/22 09:43	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/22 09:43	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/22 09:43	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/22 09:43	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/22 09:43	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/22 09:43	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/22 09:43	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/22 09:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 119*		*11/01/22 09:43*	*1*
Dibromofluoromethane	*91*		*75 - 126*		*11/01/22 09:43*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/01/22 09:43*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			11/02/22 11:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/02/22 11:56*	*1*
Dibromofluoromethane	*112*		*75 - 126*		*11/02/22 11:56*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/02/22 11:56*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.029	ug/L		10/25/22 08:03	10/28/22 02:34	1
Acenaphthylene	ND		0.18	0.041	ug/L		10/25/22 08:03	10/28/22 02:34	1
Anthracene	ND		0.18	0.029	ug/L		10/25/22 08:03	10/28/22 02:34	1
Benzo[a]anthracene	**0.081**	**J B**	0.18	0.042	ug/L		10/25/22 08:03	10/28/22 02:34	1
Benzo[a]pyrene	**0.11**	**J B**	0.18	0.038	ug/L		10/25/22 08:03	10/28/22 02:34	1
Benzo[b]fluoranthene	ND		0.18	0.031	ug/L		10/25/22 08:03	10/28/22 02:34	1
Benzo[g,h,i]perylene	ND		0.18	0.12	ug/L		10/25/22 08:03	10/28/22 02:34	1
Benzo[k]fluoranthene	ND		0.18	0.091	ug/L		10/25/22 08:03	10/28/22 02:34	1
Chrysene	ND		0.18	0.067	ug/L		10/25/22 08:03	10/28/22 02:34	1
Dibenz(a,h)anthracene	ND		0.18	0.046	ug/L		10/25/22 08:03	10/28/22 02:34	1
Fluoranthene	ND		0.18	0.062	ug/L		10/25/22 08:03	10/28/22 02:34	1
Fluorene	ND		0.18	0.10	ug/L		10/25/22 08:03	10/28/22 02:34	1
Indeno[1,2,3-cd]pyrene	ND		0.18	0.039	ug/L		10/25/22 08:03	10/28/22 02:34	1

Client Sample ID: MW6D-ROX-102122-EB
Date Collected: 10/21/22 08:35
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-3
Matrix: Water

Method: SW846 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		0.18	0.067	ug/L		10/25/22 08:03	10/28/22 02:34	1
2-Methylnaphthalene	ND		0.18	0.055	ug/L		10/25/22 08:03	10/28/22 02:34	1
Phenanthrene	ND		0.18	0.033	ug/L		10/25/22 08:03	10/28/22 02:34	1
Pyrene	ND		0.18	0.036	ug/L		10/25/22 08:03	10/28/22 02:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*15 - 122*	*10/25/22 08:03*	*10/28/22 02:34*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*10/25/22 08:03*	*10/28/22 02:34*	*1*
Terphenyl-d14	*87*		*33 - 138*	*10/25/22 08:03*	*10/28/22 02:34*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.1	3.5	ug/L		10/25/22 08:03	10/29/22 00:57	1
Benzenethiol	ND	*- *1	9.1	1.5	ug/L		10/25/22 08:03	10/29/22 00:57	1
Benzoic acid	ND		27	6.7	ug/L		10/25/22 08:03	10/29/22 00:57	1
Benzyl alcohol	ND		9.1	1.8	ug/L		10/25/22 08:03	10/29/22 00:57	1
Bis(2-chloroethoxy)methane	ND		9.1	0.15	ug/L		10/25/22 08:03	10/29/22 00:57	1
Bis(2-chloroethyl)ether	ND		9.1	2.5	ug/L		10/25/22 08:03	10/29/22 00:57	1
bis (2-chloroisopropyl) ether	ND		9.1	0.15	ug/L		10/25/22 08:03	10/29/22 00:57	1
Bis(2-ethylhexyl) phthalate	ND		9.1	4.6	ug/L		10/25/22 08:03	10/29/22 00:57	1
4-Bromophenyl phenyl ether	ND		9.1	0.18	ug/L		10/25/22 08:03	10/29/22 00:57	1
Butyl benzyl phthalate	ND		9.1	0.17	ug/L		10/25/22 08:03	10/29/22 00:57	1
4-Chloroaniline	ND		9.1	3.1	ug/L		10/25/22 08:03	10/29/22 00:57	1
4-Chloro-3-methylphenol	ND		9.1	3.5	ug/L		10/25/22 08:03	10/29/22 00:57	1
2-Chloronaphthalene	ND		9.1	0.13	ug/L		10/25/22 08:03	10/29/22 00:57	1
2-Chlorophenol	ND		9.1	2.0	ug/L		10/25/22 08:03	10/29/22 00:57	1
4-Chlorophenyl phenyl ether	ND		9.1	1.8	ug/L		10/25/22 08:03	10/29/22 00:57	1
Dibenz[a,h]acridine	ND		9.1	0.91	ug/L		10/25/22 08:03	10/29/22 00:57	1
Dibenzofuran	ND		9.1	0.15	ug/L		10/25/22 08:03	10/29/22 00:57	1
3,3'-Dichlorobenzidine	ND		9.1	2.4	ug/L		10/25/22 08:03	10/29/22 00:57	1
2,4-Dichlorophenol	ND		9.1	2.7	ug/L		10/25/22 08:03	10/29/22 00:57	1
Diethyl phthalate	ND		9.1	0.22	ug/L		10/25/22 08:03	10/29/22 00:57	1
2,4-Dimethylphenol	ND		9.1	3.2	ug/L		10/25/22 08:03	10/29/22 00:57	1
Dimethyl phthalate	ND		9.1	0.15	ug/L		10/25/22 08:03	10/29/22 00:57	1
Di-n-butyl phthalate	ND		9.1	2.5	ug/L		10/25/22 08:03	10/29/22 00:57	1
4,6-Dinitro-ortho-cresol	ND		9.1	1.5	ug/L		10/25/22 08:03	10/29/22 00:57	1
2,4-Dinitrophenol	ND		27	3.1	ug/L		10/25/22 08:03	10/29/22 00:57	1
2,4-Dinitrotoluene	ND		9.1	1.7	ug/L		10/25/22 08:03	10/29/22 00:57	1
2,6-Dinitrotoluene	ND		9.1	1.7	ug/L		10/25/22 08:03	10/29/22 00:57	1
Di-n-octyl phthalate	ND		9.1	0.15	ug/L		10/25/22 08:03	10/29/22 00:57	1
1,4-Dioxane	ND		9.1	0.91	ug/L		10/25/22 08:03	10/29/22 00:57	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.1	0.91	ug/L		10/25/22 08:03	10/29/22 00:57	1
Hexachlorobenzene	ND		9.1	0.15	ug/L		10/25/22 08:03	10/29/22 00:57	1
Hexachlorocyclopentadiene	ND		18	2.4	ug/L		10/25/22 08:03	10/29/22 00:57	1
Hexachloroethane	ND		9.1	3.8	ug/L		10/25/22 08:03	10/29/22 00:57	1
Indene	ND		9.1	0.91	ug/L		10/25/22 08:03	10/29/22 00:57	1
Isophorone	ND		9.1	0.13	ug/L		10/25/22 08:03	10/29/22 00:57	1
2-Methylphenol	ND		9.1	1.6	ug/L		10/25/22 08:03	10/29/22 00:57	1
3 & 4 Methylphenol	ND		18	0.36	ug/L		10/25/22 08:03	10/29/22 00:57	1

Client Sample ID: MW6D-ROX-102122-EB
Date Collected: 10/21/22 08:35
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.1	2.0	ug/L		10/25/22 08:03	10/29/22 00:57	1
3-Nitroaniline	ND		9.1	1.6	ug/L		10/25/22 08:03	10/29/22 00:57	1
4-Nitroaniline	ND		9.1	1.4	ug/L		10/25/22 08:03	10/29/22 00:57	1
Nitrobenzene	ND		9.1	0.12	ug/L		10/25/22 08:03	10/29/22 00:57	1
2-Nitrophenol	ND		9.1	4.7	ug/L		10/25/22 08:03	10/29/22 00:57	1
4-Nitrophenol	ND		9.1	1.9	ug/L		10/25/22 08:03	10/29/22 00:57	1
N-Nitrosodimethylamine	ND		9.1	3.2	ug/L		10/25/22 08:03	10/29/22 00:57	1
N-Nitrosodi-n-propylamine	ND		9.1	3.0	ug/L		10/25/22 08:03	10/29/22 00:57	1
N-Nitrosodiphenylamine	ND		9.1	0.16	ug/L		10/25/22 08:03	10/29/22 00:57	1
Pentachlorophenol	ND		18	1.3	ug/L		10/25/22 08:03	10/29/22 00:57	1
Phenol	ND		9.1	2.4	ug/L		10/25/22 08:03	10/29/22 00:57	1
Pyridine	ND		9.1	2.9	ug/L		10/25/22 08:03	10/29/22 00:57	1
Quinoline	ND		9.1	4.1	ug/L		10/25/22 08:03	10/29/22 00:57	1
2,4,5-Trichlorophenol	ND		9.1	3.4	ug/L		10/25/22 08:03	10/29/22 00:57	1
2,4,6-Trichlorophenol	ND		9.1	3.2	ug/L		10/25/22 08:03	10/29/22 00:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*10/25/22 08:03*	*10/29/22 00:57*	*1*
2-Fluorophenol	*47*		*13 - 113*	*10/25/22 08:03*	*10/29/22 00:57*	*1*
Nitrobenzene-d5	*90*		*36 - 126*	*10/25/22 08:03*	*10/29/22 00:57*	*1*
Phenol-d5	*79*		*17 - 127*	*10/25/22 08:03*	*10/29/22 00:57*	*1*
Terphenyl-d14	*105*		*44 - 149*	*10/25/22 08:03*	*10/29/22 00:57*	*1*
2,4,6-Tribromophenol	*79*		*26 - 150*	*10/25/22 08:03*	*10/29/22 00:57*	*1*

Method: EPA 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		11/01/22 13:29	11/02/22 00:39	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/02/22 00:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*87*		*51 - 149*	*11/01/22 13:29*	*11/02/22 00:39*	*1*

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

Job ID: 400-227708-1

Client Sample ID: MW6D-ROX-102122
Date Collected: 10/21/22 09:40
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/01/22 10:29	1
Acrolein	ND		20	3.3	ug/L			11/01/22 10:29	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/22 10:29	1
Benzene	**0.21**	J	1.0	0.13	ug/L			11/01/22 10:29	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/22 10:29	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/22 10:29	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/22 10:29	1
Bromoform	ND		5.0	0.25	ug/L			11/01/22 10:29	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/22 10:29	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/22 10:29	1
Carbon disulfide	ND	UJ	1.0	0.50	ug/L			11/01/22 10:29	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/22 10:29	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/01/22 10:29	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/22 10:29	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/22 10:29	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/22 10:29	1
Chloroform	ND	UJ	1.0	1.0	ug/L			11/01/22 10:29	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/22 10:29	1
Chloromethane	ND		1.0	0.32	ug/L			11/01/22 10:29	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/22 10:29	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/22 10:29	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/22 10:29	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/22 10:29	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/22 10:29	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/22 10:29	1
1,1-Dichloroethane	ND	UJ	1.0	0.50	ug/L			11/01/22 10:29	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/22 10:29	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 10:29	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 10:29	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 10:29	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 10:29	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/22 10:29	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/22 10:29	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/22 10:29	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/01/22 10:29	1
2-Hexanone	ND		25	1.4	ug/L			11/01/22 10:29	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/22 10:29	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/22 10:29	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/22 10:29	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/22 10:29	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/01/22 10:29	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/22 10:29	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/22 10:29	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/22 10:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/22 10:29	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/22 10:29	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/22 10:29	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/22 10:29	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/01/22 10:29	1

Client Sample ID: MW6D-ROX-102122
Date Collected: 10/21/22 09:40
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-4
Matrix: Water

Method: SW846 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			11/01/22 10:29	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/22 10:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/22 10:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/22 10:29	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/22 10:29	1
Toluene	ND		1.0	0.41	ug/L			11/01/22 10:29	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 10:29	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/22 10:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/22 10:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/22 10:29	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/22 10:29	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/22 10:29	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/22 10:29	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/22 10:29	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/22 10:29	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/22 10:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/22 10:29	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/22 10:29	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/22 10:29	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/22 10:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*11/01/22 10:29*	*1*
Dibromofluoromethane	*90*		*75 - 126*		*11/01/22 10:29*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/01/22 10:29*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			11/02/22 12:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*11/02/22 12:20*	*1*
Dibromofluoromethane	*109*		*75 - 126*		*11/02/22 12:20*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*11/02/22 12:20*	*1*

Method: SW846 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		10/25/22 08:03	10/28/22 02:51	1
Acenaphthene	ND	H UJ	0.19	0.030	ug/L		11/18/22 09:46	11/22/22 21:27	1
Acenaphthylene	**0.13**	**J**	0.19	0.042	ug/L		10/25/22 08:03	10/28/22 02:51	1
Acenaphthylene	ND	H UJ	0.19	0.042	ug/L		11/18/22 09:46	11/22/22 21:27	1
Anthracene	**0.17**	**J** J	0.19	0.030	ug/L		10/25/22 08:03	10/28/22 02:51	1
Anthracene	ND	H UJ	0.19	0.030	ug/L		11/18/22 09:46	11/22/22 21:27	1
Benzo[a]anthracene	**4.3**	**B**	0.19	0.043	ug/L		10/25/22 08:03	10/28/22 02:51	1
Benzo[a]anthracene	~~0.097~~	J H B UJ	0.19	0.043	ug/L		11/18/22 09:46	11/22/22 21:27	1
Benzo[a]pyrene	**2.8**	**B**	0.19	0.039	ug/L		10/25/22 08:03	10/28/22 02:51	1
Benzo[a]pyrene	**0.094**	**J H** J	0.19	0.039	ug/L		11/18/22 09:46	11/22/22 21:27	1
Benzo[b]fluoranthene	**4.5**	**B**	0.19	0.032	ug/L		10/25/22 08:03	10/28/22 02:51	1
Benzo[b]fluoranthene	~~0.11~~	J H B UJ	0.19	0.032	ug/L		11/18/22 09:46	11/22/22 21:27	1
Benzo[g,h,i]perylene	**1.5**		0.19	0.12	ug/L		10/25/22 08:03	10/28/22 02:51	1

Client Sample ID: MW6D-ROX-102122
Date Collected: 10/21/22 09:40
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND	H UJ	0.19	0.12	ug/L		11/18/22 09:46	11/22/22 21:27	1
Benzo[k]fluoranthene	2.3	B	0.19	0.093	ug/L		10/25/22 08:03	10/28/22 02:51	1
Benzo[k]fluoranthene	0.093	J H J	0.19	0.093	ug/L		11/18/22 09:46	11/22/22 21:27	1
Chrysene	5.6	B	0.19	0.069	ug/L		10/25/22 08:03	10/28/22 02:51	1
Chrysene	ND	H UJ	0.19	0.069	ug/L		11/18/22 09:46	11/22/22 21:27	1
Dibenz(a,h)anthracene	0.34		0.19	0.046	ug/L		10/25/22 08:03	10/28/22 02:51	1
Dibenz(a,h)anthracene	ND	H UJ	0.19	0.047	ug/L		11/18/22 09:46	11/22/22 21:27	1
Fluoranthene	2.9	B	0.19	0.063	ug/L		10/25/22 08:03	10/28/22 02:51	1
Fluoranthene	ND	H UJ	0.19	0.064	ug/L		11/18/22 09:46	11/22/22 21:27	1
Fluorene	ND		0.19	0.10	ug/L		10/25/22 08:03	10/28/22 02:51	1
Fluorene	ND	H UJ	0.19	0.10	ug/L		11/18/22 09:46	11/22/22 21:27	1
Indeno[1,2,3-cd]pyrene	1.5		0.19	0.040	ug/L		10/25/22 08:03	10/28/22 02:51	1
Indeno[1,2,3-cd]pyrene	ND	H UJ	0.19	0.040	ug/L		11/18/22 09:46	11/22/22 21:27	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		10/25/22 08:03	10/28/22 02:51	1
1-Methylnaphthalene	ND	H UJ	0.19	0.069	ug/L		11/18/22 09:46	11/22/22 21:27	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		10/25/22 08:03	10/28/22 02:51	1
2-Methylnaphthalene	0.10	J H J	0.19	0.056	ug/L		11/18/22 09:46	11/23/22 11:05	1
Phenanthrene	~~0.25~~	B U	~~0.19~~ 0.25	0.033	ug/L		10/25/22 08:03	10/28/22 02:51	1
Phenanthrene	ND	H UJ	0.19	0.034	ug/L		11/18/22 09:46	11/22/22 21:27	1
Pyrene	2.9	B	0.19	0.037	ug/L		10/25/22 08:03	10/28/22 02:51	1
Pyrene	ND	H UJ	0.19	0.037	ug/L		11/18/22 09:46	11/22/22 21:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*15 - 122*	*10/25/22 08:03*	*10/28/22 02:51*	*1*
2-Fluorobiphenyl	*111*		*15 - 122*	*11/18/22 09:46*	*11/22/22 21:27*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*10/25/22 08:03*	*10/28/22 02:51*	*1*
Nitrobenzene-d5	*72*		*19 - 130*	*11/18/22 09:46*	*11/22/22 21:27*	*1*
Terphenyl-d14	*93*		*33 - 138*	*10/25/22 08:03*	*10/28/22 02:51*	*1*
Terphenyl-d14	*90*		*33 - 138*	*11/18/22 09:46*	*11/22/22 21:27*	*1*

Method: SW846 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		10/25/22 08:03	10/29/22 01:18	1
Benzenethiol	ND	*- *1 UJ	9.3	1.6	ug/L		10/25/22 08:03	10/29/22 01:18	1
Benzoic acid	ND		28	6.8	ug/L		10/25/22 08:03	10/29/22 01:18	1
Benzyl alcohol	ND		9.3	1.9	ug/L		10/25/22 08:03	10/29/22 01:18	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		10/25/22 08:03	10/29/22 01:18	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		10/25/22 08:03	10/29/22 01:18	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		10/25/22 08:03	10/29/22 01:18	1
Bis(2-ethylhexyl) phthalate	4.7	J	9.3	4.6	ug/L		10/25/22 08:03	10/29/22 01:18	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		10/25/22 08:03	10/29/22 01:18	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		10/25/22 08:03	10/29/22 01:18	1
4-Chloroaniline	ND		9.3	3.2	ug/L		10/25/22 08:03	10/29/22 01:18	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		10/25/22 08:03	10/29/22 01:18	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		10/25/22 08:03	10/29/22 01:18	1
2-Chlorophenol	ND		9.3	2.0	ug/L		10/25/22 08:03	10/29/22 01:18	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		10/25/22 08:03	10/29/22 01:18	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 01:18	1
Dibenzofuran	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 01:18	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		10/25/22 08:03	10/29/22 01:18	1

Client Sample ID: MW6D-ROX-102122
Date Collected: 10/21/22 09:40
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		10/25/22 08:03	10/29/22 01:18	1
Diethyl phthalate	ND		9.3	0.22	ug/L		10/25/22 08:03	10/29/22 01:18	1
2,4-Dimethylphenol	ND		9.3	3.2	ug/L		10/25/22 08:03	10/29/22 01:18	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 01:18	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		10/25/22 08:03	10/29/22 01:18	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		10/25/22 08:03	10/29/22 01:18	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/25/22 08:03	10/29/22 01:18	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		10/25/22 08:03	10/29/22 01:18	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		10/25/22 08:03	10/29/22 01:18	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 01:18	1
1,4-Dioxane	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 01:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 01:18	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 01:18	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		10/25/22 08:03	10/29/22 01:18	1
Hexachloroethane	ND		9.3	3.9	ug/L		10/25/22 08:03	10/29/22 01:18	1
Indene	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 01:18	1
Isophorone	ND		9.3	0.13	ug/L		10/25/22 08:03	10/29/22 01:18	1
2-Methylphenol	ND		9.3	1.7	ug/L		10/25/22 08:03	10/29/22 01:18	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		10/25/22 08:03	10/29/22 01:18	1
2-Nitroaniline	ND		9.3	2.0	ug/L		10/25/22 08:03	10/29/22 01:18	1
3-Nitroaniline	ND		9.3	1.7	ug/L		10/25/22 08:03	10/29/22 01:18	1
4-Nitroaniline	ND		9.3	1.4	ug/L		10/25/22 08:03	10/29/22 01:18	1
Nitrobenzene	ND		9.3	0.12	ug/L		10/25/22 08:03	10/29/22 01:18	1
2-Nitrophenol	ND		9.3	4.8	ug/L		10/25/22 08:03	10/29/22 01:18	1
4-Nitrophenol	ND		9.3	1.9	ug/L		10/25/22 08:03	10/29/22 01:18	1
N-Nitrosodimethylamine	ND		9.3	3.2	ug/L		10/25/22 08:03	10/29/22 01:18	1
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		10/25/22 08:03	10/29/22 01:18	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		10/25/22 08:03	10/29/22 01:18	1
Pentachlorophenol	ND		19	1.3	ug/L		10/25/22 08:03	10/29/22 01:18	1
Phenol	ND		9.3	2.4	ug/L		10/25/22 08:03	10/29/22 01:18	1
Pyridine	ND		9.3	3.0	ug/L		10/25/22 08:03	10/29/22 01:18	1
Quinoline	ND		9.3	4.2	ug/L		10/25/22 08:03	10/29/22 01:18	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		10/25/22 08:03	10/29/22 01:18	1
2,4,6-Trichlorophenol	ND		9.3	3.2	ug/L		10/25/22 08:03	10/29/22 01:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*10/25/22 08:03*	*10/29/22 01:18*	*1*
2-Fluorophenol	*32*		*13 - 113*	*10/25/22 08:03*	*10/29/22 01:18*	*1*
Nitrobenzene-d5	*90*		*36 - 126*	*10/25/22 08:03*	*10/29/22 01:18*	*1*
Phenol-d5	*72*		*17 - 127*	*10/25/22 08:03*	*10/29/22 01:18*	*1*
Terphenyl-d14	*105*		*44 - 149*	*10/25/22 08:03*	*10/29/22 01:18*	*1*
2,4,6-Tribromophenol	*102*		*26 - 150*	*10/25/22 08:03*	*10/29/22 01:18*	*1*

Method: EPA 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		11/01/22 13:29	11/02/22 00:59	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/02/22 00:59	1

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

Job ID: 400-227708-1

Client Sample ID: MW6D-ROX-102122
Date Collected: 10/21/22 09:40
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-4
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		51 - 149	11/01/22 13:29	11/02/22 00:59	1

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

Job ID: 400-227708-1

Client Sample ID: MW6C-ROX-102122
Date Collected: 10/21/22 10:20
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/01/22 10:51	1
Acrolein	ND		20	3.3	ug/L			11/01/22 10:51	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/22 10:51	1
Benzene	ND		1.0	0.13	ug/L			11/01/22 10:51	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/22 10:51	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/22 10:51	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/22 10:51	1
Bromoform	ND		5.0	0.25	ug/L			11/01/22 10:51	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/22 10:51	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/22 10:51	1
Carbon disulfide	ND	UJ	1.0	0.50	ug/L			11/01/22 10:51	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/22 10:51	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/01/22 10:51	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/22 10:51	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/22 10:51	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/22 10:51	1
Chloroform	ND	UJ	1.0	1.0	ug/L			11/01/22 10:51	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/22 10:51	1
Chloromethane	ND		1.0	0.32	ug/L			11/01/22 10:51	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/22 10:51	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/22 10:51	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/22 10:51	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/22 10:51	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/22 10:51	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/22 10:51	1
1,1-Dichloroethane	ND	UJ	1.0	0.50	ug/L			11/01/22 10:51	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/22 10:51	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 10:51	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 10:51	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 10:51	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 10:51	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/22 10:51	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/22 10:51	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/22 10:51	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/01/22 10:51	1
2-Hexanone	ND		25	1.4	ug/L			11/01/22 10:51	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/22 10:51	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/22 10:51	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/22 10:51	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/22 10:51	1
Methyl tert-butyl ether	0.26	J	1.0	0.22	ug/L			11/01/22 10:51	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/22 10:51	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/22 10:51	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/22 10:51	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/22 10:51	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/22 10:51	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/22 10:51	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/22 10:51	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/01/22 10:51	1

Client Sample ID: MW6C-ROX-102122
Date Collected: 10/21/22 10:20
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-5
Matrix: Water

Method: SW846 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			11/01/22 10:51	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/22 10:51	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/22 10:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/22 10:51	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/22 10:51	1
Toluene	ND		1.0	0.41	ug/L			11/01/22 10:51	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 10:51	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/22 10:51	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/22 10:51	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/22 10:51	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/22 10:51	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/22 10:51	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/22 10:51	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/22 10:51	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/22 10:51	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/22 10:51	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/22 10:51	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/22 10:51	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/22 10:51	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/22 10:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/01/22 10:51*	*1*
Dibromofluoromethane	*92*		*75 - 126*		*11/01/22 10:51*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/01/22 10:51*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			11/02/22 12:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*11/02/22 12:44*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*11/02/22 12:44*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/02/22 12:44*	*1*

Method: SW846 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		10/25/22 08:03	10/28/22 03:08	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/25/22 08:03	10/28/22 03:08	1
Anthracene	ND		0.19	0.030	ug/L		10/25/22 08:03	10/28/22 03:08	1
Benzo[a]anthracene	~~0.11~~	J B U	0.19	0.043	ug/L		10/25/22 08:03	10/28/22 03:08	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		10/25/22 08:03	10/28/22 03:08	1
Benzo[b]fluoranthene	~~0.13~~	J B U	0.19	0.032	ug/L		10/25/22 08:03	10/28/22 03:08	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/25/22 08:03	10/28/22 03:08	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		10/25/22 08:03	10/28/22 03:08	1
Chrysene	~~0.090~~	J B U	0.19	0.069	ug/L		10/25/22 08:03	10/28/22 03:08	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/25/22 08:03	10/28/22 03:08	1
Fluoranthene	~~0.073~~	J B U	0.19	0.063	ug/L		10/25/22 08:03	10/28/22 03:08	1
Fluorene	ND		0.19	0.10	ug/L		10/25/22 08:03	10/28/22 03:08	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		10/25/22 08:03	10/28/22 03:08	1

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

Job ID: 400-227708-1

Client Sample ID: MW6C-ROX-102122
Date Collected: 10/21/22 10:20
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-5
Matrix: Water

Method: SW846 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	0.069	ug/L		10/25/22 08:03	10/28/22 03:08	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		10/25/22 08:03	10/28/22 03:08	1
Phenanthrene	0.036	J B	0.19	0.034	ug/L		10/25/22 08:03	10/28/22 03:08	1
Pyrene	0.054	J B	0.19	0.037	ug/L		10/25/22 08:03	10/28/22 03:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*15 - 122*	*10/25/22 08:03*	*10/28/22 03:08*	*1*
Nitrobenzene-d5	*99*		*19 - 130*	*10/25/22 08:03*	*10/28/22 03:08*	*1*
Terphenyl-d14	*90*		*33 - 138*	*10/25/22 08:03*	*10/28/22 03:08*	*1*

Method: SW846 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		10/25/22 08:03	10/29/22 01:39	1
Benzenethiol	ND	*- *1	9.3	1.6	ug/L		10/25/22 08:03	10/29/22 01:39	1
Benzoic acid	ND		28	6.8	ug/L		10/25/22 08:03	10/29/22 01:39	1
Benzyl alcohol	ND		9.3	1.9	ug/L		10/25/22 08:03	10/29/22 01:39	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		10/25/22 08:03	10/29/22 01:39	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		10/25/22 08:03	10/29/22 01:39	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		10/25/22 08:03	10/29/22 01:39	1
Bis(2-ethylhexyl) phthalate	5.9	J	9.3	4.7	ug/L		10/25/22 08:03	10/29/22 01:39	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		10/25/22 08:03	10/29/22 01:39	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		10/25/22 08:03	10/29/22 01:39	1
4-Chloroaniline	ND		9.3	3.2	ug/L		10/25/22 08:03	10/29/22 01:39	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		10/25/22 08:03	10/29/22 01:39	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		10/25/22 08:03	10/29/22 01:39	1
2-Chlorophenol	ND		9.3	2.1	ug/L		10/25/22 08:03	10/29/22 01:39	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		10/25/22 08:03	10/29/22 01:39	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 01:39	1
Dibenzofuran	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 01:39	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		10/25/22 08:03	10/29/22 01:39	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		10/25/22 08:03	10/29/22 01:39	1
Diethyl phthalate	ND		9.3	0.22	ug/L		10/25/22 08:03	10/29/22 01:39	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		10/25/22 08:03	10/29/22 01:39	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 01:39	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		10/25/22 08:03	10/29/22 01:39	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		10/25/22 08:03	10/29/22 01:39	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/25/22 08:03	10/29/22 01:39	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		10/25/22 08:03	10/29/22 01:39	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		10/25/22 08:03	10/29/22 01:39	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 01:39	1
1,4-Dioxane	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 01:39	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 01:39	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 01:39	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		10/25/22 08:03	10/29/22 01:39	1
Hexachloroethane	ND		9.3	3.9	ug/L		10/25/22 08:03	10/29/22 01:39	1
Indene	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 01:39	1
Isophorone	ND		9.3	0.13	ug/L		10/25/22 08:03	10/29/22 01:39	1
2-Methylphenol	ND		9.3	1.7	ug/L		10/25/22 08:03	10/29/22 01:39	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		10/25/22 08:03	10/29/22 01:39	1

Client Sample ID: MW6C-ROX-102122
Date Collected: 10/21/22 10:20
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.3	2.1	ug/L		10/25/22 08:03	10/29/22 01:39	1
3-Nitroaniline	ND		9.3	1.7	ug/L		10/25/22 08:03	10/29/22 01:39	1
4-Nitroaniline	ND		9.3	1.4	ug/L		10/25/22 08:03	10/29/22 01:39	1
Nitrobenzene	ND		9.3	0.12	ug/L		10/25/22 08:03	10/29/22 01:39	1
2-Nitrophenol	ND		9.3	4.8	ug/L		10/25/22 08:03	10/29/22 01:39	1
4-Nitrophenol	ND		9.3	2.0	ug/L		10/25/22 08:03	10/29/22 01:39	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		10/25/22 08:03	10/29/22 01:39	1
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		10/25/22 08:03	10/29/22 01:39	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		10/25/22 08:03	10/29/22 01:39	1
Pentachlorophenol	ND		19	1.3	ug/L		10/25/22 08:03	10/29/22 01:39	1
Phenol	ND		9.3	2.4	ug/L		10/25/22 08:03	10/29/22 01:39	1
Pyridine	ND		9.3	3.0	ug/L		10/25/22 08:03	10/29/22 01:39	1
Quinoline	ND		9.3	4.2	ug/L		10/25/22 08:03	10/29/22 01:39	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		10/25/22 08:03	10/29/22 01:39	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		10/25/22 08:03	10/29/22 01:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*10/25/22 08:03*	*10/29/22 01:39*	*1*
2-Fluorophenol	*39*		*13 - 113*	*10/25/22 08:03*	*10/29/22 01:39*	*1*
Nitrobenzene-d5	*90*		*36 - 126*	*10/25/22 08:03*	*10/29/22 01:39*	*1*
Phenol-d5	*74*		*17 - 127*	*10/25/22 08:03*	*10/29/22 01:39*	*1*
Terphenyl-d14	*106*		*44 - 149*	*10/25/22 08:03*	*10/29/22 01:39*	*1*
2,4,6-Tribromophenol	*105*		*26 - 150*	*10/25/22 08:03*	*10/29/22 01:39*	*1*

Method: EPA 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		11/01/22 13:29	11/02/22 01:40	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/02/22 01:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*11/01/22 13:29*	*11/02/22 01:40*	*1*

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

Job ID: 400-227708-1

Client Sample ID: MW6B-ROX-102122
Date Collected: 10/21/22 11:50
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/01/22 11:15	1
Acrolein	ND		20	3.3	ug/L			11/01/22 11:15	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/22 11:15	1
Benzene	**0.27**	**J**	1.0	0.13	ug/L			11/01/22 11:15	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/22 11:15	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/22 11:15	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/22 11:15	1
Bromoform	ND		5.0	0.25	ug/L			11/01/22 11:15	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/22 11:15	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/22 11:15	1
Carbon disulfide	ND	UJ	1.0	0.50	ug/L			11/01/22 11:15	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/22 11:15	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/01/22 11:15	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/22 11:15	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/22 11:15	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/22 11:15	1
Chloroform	ND	UJ	1.0	1.0	ug/L			11/01/22 11:15	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/22 11:15	1
Chloromethane	ND		1.0	0.32	ug/L			11/01/22 11:15	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/22 11:15	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/22 11:15	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/22 11:15	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/22 11:15	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/22 11:15	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/22 11:15	1
1,1-Dichloroethane	ND	UJ	1.0	0.50	ug/L			11/01/22 11:15	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/22 11:15	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 11:15	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 11:15	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 11:15	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 11:15	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/22 11:15	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/22 11:15	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/22 11:15	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/01/22 11:15	1
2-Hexanone	ND		25	1.4	ug/L			11/01/22 11:15	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/22 11:15	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/22 11:15	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/22 11:15	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/22 11:15	1
Methyl tert-butyl ether	**0.35**	**J**	1.0	0.22	ug/L			11/01/22 11:15	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/22 11:15	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/22 11:15	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/22 11:15	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/22 11:15	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/22 11:15	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/22 11:15	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/22 11:15	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/01/22 11:15	1

Client Sample ID: MW6B-ROX-102122
Date Collected: 10/21/22 11:50
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-6
Matrix: Water

Method: SW846 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			11/01/22 11:15	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/22 11:15	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/22 11:15	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/22 11:15	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/22 11:15	1
Toluene	ND		1.0	0.41	ug/L			11/01/22 11:15	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 11:15	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/22 11:15	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/22 11:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/22 11:15	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/22 11:15	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/22 11:15	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/22 11:15	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/22 11:15	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/22 11:15	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/22 11:15	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/22 11:15	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/22 11:15	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/22 11:15	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/22 11:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*11/01/22 11:15*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*11/01/22 11:15*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/01/22 11:15*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			11/02/22 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*11/02/22 13:11*	*1*
Dibromofluoromethane	*108*		*75 - 126*		*11/02/22 13:11*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/02/22 13:11*	*1*

Method: SW846 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		10/25/22 08:03	10/28/22 03:25	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/25/22 08:03	10/28/22 03:25	1
Anthracene	ND		0.19	0.030	ug/L		10/25/22 08:03	10/28/22 03:25	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		10/25/22 08:03	10/28/22 03:25	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		10/25/22 08:03	10/28/22 03:25	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/25/22 08:03	10/28/22 03:25	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/25/22 08:03	10/28/22 03:25	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		10/25/22 08:03	10/28/22 03:25	1
Chrysene	0.074	J B	0.19	0.069	ug/L		10/25/22 08:03	10/28/22 03:25	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/25/22 08:03	10/28/22 03:25	1
Fluoranthene	ND		0.19	0.063	ug/L		10/25/22 08:03	10/28/22 03:25	1
Fluorene	ND		0.19	0.10	ug/L		10/25/22 08:03	10/28/22 03:25	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		10/25/22 08:03	10/28/22 03:25	1

Client Sample ID: MW6B-ROX-102122

Date Collected: 10/21/22 11:50
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-6

Matrix: Water

Method: SW846 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	0.069	ug/L		10/25/22 08:03	10/28/22 03:25	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		10/25/22 08:03	10/28/22 03:25	1
Phenanthrene	ND		0.19	0.034	ug/L		10/25/22 08:03	10/28/22 03:25	1
Pyrene	0.048	J B	0.19	0.037	ug/L		10/25/22 08:03	10/28/22 03:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*90*		*15 - 122*	*10/25/22 08:03*	*10/28/22 03:25*	*1*
Nitrobenzene-d5	*112*		*19 - 130*	*10/25/22 08:03*	*10/28/22 03:25*	*1*
Terphenyl-d14	*99*		*33 - 138*	*10/25/22 08:03*	*10/28/22 03:25*	*1*

Method: SW846 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		10/25/22 08:03	10/29/22 02:00	1
Benzenethiol	ND	*-*1	9.3	1.6	ug/L		10/25/22 08:03	10/29/22 02:00	1
Benzoic acid	ND		28	6.8	ug/L		10/25/22 08:03	10/29/22 02:00	1
Benzyl alcohol	ND		9.3	1.9	ug/L		10/25/22 08:03	10/29/22 02:00	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		10/25/22 08:03	10/29/22 02:00	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		10/25/22 08:03	10/29/22 02:00	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		10/25/22 08:03	10/29/22 02:00	1
Bis(2-ethylhexyl) phthalate	7.3	J	9.3	4.7	ug/L		10/25/22 08:03	10/29/22 02:00	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		10/25/22 08:03	10/29/22 02:00	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		10/25/22 08:03	10/29/22 02:00	1
4-Chloroaniline	ND		9.3	3.2	ug/L		10/25/22 08:03	10/29/22 02:00	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		10/25/22 08:03	10/29/22 02:00	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		10/25/22 08:03	10/29/22 02:00	1
2-Chlorophenol	ND		9.3	2.1	ug/L		10/25/22 08:03	10/29/22 02:00	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		10/25/22 08:03	10/29/22 02:00	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 02:00	1
Dibenzofuran	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 02:00	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		10/25/22 08:03	10/29/22 02:00	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		10/25/22 08:03	10/29/22 02:00	1
Diethyl phthalate	1.3	J B	9.3	0.22	ug/L		10/25/22 08:03	10/29/22 02:00	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		10/25/22 08:03	10/29/22 02:00	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 02:00	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		10/25/22 08:03	10/29/22 02:00	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		10/25/22 08:03	10/29/22 02:00	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/25/22 08:03	10/29/22 02:00	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		10/25/22 08:03	10/29/22 02:00	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		10/25/22 08:03	10/29/22 02:00	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 02:00	1
1,4-Dioxane	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 02:00	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 02:00	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		10/25/22 08:03	10/29/22 02:00	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		10/25/22 08:03	10/29/22 02:00	1
Hexachloroethane	ND		9.3	3.9	ug/L		10/25/22 08:03	10/29/22 02:00	1
Indene	ND		9.3	0.93	ug/L		10/25/22 08:03	10/29/22 02:00	1
Isophorone	ND		9.3	0.13	ug/L		10/25/22 08:03	10/29/22 02:00	1
2-Methylphenol	ND		9.3	1.7	ug/L		10/25/22 08:03	10/29/22 02:00	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		10/25/22 08:03	10/29/22 02:00	1

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

Job ID: 400-227708-1

Client Sample ID: MW6B-ROX-102122
Date Collected: 10/21/22 11:50
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-6
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.3	2.1	ug/L		10/25/22 08:03	10/29/22 02:00	1
3-Nitroaniline	ND		9.3	1.7	ug/L		10/25/22 08:03	10/29/22 02:00	1
4-Nitroaniline	ND		9.3	1.4	ug/L		10/25/22 08:03	10/29/22 02:00	1
Nitrobenzene	ND		9.3	0.12	ug/L		10/25/22 08:03	10/29/22 02:00	1
2-Nitrophenol	ND	UJ	9.3	4.9	ug/L		10/25/22 08:03	10/29/22 02:00	1
4-Nitrophenol	ND	UJ	9.3	2.0	ug/L		10/25/22 08:03	10/29/22 02:00	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		10/25/22 08:03	10/29/22 02:00	1
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		10/25/22 08:03	10/29/22 02:00	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		10/25/22 08:03	10/29/22 02:00	1
Pentachlorophenol	ND	UJ	19	1.3	ug/L		10/25/22 08:03	10/29/22 02:00	1
Phenol	ND	UJ	9.3	2.4	ug/L		10/25/22 08:03	10/29/22 02:00	1
Pyridine	ND		9.3	3.0	ug/L		10/25/22 08:03	10/29/22 02:00	1
Quinoline	ND		9.3	4.2	ug/L		10/25/22 08:03	10/29/22 02:00	1
2,4,5-Trichlorophenol	ND	UJ	9.3	3.5	ug/L		10/25/22 08:03	10/29/22 02:00	1
2,4,6-Trichlorophenol	ND	UJ	9.3	3.3	ug/L		10/25/22 08:03	10/29/22 02:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	90		46 - 124	10/25/22 08:03	10/29/22 02:00	1
2-Fluorophenol	0	S1-	13 - 113	10/25/22 08:03	10/29/22 02:00	1
Nitrobenzene-d5	99		36 - 126	10/25/22 08:03	10/29/22 02:00	1
Phenol-d5	0.4	S1-	17 - 127	10/25/22 08:03	10/29/22 02:00	1
Terphenyl-d14	115		44 - 149	10/25/22 08:03	10/29/22 02:00	1
2,4,6-Tribromophenol	0	S1-	26 - 150	10/25/22 08:03	10/29/22 02:00	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H UJ	9.1	4.6	ug/L		10/31/22 09:55	11/02/22 06:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	88		46 - 124	10/31/22 09:55	11/02/22 06:11	1
2-Fluorophenol	77		13 - 113	10/31/22 09:55	11/02/22 06:11	1
Nitrobenzene-d5	76		36 - 126	10/31/22 09:55	11/02/22 06:11	1
Phenol-d5	76		17 - 127	10/31/22 09:55	11/02/22 06:11	1
Terphenyl-d14	79		44 - 149	10/31/22 09:55	11/02/22 06:11	1
2,4,6-Tribromophenol	90		26 - 150	10/31/22 09:55	11/02/22 06:11	1

Method: EPA 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		11/01/22 13:29	11/02/22 02:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/02/22 02:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	92		51 - 149	11/01/22 13:29	11/02/22 02:00	1

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

Job ID: 400-227708-1

Client Sample ID: MW6A-ROX-102122
Date Collected: 10/21/22 12:40
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/01/22 11:39	1
Acrolein	ND		20	3.3	ug/L			11/01/22 11:39	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/22 11:39	1
Benzene	ND		1.0	0.13	ug/L			11/01/22 11:39	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/22 11:39	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/22 11:39	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/22 11:39	1
Bromoform	ND		5.0	0.25	ug/L			11/01/22 11:39	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/22 11:39	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/22 11:39	1
Carbon disulfide	ND	UJ	1.0	0.50	ug/L			11/01/22 11:39	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/22 11:39	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/01/22 11:39	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/22 11:39	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/22 11:39	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/22 11:39	1
Chloroform	ND	UJ	1.0	1.0	ug/L			11/01/22 11:39	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/22 11:39	1
Chloromethane	ND		1.0	0.32	ug/L			11/01/22 11:39	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/22 11:39	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/22 11:39	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/22 11:39	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/22 11:39	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/22 11:39	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/22 11:39	1
1,1-Dichloroethane	ND	UJ	1.0	0.50	ug/L			11/01/22 11:39	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/22 11:39	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 11:39	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 11:39	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 11:39	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 11:39	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/22 11:39	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/22 11:39	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/22 11:39	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/01/22 11:39	1
2-Hexanone	ND		25	1.4	ug/L			11/01/22 11:39	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/22 11:39	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/22 11:39	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/22 11:39	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/22 11:39	1
Methyl tert-butyl ether	0.38	J	1.0	0.22	ug/L			11/01/22 11:39	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/22 11:39	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/22 11:39	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/22 11:39	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/22 11:39	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/22 11:39	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/22 11:39	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/22 11:39	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/01/22 11:39	1

Client Sample ID: MW6A-ROX-102122
Date Collected: 10/21/22 12:40
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-7
Matrix: Water

Method: SW846 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			11/01/22 11:39	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/22 11:39	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/22 11:39	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/22 11:39	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/22 11:39	1
Toluene	ND		1.0	0.41	ug/L			11/01/22 11:39	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 11:39	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/22 11:39	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/22 11:39	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/22 11:39	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/22 11:39	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/22 11:39	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/22 11:39	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/22 11:39	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/22 11:39	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/22 11:39	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/22 11:39	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/22 11:39	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/22 11:39	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/22 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/01/22 11:39*	*1*
Dibromofluoromethane	*92*		*75 - 126*		*11/01/22 11:39*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/01/22 11:39*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			11/02/22 13:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/02/22 13:35*	*1*
Dibromofluoromethane	*111*		*75 - 126*		*11/02/22 13:35*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/02/22 13:35*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.030	ug/L		10/25/22 08:03	10/28/22 03:42	1
Acenaphthene	ND	H UJ	0.32	0.051	ug/L		11/18/22 09:46	11/22/22 21:44	1
Acenaphthylene	**0.39**		0.18	0.042	ug/L		10/25/22 08:03	10/28/22 03:42	1
Acenaphthylene	ND	H UJ	0.32	0.072	ug/L		11/18/22 09:46	11/22/22 21:44	1
Anthracene	**0.17**	J J	0.18	0.030	ug/L		10/25/22 08:03	10/28/22 17:25	1
Anthracene	ND	H UJ	0.32	0.051	ug/L		11/18/22 09:46	11/22/22 21:44	1
Benzo[a]anthracene	**3.4**	B	0.18	0.042	ug/L		10/25/22 08:03	10/28/22 03:42	1
Benzo[a]anthracene	~~0.21~~	J H B UJ	0.32	0.074	ug/L		11/18/22 09:46	11/22/22 21:44	1
Benzo[a]pyrene	**2.8**	B	0.18	0.039	ug/L		10/25/22 08:03	10/28/22 03:42	1
Benzo[a]pyrene	**0.18**	J H J	0.32	0.067	ug/L		11/18/22 09:46	11/22/22 21:44	1
Benzo[b]fluoranthene	**5.1**	B	0.18	0.031	ug/L		10/25/22 08:03	10/28/22 03:42	1
Benzo[b]fluoranthene	~~0.24~~	J H B UJ	0.32	0.054	ug/L		11/18/22 09:46	11/22/22 21:44	1
Benzo[g,h,i]perylene	**1.6**		0.18	0.12	ug/L		10/25/22 08:03	10/28/22 03:42	1

Client Sample ID: MW6A-ROX-102122
Date Collected: 10/21/22 12:40
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-7
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[g,h,i]perylene	ND	H UJ	0.32	0.21	ug/L		11/18/22 09:46	11/22/22 21:44	1
Benzo[k]fluoranthene	1.9	B	0.18	0.092	ug/L		10/25/22 08:03	10/28/22 03:42	1
Benzo[k]fluoranthene	ND	H UJ	0.32	0.16	ug/L		11/18/22 09:46	11/22/22 21:44	1
Chrysene	4.1	B	0.18	0.068	ug/L		10/25/22 08:03	10/28/22 03:42	1
Chrysene	0.14	J H J	0.32	0.12	ug/L		11/18/22 09:46	11/22/22 21:44	1
Dibenz(a,h)anthracene	ND		0.18	0.046	ug/L		10/25/22 08:03	10/28/22 03:42	1
Dibenz(a,h)anthracene	ND	H UJ	0.32	0.080	ug/L		11/18/22 09:46	11/22/22 21:44	1
Fluoranthene	1.2	B	0.18	0.063	ug/L		10/25/22 08:03	10/28/22 03:42	1
Fluoranthene	~~0.26~~	J H B UJ	0.32	0.11	ug/L		11/18/22 09:46	11/22/22 21:44	1
Fluorene	ND		0.18	0.10	ug/L		10/25/22 08:03	10/28/22 03:42	1
Fluorene	ND	H UJ	0.32	0.18	ug/L		11/18/22 09:46	11/22/22 21:44	1
Indeno[1,2,3-cd]pyrene	1.5		0.18	0.040	ug/L		10/25/22 08:03	10/28/22 03:42	1
Indeno[1,2,3-cd]pyrene	ND	H UJ	0.32	0.069	ug/L		11/18/22 09:46	11/22/22 21:44	1
1-Methylnaphthalene	ND		0.18	0.068	ug/L		10/25/22 08:03	10/28/22 03:42	1
1-Methylnaphthalene	ND	H UJ	0.32	0.12	ug/L		11/18/22 09:46	11/22/22 21:44	1
2-Methylnaphthalene	ND		0.18	0.055	ug/L		10/25/22 08:03	10/28/22 03:42	1
2-Methylnaphthalene	ND	H UJ	0.32	0.096	ug/L		11/18/22 09:46	11/22/22 21:44	1
Phenanthrene	~~0.25~~	B U	~~0.16~~ 0.25	0.033	ug/L		10/25/22 08:03	10/28/22 03:42	1
Phenanthrene	ND	H UJ	0.32	0.058	ug/L		11/18/22 09:46	11/22/22 21:44	1
Pyrene	1.0	B	0.18	0.037	ug/L		10/25/22 08:03	10/28/22 03:42	1
Pyrene	~~0.17~~	J H B UJ	0.32	0.064	ug/L		11/18/22 09:46	11/22/22 21:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*15 - 122*	*10/25/22 08:03*	*10/28/22 03:42*	*1*
2-Fluorobiphenyl	*119*		*15 - 122*	*11/18/22 09:46*	*11/22/22 21:44*	*1*
Nitrobenzene-d5	*96*		*19 - 130*	*10/25/22 08:03*	*10/28/22 03:42*	*1*
Nitrobenzene-d5	*71*		*19 - 130*	*11/18/22 09:46*	*11/22/22 21:44*	*1*
Terphenyl-d14	*60*		*33 - 138*	*10/25/22 08:03*	*10/28/22 03:42*	*1*
Terphenyl-d14	*93*		*33 - 138*	*11/18/22 09:46*	*11/22/22 21:44*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		10/25/22 08:03	10/29/22 02:21	1
Benzenethiol	ND	*-*1 UJ	9.2	1.6	ug/L		10/25/22 08:03	10/29/22 02:21	1
Benzoic acid	ND		28	6.7	ug/L		10/25/22 08:03	10/29/22 02:21	1
Benzyl alcohol	ND		9.2	1.8	ug/L		10/25/22 08:03	10/29/22 02:21	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		10/25/22 08:03	10/29/22 02:21	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		10/25/22 08:03	10/29/22 02:21	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		10/25/22 08:03	10/29/22 02:21	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		10/25/22 08:03	10/29/22 02:21	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		10/25/22 08:03	10/29/22 02:21	1
Butyl benzyl phthalate	ND		9.2	0.18	ug/L		10/25/22 08:03	10/29/22 02:21	1
4-Chloroaniline	ND		9.2	3.1	ug/L		10/25/22 08:03	10/29/22 02:21	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		10/25/22 08:03	10/29/22 02:21	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		10/25/22 08:03	10/29/22 02:21	1
2-Chlorophenol	ND		9.2	2.0	ug/L		10/25/22 08:03	10/29/22 02:21	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		10/25/22 08:03	10/29/22 02:21	1
Dibenz[a,h]acridine	ND		9.2	0.92	ug/L		10/25/22 08:03	10/29/22 02:21	1
Dibenzofuran	ND		9.2	0.16	ug/L		10/25/22 08:03	10/29/22 02:21	1
3,3'-Dichlorobenzidine	ND		9.2	2.4	ug/L		10/25/22 08:03	10/29/22 02:21	1

Client Sample ID: MW6A-ROX-102122
Date Collected: 10/21/22 12:40
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-7
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		10/25/22 08:03	10/29/22 02:21	1
Diethyl phthalate	ND		9.2	0.22	ug/L		10/25/22 08:03	10/29/22 02:21	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		10/25/22 08:03	10/29/22 02:21	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		10/25/22 08:03	10/29/22 02:21	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		10/25/22 08:03	10/29/22 02:21	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		10/25/22 08:03	10/29/22 02:21	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		10/25/22 08:03	10/29/22 02:21	1
2,4-Dinitrotoluene	ND		9.2	1.8	ug/L		10/25/22 08:03	10/29/22 02:21	1
2,6-Dinitrotoluene	ND		9.2	1.8	ug/L		10/25/22 08:03	10/29/22 02:21	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		10/25/22 08:03	10/29/22 02:21	1
1,4-Dioxane	ND		9.2	0.92	ug/L		10/25/22 08:03	10/29/22 02:21	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		10/25/22 08:03	10/29/22 02:21	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		10/25/22 08:03	10/29/22 02:21	1
Hexachlorocyclopentadiene	ND		18	2.4	ug/L		10/25/22 08:03	10/29/22 02:21	1
Hexachloroethane	ND		9.2	3.9	ug/L		10/25/22 08:03	10/29/22 02:21	1
Indene	ND		9.2	0.92	ug/L		10/25/22 08:03	10/29/22 02:21	1
Isophorone	ND		9.2	0.13	ug/L		10/25/22 08:03	10/29/22 02:21	1
2-Methylphenol	ND		9.2	1.7	ug/L		10/25/22 08:03	10/29/22 02:21	1
3 & 4 Methylphenol	ND		18	0.36	ug/L		10/25/22 08:03	10/29/22 02:21	1
2-Nitroaniline	ND		9.2	2.0	ug/L		10/25/22 08:03	10/29/22 02:21	1
3-Nitroaniline	ND		9.2	1.7	ug/L		10/25/22 08:03	10/29/22 02:21	1
4-Nitroaniline	ND		9.2	1.4	ug/L		10/25/22 08:03	10/29/22 02:21	1
Nitrobenzene	ND		9.2	0.12	ug/L		10/25/22 08:03	10/29/22 02:21	1
2-Nitrophenol	ND		9.2	4.8	ug/L		10/25/22 08:03	10/29/22 02:21	1
4-Nitrophenol	ND		9.2	1.9	ug/L		10/25/22 08:03	10/29/22 02:21	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		10/25/22 08:03	10/29/22 02:21	1
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		10/25/22 08:03	10/29/22 02:21	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		10/25/22 08:03	10/29/22 02:21	1
Pentachlorophenol	ND		18	1.3	ug/L		10/25/22 08:03	10/29/22 02:21	1
Phenol	ND		9.2	2.4	ug/L		10/25/22 08:03	10/29/22 02:21	1
Pyridine	ND		9.2	3.0	ug/L		10/25/22 08:03	10/29/22 02:21	1
Quinoline	ND		9.2	4.2	ug/L		10/25/22 08:03	10/29/22 02:21	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		10/25/22 08:03	10/29/22 02:21	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		10/25/22 08:03	10/29/22 02:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*10/25/22 08:03*	*10/29/22 02:21*	*1*
2-Fluorophenol	*45*		*13 - 113*	*10/25/22 08:03*	*10/29/22 02:21*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*10/25/22 08:03*	*10/29/22 02:21*	*1*
Phenol-d5	*74*		*17 - 127*	*10/25/22 08:03*	*10/29/22 02:21*	*1*
Terphenyl-d14	*62*		*44 - 149*	*10/25/22 08:03*	*10/29/22 02:21*	*1*
2,4,6-Tribromophenol	*108*		*26 - 150*	*10/25/22 08:03*	*10/29/22 02:21*	*1*

Method: EPA 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		11/01/22 13:29	11/02/22 02:21	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/02/22 02:21	1

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

Job ID: 400-227708-1

Client Sample ID: MW6A-ROX-102122
Date Collected: 10/21/22 12:40
Date Received: 10/22/22 08:55

Lab Sample ID: 400-227708-7
Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		51 - 149	11/01/22 13:29	11/02/22 02:21	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.
*1	LCS/LCSD RPD exceeds control limits.
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, low biased.

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: 400-227708-1

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)
400-227708-1	TB-ROX-102122-8260	102	90	101
400-227708-1 - RA	TB-ROX-102122-8260	96	108	102
400-227708-3	MW6D-ROX-102122-EB	103	91	102
400-227708-3 - RA	MW6D-ROX-102122-EB	93	112	102
400-227708-4	MW6D-ROX-102122	102	90	101
400-227708-4 - RA	MW6D-ROX-102122	95	109	103
400-227708-5	MW6C-ROX-102122	100	92	101
400-227708-5 - RA	MW6C-ROX-102122	95	108	101
400-227708-6	MW6B-ROX-102122	99	93	101
400-227708-6 - RA	MW6B-ROX-102122	96	108	100
400-227708-7	MW6A-ROX-102122	100	92	101
400-227708-7 - RA	MW6A-ROX-102122	93	111	102
LCS 400-598653/1002	Lab Control Sample	98	93	101
LCS 400-598802/1003	Lab Control Sample	97	98	98
MB 400-598653/4	Method Blank	101	92	100
MB 400-598802/5	Method Blank	94	103	101

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)
400-227708-3	MW6D-ROX-102122-EB	81	47	90	79	105	79
400-227708-4	MW6D-ROX-102122	81	32	90	72	105	102
400-227708-5	MW6C-ROX-102122	83	39	90	74	106	105
400-227708-6	MW6B-ROX-102122	90	0 S1-	99	0.4 S1-	115	0 S1-
400-227708-6 - RE	MW6B-ROX-102122	88	77	76	76	79	90
400-227708-7	MW6A-ROX-102122	75	45	84	74	62	108
LCS 400-597676/2-A	Lab Control Sample	84	48	87	82	103	118
LCS 400-597676/3-A	Lab Control Sample	76	54	85	81	99	51
LCS 400-598487/2-A - RE	Lab Control Sample	95		50		93	
LCSD 400-597676/4-A	Lab Control Sample Dup	83	54	91	80	114	97
MB 400-597676/1-A	Method Blank	89	20	97	69	115	80
MB 400-598487/1-A - RE	Method Blank	84		50		94	

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: 400-227708-1

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)
400-227708-3	MW6D-ROX-102122-EB	76	94	87
400-227708-4	MW6D-ROX-102122	81	94	93
400-227708-4	MW6D-ROX-102122	111	72	90
400-227708-5	MW6C-ROX-102122	82	99	90
400-227708-6	MW6B-ROX-102122	90	112	99
400-227708-7	MW6A-ROX-102122	81	96	60
400-227708-7	MW6A-ROX-102122	119	71	93
LCS 400-597676/2-A	Lab Control Sample	100	97	107
LCS 400-601337/2-A	Lab Control Sample	98	92	111
LCSD 400-601337/3-A	Lab Control Sample Dup	100	91	112
MB 400-597676/1-A	Method Blank	74	98	78
MB 400-601337/1-A	Method Blank	120	72	112

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)
400-227708-2	TB-ROX-102122-8011	86
400-227708-3	MW6D-ROX-102122-EB	87
400-227708-4	MW6D-ROX-102122	87
400-227708-5	MW6C-ROX-102122	86
400-227708-6	MW6B-ROX-102122	92
400-227708-7	MW6A-ROX-102122	95
LCS 400-598726/2-A	Lab Control Sample	88
LCSD 400-598726/3-A	Lab Control Sample Dup	95
MB 400-598726/1-A	Method Blank	78

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-227708-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Client Sample ID: TB-ROX-102122-8260

Lab Sample ID: 400-227708-1

Date Collected: 10/21/22 12:00
Date Received: 10/22/22 08:55

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	598653	11/01/22 10:05	WPD	EET PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	598802	11/02/22 11:31	WPD	EET PEN

Client Sample ID: TB-ROX-102122-8011

Lab Sample ID: 400-227708-2

Date Collected: 10/21/22 12:00
Date Received: 10/22/22 08:55

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			35.3 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/02/22 00:18	DS	EET PEN

Client Sample ID: MW6D-ROX-102122-EB

Lab Sample ID: 400-227708-3

Date Collected: 10/21/22 08:35
Date Received: 10/22/22 08:55

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	598653	11/01/22 09:43	WPD	EET PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	598802	11/02/22 11:56	WPD	EET PEN
Total/NA	Prep	3520C			274.4 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/29/22 00:57	S1B	EET PEN
Total/NA	Prep	3520C			274.4 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 02:34	PP1	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/02/22 00:39	DS	EET PEN

Client Sample ID: MW6D-ROX-102122

Lab Sample ID: 400-227708-4

Date Collected: 10/21/22 09:40
Date Received: 10/22/22 08:55

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	598653	11/01/22 10:29	WPD	EET PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	598802	11/02/22 12:20	WPD	EET PEN
Total/NA	Prep	3520C			269.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/29/22 01:18	S1B	EET PEN
Total/NA	Prep	3520C			269.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 02:51	PP1	EET PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	601337	11/18/22 09:46	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	602027	11/22/22 21:27	PP1	EET PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	601337	11/18/22 09:46	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	602100	11/23/22 11:05	KJA	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/02/22 00:59	DS	EET PEN

Client Sample ID: MW6C-ROX-102122

Lab Sample ID: 400-227708-5

Date Collected: 10/21/22 10:20
Matrix: Water
Date Received: 10/22/22 08:55

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	598653	11/01/22 10:51	WPD	EET PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	598802	11/02/22 12:44	WPD	EET PEN
Total/NA	Prep	3520C			268.2 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/29/22 01:39	S1B	EET PEN
Total/NA	Prep	3520C			268.2 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 03:08	PP1	EET PEN
Total/NA	Prep	8011			34.5 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/02/22 01:40	DS	EET PEN

Client Sample ID: MW6B-ROX-102122

Lab Sample ID: 400-227708-6

Date Collected: 10/21/22 11:50
Matrix: Water
Date Received: 10/22/22 08:55

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	598653	11/01/22 11:15	WPD	EET PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	598802	11/02/22 13:11	WPD	EET PEN
Total/NA	Prep	3520C			268 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/29/22 02:00	S1B	EET PEN
Total/NA	Prep	3520C	RE		273.8 mL	1 mL	598487	10/31/22 09:55	KWS	EET PEN
Total/NA	Analysis	8270D	RE	1	0.4 mL	0.4 mL	598784	11/02/22 06:11	VC1	EET PEN
Total/NA	Prep	3520C			268 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 03:25	PP1	EET PEN
Total/NA	Prep	8011			35.4 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/02/22 02:00	DS	EET PEN

Client Sample ID: MW6A-ROX-102122

Lab Sample ID: 400-227708-7

Date Collected: 10/21/22 12:40
Matrix: Water
Date Received: 10/22/22 08:55

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	598653	11/01/22 11:39	WPD	EET PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	598802	11/02/22 13:35	WPD	EET PEN
Total/NA	Prep	3520C			270.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/29/22 02:21	S1B	EET PEN
Total/NA	Prep	3520C			270.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 03:42	PP1	EET PEN
Total/NA	Prep	3520C			270.6 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598294	10/28/22 17:25	PP1	EET PEN
Total/NA	Prep	3520C			156 mL	1 mL	601337	11/18/22 09:46	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	602027	11/22/22 21:44	PP1	EET PEN
Total/NA	Prep	8011			34.8 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/02/22 02:21	DS	EET PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-597676/1-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	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 18:40	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598120	10/28/22 00:00	PP1	EET PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-598487/1-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	RE		250 mL	1 mL	598487	10/31/22 09:55	KWS	EET PEN
Total/NA	Analysis	8270D	RE	1	0.4 mL	0.4 mL	598827	11/02/22 10:54	VC1	EET PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-598653/4**
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	598653	11/01/22 12:03	WPD	EET PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-598726/1-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	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 18:10	DS	EET PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-598802/5**
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	598802	11/02/22 09:04	WPD	EET PEN

Client Sample ID: Method Blank — **Lab Sample ID: MB 400-601337/1-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	601337	11/18/22 09:46	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	602027	11/22/22 20:18	PP1	EET PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-597676/2-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	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 19:43	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	598120	10/28/22 00:17	PP1	EET PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-597676/3-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	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 19:01	S1B	EET PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-598487/2-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	RE		250 mL	1 mL	598487	10/31/22 09:55	KWS	EET PEN
Total/NA	Analysis	8270D	RE	1	0.4 mL	0.4 mL	598827	11/02/22 11:22	VC1	EET PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-598653/1002**
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	598653	11/01/22 08:24	WPD	EET PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-598726/2-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	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 18:30	DS	EET PEN

Client Sample ID: Lab Control Sample — **Lab Sample ID: LCS 400-598802/1003**
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	598802	11/02/22 08:07	WPD	EET PEN

Lab Chronicle

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

Job ID: 400-227708-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-601337/2-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	3520C			250 mL	1 mL	601337	11/18/22 09:46	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	602027	11/22/22 20:35	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-597676/4-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	597676	10/25/22 08:03	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598292	10/28/22 19:22	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-598726/3-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	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 18:51	DS	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-601337/3-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	601337	11/18/22 09:46	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	602027	11/22/22 20:52	PP1	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 598653

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-1	TB-ROX-102122-8260	Total/NA	Water	8260B	
400-227708-3	MW6D-ROX-102122-EB	Total/NA	Water	8260B	
400-227708-4	MW6D-ROX-102122	Total/NA	Water	8260B	
400-227708-5	MW6C-ROX-102122	Total/NA	Water	8260B	
400-227708-6	MW6B-ROX-102122	Total/NA	Water	8260B	
400-227708-7	MW6A-ROX-102122	Total/NA	Water	8260B	
MB 400-598653/4	Method Blank	Total/NA	Water	8260B	
LCS 400-598653/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 598802

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-1 - RA	TB-ROX-102122-8260	Total/NA	Water	8260B	
400-227708-3 - RA	MW6D-ROX-102122-EB	Total/NA	Water	8260B	
400-227708-4 - RA	MW6D-ROX-102122	Total/NA	Water	8260B	
400-227708-5 - RA	MW6C-ROX-102122	Total/NA	Water	8260B	
400-227708-6 - RA	MW6B-ROX-102122	Total/NA	Water	8260B	
400-227708-7 - RA	MW6A-ROX-102122	Total/NA	Water	8260B	
MB 400-598802/5	Method Blank	Total/NA	Water	8260B	
LCS 400-598802/1003	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 597676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-3	MW6D-ROX-102122-EB	Total/NA	Water	3520C	
400-227708-4	MW6D-ROX-102122	Total/NA	Water	3520C	
400-227708-5	MW6C-ROX-102122	Total/NA	Water	3520C	
400-227708-6	MW6B-ROX-102122	Total/NA	Water	3520C	
400-227708-7	MW6A-ROX-102122	Total/NA	Water	3520C	
MB 400-597676/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-597676/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-597676/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-597676/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 598120

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-3	MW6D-ROX-102122-EB	Total/NA	Water	8270D LL	597676
400-227708-4	MW6D-ROX-102122	Total/NA	Water	8270D LL	597676
400-227708-5	MW6C-ROX-102122	Total/NA	Water	8270D LL	597676
400-227708-6	MW6B-ROX-102122	Total/NA	Water	8270D LL	597676
400-227708-7	MW6A-ROX-102122	Total/NA	Water	8270D LL	597676
MB 400-597676/1-A	Method Blank	Total/NA	Water	8270D LL	597676
LCS 400-597676/2-A	Lab Control Sample	Total/NA	Water	8270D LL	597676

Analysis Batch: 598292

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-3	MW6D-ROX-102122-EB	Total/NA	Water	8270D	597676
400-227708-4	MW6D-ROX-102122	Total/NA	Water	8270D	597676
400-227708-5	MW6C-ROX-102122	Total/NA	Water	8270D	597676
400-227708-6	MW6B-ROX-102122	Total/NA	Water	8270D	597676
400-227708-7	MW6A-ROX-102122	Total/NA	Water	8270D	597676

GC/MS Semi VOA (Continued)

Analysis Batch: 598292 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-597676/1-A	Method Blank	Total/NA	Water	8270D	597676
LCS 400-597676/2-A	Lab Control Sample	Total/NA	Water	8270D	597676
LCS 400-597676/3-A	Lab Control Sample	Total/NA	Water	8270D	597676
LCSD 400-597676/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	597676

Analysis Batch: 598294

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-7	MW6A-ROX-102122	Total/NA	Water	8270D LL	597676

Prep Batch: 598487

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-6 - RE	MW6B-ROX-102122	Total/NA	Water	3520C	
MB 400-598487/1-A - RE	Method Blank	Total/NA	Water	3520C	
LCS 400-598487/2-A - RE	Lab Control Sample	Total/NA	Water	3520C	

Analysis Batch: 598784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-6 - RE	MW6B-ROX-102122	Total/NA	Water	8270D	598487

Analysis Batch: 598827

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-598487/1-A - RE	Method Blank	Total/NA	Water	8270D	598487
LCS 400-598487/2-A - RE	Lab Control Sample	Total/NA	Water	8270D	598487

Prep Batch: 601337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-4	MW6D-ROX-102122	Total/NA	Water	3520C	
400-227708-7	MW6A-ROX-102122	Total/NA	Water	3520C	
MB 400-601337/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-601337/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-601337/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 602027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-4	MW6D-ROX-102122	Total/NA	Water	8270D LL	601337
400-227708-7	MW6A-ROX-102122	Total/NA	Water	8270D LL	601337
MB 400-601337/1-A	Method Blank	Total/NA	Water	8270D LL	601337
LCS 400-601337/2-A	Lab Control Sample	Total/NA	Water	8270D LL	601337
LCSD 400-601337/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	601337

Analysis Batch: 602100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-4	MW6D-ROX-102122	Total/NA	Water	8270D LL	601337

GC Semi VOA

Prep Batch: 598726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-2	TB-ROX-102122-8011	Total/NA	Water	8011	
400-227708-3	MW6D-ROX-102122-EB	Total/NA	Water	8011	
400-227708-4	MW6D-ROX-102122	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 598726 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-5	MW6C-ROX-102122	Total/NA	Water	8011	
400-227708-6	MW6B-ROX-102122	Total/NA	Water	8011	
400-227708-7	MW6A-ROX-102122	Total/NA	Water	8011	
MB 400-598726/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-598726/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-598726/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 598749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227708-2	TB-ROX-102122-8011	Total/NA	Water	8011	598726
400-227708-3	MW6D-ROX-102122-EB	Total/NA	Water	8011	598726
400-227708-4	MW6D-ROX-102122	Total/NA	Water	8011	598726
400-227708-5	MW6C-ROX-102122	Total/NA	Water	8011	598726
400-227708-6	MW6B-ROX-102122	Total/NA	Water	8011	598726
400-227708-7	MW6A-ROX-102122	Total/NA	Water	8011	598726
MB 400-598726/1-A	Method Blank	Total/NA	Water	8011	598726
LCS 400-598726/2-A	Lab Control Sample	Total/NA	Water	8011	598726
LCSD 400-598726/3-A	Lab Control Sample Dup	Total/NA	Water	8011	598726

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

Lab Sample ID: MB 400-598653/4
Matrix: Water
Analysis Batch: 598653

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			11/01/22 12:03	1
Acrolein	ND		20	3.3	ug/L			11/01/22 12:03	1
Acrylonitrile	ND		10	2.8	ug/L			11/01/22 12:03	1
Benzene	ND		1.0	0.13	ug/L			11/01/22 12:03	1
Bromobenzene	ND		1.0	0.54	ug/L			11/01/22 12:03	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/01/22 12:03	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/01/22 12:03	1
Bromoform	ND		5.0	0.25	ug/L			11/01/22 12:03	1
Bromomethane	ND		1.0	0.98	ug/L			11/01/22 12:03	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/01/22 12:03	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/01/22 12:03	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/01/22 12:03	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/01/22 12:03	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/01/22 12:03	1
Chloroethane	ND		1.0	0.76	ug/L			11/01/22 12:03	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/01/22 12:03	1
Chloroform	ND		1.0	1.0	ug/L			11/01/22 12:03	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/01/22 12:03	1
Chloromethane	ND		1.0	0.32	ug/L			11/01/22 12:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/01/22 12:03	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/01/22 12:03	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/01/22 12:03	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/01/22 12:03	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/01/22 12:03	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/01/22 12:03	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/01/22 12:03	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/01/22 12:03	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 12:03	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 12:03	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 12:03	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/01/22 12:03	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/01/22 12:03	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/01/22 12:03	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/01/22 12:03	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/01/22 12:03	1
2-Hexanone	ND		25	1.4	ug/L			11/01/22 12:03	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/01/22 12:03	1
Methylene bromide	ND		5.0	0.22	ug/L			11/01/22 12:03	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/01/22 12:03	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/01/22 12:03	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/01/22 12:03	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/01/22 12:03	1
Naphthalene	ND		5.0	3.0	ug/L			11/01/22 12:03	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/01/22 12:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/01/22 12:03	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/01/22 12:03	1
o-Xylene	ND		5.0	0.60	ug/L			11/01/22 12:03	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/01/22 12:03	1

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

Lab Sample ID: MB 400-598653/4
Matrix: Water
Analysis Batch: 598653

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			11/01/22 12:03	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/01/22 12:03	1
Styrene	ND		1.0	1.0	ug/L			11/01/22 12:03	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/01/22 12:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/01/22 12:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/01/22 12:03	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/01/22 12:03	1
Toluene	ND		1.0	0.41	ug/L			11/01/22 12:03	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/01/22 12:03	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/01/22 12:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/01/22 12:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/01/22 12:03	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/01/22 12:03	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/01/22 12:03	1
Trichloroethene	ND		1.0	0.15	ug/L			11/01/22 12:03	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/01/22 12:03	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/01/22 12:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/01/22 12:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/01/22 12:03	1
Vinyl acetate	ND		25	0.93	ug/L			11/01/22 12:03	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/01/22 12:03	1
Xylenes, Total	ND		10	1.6	ug/L			11/01/22 12:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/01/22 12:03*	*1*
Dibromofluoromethane	*92*		*75 - 126*		*11/01/22 12:03*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/01/22 12:03*	*1*

Lab Sample ID: LCS 400-598653/1002
Matrix: Water
Analysis Batch: 598653

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	216		ug/L		108	43 - 160
Acrolein	500	442		ug/L		88	38 - 160
Acrylonitrile	500	491		ug/L		98	64 - 142
Benzene	50.0	39.2		ug/L		78	70 - 130
Bromobenzene	50.0	43.5		ug/L		87	70 - 132
Bromochloromethane	50.0	42.2		ug/L		84	70 - 130
Bromodichloromethane	50.0	38.1		ug/L		76	67 - 133
Bromoform	50.0	43.2		ug/L		86	57 - 140
Bromomethane	50.0	40.7		ug/L		81	10 - 160
2-Butanone (MEK)	200	196		ug/L		98	61 - 145
Carbon disulfide	50.0	32.9		ug/L		66	61 - 137
Carbon tetrachloride	50.0	36.5		ug/L		73	61 - 137
Chlorobenzene	50.0	43.2		ug/L		86	70 - 130
Dibromochloromethane	50.0	43.2		ug/L		86	67 - 135
Chloroethane	50.0	41.1		ug/L		82	55 - 141

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

Lab Sample ID: LCS 400-598653/1002
Matrix: Water
Analysis Batch: 598653

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	60.7		ug/L		121	10 - 160
Chloroform	50.0	38.9		ug/L		78	69 - 130
1-Chlorohexane	50.0	47.9		ug/L		96	69 - 130
Chloromethane	50.0	56.5		ug/L		113	58 - 137
cis-1,2-Dichloroethene	50.0	43.2		ug/L		86	68 - 130
cis-1,3-Dichloropropene	50.0	41.6		ug/L		83	69 - 132
1,2-Dichlorobenzene	50.0	43.8		ug/L		88	67 - 130
1,3-Dichlorobenzene	50.0	45.3		ug/L		91	70 - 130
1,4-Dichlorobenzene	50.0	44.1		ug/L		88	70 - 130
Dichlorodifluoromethane	50.0	39.2		ug/L		78	41 - 146
1,1-Dichloroethane	50.0	41.7		ug/L		83	70 - 130
1,2-Dichloroethane	50.0	39.7		ug/L		79	69 - 130
1,1-Dichloroethene	50.0	37.2		ug/L		74	63 - 134
1,2-Dichloropropane	50.0	42.7		ug/L		85	70 - 130
1,3-Dichloropropane	50.0	44.6		ug/L		89	70 - 130
2,2-Dichloropropane	50.0	42.9		ug/L		86	52 - 135
1,1-Dichloropropene	50.0	38.8		ug/L		78	70 - 130
Ethylbenzene	50.0	42.5		ug/L		85	70 - 130
Ethyl methacrylate	50.0	44.5		ug/L		89	68 - 130
Hexachlorobutadiene	50.0	51.5		ug/L		103	53 - 140
2-Hexanone	200	214		ug/L		107	65 - 137
Isopropylbenzene	50.0	43.5		ug/L		87	70 - 130
Methylene bromide	50.0	40.8		ug/L		82	70 - 130
Methylene Chloride	50.0	40.7		ug/L		81	66 - 135
4-Methyl-2-pentanone (MIBK)	200	197		ug/L		99	69 - 138
Methyl tert-butyl ether	50.0	40.9		ug/L		82	66 - 130
m-Xylene & p-Xylene	50.0	42.8		ug/L		86	70 - 130
Naphthalene	50.0	61.7		ug/L		123	47 - 149
n-Butylbenzene	50.0	48.7		ug/L		97	67 - 130
N-Propylbenzene	50.0	45.3		ug/L		91	70 - 130
o-Chlorotoluene	50.0	45.1		ug/L		90	70 - 130
o-Xylene	50.0	43.2		ug/L		86	70 - 130
p-Chlorotoluene	50.0	44.5		ug/L		89	70 - 130
p-Isopropyltoluene	50.0	46.7		ug/L		93	65 - 130
sec-Butylbenzene	50.0	45.7		ug/L		91	66 - 130
tert-Butylbenzene	50.0	50.6		ug/L		101	64 - 139
1,1,1,2-Tetrachloroethane	50.0	42.6		ug/L		85	67 - 131
1,1,2,2-Tetrachloroethane	50.0	46.2		ug/L		92	70 - 131
Tetrachloroethene	50.0	41.8		ug/L		84	65 - 130
Toluene	50.0	42.3		ug/L		85	70 - 130
trans-1,2-Dichloroethene	50.0	39.5		ug/L		79	70 - 130
trans-1,3-Dichloropropene	50.0	43.8		ug/L		88	63 - 130
1,2,3-Trichlorobenzene	50.0	53.2		ug/L		106	60 - 138
1,2,4-Trichlorobenzene	50.0	51.7		ug/L		103	60 - 140
1,1,1-Trichloroethane	50.0	36.3		ug/L		73	68 - 130
1,1,2-Trichloroethane	50.0	44.0		ug/L		88	70 - 130
Trichloroethene	50.0	40.0		ug/L		80	70 - 130
Trichlorofluoromethane	50.0	46.8		ug/L		94	65 - 138
1,2,3-Trichloropropane	50.0	45.0		ug/L		90	70 - 130

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

Lab Sample ID: LCS 400-598653/1002
Matrix: Water
Analysis Batch: 598653

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2,4-Trimethylbenzene	50.0	45.9		ug/L		92	70 - 130
1,3,5-Trimethylbenzene	50.0	44.7		ug/L		89	69 - 130
Vinyl acetate	100	106		ug/L		106	26 - 160
Vinyl chloride	50.0	45.9		ug/L		92	59 - 136
Xylenes, Total	100	86.0		ug/L		86	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*72 - 119*
Dibromofluoromethane	*93*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: MB 400-598802/5
Matrix: Water
Analysis Batch: 598802

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			11/02/22 09:04	1
Acrolein	ND		20	3.3	ug/L			11/02/22 09:04	1
Acrylonitrile	ND		10	2.8	ug/L			11/02/22 09:04	1
Benzene	ND		1.0	0.13	ug/L			11/02/22 09:04	1
Bromobenzene	ND		1.0	0.54	ug/L			11/02/22 09:04	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/02/22 09:04	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/02/22 09:04	1
Bromoform	ND		5.0	0.25	ug/L			11/02/22 09:04	1
Bromomethane	ND		1.0	0.98	ug/L			11/02/22 09:04	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/02/22 09:04	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/02/22 09:04	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/02/22 09:04	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/02/22 09:04	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/02/22 09:04	1
Chloroethane	ND		1.0	0.76	ug/L			11/02/22 09:04	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/02/22 09:04	1
Chloroform	ND		1.0	1.0	ug/L			11/02/22 09:04	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/02/22 09:04	1
Chloromethane	ND		1.0	0.32	ug/L			11/02/22 09:04	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/02/22 09:04	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/02/22 09:04	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/02/22 09:04	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/02/22 09:04	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/02/22 09:04	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/02/22 09:04	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/02/22 09:04	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/02/22 09:04	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/02/22 09:04	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/02/22 09:04	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/02/22 09:04	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/02/22 09:04	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/02/22 09:04	1

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

Lab Sample ID: MB 400-598802/5
Matrix: Water
Analysis Batch: 598802

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.50	ug/L			11/02/22 09:04	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/02/22 09:04	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/02/22 09:04	1
2-Hexanone	ND		25	1.4	ug/L			11/02/22 09:04	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/02/22 09:04	1
Methylene bromide	ND		5.0	0.22	ug/L			11/02/22 09:04	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/02/22 09:04	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/02/22 09:04	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/02/22 09:04	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/02/22 09:04	1
Naphthalene	ND		5.0	3.0	ug/L			11/02/22 09:04	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/02/22 09:04	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/02/22 09:04	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/02/22 09:04	1
o-Xylene	ND		5.0	0.60	ug/L			11/02/22 09:04	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/02/22 09:04	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/02/22 09:04	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/02/22 09:04	1
Styrene	ND		1.0	1.0	ug/L			11/02/22 09:04	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/02/22 09:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/02/22 09:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/02/22 09:04	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/02/22 09:04	1
Toluene	ND		1.0	0.41	ug/L			11/02/22 09:04	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/02/22 09:04	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/02/22 09:04	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/02/22 09:04	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/02/22 09:04	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/02/22 09:04	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/02/22 09:04	1
Trichloroethene	ND		1.0	0.15	ug/L			11/02/22 09:04	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/02/22 09:04	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/02/22 09:04	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/02/22 09:04	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/02/22 09:04	1
Vinyl acetate	ND		25	0.93	ug/L			11/02/22 09:04	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/02/22 09:04	1
Xylenes, Total	ND		10	1.6	ug/L			11/02/22 09:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*11/02/22 09:04*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*11/02/22 09:04*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/02/22 09:04*	*1*

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

Lab Sample ID: LCS 400-598802/1003
Matrix: Water
Analysis Batch: 598802

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Styrene	50.0	50.1		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

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

Lab Sample ID: MB 400-597676/1-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 597676

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/25/22 08:03	10/28/22 18:40	1
Benzenethiol	ND		10	1.7	ug/L		10/25/22 08:03	10/28/22 18:40	1
Benzoic acid	ND		30	7.3	ug/L		10/25/22 08:03	10/28/22 18:40	1
Benzyl alcohol	ND		10	2.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/25/22 08:03	10/28/22 18:40	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/25/22 08:03	10/28/22 18:40	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/25/22 08:03	10/28/22 18:40	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/25/22 08:03	10/28/22 18:40	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Chloroaniline	ND		10	3.4	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/25/22 08:03	10/28/22 18:40	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/25/22 08:03	10/28/22 18:40	1
2-Chlorophenol	ND		10	2.2	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Dibenzofuran	ND		10	0.17	ug/L		10/25/22 08:03	10/28/22 18:40	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Diethyl phthalate	0.247	J	10	0.24	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/25/22 08:03	10/28/22 18:40	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/25/22 08:03	10/28/22 18:40	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/25/22 08:03	10/28/22 18:40	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/25/22 08:03	10/28/22 18:40	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/25/22 08:03	10/28/22 18:40	1
1,4-Dioxane	ND		10	1.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/25/22 08:03	10/28/22 18:40	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/25/22 08:03	10/28/22 18:40	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/25/22 08:03	10/28/22 18:40	1
Hexachloroethane	ND		10	4.2	ug/L		10/25/22 08:03	10/28/22 18:40	1
Indene	ND		10	1.0	ug/L		10/25/22 08:03	10/28/22 18:40	1

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

Lab Sample ID: MB 400-597676/1-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 597676

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	ND		10	0.14	ug/L		10/25/22 08:03	10/28/22 18:40	1
2-Methylphenol	ND		10	1.8	ug/L		10/25/22 08:03	10/28/22 18:40	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/25/22 08:03	10/28/22 18:40	1
2-Nitroaniline	ND		10	2.2	ug/L		10/25/22 08:03	10/28/22 18:40	1
3-Nitroaniline	ND		10	1.8	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Nitroaniline	ND		10	1.5	ug/L		10/25/22 08:03	10/28/22 18:40	1
Nitrobenzene	ND		10	0.13	ug/L		10/25/22 08:03	10/28/22 18:40	1
2-Nitrophenol	ND		10	5.2	ug/L		10/25/22 08:03	10/28/22 18:40	1
4-Nitrophenol	ND		10	2.1	ug/L		10/25/22 08:03	10/28/22 18:40	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/25/22 08:03	10/28/22 18:40	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/25/22 08:03	10/28/22 18:40	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/25/22 08:03	10/28/22 18:40	1
Pentachlorophenol	ND		20	1.4	ug/L		10/25/22 08:03	10/28/22 18:40	1
Phenol	ND		10	2.6	ug/L		10/25/22 08:03	10/28/22 18:40	1
Pyridine	ND		10	3.2	ug/L		10/25/22 08:03	10/28/22 18:40	1
Quinoline	ND		10	4.5	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/25/22 08:03	10/28/22 18:40	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/25/22 08:03	10/28/22 18:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*46 - 124*	*10/25/22 08:03*	*10/28/22 18:40*	*1*
2-Fluorophenol	*20*		*13 - 113*	*10/25/22 08:03*	*10/28/22 18:40*	*1*
Nitrobenzene-d5	*97*		*36 - 126*	*10/25/22 08:03*	*10/28/22 18:40*	*1*
Phenol-d5	*69*		*17 - 127*	*10/25/22 08:03*	*10/28/22 18:40*	*1*
Terphenyl-d14	*115*		*44 - 149*	*10/25/22 08:03*	*10/28/22 18:40*	*1*
2,4,6-Tribromophenol	*80*		*26 - 150*	*10/25/22 08:03*	*10/28/22 18:40*	*1*

Lab Sample ID: LCS 400-597676/2-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	102		ug/L		85	21 - 120
Benzoic acid	513	123		ug/L		24	10 - 144
Benzyl alcohol	120	128		ug/L		107	28 - 120
Bis(2-chloroethoxy)methane	120	90.2		ug/L		75	47 - 120
Bis(2-chloroethyl)ether	120	92.7		ug/L		77	44 - 120
bis (2-chloroisopropyl) ether	120	118		ug/L		99	33 - 121
Bis(2-ethylhexyl) phthalate	120	123		ug/L		103	52 - 147
4-Bromophenyl phenyl ether	120	130		ug/L		109	54 - 122
Butyl benzyl phthalate	120	114		ug/L		95	54 - 133
4-Chloroaniline	120	88.8		ug/L		74	26 - 120
4-Chloro-3-methylphenol	120	115		ug/L		96	48 - 131
2-Chloronaphthalene	120	108		ug/L		90	52 - 121
2-Chlorophenol	120	97.2		ug/L		81	40 - 120
4-Chlorophenyl phenyl ether	120	117		ug/L		97	56 - 125
Dibenz[a,h]acridine	120	125		ug/L		104	31 - 150
Dibenzofuran	120	110		ug/L		92	56 - 122

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

Lab Sample ID: LCS 400-597676/2-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
3,3'-Dichlorobenzidine	160	201		ug/L		126	36 - 132
2,4-Dichlorophenol	120	107		ug/L		89	49 - 120
Diethyl phthalate	120	130		ug/L		108	50 - 137
2,4-Dimethylphenol	120	110		ug/L		91	48 - 120
Dimethyl phthalate	120	116		ug/L		96	57 - 124
Di-n-butyl phthalate	120	129		ug/L		107	58 - 126
4,6-Dinitro-ortho-cresol	240	315		ug/L		131	23 - 148
2,4-Dinitrophenol	240	249		ug/L		104	10 - 150
2,4-Dinitrotoluene	120	117		ug/L		98	54 - 142
2,6-Dinitrotoluene	120	107		ug/L		89	55 - 130
Di-n-octyl phthalate	120	133		ug/L		111	57 - 138
1,4-Dioxane	120	81.7		ug/L		68	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	119		ug/L		99	45 - 124
Hexachlorobenzene	120	138		ug/L		115	52 - 129
Hexachlorocyclopentadiene	120	57.4		ug/L		48	10 - 134
Hexachloroethane	120	116		ug/L		97	20 - 120
Indene	120	96.9		ug/L		81	49 - 120
Isophorone	120	96.8		ug/L		81	48 - 120
2-Methylphenol	120	113		ug/L		94	46 - 124
3 & 4 Methylphenol	120	112		ug/L		93	45 - 120
2-Nitroaniline	120	119		ug/L		99	51 - 145
3-Nitroaniline	120	111		ug/L		92	37 - 127
4-Nitroaniline	120	129		ug/L		107	36 - 137
Nitrobenzene	120	98.2		ug/L		82	45 - 120
2-Nitrophenol	120	101		ug/L		84	40 - 124
4-Nitrophenol	240	333		ug/L		139	23 - 146
N-Nitrosodimethylamine	120	131		ug/L		109	29 - 137
N-Nitrosodi-n-propylamine	120	119		ug/L		99	45 - 120
N-Nitrosodiphenylamine	119	120		ug/L		101	54 - 120
Pentachlorophenol	240	229		ug/L		95	31 - 130
Phenol	120	110		ug/L		92	11 - 120
Pyridine	240	160		ug/L		66	16 - 120
Quinoline	120	94.9		ug/L		79	49 - 130
2,4,5-Trichlorophenol	120	116		ug/L		97	51 - 136
2,4,6-Trichlorophenol	120	119		ug/L		99	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
2-Fluorophenol	*48*		*13 - 113*
Nitrobenzene-d5	*87*		*36 - 126*
Phenol-d5	*82*		*17 - 127*
Terphenyl-d14	*103*		*44 - 149*
2,4,6-Tribromophenol	*118*		*26 - 150*

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

Lab Sample ID: LCS 400-597676/3-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	3.14	J *-	ug/L		3	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*46 - 124*
2-Fluorophenol	*54*		*13 - 113*
Nitrobenzene-d5	*85*		*36 - 126*
Phenol-d5	*81*		*17 - 127*
Terphenyl-d14	*99*		*44 - 149*
2,4,6-Tribromophenol	*51*		*26 - 150*

Lab Sample ID: LCSD 400-597676/4-A
Matrix: Water
Analysis Batch: 598292

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	2.26	J *- *1	ug/L		2	10 - 120	32	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
2-Fluorophenol	*54*		*13 - 113*
Nitrobenzene-d5	*91*		*36 - 126*
Phenol-d5	*80*		*17 - 127*
Terphenyl-d14	*114*		*44 - 149*
2,4,6-Tribromophenol	*97*		*26 - 150*

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

Lab Sample ID: MB 400-598487/1-A
Matrix: Water
Analysis Batch: 598827

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598487

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate - RE	ND		10	5.0	ug/L		10/31/22 09:55	11/02/22 10:54	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl - RE	*84*		*46 - 124*	*10/31/22 09:55*	*11/02/22 10:54*	*1*
Nitrobenzene-d5 - RE	*50*		*36 - 126*	*10/31/22 09:55*	*11/02/22 10:54*	*1*
Terphenyl-d14 - RE	*94*		*44 - 149*	*10/31/22 09:55*	*11/02/22 10:54*	*1*

Lab Sample ID: LCS 400-598487/2-A
Matrix: Water
Analysis Batch: 598827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598487

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-ethylhexyl) phthalate - RE	120	91.1		ug/L		76	52 - 147

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

Lab Sample ID: LCS 400-598487/2-A
Matrix: Water
Analysis Batch: 598827

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598487

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl - RE	95		46 - 124
Nitrobenzene-d5 - RE	50		36 - 126
Terphenyl-d14 - RE	93		44 - 149

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

Lab Sample ID: MB 400-597676/1-A
Matrix: Water
Analysis Batch: 598120

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 597676

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		10/25/22 08:03	10/28/22 00:00	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/25/22 08:03	10/28/22 00:00	1
Anthracene	ND		0.20	0.032	ug/L		10/25/22 08:03	10/28/22 00:00	1
Benzo[a]anthracene	0.114	J	0.20	0.046	ug/L		10/25/22 08:03	10/28/22 00:00	1
Benzo[a]pyrene	0.119	J	0.20	0.042	ug/L		10/25/22 08:03	10/28/22 00:00	1
Benzo[b]fluoranthene	0.124	J	0.20	0.034	ug/L		10/25/22 08:03	10/28/22 00:00	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		10/25/22 08:03	10/28/22 00:00	1
Benzo[k]fluoranthene	0.143	J	0.20	0.10	ug/L		10/25/22 08:03	10/28/22 00:00	1
Chrysene	0.0773	J	0.20	0.074	ug/L		10/25/22 08:03	10/28/22 00:00	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		10/25/22 08:03	10/28/22 00:00	1
Fluoranthene	0.116	J	0.20	0.068	ug/L		10/25/22 08:03	10/28/22 00:00	1
Fluorene	ND		0.20	0.11	ug/L		10/25/22 08:03	10/28/22 00:00	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		10/25/22 08:03	10/28/22 00:00	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		10/25/22 08:03	10/28/22 00:00	1
2-Methylnaphthalene	0.0804	J	0.20	0.060	ug/L		10/25/22 08:03	10/28/22 00:00	1
Phenanthrene	0.100	J	0.20	0.036	ug/L		10/25/22 08:03	10/28/22 00:00	1
Pyrene	0.0860	J	0.20	0.040	ug/L		10/25/22 08:03	10/28/22 00:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		15 - 122	10/25/22 08:03	10/28/22 00:00	1
Nitrobenzene-d5	98		19 - 130	10/25/22 08:03	10/28/22 00:00	1
Terphenyl-d14	78		33 - 138	10/25/22 08:03	10/28/22 00:00	1

Lab Sample ID: LCS 400-597676/2-A
Matrix: Water
Analysis Batch: 598120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	121		ug/L		101	41 - 120
Acenaphthylene	120	124		ug/L		103	44 - 120
Anthracene	120	136		ug/L		113	49 - 120
Benzo[a]anthracene	120	125		ug/L		104	61 - 135
Benzo[a]pyrene	120	115		ug/L		96	52 - 120
Benzo[b]fluoranthene	120	115		ug/L		96	53 - 134
Benzo[g,h,i]perylene	120	97.5		ug/L		81	47 - 133
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134
Chrysene	120	121		ug/L		101	55 - 122

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

Lab Sample ID: LCS 400-597676/2-A
Matrix: Water
Analysis Batch: 598120

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 597676

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Dibenz(a,h)anthracene	120	110		ug/L		92	48 - 146
Fluoranthene	120	138		ug/L		115	54 - 128
Fluorene	120	120		ug/L		100	45 - 125
Indeno[1,2,3-cd]pyrene	120	112		ug/L		94	43 - 142
1-Methylnaphthalene	120	103		ug/L		86	41 - 120
2-Methylnaphthalene	120	109		ug/L		91	32 - 124
Phenanthrene	120	114		ug/L		95	48 - 120
Pyrene	120	114		ug/L		95	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*100*		*15 - 122*
Nitrobenzene-d5	*97*		*19 - 130*
Terphenyl-d14	*107*		*33 - 138*

Lab Sample ID: MB 400-601337/1-A
Matrix: Water
Analysis Batch: 602027

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 601337

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/18/22 09:46	11/22/22 20:18	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/18/22 09:46	11/22/22 20:18	1
Anthracene	ND		0.20	0.032	ug/L		11/18/22 09:46	11/22/22 20:18	1
Benzo[a]anthracene	0.0963	J	0.20	0.046	ug/L		11/18/22 09:46	11/22/22 20:18	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/18/22 09:46	11/22/22 20:18	1
Benzo[b]fluoranthene	0.148	J	0.20	0.034	ug/L		11/18/22 09:46	11/22/22 20:18	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/18/22 09:46	11/22/22 20:18	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/18/22 09:46	11/22/22 20:18	1
Chrysene	ND		0.20	0.074	ug/L		11/18/22 09:46	11/22/22 20:18	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/18/22 09:46	11/22/22 20:18	1
Fluoranthene	0.133	J	0.20	0.068	ug/L		11/18/22 09:46	11/22/22 20:18	1
Fluorene	ND		0.20	0.11	ug/L		11/18/22 09:46	11/22/22 20:18	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/18/22 09:46	11/22/22 20:18	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/18/22 09:46	11/22/22 20:18	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/18/22 09:46	11/22/22 20:18	1
Phenanthrene	ND		0.20	0.036	ug/L		11/18/22 09:46	11/22/22 20:18	1
Pyrene	0.0867	J	0.20	0.040	ug/L		11/18/22 09:46	11/22/22 20:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*120*		*15 - 122*	*11/18/22 09:46*	*11/22/22 20:18*	*1*
Nitrobenzene-d5	*72*		*19 - 130*	*11/18/22 09:46*	*11/22/22 20:18*	*1*
Terphenyl-d14	*112*		*33 - 138*	*11/18/22 09:46*	*11/22/22 20:18*	*1*

Lab Sample ID: LCS 400-601337/2-A
Matrix: Water
Analysis Batch: 602027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	123		ug/L		103	41 - 120

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

Lab Sample ID: LCS 400-601337/2-A
Matrix: Water
Analysis Batch: 602027

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 601337

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthylene	120	127		ug/L		106	44 - 120
Anthracene	120	124		ug/L		104	49 - 120
Benzo[a]anthracene	120	123		ug/L		103	61 - 135
Benzo[a]pyrene	120	107		ug/L		89	52 - 120
Benzo[b]fluoranthene	120	105		ug/L		87	53 - 134
Benzo[g,h,i]perylene	120	140		ug/L		117	47 - 133
Benzo[k]fluoranthene	120	101		ug/L		84	57 - 134
Chrysene	120	116		ug/L		96	55 - 122
Dibenz(a,h)anthracene	120	131		ug/L		110	48 - 146
Fluoranthene	120	132		ug/L		110	54 - 128
Fluorene	120	125		ug/L		104	45 - 125
Indeno[1,2,3-cd]pyrene	120	137		ug/L		114	43 - 142
1-Methylnaphthalene	120	67.8		ug/L		57	41 - 120
2-Methylnaphthalene	120	69.2		ug/L		58	32 - 124
Phenanthrene	120	120		ug/L		100	48 - 120
Pyrene	120	123		ug/L		103	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*15 - 122*
Nitrobenzene-d5	*92*		*19 - 130*
Terphenyl-d14	*111*		*33 - 138*

Lab Sample ID: LCSD 400-601337/3-A
Matrix: Water
Analysis Batch: 602027

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 601337

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	124		ug/L		103	41 - 120	1	56
Acenaphthylene	120	127		ug/L		106	44 - 120	0	56
Anthracene	120	123		ug/L		103	49 - 120	1	51
Benzo[a]anthracene	120	125		ug/L		104	61 - 135	1	49
Benzo[a]pyrene	120	107		ug/L		89	52 - 120	0	50
Benzo[b]fluoranthene	120	105		ug/L		88	53 - 134	0	54
Benzo[g,h,i]perylene	120	140		ug/L		117	47 - 133	0	50
Benzo[k]fluoranthene	120	101		ug/L		84	57 - 134	1	52
Chrysene	120	117		ug/L		98	55 - 122	1	50
Dibenz(a,h)anthracene	120	130		ug/L		108	48 - 146	1	50
Fluoranthene	120	133		ug/L		111	54 - 128	0	52
Fluorene	120	125		ug/L		105	45 - 125	0	56
Indeno[1,2,3-cd]pyrene	120	136		ug/L		113	43 - 142	1	51
1-Methylnaphthalene	120	67.2		ug/L		56	41 - 120	1	55
2-Methylnaphthalene	120	66.2		ug/L		55	32 - 124	4	57
Phenanthrene	120	120		ug/L		100	48 - 120	0	56
Pyrene	120	126		ug/L		105	48 - 132	2	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*100*		*15 - 122*
Nitrobenzene-d5	*91*		*19 - 130*

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

Lab Sample ID: LCSD 400-601337/3-A
Matrix: Water
Analysis Batch: 602027

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 601337

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Terphenyl-d14	112		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-598726/1-A
Matrix: Water
Analysis Batch: 598749

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598726

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		11/01/22 13:29	11/01/22 18:10	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/01/22 18:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	78		51 - 149	11/01/22 13:29	11/01/22 18:10	1

Lab Sample ID: LCS 400-598726/2-A
Matrix: Water
Analysis Batch: 598749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598726

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.134	p	ug/L		133	60 - 140
1,2-Dibromoethane	0.101	0.101		ug/L		101	60 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	88		51 - 149

Lab Sample ID: LCSD 400-598726/3-A
Matrix: Water
Analysis Batch: 598749

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598726

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.145	p *+	ug/L		144	60 - 140	8	30
1,2-Dibromoethane	0.101	0.110		ug/L		109	60 - 140	8	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	95		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: 10/21/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.4.2	USPC/00114/R/02	

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
AECOM		900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60674381 – 3.4.2

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO:	E-MAIL:	AECOM Other ID:
100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA	Melissa Remiger - please see special instructions	314-802-1207	melissa.remiger@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell

SAMPLER NAME(S) (Print): M. Massa, S. Beadle

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

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-102122-8260	10/21/2022	0000	Water	2					2	X			
	TB-ROX-102122-8011	10/21/2022	0000	Water	2					2		X		
	MW6D-ROX-102122-EB	10/21/2022	0835	Water	6			2		8	X	X	X	X
	MW6D-ROX-102122	10/21/2022	0940	Water	6			2		8	X	X	X	X
	MW6C-ROX-102122	10/21/2022	1020	Water	6			2		8	X	X	X	X
	MW6B-ROX-102122	10/21/2022	1150	Water	6			2		8	X	X	X	X
	MW6A-ROX-102122	10/21/2022	1240	Water	6			2		8	X	X	X	X

400-227708 COC

Sam Beadle 10/21/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 1482 3813 0870, 1482 3813 0860, 1482 3813 0859	10/21/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 10/22/22	Time: 855

Version: 130922

CUSTODY SEALS: 1699407, 1699406, 1745792, 1745793, 1745794, 1745795

0.6°C IR9
1.3°C
2.1°C

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11/29/2022 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-227708-1

Login Number: 227708
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	0.6, 1.3, 2.1°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: 400-227708-1

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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-227751-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/14/2022

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

Sample Identification	Sample Identification
TB-ROX-102422-8260	TB-ROX-102422-8011
MW14-ROX-102422	MW14-ROX-102422-DUP
MW13-ROX-102422	P114R-ROX-102422

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 several PAHs were detected in the method blank. Several VOC, SVOC and VOC by 8011 LCS/LCSD recoveries, or SVOC LCS/LCSD RPDs, were outside evaluation criteria. 2-Chloroethyl vinyl ether MS/MSD recoveries were outside evaluation criteria in sample MW14-ROX-102422-DUP. The continuing calibration verification for hexachlorocyclopentadiene was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (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
MB 400-598048/1-A	PAHs	Benzo[a]anthracene	0.0888 µg/L
MB 400-598048/1-A	PAHs	Benzo[a]pyrene	0.13 µg/L
MB 400-598048/1-A	PAHs	Benzo[b]fluoranthene	0.137 µg/L
MB 400-598048/1-A	PAHs	Benzo[k]fluoranthene	0.15 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-598048/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0454 µg/L
MB 400-598048/1-A	PAHs	Phenanthrene	0.0488 µg/L
MB 400-598048/1-A	PAHs	Pyrene	0.041 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-102422	PAHs	Benzo[a]anthracene	-	U
MW14-ROX-102422	PAHs	Benzo[a]pyrene	0.27 ug/L	U
MW14-ROX-102422	PAHs	Benzo[b]fluoranthene	0.23 ug/L	U
MW14-ROX-102422	PAHs	Benzo[k]fluoranthene	0.33 ug/L	U
MW14-ROX-102422	PAHs	Indeno[1,2,3-cd]pyrene	-	U
MW14-ROX-102422	PAHs	Phenanthrene	-	U
MW14-ROX-102422	PAHs	Pyrene	-	U
MW14-ROX-102422-DUP	PAHs	Benzo[a]anthracene	-	U
MW14-ROX-102422-DUP	PAHs	Benzo[a]pyrene	0.20 ug/L	U
MW14-ROX-102422-DUP	PAHs	Benzo[b]fluoranthene	-	U
MW14-ROX-102422-DUP	PAHs	Benzo[k]fluoranthene	0.21 ug/L	U
MW14-ROX-102422-DUP	PAHs	Indeno[1,2,3-cd]pyrene	-	U
MW14-ROX-102422-DUP	PAHs	Phenanthrene	-	U
MW14-ROX-102422-DUP	PAHs	Pyrene	-	U
MW13-ROX-102422	PAHs	Benzo[a]anthracene	-	U
MW13-ROX-102422	PAHs	Benzo[a]pyrene	0.22 ug/L	U
MW13-ROX-102422	PAHs	Benzo[b]fluoranthene	-	U
MW13-ROX-102422	PAHs	Benzo[k]fluoranthene	0.22 ug/L	U
MW13-ROX-102422	PAHs	Indeno[1,2,3-cd]pyrene	-	U
P114R-ROX-102422	PAHs	Benzo[a]anthracene	0.21 ug/L	U
P114R-ROX-102422	PAHs	Benzo[a]pyrene	0.27 ug/L	U
P114R-ROX-102422	PAHs	Benzo[b]fluoranthene	0.26 ug/L	U
P114R-ROX-102422	PAHs	Benzo[k]fluoranthene	0.27 ug/L	U
P114R-ROX-102422	PAHs	Indeno[1,2,3-cd]pyrene	-	U
P114R-ROX-102422	PAHs	Phenanthrene	-	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 400-598989/1002	VOCs	Hexachlorobutadiene	**144**	NA	53-140

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS 400-598989/1002	VOCs	n-Butylbenzene	**141**	NA	67-130
LCS 400-598989/1002	VOCs	1,2,3-Trichlorobenzene	**146**	NA	60-138
LCS 400-598989/1002	VOCs	1,2,4-Trichlorobenzene	**146**	NA	60-140
LCS/LCSD 400-598048/2-A/3-A	SVOCs	4,6-Dinitro-ortho-cresol	**153/183**	17	23-148/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	Indene	**170/219**	25	49-120/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	122/**141**	14	36-132/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	2,4-Dinitrophenol	145/**160**	10	10-150/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	Hexachlorobenzene	113/**131**	15	52-129/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	4-Nitrophenol	128/**150**	16	23-146/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	N-Nitrosodimethylamine	103/**138**	29	29-137/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	1,4-Dioxane	57/79	**33**	31-120/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	Hexachlorocyclopentadiene	51/73	**35**	10-134/30
LCS/LCSD 400-598048/4-A/5-A	SVOCs	Benzenethiol	**5/4**	17	10-120/30
LCS/LCSD 400-598726/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	133/**144**	8	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. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-102422	SVOCs	Benzenethiol	**UJ**
MW14-ROX-102422-DUP	SVOCs	Benzenethiol	**UJ**
MW13-ROX-102422	SVOCs	Benzenethiol	**UJ**
P114R-ROX-102422	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?

Yes, although not requested, sample MW14-ROX-102422-DUP 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
MW14-ROX-102422-DUP MS/MSD	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.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-102422-DUP	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?

Yes

Field ID	Field Duplicate ID
MW14-ROX-102422	MW14-ROX-102422-DUP

Were field duplicates within evaluation criteria?

Yes

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 verification (CCV) for hexachlorocyclopentadiene was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-102422	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW14-ROX-102422-DUP	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW13-ROX-102422	SVOCs	Hexachlorocyclopentadiene	**UJ**
P114R-ROX-102422	SVOCs	Hexachlorocyclopentadiene	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 400-227751-1
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:
11/3/2022 6:07:53 PM

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

Reviewed 12/14/2022
A.V.

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: 400-227751-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-227751-1

Receipt
The samples were received on 10/25/2022 9:45 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 0.8°C and 2.0°C

GC/MS VOA
Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-598989 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 400-598989 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-598989 recovered outside control limits for the following analytes: Hexachlorobutadiene, n-Butylbenzene, 1,2,3-Trichlorobenzene and 1,2,4-Trichlorobenzene. 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 some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-102422-8260 (400-227751-1), MW14-ROX-102422 (400-227751-3), MW14-ROX-102422-DUP (400-227751-4), MW13-ROX-102422 (400-227751-5) and P114R-ROX-102422 (400-227751-6). 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 400-598048 and analytical batch 400-598504 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) for preparation batch 400-598048 and analytical batch 400-598504 recovered outside control limits for the following analytes: Indene and 4,6-Dinitro-2-methylphenol. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-598048 and analytical batch 400-598504 recovered outside control limits for the following analytes: N-Nitrosodimethylamine, 3,3'-Dichlorobenzidine, 2,4-Dinitrophenol, 4-Nitrophenol, Indene, Hexachlorobenzene and 4,6-Dinitro-2-methylphenol. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-598048 and analytical batch 400-598504 recovered outside control limits for the following analytes: 1,4-Dioxane and Hexachlorocyclopentadiene.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-598504 recovered outside acceptance criteria, low biased, for 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 400-598048 and analytical batch 400-598584 contained Indeno[1,2,3-cd]pyrene, Pyrene, Benzo[b]fluoranthene, Phenanthrene, Benzo[k]fluoranthene, Benzo[a]anthracene and Benzo[a]pyrene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Job ID: 400-227751-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

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

GC Semi VOA

Method 8011: The laboratory control sample duplicate (LCSD) for preparation batch 400-598726 and analytical batch 400-598749 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.

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

Sample Summary

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

Job ID: 400-227751-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-227751-1	TB-ROX-102422-8260	Water	10/24/22 00:00	10/25/22 09:45
400-227751-2	TB-ROX-102422-8011	Water	10/24/22 00:00	10/25/22 09:45
400-227751-3	MW14-ROX-102422	Water	10/24/22 09:35	10/25/22 09:45
400-227751-4	MW14-ROX-102422-DUP	Water	10/24/22 09:35	10/25/22 09:45
400-227751-5	MW13-ROX-102422	Water	10/24/22 11:45	10/25/22 09:45
400-227751-6	P114R-ROX-102422	Water	10/24/22 12:50	10/25/22 09:45

Detection Summary

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

Job ID: 400-227751-1

Client Sample ID: TB-ROX-102422-8260

Lab Sample ID: 400-227751-1

No Detections.

Client Sample ID: TB-ROX-102422-8011

Lab Sample ID: 400-227751-2

No Detections.

Client Sample ID: MW14-ROX-102422

Lab Sample ID: 400-227751-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.0	0.13	ug/L	1		8260B	Total/NA
Anthracene	0.036	J	0.18	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.12~~	J B U	0.18	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	~~0.27~~	B U	~~0.18~~ 0.27	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.23~~	B U	~~0.18~~ 0.23	0.031	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.15	J	0.18	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.33~~	B U	~~0.18~~ 0.33	0.092	ug/L	1		8270D LL	Total/NA
Chrysene	0.12	J	0.18	0.068	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.14	J	0.18	0.046	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.063	J	0.18	0.063	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	~~0.12~~	J B U	0.18	0.040	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.074	J	0.18	0.055	ug/L	1		8270D LL	Total/NA
Phenanthrene	~~0.045~~	J B U	0.18	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.057~~	J B U	0.18	0.037	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW14-ROX-102422-DUP

Lab Sample ID: 400-227751-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.0	0.13	ug/L	1		8260B	Total/NA
Anthracene	0.034	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.099~~	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	~~0.20~~	B U	~~0.19~~ 0.2	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.16~~	J B U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.21~~	B U	~~0.19~~ 0.21	0.093	ug/L	1		8270D LL	Total/NA
Chrysene	0.080	J	0.19	0.069	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 B U	0.19	0.040	ug/L	1		8270D LL	Total/NA
Phenanthrene	~~0.048~~	J B U	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.042~~	J B U	0.19	0.037	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW13-ROX-102422

Lab Sample ID: 400-227751-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.30	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	1.0		1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	~~0.15~~	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	~~0.22~~	B U	~~0.19~~ 0.22	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.18~~	J B U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.13	J	0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.22~~	B U	~~0.19~~ 0.22	0.094	ug/L	1		8270D LL	Total/NA
Chrysene	0.14	J	0.19	0.070	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.13	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	~~0.12~~	J B U	0.19	0.041	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: 400-227751-1

Client Sample ID: P114R-ROX-102422

Lab Sample ID: 400-227751-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.98	J	1.0	0.22	ug/L	1		8260B	Total/NA
Acenaphthene	0.43		0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.21~~	B U	~~0.19~~ 0.21	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	~~0.27~~	B U	~~0.19~~ 0.27	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.29~~	B U	~~0.19~~ 0.29	0.032	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.18	J	0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.27~~	B U	~~0.19~~ 0.27	0.094	ug/L	1		8270D LL	Total/NA
Chrysene	0.23		0.19	0.070	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.16	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.22		0.19	0.064	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	~~0.20~~	B U	~~0.19~~ 0.2	0.041	ug/L	1		8270D LL	Total/NA
Phenanthrene	~~0.12~~	J B U	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.22	B	0.19	0.038	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	5.0	J	9.4	4.7	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-227751-1

Client Sample ID: TB-ROX-102422-8260
Date Collected: 10/24/22 00:00
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/22 16:50	1
Acrolein	ND		20	3.3	ug/L			11/03/22 16:50	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 16:50	1
Benzene	ND		1.0	0.13	ug/L			11/03/22 16:50	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 16:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 16:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 16:50	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 16:50	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 16:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 16:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 16:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 16:50	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 16:50	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 16:50	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 16:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 16:50	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 16:50	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 16:50	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 16:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 16:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 16:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 16:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 16:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 16:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 16:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 16:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 16:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 16:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 16:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 16:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 16:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 16:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 16:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 16:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 16:50	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 16:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 16:50	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 16:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 16:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 16:50	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/03/22 16:50	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 16:50	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 16:50	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 16:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 16:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 16:50	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 16:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 16:50	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 16:50	1

Client Sample ID: TB-ROX-102422-8260
Date Collected: 10/24/22 00:00
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-1
Matrix: Water

Method: SW846 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			11/03/22 16:50	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 16:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 16:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 16:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 16:50	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 16:50	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 16:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 16:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 16:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 16:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 16:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 16:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 16:50	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 16:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 16:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 16:50	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 16:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 16:50	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 16:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 16:50	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*91*		*72 - 119*		*11/03/22 16:50*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*11/03/22 16:50*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/03/22 16:50*	*1*

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

Job ID: 400-227751-1

Client Sample ID: TB-ROX-102422-8011
Date Collected: 10/24/22 00:00
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-2
Matrix: Water

Method: EPA 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		11/01/22 13:29	11/01/22 22:36	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/01/22 22:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*51 - 149*	*11/01/22 13:29*	*11/01/22 22:36*	*1*

Client Sample Results

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

Job ID: 400-227751-1

Client Sample ID: MW14-ROX-102422
Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/22 10:40	1
Acrolein	ND		20	3.3	ug/L			11/03/22 10:40	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 10:40	1
Benzene	0.54	J	1.0	0.13	ug/L			11/03/22 10:40	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 10:40	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 10:40	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 10:40	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 10:40	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 10:40	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 10:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 10:40	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 10:40	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 10:40	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 10:40	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 10:40	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 10:40	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 10:40	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 10:40	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 10:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 10:40	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 10:40	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 10:40	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 10:40	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 10:40	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 10:40	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 10:40	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 10:40	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 10:40	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 10:40	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 10:40	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 10:40	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 10:40	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 10:40	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 10:40	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/03/22 10:40	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 10:40	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 10:40	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 10:40	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 10:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 10:40	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/03/22 10:40	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 10:40	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 10:40	1
n-Butylbenzene	ND	*+	1.0	0.76	ug/L			11/03/22 10:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 10:40	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 10:40	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 10:40	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 10:40	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 10:40	1

Client Sample ID: MW14-ROX-102422
Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-3
Matrix: Water

Method: SW846 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			11/03/22 10:40	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 10:40	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 10:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 10:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 10:40	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 10:40	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 10:40	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 10:40	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 10:40	1
1,2,3-Trichlorobenzene	ND	*+	1.0	0.90	ug/L			11/03/22 10:40	1
1,2,4-Trichlorobenzene	ND	*+	1.0	0.82	ug/L			11/03/22 10:40	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 10:40	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 10:40	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 10:40	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 10:40	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 10:40	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 10:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 10:40	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 10:40	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 10:40	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 10:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/03/22 10:40*	*1*
Dibromofluoromethane	*89*		*75 - 126*		*11/03/22 10:40*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/03/22 10:40*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.030	ug/L		10/27/22 10:41	10/31/22 23:03	1
Acenaphthylene	ND		0.18	0.042	ug/L		10/27/22 10:41	10/31/22 23:03	1
Anthracene	0.036	J	0.18	0.030	ug/L		10/27/22 10:41	10/31/22 23:03	1
Benzo[a]anthracene	~~0.12~~	J B U	0.18	0.043	ug/L		10/27/22 10:41	10/31/22 23:03	1
Benzo[a]pyrene	~~0.27~~	B U	~~0.18~~ 0.27	0.039	ug/L		10/27/22 10:41	10/31/22 23:03	1
Benzo[b]fluoranthene	~~0.23~~	B U	~~0.18~~ 0.23	0.031	ug/L		10/27/22 10:41	10/31/22 23:03	1
Benzo[g,h,i]perylene	0.15	J	0.18	0.12	ug/L		10/27/22 10:41	10/31/22 23:03	1
Benzo[k]fluoranthene	~~0.33~~	B U	~~0.18~~ 0.33	0.092	ug/L		10/27/22 10:41	10/31/22 23:03	1
Chrysene	0.12	J	0.18	0.068	ug/L		10/27/22 10:41	10/31/22 23:03	1
Dibenz(a,h)anthracene	0.14	J	0.18	0.046	ug/L		10/27/22 10:41	10/31/22 23:03	1
Fluoranthene	0.063	J	0.18	0.063	ug/L		10/27/22 10:41	10/31/22 23:03	1
Fluorene	ND		0.18	0.10	ug/L		10/27/22 10:41	10/31/22 23:03	1
Indeno[1,2,3-cd]pyrene	~~0.12~~	J B U	0.18	0.040	ug/L		10/27/22 10:41	10/31/22 23:03	1
1-Methylnaphthalene	ND		0.18	0.068	ug/L		10/27/22 10:41	10/31/22 23:03	1
2-Methylnaphthalene	0.074	J	0.18	0.055	ug/L		10/27/22 10:41	10/31/22 23:03	1
Phenanthrene	~~0.045~~	J B U	0.18	0.033	ug/L		10/27/22 10:41	10/31/22 23:03	1
Pyrene	~~0.057~~	J B U	0.18	0.037	ug/L		10/27/22 10:41	10/31/22 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*15 - 122*	*10/27/22 10:41*	*10/31/22 23:03*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*10/27/22 10:41*	*10/31/22 23:03*	*1*

Client Sample ID: MW14-ROX-102422
Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	92		33 - 138	10/27/22 10:41	10/31/22 23:03	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		10/27/22 10:41	10/31/22 16:33	1
Benzenethiol	ND	*- UJ	9.2	1.6	ug/L		10/27/22 10:41	10/31/22 16:33	1
Benzoic acid	ND		28	6.7	ug/L		10/27/22 10:41	10/31/22 16:33	1
Benzyl alcohol	ND		9.2	1.8	ug/L		10/27/22 10:41	10/31/22 16:33	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		10/27/22 10:41	10/31/22 16:33	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		10/27/22 10:41	10/31/22 16:33	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		10/27/22 10:41	10/31/22 16:33	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		10/27/22 10:41	10/31/22 16:33	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		10/27/22 10:41	10/31/22 16:33	1
Butyl benzyl phthalate	ND		9.2	0.18	ug/L		10/27/22 10:41	10/31/22 16:33	1
4-Chloroaniline	ND		9.2	3.1	ug/L		10/27/22 10:41	10/31/22 16:33	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		10/27/22 10:41	10/31/22 16:33	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		10/27/22 10:41	10/31/22 16:33	1
2-Chlorophenol	ND		9.2	2.0	ug/L		10/27/22 10:41	10/31/22 16:33	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		10/27/22 10:41	10/31/22 16:33	1
Dibenz[a,h]acridine	ND		9.2	0.92	ug/L		10/27/22 10:41	10/31/22 16:33	1
Dibenzofuran	ND		9.2	0.16	ug/L		10/27/22 10:41	10/31/22 16:33	1
3,3'-Dichlorobenzidine	ND	*+	9.2	2.4	ug/L		10/27/22 10:41	10/31/22 16:33	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		10/27/22 10:41	10/31/22 16:33	1
Diethyl phthalate	ND		9.2	0.22	ug/L		10/27/22 10:41	10/31/22 16:33	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		10/27/22 10:41	10/31/22 16:33	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		10/27/22 10:41	10/31/22 16:33	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		10/27/22 10:41	10/31/22 16:33	1
4,6-Dinitro-ortho-cresol	ND	*+	9.2	1.5	ug/L		10/27/22 10:41	10/31/22 16:33	1
2,4-Dinitrophenol	ND	*+	28	3.1	ug/L		10/27/22 10:41	10/31/22 16:33	1
2,4-Dinitrotoluene	ND		9.2	1.8	ug/L		10/27/22 10:41	10/31/22 16:33	1
2,6-Dinitrotoluene	ND		9.2	1.8	ug/L		10/27/22 10:41	10/31/22 16:33	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		10/27/22 10:41	10/31/22 16:33	1
1,4-Dioxane	ND	*1	9.2	0.92	ug/L		10/27/22 10:41	10/31/22 16:33	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		10/27/22 10:41	10/31/22 16:33	1
Hexachlorobenzene	ND	*+	9.2	0.16	ug/L		10/27/22 10:41	10/31/22 16:33	1
Hexachlorocyclopentadiene	ND	*1 UJ	18	2.4	ug/L		10/27/22 10:41	10/31/22 16:33	1
Hexachloroethane	ND		9.2	3.9	ug/L		10/27/22 10:41	10/31/22 16:33	1
Indene	ND	*+	9.2	0.92	ug/L		10/27/22 10:41	10/31/22 16:33	1
Isophorone	ND		9.2	0.13	ug/L		10/27/22 10:41	10/31/22 16:33	1
2-Methylphenol	ND		9.2	1.7	ug/L		10/27/22 10:41	10/31/22 16:33	1
3 & 4 Methylphenol	ND		18	0.36	ug/L		10/27/22 10:41	10/31/22 16:33	1
2-Nitroaniline	ND		9.2	2.0	ug/L		10/27/22 10:41	10/31/22 16:33	1
3-Nitroaniline	ND		9.2	1.7	ug/L		10/27/22 10:41	10/31/22 16:33	1
4-Nitroaniline	ND		9.2	1.4	ug/L		10/27/22 10:41	10/31/22 16:33	1
Nitrobenzene	ND		9.2	0.12	ug/L		10/27/22 10:41	10/31/22 16:33	1
2-Nitrophenol	ND		9.2	4.8	ug/L		10/27/22 10:41	10/31/22 16:33	1
4-Nitrophenol	ND	*+	9.2	1.9	ug/L		10/27/22 10:41	10/31/22 16:33	1
N-Nitrosodimethylamine	ND	*+	9.2	3.2	ug/L		10/27/22 10:41	10/31/22 16:33	1

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

Job ID: 400-227751-1

Client Sample ID: MW14-ROX-102422
Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.2	3.1	ug/L		10/27/22 10:41	10/31/22 16:33	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		10/27/22 10:41	10/31/22 16:33	1
Pentachlorophenol	ND		18	1.3	ug/L		10/27/22 10:41	10/31/22 16:33	1
Phenol	ND		9.2	2.4	ug/L		10/27/22 10:41	10/31/22 16:33	1
Pyridine	ND		9.2	3.0	ug/L		10/27/22 10:41	10/31/22 16:33	1
Quinoline	ND		9.2	4.2	ug/L		10/27/22 10:41	10/31/22 16:33	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		10/27/22 10:41	10/31/22 16:33	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		10/27/22 10:41	10/31/22 16:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*10/27/22 10:41*	*10/31/22 16:33*	*1*
2-Fluorophenol	*52*		*13 - 113*	*10/27/22 10:41*	*10/31/22 16:33*	*1*
Nitrobenzene-d5	*97*		*36 - 126*	*10/27/22 10:41*	*10/31/22 16:33*	*1*
Phenol-d5	*80*		*17 - 127*	*10/27/22 10:41*	*10/31/22 16:33*	*1*
Terphenyl-d14	*126*		*44 - 149*	*10/27/22 10:41*	*10/31/22 16:33*	*1*
2,4,6-Tribromophenol	*86*		*26 - 150*	*10/27/22 10:41*	*10/31/22 16:33*	*1*

Method: EPA 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		11/01/22 13:29	11/01/22 22:56	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/01/22 22:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*51 - 149*	*11/01/22 13:29*	*11/01/22 22:56*	*1*

Client Sample Results

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

Job ID: 400-227751-1

Client Sample ID: MW14-ROX-102422-DUP
Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/22 11:06	1
Acrolein	ND		20	3.3	ug/L			11/03/22 11:06	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 11:06	1
Benzene	0.54	J	1.0	0.13	ug/L			11/03/22 11:06	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 11:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 11:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 11:06	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 11:06	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 11:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 11:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 11:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 11:06	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 11:06	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 11:06	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 11:06	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			11/03/22 11:06	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 11:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 11:06	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 11:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 11:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 11:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 11:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 11:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 11:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 11:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 11:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 11:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 11:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 11:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 11:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 11:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 11:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 11:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 11:06	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/03/22 11:06	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 11:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 11:06	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 11:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 11:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 11:06	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/03/22 11:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 11:06	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 11:06	1
n-Butylbenzene	ND	*+	1.0	0.76	ug/L			11/03/22 11:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 11:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 11:06	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 11:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 11:06	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 11:06	1

Client Sample ID: MW14-ROX-102422-DUP

Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-4

Matrix: Water

Method: SW846 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			11/03/22 11:06	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 11:06	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 11:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 11:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 11:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 11:06	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 11:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 11:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 11:06	1
1,2,3-Trichlorobenzene	ND	*+	1.0	0.90	ug/L			11/03/22 11:06	1
1,2,4-Trichlorobenzene	ND	*+	1.0	0.82	ug/L			11/03/22 11:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 11:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 11:06	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 11:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 11:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 11:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 11:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 11:06	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 11:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 11:06	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 11:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*72 - 119*		*11/03/22 11:06*	*1*
Dibromofluoromethane	*93*		*75 - 126*		*11/03/22 11:06*	*1*
Toluene-d8 (Surr)	*106*		*64 - 132*		*11/03/22 11:06*	*1*

Method: SW846 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		10/27/22 10:41	10/31/22 23:20	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/27/22 10:41	10/31/22 23:20	1
Anthracene	0.034	J	0.19	0.030	ug/L		10/27/22 10:41	10/31/22 23:20	1
Benzo[a]anthracene	~~0.099~~	J B U	0.19	0.043	ug/L		10/27/22 10:41	10/31/22 23:20	1
Benzo[a]pyrene	~~0.20~~	B U	~~0.19~~ 0.2	0.039	ug/L		10/27/22 10:41	10/31/22 23:20	1
Benzo[b]fluoranthene	~~0.16~~	J B U	0.19	0.032	ug/L		10/27/22 10:41	10/31/22 23:20	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/27/22 10:41	10/31/22 23:20	1
Benzo[k]fluoranthene	~~0.21~~	B U	~~0.19~~ 0.21	0.093	ug/L		10/27/22 10:41	10/31/22 23:20	1
Chrysene	0.080	J	0.19	0.069	ug/L		10/27/22 10:41	10/31/22 23:20	1
Dibenz(a,h)anthracene	0.078	J	0.19	0.047	ug/L		10/27/22 10:41	10/31/22 23:20	1
Fluoranthene	ND		0.19	0.063	ug/L		10/27/22 10:41	10/31/22 23:20	1
Fluorene	ND		0.19	0.10	ug/L		10/27/22 10:41	10/31/22 23:20	1
Indeno[1,2,3-cd]pyrene	~~0.13~~	J B U	0.19	0.040	ug/L		10/27/22 10:41	10/31/22 23:20	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		10/27/22 10:41	10/31/22 23:20	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		10/27/22 10:41	10/31/22 23:20	1
Phenanthrene	~~0.043~~	J B U	0.19	0.034	ug/L		10/27/22 10:41	10/31/22 23:20	1
Pyrene	~~0.042~~	J B U	0.19	0.037	ug/L		10/27/22 10:41	10/31/22 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*15 - 122*	*10/27/22 10:41*	*10/31/22 23:20*	*1*
Nitrobenzene-d5	*97*		*19 - 130*	*10/27/22 10:41*	*10/31/22 23:20*	*1*

Client Sample ID: MW14-ROX-102422-DUP
Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	96		33 - 138	10/27/22 10:41	10/31/22 23:20	1

Method: SW846 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		10/27/22 10:41	10/31/22 16:54	1
Benzenethiol	ND	*- UJ	9.3	1.6	ug/L		10/27/22 10:41	10/31/22 16:54	1
Benzoic acid	ND		28	6.8	ug/L		10/27/22 10:41	10/31/22 16:54	1
Benzyl alcohol	ND		9.3	1.9	ug/L		10/27/22 10:41	10/31/22 16:54	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		10/27/22 10:41	10/31/22 16:54	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		10/27/22 10:41	10/31/22 16:54	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		10/27/22 10:41	10/31/22 16:54	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.7	ug/L		10/27/22 10:41	10/31/22 16:54	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		10/27/22 10:41	10/31/22 16:54	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		10/27/22 10:41	10/31/22 16:54	1
4-Chloroaniline	ND		9.3	3.2	ug/L		10/27/22 10:41	10/31/22 16:54	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		10/27/22 10:41	10/31/22 16:54	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		10/27/22 10:41	10/31/22 16:54	1
2-Chlorophenol	ND		9.3	2.0	ug/L		10/27/22 10:41	10/31/22 16:54	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		10/27/22 10:41	10/31/22 16:54	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		10/27/22 10:41	10/31/22 16:54	1
Dibenzofuran	ND		9.3	0.16	ug/L		10/27/22 10:41	10/31/22 16:54	1
3,3'-Dichlorobenzidine	ND	*+	9.3	2.4	ug/L		10/27/22 10:41	10/31/22 16:54	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		10/27/22 10:41	10/31/22 16:54	1
Diethyl phthalate	ND		9.3	0.22	ug/L		10/27/22 10:41	10/31/22 16:54	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		10/27/22 10:41	10/31/22 16:54	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		10/27/22 10:41	10/31/22 16:54	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		10/27/22 10:41	10/31/22 16:54	1
4,6-Dinitro-ortho-cresol	ND	*+	9.3	1.5	ug/L		10/27/22 10:41	10/31/22 16:54	1
2,4-Dinitrophenol	ND	*+	28	3.2	ug/L		10/27/22 10:41	10/31/22 16:54	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		10/27/22 10:41	10/31/22 16:54	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		10/27/22 10:41	10/31/22 16:54	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		10/27/22 10:41	10/31/22 16:54	1
1,4-Dioxane	ND	*1	9.3	0.93	ug/L		10/27/22 10:41	10/31/22 16:54	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		10/27/22 10:41	10/31/22 16:54	1
Hexachlorobenzene	ND	*+	9.3	0.16	ug/L		10/27/22 10:41	10/31/22 16:54	1
Hexachlorocyclopentadiene	ND	*1 UJ	19	2.4	ug/L		10/27/22 10:41	10/31/22 16:54	1
Hexachloroethane	ND		9.3	3.9	ug/L		10/27/22 10:41	10/31/22 16:54	1
Indene	ND	*+	9.3	0.93	ug/L		10/27/22 10:41	10/31/22 16:54	1
Isophorone	ND		9.3	0.13	ug/L		10/27/22 10:41	10/31/22 16:54	1
2-Methylphenol	ND		9.3	1.7	ug/L		10/27/22 10:41	10/31/22 16:54	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		10/27/22 10:41	10/31/22 16:54	1
2-Nitroaniline	ND		9.3	2.0	ug/L		10/27/22 10:41	10/31/22 16:54	1
3-Nitroaniline	ND		9.3	1.7	ug/L		10/27/22 10:41	10/31/22 16:54	1
4-Nitroaniline	ND		9.3	1.4	ug/L		10/27/22 10:41	10/31/22 16:54	1
Nitrobenzene	ND		9.3	0.12	ug/L		10/27/22 10:41	10/31/22 16:54	1
2-Nitrophenol	ND		9.3	4.8	ug/L		10/27/22 10:41	10/31/22 16:54	1
4-Nitrophenol	ND	*+	9.3	2.0	ug/L		10/27/22 10:41	10/31/22 16:54	1
N-Nitrosodimethylamine	ND	*+	9.3	3.3	ug/L		10/27/22 10:41	10/31/22 16:54	1

Client Sample ID: MW14-ROX-102422-DUP
Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-4
Matrix: Water

Method: SW846 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		10/27/22 10:41	10/31/22 16:54	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		10/27/22 10:41	10/31/22 16:54	1
Pentachlorophenol	ND		19	1.3	ug/L		10/27/22 10:41	10/31/22 16:54	1
Phenol	ND		9.3	2.4	ug/L		10/27/22 10:41	10/31/22 16:54	1
Pyridine	ND		9.3	3.0	ug/L		10/27/22 10:41	10/31/22 16:54	1
Quinoline	ND		9.3	4.2	ug/L		10/27/22 10:41	10/31/22 16:54	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		10/27/22 10:41	10/31/22 16:54	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		10/27/22 10:41	10/31/22 16:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*10/27/22 10:41*	*10/31/22 16:54*	*1*
2-Fluorophenol	*48*		*13 - 113*	*10/27/22 10:41*	*10/31/22 16:54*	*1*
Nitrobenzene-d5	*86*		*36 - 126*	*10/27/22 10:41*	*10/31/22 16:54*	*1*
Phenol-d5	*76*		*17 - 127*	*10/27/22 10:41*	*10/31/22 16:54*	*1*
Terphenyl-d14	*113*		*44 - 149*	*10/27/22 10:41*	*10/31/22 16:54*	*1*
2,4,6-Tribromophenol	*95*		*26 - 150*	*10/27/22 10:41*	*10/31/22 16:54*	*1*

Method: EPA 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		11/01/22 13:29	11/01/22 23:17	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		11/01/22 13:29	11/01/22 23:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*51 - 149*	*11/01/22 13:29*	*11/01/22 23:17*	*1*

Client Sample ID: MW13-ROX-102422
Date Collected: 10/24/22 11:45
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/22 14:45	1
Acrolein	ND		20	3.3	ug/L			11/03/22 14:45	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 14:45	1
Benzene	**0.30**	**J**	1.0	0.13	ug/L			11/03/22 14:45	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 14:45	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 14:45	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 14:45	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 14:45	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 14:45	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 14:45	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 14:45	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 14:45	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 14:45	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 14:45	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 14:45	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 14:45	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 14:45	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 14:45	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 14:45	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 14:45	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 14:45	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 14:45	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 14:45	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 14:45	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 14:45	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 14:45	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 14:45	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 14:45	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 14:45	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 14:45	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 14:45	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 14:45	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 14:45	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 14:45	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 14:45	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 14:45	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 14:45	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 14:45	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 14:45	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 14:45	1
Methyl tert-butyl ether	**1.0**		1.0	0.22	ug/L			11/03/22 14:45	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 14:45	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 14:45	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 14:45	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 14:45	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 14:45	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 14:45	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 14:45	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 14:45	1

Client Sample ID: MW13-ROX-102422
Date Collected: 10/24/22 11:45
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-5
Matrix: Water

Method: SW846 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			11/03/22 14:45	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 14:45	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 14:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 14:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 14:45	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 14:45	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 14:45	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 14:45	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 14:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 14:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 14:45	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 14:45	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 14:45	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 14:45	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 14:45	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 14:45	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 14:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 14:45	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 14:45	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 14:45	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 14:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*11/03/22 14:45*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/03/22 14:45*	*1*
Toluene-d8 (Surr)	*104*		*64 - 132*		*11/03/22 14:45*	*1*

Method: SW846 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		10/27/22 10:41	10/31/22 23:37	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/27/22 10:41	10/31/22 23:37	1
Anthracene	ND		0.19	0.030	ug/L		10/27/22 10:41	10/31/22 23:37	1
Benzo[a]anthracene	~~0.15~~ J B U		0.19	0.043	ug/L		10/27/22 10:41	10/31/22 23:37	1
Benzo[a]pyrene	~~0.22~~ B U		~~0.19~~ 0.22	0.040	ug/L		10/27/22 10:41	10/31/22 23:37	1
Benzo[b]fluoranthene	~~0.18~~ J B U		0.19	0.032	ug/L		10/27/22 10:41	10/31/22 23:37	1
Benzo[g,h,i]perylene	0.13 J		0.19	0.12	ug/L		10/27/22 10:41	10/31/22 23:37	1
Benzo[k]fluoranthene	~~0.22~~ B U		~~0.19~~ 0.22	0.094	ug/L		10/27/22 10:41	10/31/22 23:37	1
Chrysene	0.14 J		0.19	0.070	ug/L		10/27/22 10:41	10/31/22 23:37	1
Dibenz(a,h)anthracene	0.13 J		0.19	0.047	ug/L		10/27/22 10:41	10/31/22 23:37	1
Fluoranthene	ND		0.19	0.064	ug/L		10/27/22 10:41	10/31/22 23:37	1
Fluorene	ND		0.19	0.10	ug/L		10/27/22 10:41	10/31/22 23:37	1
Indeno[1,2,3-cd]pyrene	~~0.12~~ J B U		0.19	0.041	ug/L		10/27/22 10:41	10/31/22 23:37	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		10/27/22 10:41	10/31/22 23:37	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		10/27/22 10:41	10/31/22 23:37	1
Phenanthrene	ND		0.19	0.034	ug/L		10/27/22 10:41	10/31/22 23:37	1
Pyrene	ND		0.19	0.038	ug/L		10/27/22 10:41	10/31/22 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*15 - 122*	*10/27/22 10:41*	*10/31/22 23:37*	*1*
Nitrobenzene-d5	*90*		*19 - 130*	*10/27/22 10:41*	*10/31/22 23:37*	*1*

Client Sample ID: MW13-ROX-102422
Date Collected: 10/24/22 11:45
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*61*		*33 - 138*	*10/27/22 10:41*	*10/31/22 23:37*	*1*

Method: SW846 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		10/27/22 10:41	10/31/22 17:15	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		10/27/22 10:41	10/31/22 17:15	1
Benzoic acid	ND		28	6.9	ug/L		10/27/22 10:41	10/31/22 17:15	1
Benzyl alcohol	ND		9.4	1.9	ug/L		10/27/22 10:41	10/31/22 17:15	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/27/22 10:41	10/31/22 17:15	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 17:15	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/27/22 10:41	10/31/22 17:15	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/27/22 10:41	10/31/22 17:15	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/27/22 10:41	10/31/22 17:15	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/27/22 10:41	10/31/22 17:15	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/27/22 10:41	10/31/22 17:15	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/27/22 10:41	10/31/22 17:15	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/27/22 10:41	10/31/22 17:15	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/27/22 10:41	10/31/22 17:15	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/27/22 10:41	10/31/22 17:15	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/27/22 10:41	10/31/22 17:15	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 17:15	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.5	ug/L		10/27/22 10:41	10/31/22 17:15	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/27/22 10:41	10/31/22 17:15	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/27/22 10:41	10/31/22 17:15	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/27/22 10:41	10/31/22 17:15	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 17:15	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 17:15	1
4,6-Dinitro-ortho-cresol	ND	*+	9.4	1.5	ug/L		10/27/22 10:41	10/31/22 17:15	1
2,4-Dinitrophenol	ND	*+	28	3.2	ug/L		10/27/22 10:41	10/31/22 17:15	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/27/22 10:41	10/31/22 17:15	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/27/22 10:41	10/31/22 17:15	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 17:15	1
1,4-Dioxane	ND	*1	9.4	0.94	ug/L		10/27/22 10:41	10/31/22 17:15	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/27/22 10:41	10/31/22 17:15	1
Hexachlorobenzene	ND	*+	9.4	0.16	ug/L		10/27/22 10:41	10/31/22 17:15	1
Hexachlorocyclopentadiene	ND	*1 UJ	19	2.5	ug/L		10/27/22 10:41	10/31/22 17:15	1
Hexachloroethane	ND		9.4	4.0	ug/L		10/27/22 10:41	10/31/22 17:15	1
Indene	ND	*+	9.4	0.94	ug/L		10/27/22 10:41	10/31/22 17:15	1
Isophorone	ND		9.4	0.13	ug/L		10/27/22 10:41	10/31/22 17:15	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/27/22 10:41	10/31/22 17:15	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/27/22 10:41	10/31/22 17:15	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/27/22 10:41	10/31/22 17:15	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/27/22 10:41	10/31/22 17:15	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/27/22 10:41	10/31/22 17:15	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/27/22 10:41	10/31/22 17:15	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/27/22 10:41	10/31/22 17:15	1
4-Nitrophenol	ND	*+	9.4	2.0	ug/L		10/27/22 10:41	10/31/22 17:15	1
N-Nitrosodimethylamine	ND	*+	9.4	3.3	ug/L		10/27/22 10:41	10/31/22 17:15	1

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

Job ID: 400-227751-1

Client Sample ID: MW13-ROX-102422
Date Collected: 10/24/22 11:45
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-5
Matrix: Water

Method: SW846 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		10/27/22 10:41	10/31/22 17:15	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/27/22 10:41	10/31/22 17:15	1
Pentachlorophenol	ND		19	1.3	ug/L		10/27/22 10:41	10/31/22 17:15	1
Phenol	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 17:15	1
Pyridine	ND		9.4	3.0	ug/L		10/27/22 10:41	10/31/22 17:15	1
Quinoline	ND		9.4	4.2	ug/L		10/27/22 10:41	10/31/22 17:15	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/27/22 10:41	10/31/22 17:15	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/27/22 10:41	10/31/22 17:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*10/27/22 10:41*	*10/31/22 17:15*	*1*
2-Fluorophenol	*49*		*13 - 113*	*10/27/22 10:41*	*10/31/22 17:15*	*1*
Nitrobenzene-d5	*87*		*36 - 126*	*10/27/22 10:41*	*10/31/22 17:15*	*1*
Phenol-d5	*76*		*17 - 127*	*10/27/22 10:41*	*10/31/22 17:15*	*1*
Terphenyl-d14	*70*		*44 - 149*	*10/27/22 10:41*	*10/31/22 17:15*	*1*
2,4,6-Tribromophenol	*124*		*26 - 150*	*10/27/22 10:41*	*10/31/22 17:15*	*1*

Method: EPA 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		11/01/22 13:29	11/01/22 23:37	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/01/22 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*51 - 149*	*11/01/22 13:29*	*11/01/22 23:37*	*1*

Client Sample ID: P114R-ROX-102422
Date Collected: 10/24/22 12:50
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/22 15:06	1
Acrolein	ND		20	3.3	ug/L			11/03/22 15:06	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 15:06	1
Benzene	0.47	J	1.0	0.13	ug/L			11/03/22 15:06	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 15:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 15:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 15:06	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 15:06	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 15:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 15:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 15:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 15:06	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 15:06	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 15:06	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 15:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 15:06	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 15:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 15:06	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 15:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 15:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 15:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 15:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 15:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 15:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 15:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 15:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 15:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 15:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 15:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 15:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 15:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 15:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 15:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 15:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 15:06	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 15:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 15:06	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 15:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 15:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 15:06	1
Methyl tert-butyl ether	0.98	J	1.0	0.22	ug/L			11/03/22 15:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 15:06	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 15:06	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 15:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 15:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 15:06	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 15:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 15:06	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 15:06	1

Client Sample ID: P114R-ROX-102422
Date Collected: 10/24/22 12:50
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-6
Matrix: Water

Method: SW846 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			11/03/22 15:06	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 15:06	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 15:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 15:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 15:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 15:06	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 15:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 15:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 15:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 15:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 15:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 15:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 15:06	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 15:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 15:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 15:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 15:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 15:06	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 15:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 15:06	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 15:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/03/22 15:06*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*11/03/22 15:06*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/03/22 15:06*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.43**		0.19	0.030	ug/L		10/27/22 10:41	10/31/22 23:54	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/27/22 10:41	10/31/22 23:54	1
Anthracene	ND		0.19	0.030	ug/L		10/27/22 10:41	10/31/22 23:54	1
Benzo[a]anthracene	~~0.21~~ B U		~~0.19~~ 0.21	0.043	ug/L		10/27/22 10:41	10/31/22 23:54	1
Benzo[a]pyrene	~~0.27~~ B U		~~0.19~~ 0.27	0.040	ug/L		10/27/22 10:41	10/31/22 23:54	1
Benzo[b]fluoranthene	~~0.26~~ B U		~~0.19~~ 0.26	0.032	ug/L		10/27/22 10:41	10/31/22 23:54	1
Benzo[g,h,i]perylene	**0.18** J		0.19	0.12	ug/L		10/27/22 10:41	10/31/22 23:54	1
Benzo[k]fluoranthene	~~0.27~~ B U		~~0.19~~ 0.27	0.094	ug/L		10/27/22 10:41	10/31/22 23:54	1
Chrysene	**0.23**		0.19	0.070	ug/L		10/27/22 10:41	10/31/22 23:54	1
Dibenz(a,h)anthracene	**0.16** J		0.19	0.047	ug/L		10/27/22 10:41	10/31/22 23:54	1
Fluoranthene	**0.22**		0.19	0.064	ug/L		10/27/22 10:41	10/31/22 23:54	1
Fluorene	ND		0.19	0.10	ug/L		10/27/22 10:41	10/31/22 23:54	1
Indeno[1,2,3-cd]pyrene	~~0.20~~ B U		~~0.19~~ 0.2	0.041	ug/L		10/27/22 10:41	10/31/22 23:54	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		10/27/22 10:41	10/31/22 23:54	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		10/27/22 10:41	10/31/22 23:54	1
Phenanthrene	~~0.12~~ J B U		0.19	0.034	ug/L		10/27/22 10:41	10/31/22 23:54	1
Pyrene	**0.22** B		0.19	0.038	ug/L		10/27/22 10:41	10/31/22 23:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*99*		*15 - 122*	*10/27/22 10:41*	*10/31/22 23:54*	*1*
Nitrobenzene-d5	*89*		*19 - 130*	*10/27/22 10:41*	*10/31/22 23:54*	*1*

Client Sample ID: P114R-ROX-102422
Date Collected: 10/24/22 12:50
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*60*		*33 - 138*	*10/27/22 10:41*	*10/31/22 23:54*	*1*

Method: SW846 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		10/27/22 10:41	10/31/22 17:36	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		10/27/22 10:41	10/31/22 17:36	1
Benzoic acid	ND		28	6.9	ug/L		10/27/22 10:41	10/31/22 17:36	1
Benzyl alcohol	ND		9.4	1.9	ug/L		10/27/22 10:41	10/31/22 17:36	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/27/22 10:41	10/31/22 17:36	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 17:36	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/27/22 10:41	10/31/22 17:36	1
Bis(2-ethylhexyl) phthalate	**5.0**	**J**	9.4	4.7	ug/L		10/27/22 10:41	10/31/22 17:36	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/27/22 10:41	10/31/22 17:36	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/27/22 10:41	10/31/22 17:36	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/27/22 10:41	10/31/22 17:36	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/27/22 10:41	10/31/22 17:36	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/27/22 10:41	10/31/22 17:36	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/27/22 10:41	10/31/22 17:36	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/27/22 10:41	10/31/22 17:36	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/27/22 10:41	10/31/22 17:36	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 17:36	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.5	ug/L		10/27/22 10:41	10/31/22 17:36	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/27/22 10:41	10/31/22 17:36	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/27/22 10:41	10/31/22 17:36	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/27/22 10:41	10/31/22 17:36	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 17:36	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 17:36	1
4,6-Dinitro-ortho-cresol	ND	*+	9.4	1.5	ug/L		10/27/22 10:41	10/31/22 17:36	1
2,4-Dinitrophenol	ND	*+	28	3.2	ug/L		10/27/22 10:41	10/31/22 17:36	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/27/22 10:41	10/31/22 17:36	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/27/22 10:41	10/31/22 17:36	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 17:36	1
1,4-Dioxane	ND	*1	9.4	0.94	ug/L		10/27/22 10:41	10/31/22 17:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/27/22 10:41	10/31/22 17:36	1
Hexachlorobenzene	ND	*+	9.4	0.16	ug/L		10/27/22 10:41	10/31/22 17:36	1
Hexachlorocyclopentadiene	ND	*1 UJ	19	2.5	ug/L		10/27/22 10:41	10/31/22 17:36	1
Hexachloroethane	ND		9.4	4.0	ug/L		10/27/22 10:41	10/31/22 17:36	1
Indene	ND	*+	9.4	0.94	ug/L		10/27/22 10:41	10/31/22 17:36	1
Isophorone	ND		9.4	0.13	ug/L		10/27/22 10:41	10/31/22 17:36	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/27/22 10:41	10/31/22 17:36	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/27/22 10:41	10/31/22 17:36	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/27/22 10:41	10/31/22 17:36	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/27/22 10:41	10/31/22 17:36	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/27/22 10:41	10/31/22 17:36	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/27/22 10:41	10/31/22 17:36	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/27/22 10:41	10/31/22 17:36	1
4-Nitrophenol	ND	*+	9.4	2.0	ug/L		10/27/22 10:41	10/31/22 17:36	1
N-Nitrosodimethylamine	ND	*+	9.4	3.3	ug/L		10/27/22 10:41	10/31/22 17:36	1

Client Sample ID: P114R-ROX-102422
Date Collected: 10/24/22 12:50
Date Received: 10/25/22 09:45

Lab Sample ID: 400-227751-6
Matrix: Water

Method: SW846 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		10/27/22 10:41	10/31/22 17:36	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/27/22 10:41	10/31/22 17:36	1
Pentachlorophenol	ND		19	1.3	ug/L		10/27/22 10:41	10/31/22 17:36	1
Phenol	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 17:36	1
Pyridine	ND		9.4	3.0	ug/L		10/27/22 10:41	10/31/22 17:36	1
Quinoline	ND		9.4	4.2	ug/L		10/27/22 10:41	10/31/22 17:36	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/27/22 10:41	10/31/22 17:36	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/27/22 10:41	10/31/22 17:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*10/27/22 10:41*	*10/31/22 17:36*	*1*
2-Fluorophenol	*42*		*13 - 113*	*10/27/22 10:41*	*10/31/22 17:36*	*1*
Nitrobenzene-d5	*88*		*36 - 126*	*10/27/22 10:41*	*10/31/22 17:36*	*1*
Phenol-d5	*75*		*17 - 127*	*10/27/22 10:41*	*10/31/22 17:36*	*1*
Terphenyl-d14	*65*		*44 - 149*	*10/27/22 10:41*	*10/31/22 17:36*	*1*
2,4,6-Tribromophenol	*126*		*26 - 150*	*10/27/22 10:41*	*10/31/22 17:36*	*1*

Method: EPA 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		11/01/22 13:29	11/01/22 23:58	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/01/22 23:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*51 - 149*	*11/01/22 13:29*	*11/01/22 23:58*	*1*

Definitions/Glossary

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

Job ID: 400-227751-1

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.
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.

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: 400-227751-1

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)
400-227751-1	TB-ROX-102422-8260	91	103	101
400-227751-3	MW14-ROX-102422	98	89	102
400-227751-4	MW14-ROX-102422-DUP	90	93	106
400-227751-4 MS	MW14-ROX-102422-DUP	92	88	101
400-227751-4 MSD	MW14-ROX-102422-DUP	94	89	105
400-227751-5	MW13-ROX-102422	96	100	104
400-227751-6	P114R-ROX-102422	97	104	99
LCS 400-598988/1002	Lab Control Sample	86	101	96
LCS 400-598989/1002	Lab Control Sample	89	90	97
MB 400-598988/4	Method Blank	95	101	103
MB 400-598989/4	Method Blank	92	96	103

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)
400-227751-3	MW14-ROX-102422	87	52	97	80	126	86
400-227751-4	MW14-ROX-102422-DUP	78	48	86	76	113	95
400-227751-5	MW13-ROX-102422	78	49	87	76	70	124
400-227751-6	P114R-ROX-102422	77	42	88	75	65	126
LCS 400-598048/2-A	Lab Control Sample	80	41	81	73	101	117
LCS 400-598048/4-A	Lab Control Sample	82	60	91	85	115	86
LCSD 400-598048/3-A	Lab Control Sample Dup	90	31	91	78	111	133
LCSD 400-598048/5-A	Lab Control Sample Dup	85	58	94	82	118	42
MB 400-598048/1-A	Method Blank	69	19	75	52	94	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)
400-227751-3	MW14-ROX-102422	87	94	92
400-227751-4	MW14-ROX-102422-DUP	82	97	96
400-227751-5	MW13-ROX-102422	89	90	61
400-227751-6	P114R-ROX-102422	99	89	60

Surrogate Summary

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

Job ID: 400-227751-1

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)
LCS 400-598048/2-A	Lab Control Sample	92	83	102
LCSD 400-598048/3-A	Lab Control Sample Dup	97	88	100
MB 400-598048/1-A	Method Blank	73	80	76

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)
400-227751-2	TB-ROX-102422-8011	95
400-227751-3	MW14-ROX-102422	92
400-227751-4	MW14-ROX-102422-DUP	93
400-227751-5	MW13-ROX-102422	92
400-227751-6	P114R-ROX-102422	93
LCS 400-598726/2-A	Lab Control Sample	88
LCSD 400-598726/3-A	Lab Control Sample Dup	95
MB 400-598726/1-A	Method Blank	78

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-227751-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET 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: 400-227751-1

Client Sample ID: TB-ROX-102422-8260

Lab Sample ID: 400-227751-1
Matrix: Water

Date Collected: 10/24/22 00:00
Date Received: 10/25/22 09:45

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	598988	11/03/22 16:50	AGW	EET PEN

Client Sample ID: TB-ROX-102422-8011

Lab Sample ID: 400-227751-2
Matrix: Water

Date Collected: 10/24/22 00:00
Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.3 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 22:36	DS	EET PEN

Client Sample ID: MW14-ROX-102422

Lab Sample ID: 400-227751-3
Matrix: Water

Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

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	598989	11/03/22 10:40	JE	EET PEN
Total/NA	Prep	3520C			270.4 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 16:33	S1B	EET PEN
Total/NA	Prep	3520C			270.4 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	10/31/22 23:03	PP1	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 22:56	DS	EET PEN

Client Sample ID: MW14-ROX-102422-DUP

Lab Sample ID: 400-227751-4
Matrix: Water

Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

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	598989	11/03/22 11:06	JE	EET PEN
Total/NA	Prep	3520C			268.6 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 16:54	S1B	EET PEN
Total/NA	Prep	3520C			268.6 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	10/31/22 23:20	PP1	EET PEN
Total/NA	Prep	8011			34 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 23:17	DS	EET PEN

Client Sample ID: MW13-ROX-102422

Lab Sample ID: 400-227751-5
Matrix: Water

Date Collected: 10/24/22 11:45
Date Received: 10/25/22 09:45

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	598988	11/03/22 14:45	AGW	EET PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 17:15	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-227751-1

Client Sample ID: MW13-ROX-102422

Lab Sample ID: 400-227751-5
Matrix: Water
Date Collected: 10/24/22 11:45
Date Received: 10/25/22 09:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			264.8 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	10/31/22 23:37	PP1	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 23:37	DS	EET PEN

Client Sample ID: P114R-ROX-102422

Lab Sample ID: 400-227751-6
Matrix: Water
Date Collected: 10/24/22 12:50
Date Received: 10/25/22 09:45

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	598988	11/03/22 15:06	AGW	EET PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 17:36	S1B	EET PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	10/31/22 23:54	PP1	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 23:58	DS	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-598048/1-A
Matrix: Water
Date Collected: N/A
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	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 14:48	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	10/31/22 22:11	PP1	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-598726/1-A
Matrix: Water
Date Collected: N/A
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	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 18:10	DS	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-598988/4
Matrix: Water
Date Collected: N/A
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	598988	11/03/22 13:22	AGW	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-598989/4
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	598989	11/03/22 09:42	JE	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-598048/2-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	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 15:09	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	598584	10/31/22 22:28	PP1	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-598048/4-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	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 15:51	S1B	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-598726/2-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	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 18:30	DS	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-598988/1002
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	598988	11/03/22 12:29	AGW	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-598989/1002
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	598989	11/03/22 08:44	JE	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-598048/3-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	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 15:30	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	598584	10/31/22 22:46	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-598048/5-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	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 16:12	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-598726/3-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	598726	11/01/22 13:29	DS	EET PEN
Total/NA	Analysis	8011		1			598749	11/01/22 18:51	DS	EET PEN

Client Sample ID: MW14-ROX-102422-DUP

Lab Sample ID: 400-227751-4 MS

Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

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	598989	11/03/22 11:31	JE	EET PEN

Client Sample ID: MW14-ROX-102422-DUP

Lab Sample ID: 400-227751-4 MSD

Date Collected: 10/24/22 09:35
Date Received: 10/25/22 09:45

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	598989	11/03/22 11:56	JE	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 598988

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227751-1	TB-ROX-102422-8260	Total/NA	Water	8260B	
400-227751-5	MW13-ROX-102422	Total/NA	Water	8260B	
400-227751-6	P114R-ROX-102422	Total/NA	Water	8260B	
MB 400-598988/4	Method Blank	Total/NA	Water	8260B	
LCS 400-598988/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 598989

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227751-3	MW14-ROX-102422	Total/NA	Water	8260B	
400-227751-4	MW14-ROX-102422-DUP	Total/NA	Water	8260B	
MB 400-598989/4	Method Blank	Total/NA	Water	8260B	
LCS 400-598989/1002	Lab Control Sample	Total/NA	Water	8260B	
400-227751-4 MS	MW14-ROX-102422-DUP	Total/NA	Water	8260B	
400-227751-4 MSD	MW14-ROX-102422-DUP	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 598048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227751-3	MW14-ROX-102422	Total/NA	Water	3520C	
400-227751-4	MW14-ROX-102422-DUP	Total/NA	Water	3520C	
400-227751-5	MW13-ROX-102422	Total/NA	Water	3520C	
400-227751-6	P114R-ROX-102422	Total/NA	Water	3520C	
MB 400-598048/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-598048/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-598048/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-598048/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-598048/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 598504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227751-3	MW14-ROX-102422	Total/NA	Water	8270D	598048
400-227751-4	MW14-ROX-102422-DUP	Total/NA	Water	8270D	598048
400-227751-5	MW13-ROX-102422	Total/NA	Water	8270D	598048
400-227751-6	P114R-ROX-102422	Total/NA	Water	8270D	598048
MB 400-598048/1-A	Method Blank	Total/NA	Water	8270D	598048
LCS 400-598048/2-A	Lab Control Sample	Total/NA	Water	8270D	598048
LCS 400-598048/4-A	Lab Control Sample	Total/NA	Water	8270D	598048
LCSD 400-598048/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	598048
LCSD 400-598048/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	598048

Analysis Batch: 598584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227751-3	MW14-ROX-102422	Total/NA	Water	8270D LL	598048
400-227751-4	MW14-ROX-102422-DUP	Total/NA	Water	8270D LL	598048
400-227751-5	MW13-ROX-102422	Total/NA	Water	8270D LL	598048
400-227751-6	P114R-ROX-102422	Total/NA	Water	8270D LL	598048
MB 400-598048/1-A	Method Blank	Total/NA	Water	8270D LL	598048
LCS 400-598048/2-A	Lab Control Sample	Total/NA	Water	8270D LL	598048
LCSD 400-598048/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	598048

QC Association Summary

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

Job ID: 400-227751-1

GC Semi VOA

Prep Batch: 598726

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227751-2	TB-ROX-102422-8011	Total/NA	Water	8011	
400-227751-3	MW14-ROX-102422	Total/NA	Water	8011	
400-227751-4	MW14-ROX-102422-DUP	Total/NA	Water	8011	
400-227751-5	MW13-ROX-102422	Total/NA	Water	8011	
400-227751-6	P114R-ROX-102422	Total/NA	Water	8011	
MB 400-598726/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-598726/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-598726/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 598749

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227751-2	TB-ROX-102422-8011	Total/NA	Water	8011	598726
400-227751-3	MW14-ROX-102422	Total/NA	Water	8011	598726
400-227751-4	MW14-ROX-102422-DUP	Total/NA	Water	8011	598726
400-227751-5	MW13-ROX-102422	Total/NA	Water	8011	598726
400-227751-6	P114R-ROX-102422	Total/NA	Water	8011	598726
MB 400-598726/1-A	Method Blank	Total/NA	Water	8011	598726
LCS 400-598726/2-A	Lab Control Sample	Total/NA	Water	8011	598726
LCSD 400-598726/3-A	Lab Control Sample Dup	Total/NA	Water	8011	598726

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

Lab Sample ID: MB 400-598988/4
Matrix: Water
Analysis Batch: 598988

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			11/03/22 13:22	1
Acrolein	ND		20	3.3	ug/L			11/03/22 13:22	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 13:22	1
Benzene	ND		1.0	0.13	ug/L			11/03/22 13:22	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 13:22	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 13:22	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 13:22	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 13:22	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 13:22	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 13:22	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 13:22	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 13:22	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 13:22	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 13:22	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 13:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 13:22	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 13:22	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 13:22	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 13:22	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 13:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 13:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 13:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 13:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 13:22	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 13:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 13:22	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 13:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 13:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 13:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 13:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 13:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 13:22	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 13:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 13:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 13:22	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 13:22	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 13:22	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 13:22	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 13:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 13:22	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/03/22 13:22	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 13:22	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 13:22	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 13:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 13:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 13:22	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 13:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 13:22	1

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

Lab Sample ID: MB 400-598988/4
Matrix: Water
Analysis Batch: 598988

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			11/03/22 13:22	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/03/22 13:22	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 13:22	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 13:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 13:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 13:22	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 13:22	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 13:22	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 13:22	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 13:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 13:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 13:22	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 13:22	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 13:22	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 13:22	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 13:22	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 13:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 13:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 13:22	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 13:22	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 13:22	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 13:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*11/03/22 13:22*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/03/22 13:22*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*11/03/22 13:22*	*1*

Lab Sample ID: LCS 400-598988/1002
Matrix: Water
Analysis Batch: 598988

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	236		ug/L		118	43 - 160
Acrolein	500	531		ug/L		106	38 - 160
Acrylonitrile	500	555		ug/L		111	64 - 142
Benzene	50.0	49.1		ug/L		98	70 - 130
Bromobenzene	50.0	47.3		ug/L		95	70 - 132
Bromochloromethane	50.0	46.4		ug/L		93	70 - 130
Bromodichloromethane	50.0	47.6		ug/L		95	67 - 133
Bromoform	50.0	42.6		ug/L		85	57 - 140
Bromomethane	50.0	77.5		ug/L		155	10 - 160
2-Butanone (MEK)	200	192		ug/L		96	61 - 145
Carbon disulfide	50.0	47.1		ug/L		94	61 - 137
Carbon tetrachloride	50.0	48.4		ug/L		97	61 - 137
Chlorobenzene	50.0	49.1		ug/L		98	70 - 130
Dibromochloromethane	50.0	46.2		ug/L		92	67 - 135
Chloroethane	50.0	45.5		ug/L		91	55 - 141

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

Lab Sample ID: LCS 400-598988/1002
Matrix: Water
Analysis Batch: 598988

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	17.1		ug/L		34	10 - 160
Chloroform	50.0	48.7		ug/L		97	69 - 130
1-Chlorohexane	50.0	54.0		ug/L		108	69 - 130
Chloromethane	50.0	58.3		ug/L		117	58 - 137
cis-1,2-Dichloroethene	50.0	47.7		ug/L		95	68 - 130
cis-1,3-Dichloropropene	50.0	43.8		ug/L		88	69 - 132
1,2-Dichlorobenzene	50.0	51.9		ug/L		104	67 - 130
1,3-Dichlorobenzene	50.0	52.5		ug/L		105	70 - 130
1,4-Dichlorobenzene	50.0	52.1		ug/L		104	70 - 130
Dichlorodifluoromethane	50.0	43.7		ug/L		87	41 - 146
1,1-Dichloroethane	50.0	50.2		ug/L		100	70 - 130
1,2-Dichloroethane	50.0	48.5		ug/L		97	69 - 130
1,1-Dichloroethene	50.0	46.3		ug/L		93	63 - 134
1,2-Dichloropropane	50.0	50.2		ug/L		100	70 - 130
1,3-Dichloropropane	50.0	46.4		ug/L		93	70 - 130
2,2-Dichloropropane	50.0	44.3		ug/L		89	52 - 135
1,1-Dichloropropene	50.0	47.1		ug/L		94	70 - 130
Ethylbenzene	50.0	49.2		ug/L		98	70 - 130
Ethyl methacrylate	50.0	42.8		ug/L		86	68 - 130
Hexachlorobutadiene	50.0	46.7		ug/L		93	53 - 140
2-Hexanone	200	222		ug/L		111	65 - 137
Isopropylbenzene	50.0	49.5		ug/L		99	70 - 130
Methylene bromide	50.0	46.9		ug/L		94	70 - 130
Methylene Chloride	50.0	48.5		ug/L		97	66 - 135
4-Methyl-2-pentanone (MIBK)	200	221		ug/L		111	69 - 138
Methyl tert-butyl ether	50.0	42.1		ug/L		84	66 - 130
m-Xylene & p-Xylene	50.0	46.9		ug/L		94	70 - 130
Naphthalene	50.0	42.9		ug/L		86	47 - 149
n-Butylbenzene	50.0	50.8		ug/L		102	67 - 130
N-Propylbenzene	50.0	50.1		ug/L		100	70 - 130
o-Chlorotoluene	50.0	46.4		ug/L		93	70 - 130
o-Xylene	50.0	47.4		ug/L		95	70 - 130
p-Chlorotoluene	50.0	50.3		ug/L		101	70 - 130
p-Isopropyltoluene	50.0	51.4		ug/L		103	65 - 130
sec-Butylbenzene	50.0	52.3		ug/L		105	66 - 130
Styrene	50.0	49.9		ug/L		100	70 - 130
tert-Butylbenzene	50.0	48.3		ug/L		97	64 - 139
1,1,1,2-Tetrachloroethane	50.0	47.0		ug/L		94	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.3		ug/L		97	70 - 131
Tetrachloroethene	50.0	45.7		ug/L		91	65 - 130
Toluene	50.0	48.3		ug/L		97	70 - 130
trans-1,2-Dichloroethene	50.0	47.5		ug/L		95	70 - 130
trans-1,3-Dichloropropene	50.0	43.1		ug/L		86	63 - 130
1,2,3-Trichlorobenzene	50.0	46.8		ug/L		94	60 - 138
1,2,4-Trichlorobenzene	50.0	45.5		ug/L		91	60 - 140
1,1,1-Trichloroethane	50.0	48.2		ug/L		96	68 - 130
1,1,2-Trichloroethane	50.0	47.5		ug/L		95	70 - 130
Trichloroethene	50.0	46.3		ug/L		93	70 - 130
Trichlorofluoromethane	50.0	52.3		ug/L		105	65 - 138

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

Lab Sample ID: LCS 400-598988/1002
Matrix: Water
Analysis Batch: 598988

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	48.3		ug/L		97	70 - 130
1,2,4-Trimethylbenzene	50.0	50.1		ug/L		100	70 - 130
1,3,5-Trimethylbenzene	50.0	49.5		ug/L		99	69 - 130
Vinyl acetate	100	92.2		ug/L		92	26 - 160
Vinyl chloride	50.0	55.8		ug/L		112	59 - 136
Xylenes, Total	100	94.3		ug/L		94	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*86*		*72 - 119*
Dibromofluoromethane	*101*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

Lab Sample ID: MB 400-598989/4
Matrix: Water
Analysis Batch: 598989

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			11/03/22 09:42	1
Acrolein	ND		20	3.3	ug/L			11/03/22 09:42	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 09:42	1
Benzene	ND		1.0	0.13	ug/L			11/03/22 09:42	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 09:42	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 09:42	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 09:42	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 09:42	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 09:42	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 09:42	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 09:42	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 09:42	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 09:42	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 09:42	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 09:42	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 09:42	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 09:42	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 09:42	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 09:42	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 09:42	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 09:42	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 09:42	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 09:42	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 09:42	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 09:42	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 09:42	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 09:42	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 09:42	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 09:42	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 09:42	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 09:42	1

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

Lab Sample ID: MB 400-598989/4
Matrix: Water
Analysis Batch: 598989

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			11/03/22 09:42	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 09:42	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 09:42	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 09:42	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 09:42	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 09:42	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 09:42	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 09:42	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 09:42	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/03/22 09:42	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 09:42	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 09:42	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 09:42	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 09:42	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 09:42	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 09:42	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 09:42	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 09:42	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/03/22 09:42	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 09:42	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 09:42	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 09:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 09:42	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 09:42	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 09:42	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 09:42	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 09:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 09:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 09:42	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 09:42	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 09:42	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 09:42	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 09:42	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 09:42	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 09:42	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 09:42	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 09:42	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 09:42	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 09:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*11/03/22 09:42*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*11/03/22 09:42*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*11/03/22 09:42*	*1*

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

Lab Sample ID: LCS 400-598989/1002
Matrix: Water
Analysis Batch: 598989

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	263		ug/L		132	43 - 160
Acrolein	500	348		ug/L		70	38 - 160
Acrylonitrile	500	461		ug/L		92	64 - 142
Benzene	50.0	51.9		ug/L		104	70 - 130
Bromobenzene	50.0	53.8		ug/L		108	70 - 132
Bromochloromethane	50.0	46.3		ug/L		93	70 - 130
Bromodichloromethane	50.0	47.7		ug/L		95	67 - 133
Bromoform	50.0	49.5		ug/L		99	57 - 140
Bromomethane	50.0	53.2		ug/L		106	10 - 160
2-Butanone (MEK)	200	194		ug/L		97	61 - 145
Carbon disulfide	50.0	50.8		ug/L		102	61 - 137
Carbon tetrachloride	50.0	46.9		ug/L		94	61 - 137
Chlorobenzene	50.0	53.9		ug/L		108	70 - 130
Dibromochloromethane	50.0	46.7		ug/L		93	67 - 135
Chloroethane	50.0	47.8		ug/L		96	55 - 141
2-Chloroethyl vinyl ether	50.0	38.2		ug/L		76	10 - 160
Chloroform	50.0	49.6		ug/L		99	69 - 130
1-Chlorohexane	50.0	58.1		ug/L		116	69 - 130
Chloromethane	50.0	54.6		ug/L		109	58 - 137
cis-1,2-Dichloroethene	50.0	47.4		ug/L		95	68 - 130
cis-1,3-Dichloropropene	50.0	47.1		ug/L		94	69 - 132
1,2-Dichlorobenzene	50.0	55.7		ug/L		111	67 - 130
1,3-Dichlorobenzene	50.0	57.8		ug/L		116	70 - 130
1,4-Dichlorobenzene	50.0	56.4		ug/L		113	70 - 130
Dichlorodifluoromethane	50.0	52.5		ug/L		105	41 - 146
1,1-Dichloroethane	50.0	51.3		ug/L		103	70 - 130
1,2-Dichloroethane	50.0	44.8		ug/L		90	69 - 130
1,1-Dichloroethene	50.0	45.3		ug/L		91	63 - 134
1,2-Dichloropropane	50.0	51.5		ug/L		103	70 - 130
1,3-Dichloropropane	50.0	48.1		ug/L		96	70 - 130
2,2-Dichloropropane	50.0	42.6		ug/L		85	52 - 135
1,1-Dichloropropene	50.0	50.0		ug/L		100	70 - 130
Ethylbenzene	50.0	55.5		ug/L		111	70 - 130
Ethyl methacrylate	50.0	43.1		ug/L		86	68 - 130
Hexachlorobutadiene	50.0	72.0	*+	ug/L		144	53 - 140
2-Hexanone	200	189		ug/L		95	65 - 137
Isopropylbenzene	50.0	53.0		ug/L		106	70 - 130
Methylene bromide	50.0	47.8		ug/L		96	70 - 130
Methylene Chloride	50.0	49.7		ug/L		99	66 - 135
4-Methyl-2-pentanone (MIBK)	200	178		ug/L		89	69 - 138
Methyl tert-butyl ether	50.0	42.9		ug/L		86	66 - 130
m-Xylene & p-Xylene	50.0	51.0		ug/L		102	70 - 130
Naphthalene	50.0	67.3		ug/L		135	47 - 149
n-Butylbenzene	50.0	70.4	*+	ug/L		141	67 - 130
N-Propylbenzene	50.0	53.4		ug/L		107	70 - 130
o-Chlorotoluene	50.0	53.4		ug/L		107	70 - 130
o-Xylene	50.0	49.7		ug/L		99	70 - 130
p-Chlorotoluene	50.0	54.8		ug/L		110	70 - 130

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

Lab Sample ID: LCS 400-598989/1002
Matrix: Water
Analysis Batch: 598989

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	61.6		ug/L		123	65 - 130
sec-Butylbenzene	50.0	58.1		ug/L		116	66 - 130
Styrene	50.0	50.7		ug/L		101	70 - 130
tert-Butylbenzene	50.0	62.8		ug/L		126	64 - 139
1,1,1,2-Tetrachloroethane	50.0	50.6		ug/L		101	67 - 131
1,1,2,2-Tetrachloroethane	50.0	49.4		ug/L		99	70 - 131
Tetrachloroethene	50.0	55.0		ug/L		110	65 - 130
Toluene	50.0	49.5		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	49.9		ug/L		100	70 - 130
trans-1,3-Dichloropropene	50.0	46.3		ug/L		93	63 - 130
1,2,3-Trichlorobenzene	50.0	73.1	*+	ug/L		146	60 - 138
1,2,4-Trichlorobenzene	50.0	73.1	*+	ug/L		146	60 - 140
1,1,1-Trichloroethane	50.0	48.3		ug/L		97	68 - 130
1,1,2-Trichloroethane	50.0	49.5		ug/L		99	70 - 130
Trichloroethene	50.0	51.3		ug/L		103	70 - 130
Trichlorofluoromethane	50.0	41.4		ug/L		83	65 - 138
1,2,3-Trichloropropane	50.0	44.0		ug/L		88	70 - 130
1,2,4-Trimethylbenzene	50.0	56.7		ug/L		113	70 - 130
1,3,5-Trimethylbenzene	50.0	56.3		ug/L		113	69 - 130
Vinyl acetate	100	88.1		ug/L		88	26 - 160
Vinyl chloride	50.0	47.4		ug/L		95	59 - 136
Xylenes, Total	100	101		ug/L		101	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*90*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Lab Sample ID: 400-227751-4 MS
Matrix: Water
Analysis Batch: 598989

Client Sample ID: MW14-ROX-102422-DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	178		ug/L		89	43 - 150
Acrolein	ND		500	369		ug/L		74	38 - 150
Acrylonitrile	ND		500	483		ug/L		97	62 - 149
Benzene	0.54	J	50.0	47.7		ug/L		94	56 - 142
Bromobenzene	ND		50.0	47.1		ug/L		94	59 - 136
Bromochloromethane	ND		50.0	44.8		ug/L		90	64 - 140
Bromodichloromethane	ND		50.0	44.5		ug/L		89	59 - 143
Bromoform	ND		50.0	45.3		ug/L		91	50 - 140
Bromomethane	ND		50.0	52.3		ug/L		105	10 - 150
2-Butanone (MEK)	ND		200	173		ug/L		87	55 - 150
Carbon disulfide	ND		50.0	44.4		ug/L		89	48 - 150
Carbon tetrachloride	ND		50.0	40.8		ug/L		82	55 - 145
Chlorobenzene	ND		50.0	46.8		ug/L		94	64 - 130
Dibromochloromethane	ND		50.0	43.4		ug/L		87	56 - 143
Chloroethane	ND		50.0	46.9		ug/L		94	50 - 150

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

Lab Sample ID: 400-227751-4 MS
Matrix: Water
Analysis Batch: 598989

Client Sample ID: MW14-ROX-102422-DUP
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	45.3		ug/L		91	60 - 141
1-Chlorohexane	ND		50.0	48.0		ug/L		96	56 - 136
Chloromethane	ND		50.0	55.8		ug/L		112	49 - 148
cis-1,2-Dichloroethene	ND		50.0	44.9		ug/L		90	59 - 143
cis-1,3-Dichloropropene	ND		50.0	43.3		ug/L		87	57 - 140
1,2-Dichlorobenzene	ND		50.0	48.9		ug/L		98	52 - 137
1,3-Dichlorobenzene	ND		50.0	48.0		ug/L		96	54 - 135
1,4-Dichlorobenzene	ND		50.0	46.8		ug/L		94	53 - 135
Dichlorodifluoromethane	ND		50.0	50.1		ug/L		100	16 - 150
1,1-Dichloroethane	ND		50.0	46.4		ug/L		93	61 - 144
1,2-Dichloroethane	ND		50.0	44.2		ug/L		88	60 - 141
1,1-Dichloroethene	ND		50.0	39.2		ug/L		78	54 - 147
1,2-Dichloropropane	ND		50.0	47.5		ug/L		95	66 - 137
1,3-Dichloropropane	ND		50.0	47.3		ug/L		95	66 - 133
2,2-Dichloropropane	ND		50.0	39.7		ug/L		79	42 - 144
1,1-Dichloropropene	ND		50.0	43.8		ug/L		88	65 - 136
Ethylbenzene	ND		50.0	47.2		ug/L		94	58 - 131
Ethyl methacrylate	ND		50.0	43.8		ug/L		88	64 - 130
Hexachlorobutadiene	ND	*+	50.0	56.1		ug/L		112	31 - 149
2-Hexanone	ND		200	177		ug/L		89	65 - 140
Isopropylbenzene	ND		50.0	44.7		ug/L		89	56 - 133
Methylene bromide	ND		50.0	45.1		ug/L		90	63 - 138
Methylene Chloride	ND		50.0	45.2		ug/L		90	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	173		ug/L		86	63 - 146
Methyl tert-butyl ether	ND		50.0	42.0		ug/L		84	59 - 137
m-Xylene & p-Xylene	ND		50.0	44.2		ug/L		88	57 - 130
Naphthalene	ND		50.0	65.0		ug/L		130	25 - 150
n-Butylbenzene	ND	*+	50.0	55.0		ug/L		110	41 - 142
N-Propylbenzene	ND		50.0	44.8		ug/L		90	51 - 138
o-Chlorotoluene	ND		50.0	46.1		ug/L		92	53 - 134
o-Xylene	ND		50.0	44.1		ug/L		88	61 - 130
p-Chlorotoluene	ND		50.0	46.8		ug/L		94	54 - 133
p-Isopropyltoluene	ND		50.0	48.8		ug/L		98	48 - 139
sec-Butylbenzene	ND		50.0	47.1		ug/L		94	50 - 138
Styrene	ND		50.0	45.0		ug/L		90	58 - 131
tert-Butylbenzene	ND		50.0	43.8		ug/L		88	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	46.7		ug/L		93	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	48.0		ug/L		96	66 - 135
Tetrachloroethene	ND		50.0	48.2		ug/L		96	52 - 133
Toluene	ND		50.0	45.3		ug/L		91	65 - 130
trans-1,2-Dichloroethene	ND		50.0	44.5		ug/L		89	61 - 143
trans-1,3-Dichloropropene	ND		50.0	44.0		ug/L		88	53 - 133
1,2,3-Trichlorobenzene	ND	*+	50.0	63.5		ug/L		127	43 - 145
1,2,4-Trichlorobenzene	ND	*+	50.0	63.0		ug/L		126	39 - 148
1,1,1-Trichloroethane	ND		50.0	42.0		ug/L		84	57 - 142
1,1,2-Trichloroethane	ND		50.0	49.0		ug/L		98	66 - 131
Trichloroethene	ND		50.0	44.6		ug/L		89	64 - 136
Trichlorofluoromethane	ND		50.0	38.7		ug/L		77	54 - 150

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

Lab Sample ID: 400-227751-4 MS
Matrix: Water
Analysis Batch: 598989

Client Sample ID: MW14-ROX-102422-DUP
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	43.1		ug/L		86	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	48.8		ug/L		98	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	47.3		ug/L		95	52 - 135
Vinyl acetate	ND		100	90.1		ug/L		90	26 - 150
Vinyl chloride	ND		50.0	46.6		ug/L		93	46 - 150
Xylenes, Total	ND		100	88.3		ug/L		88	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*92*		*72 - 119*
Dibromofluoromethane	*88*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: 400-227751-4 MSD
Matrix: Water
Analysis Batch: 598989

Client Sample ID: MW14-ROX-102422-DUP
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	176		ug/L		88	43 - 150	1	30
Acrolein	ND		500	334		ug/L		67	38 - 150	10	31
Acrylonitrile	ND		500	503		ug/L		101	62 - 149	4	30
Benzene	0.54	J	50.0	50.4		ug/L		100	56 - 142	6	30
Bromobenzene	ND		50.0	53.1		ug/L		106	59 - 136	12	30
Bromochloromethane	ND		50.0	45.3		ug/L		91	64 - 140	1	30
Bromodichloromethane	ND		50.0	46.1		ug/L		92	59 - 143	4	30
Bromoform	ND		50.0	48.0		ug/L		96	50 - 140	6	30
Bromomethane	ND		50.0	45.7		ug/L		91	10 - 150	14	50
2-Butanone (MEK)	ND		200	175		ug/L		88	55 - 150	1	30
Carbon disulfide	ND		50.0	46.5		ug/L		93	48 - 150	5	30
Carbon tetrachloride	ND		50.0	43.1		ug/L		86	55 - 145	5	30
Chlorobenzene	ND		50.0	50.5		ug/L		101	64 - 130	8	30
Dibromochloromethane	ND		50.0	46.1		ug/L		92	56 - 143	6	30
Chloroethane	ND		50.0	43.8		ug/L		88	50 - 150	7	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	46.6		ug/L		93	60 - 141	3	30
1-Chlorohexane	ND		50.0	55.3		ug/L		111	56 - 136	14	30
Chloromethane	ND		50.0	52.3		ug/L		105	49 - 148	6	31
cis-1,2-Dichloroethene	ND		50.0	45.6		ug/L		91	59 - 143	2	30
cis-1,3-Dichloropropene	ND		50.0	46.7		ug/L		93	57 - 140	8	30
1,2-Dichlorobenzene	ND		50.0	53.7		ug/L		107	52 - 137	9	30
1,3-Dichlorobenzene	ND		50.0	53.7		ug/L		107	54 - 135	11	30
1,4-Dichlorobenzene	ND		50.0	52.9		ug/L		106	53 - 135	12	30
Dichlorodifluoromethane	ND		50.0	48.7		ug/L		97	16 - 150	3	31
1,1-Dichloroethane	ND		50.0	48.1		ug/L		96	61 - 144	3	30
1,2-Dichloroethane	ND		50.0	44.7		ug/L		89	60 - 141	1	30
1,1-Dichloroethene	ND		50.0	40.7		ug/L		81	54 - 147	4	30
1,2-Dichloropropane	ND		50.0	51.4		ug/L		103	66 - 137	8	30
1,3-Dichloropropane	ND		50.0	47.5		ug/L		95	66 - 133	0	30
2,2-Dichloropropane	ND		50.0	41.4		ug/L		83	42 - 144	4	31

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

Lab Sample ID: 400-227751-4 MSD
Matrix: Water
Analysis Batch: 598989

Client Sample ID: MW14-ROX-102422-DUP
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	47.2		ug/L		94	65 - 136	7	30
Ethylbenzene	ND		50.0	52.1		ug/L		104	58 - 131	10	30
Ethyl methacrylate	ND		50.0	45.8		ug/L		92	64 - 130	4	30
Hexachlorobutadiene	ND	*+	50.0	69.2		ug/L		138	31 - 149	21	36
2-Hexanone	ND		200	182		ug/L		91	65 - 140	3	30
Isopropylbenzene	ND		50.0	52.7		ug/L		105	56 - 133	16	30
Methylene bromide	ND		50.0	47.2		ug/L		94	63 - 138	5	30
Methylene Chloride	ND		50.0	46.9		ug/L		94	60 - 146	4	32
4-Methyl-2-pentanone (MIBK)	ND		200	185		ug/L		93	63 - 146	7	30
Methyl tert-butyl ether	ND		50.0	43.6		ug/L		87	59 - 137	4	30
m-Xylene & p-Xylene	ND		50.0	50.2		ug/L		100	57 - 130	13	30
Naphthalene	ND		50.0	67.4		ug/L		135	25 - 150	4	30
n-Butylbenzene	ND	*+	50.0	66.7		ug/L		133	41 - 142	19	31
N-Propylbenzene	ND		50.0	51.2		ug/L		102	51 - 138	13	30
o-Chlorotoluene	ND		50.0	50.2		ug/L		100	53 - 134	9	30
o-Xylene	ND		50.0	49.4		ug/L		99	61 - 130	11	30
p-Chlorotoluene	ND		50.0	47.6		ug/L		95	54 - 133	2	30
p-Isopropyltoluene	ND		50.0	57.6		ug/L		115	48 - 139	17	30
sec-Butylbenzene	ND		50.0	56.1		ug/L		112	50 - 138	18	30
Styrene	ND		50.0	49.6		ug/L		99	58 - 131	10	30
tert-Butylbenzene	ND		50.0	59.5		ug/L		119	54 - 146	30	30
1,1,1,2-Tetrachloroethane	ND		50.0	48.5		ug/L		97	59 - 137	4	30
1,1,2,2-Tetrachloroethane	ND		50.0	50.5		ug/L		101	66 - 135	5	30
Tetrachloroethene	ND		50.0	52.1		ug/L		104	52 - 133	8	30
Toluene	ND		50.0	48.7		ug/L		97	65 - 130	7	30
trans-1,2-Dichloroethene	ND		50.0	47.8		ug/L		96	61 - 143	7	30
trans-1,3-Dichloropropene	ND		50.0	46.4		ug/L		93	53 - 133	5	30
1,2,3-Trichlorobenzene	ND	*+	50.0	68.3		ug/L		137	43 - 145	7	30
1,2,4-Trichlorobenzene	ND	*+	50.0	67.3		ug/L		135	39 - 148	7	30
1,1,1-Trichloroethane	ND		50.0	44.0		ug/L		88	57 - 142	5	30
1,1,2-Trichloroethane	ND		50.0	49.7		ug/L		99	66 - 131	1	30
Trichloroethene	ND		50.0	48.0		ug/L		96	64 - 136	7	30
Trichlorofluoromethane	ND		50.0	37.0		ug/L		74	54 - 150	5	30
1,2,3-Trichloropropane	ND		50.0	44.9		ug/L		90	65 - 133	4	30
1,2,4-Trimethylbenzene	ND		50.0	54.2		ug/L		108	50 - 139	11	30
1,3,5-Trimethylbenzene	ND		50.0	51.5		ug/L		103	52 - 135	9	30
Vinyl acetate	ND		100	81.2		ug/L		81	26 - 150	10	33
Vinyl chloride	ND		50.0	44.0		ug/L		88	46 - 150	6	30
Xylenes, Total	ND		100	99.5		ug/L		100	59 - 130	12	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*94*		*72 - 119*
Dibromofluoromethane	*89*		*75 - 126*
Toluene-d8 (Surr)	*105*		*64 - 132*

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

Lab Sample ID: MB 400-598048/1-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/27/22 10:41	10/31/22 14:48	1
Benzenethiol	ND		10	1.7	ug/L		10/27/22 10:41	10/31/22 14:48	1
Benzoic acid	ND		30	7.3	ug/L		10/27/22 10:41	10/31/22 14:48	1
Benzyl alcohol	ND		10	2.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/27/22 10:41	10/31/22 14:48	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/27/22 10:41	10/31/22 14:48	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/27/22 10:41	10/31/22 14:48	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/27/22 10:41	10/31/22 14:48	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Chloroaniline	ND		10	3.4	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/27/22 10:41	10/31/22 14:48	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/27/22 10:41	10/31/22 14:48	1
2-Chlorophenol	ND		10	2.2	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Dibenzofuran	ND		10	0.17	ug/L		10/27/22 10:41	10/31/22 14:48	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Diethyl phthalate	ND		10	0.24	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/27/22 10:41	10/31/22 14:48	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/27/22 10:41	10/31/22 14:48	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/27/22 10:41	10/31/22 14:48	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/27/22 10:41	10/31/22 14:48	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/27/22 10:41	10/31/22 14:48	1
1,4-Dioxane	ND		10	1.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/27/22 10:41	10/31/22 14:48	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/27/22 10:41	10/31/22 14:48	1
Hexachloroethane	ND		10	4.2	ug/L		10/27/22 10:41	10/31/22 14:48	1
Indene	ND		10	1.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Isophorone	ND		10	0.14	ug/L		10/27/22 10:41	10/31/22 14:48	1
2-Methylphenol	ND		10	1.8	ug/L		10/27/22 10:41	10/31/22 14:48	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/27/22 10:41	10/31/22 14:48	1
2-Nitroaniline	ND		10	2.2	ug/L		10/27/22 10:41	10/31/22 14:48	1
3-Nitroaniline	ND		10	1.8	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Nitroaniline	ND		10	1.5	ug/L		10/27/22 10:41	10/31/22 14:48	1
Nitrobenzene	ND		10	0.13	ug/L		10/27/22 10:41	10/31/22 14:48	1
2-Nitrophenol	ND		10	5.2	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Nitrophenol	ND		10	2.1	ug/L		10/27/22 10:41	10/31/22 14:48	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/27/22 10:41	10/31/22 14:48	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/27/22 10:41	10/31/22 14:48	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/27/22 10:41	10/31/22 14:48	1
Pentachlorophenol	ND		20	1.4	ug/L		10/27/22 10:41	10/31/22 14:48	1
Phenol	ND		10	2.6	ug/L		10/27/22 10:41	10/31/22 14:48	1

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

Lab Sample ID: MB 400-598048/1-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		10/27/22 10:41	10/31/22 14:48	1
Quinoline	ND		10	4.5	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/27/22 10:41	10/31/22 14:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*46 - 124*	*10/27/22 10:41*	*10/31/22 14:48*	*1*
2-Fluorophenol	*19*		*13 - 113*	*10/27/22 10:41*	*10/31/22 14:48*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*10/27/22 10:41*	*10/31/22 14:48*	*1*
Phenol-d5	*52*		*17 - 127*	*10/27/22 10:41*	*10/31/22 14:48*	*1*
Terphenyl-d14	*94*		*44 - 149*	*10/27/22 10:41*	*10/31/22 14:48*	*1*
2,4,6-Tribromophenol	*73*		*26 - 150*	*10/27/22 10:41*	*10/31/22 14:48*	*1*

Lab Sample ID: LCS 400-598048/2-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	98.0		ug/L		82	21 - 120
Benzoic acid	513	644		ug/L		125	10 - 144
Benzyl alcohol	120	121		ug/L		101	28 - 120
Bis(2-chloroethoxy)methane	120	79.6		ug/L		66	47 - 120
Bis(2-chloroethyl)ether	120	86.7		ug/L		72	44 - 120
bis (2-chloroisopropyl) ether	120	111		ug/L		93	33 - 121
Bis(2-ethylhexyl) phthalate	120	114		ug/L		95	52 - 147
4-Bromophenyl phenyl ether	120	121		ug/L		101	54 - 122
Butyl benzyl phthalate	120	110		ug/L		91	54 - 133
4-Chloroaniline	120	84.7		ug/L		71	26 - 120
4-Chloro-3-methylphenol	120	105		ug/L		88	48 - 131
2-Chloronaphthalene	120	97.3		ug/L		81	52 - 121
2-Chlorophenol	120	81.2		ug/L		68	40 - 120
4-Chlorophenyl phenyl ether	120	109		ug/L		91	56 - 125
Dibenz[a,h]acridine	120	119		ug/L		99	31 - 150
Dibenzofuran	120	103		ug/L		86	56 - 122
3,3'-Dichlorobenzidine	160	196		ug/L		122	36 - 132
2,4-Dichlorophenol	120	93.3		ug/L		78	49 - 120
Diethyl phthalate	120	125		ug/L		104	50 - 137
2,4-Dimethylphenol	120	101		ug/L		84	48 - 120
Dimethyl phthalate	120	109		ug/L		91	57 - 124
Di-n-butyl phthalate	120	119		ug/L		99	58 - 126
4,6-Dinitro-ortho-cresol	240	368	*+	ug/L		153	23 - 148
2,4-Dinitrophenol	240	349		ug/L		145	10 - 150
2,4-Dinitrotoluene	120	112		ug/L		93	54 - 142
2,6-Dinitrotoluene	120	101		ug/L		84	55 - 130
Di-n-octyl phthalate	120	116		ug/L		97	57 - 138
1,4-Dioxane	120	67.8		ug/L		57	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	108		ug/L		90	45 - 124
Hexachlorobenzene	120	136		ug/L		113	52 - 129

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

Lab Sample ID: LCS 400-598048/2-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	120	60.9		ug/L		51	10 - 134
Hexachloroethane	120	106		ug/L		89	20 - 120
Indene	120	204	*+	ug/L		170	49 - 120
Isophorone	120	89.1		ug/L		74	48 - 120
2-Methylphenol	120	104		ug/L		86	46 - 124
3 & 4 Methylphenol	120	101		ug/L		84	45 - 120
2-Nitroaniline	120	121		ug/L		101	51 - 145
3-Nitroaniline	120	108		ug/L		90	37 - 127
4-Nitroaniline	120	114		ug/L		95	36 - 137
Nitrobenzene	120	86.4		ug/L		72	45 - 120
2-Nitrophenol	120	83.3		ug/L		69	40 - 124
4-Nitrophenol	240	308		ug/L		128	23 - 146
N-Nitrosodimethylamine	120	123		ug/L		103	29 - 137
N-Nitrosodi-n-propylamine	120	111		ug/L		93	45 - 120
N-Nitrosodiphenylamine	119	110		ug/L		93	54 - 120
Pentachlorophenol	240	244		ug/L		102	31 - 130
Phenol	120	94.4		ug/L		79	11 - 120
Pyridine	240	135		ug/L		56	16 - 120
Quinoline	120	87.1		ug/L		73	49 - 130
2,4,5-Trichlorophenol	120	109		ug/L		90	51 - 136
2,4,6-Trichlorophenol	120	106		ug/L		89	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*41*		*13 - 113*
Nitrobenzene-d5	*81*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*101*		*44 - 149*
2,4,6-Tribromophenol	*117*		*26 - 150*

Lab Sample ID: LCS 400-598048/4-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	5.41	J *-	ug/L		5	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*82*		*46 - 124*
2-Fluorophenol	*60*		*13 - 113*
Nitrobenzene-d5	*91*		*36 - 126*
Phenol-d5	*85*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*
2,4,6-Tribromophenol	*86*		*26 - 150*

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

Lab Sample ID: LCSD 400-598048/3-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	115		ug/L		95	21 - 120	16	30
Benzoic acid	513	564		ug/L		110	10 - 144	13	30
Benzyl alcohol	120	142		ug/L		118	28 - 120	16	30
Bis(2-chloroethoxy)methane	120	96.7		ug/L		81	47 - 120	19	30
Bis(2-chloroethyl)ether	120	106		ug/L		88	44 - 120	20	30
bis (2-chloroisopropyl) ether	120	135		ug/L		112	33 - 121	19	30
Bis(2-ethylhexyl) phthalate	120	128		ug/L		107	52 - 147	12	30
4-Bromophenyl phenyl ether	120	141		ug/L		118	54 - 122	15	30
Butyl benzyl phthalate	120	127		ug/L		106	54 - 133	15	30
4-Chloroaniline	120	97.7		ug/L		81	26 - 120	14	30
4-Chloro-3-methylphenol	120	123		ug/L		103	48 - 131	16	30
2-Chloronaphthalene	120	119		ug/L		99	52 - 121	20	30
2-Chlorophenol	120	84.8		ug/L		71	40 - 120	4	30
4-Chlorophenyl phenyl ether	120	128		ug/L		106	56 - 125	16	30
Dibenz[a,h]acridine	120	143		ug/L		119	31 - 150	18	30
Dibenzofuran	120	124		ug/L		103	56 - 122	18	30
3,3'-Dichlorobenzidine	160	225	*+	ug/L		141	36 - 132	14	30
2,4-Dichlorophenol	120	109		ug/L		91	49 - 120	15	30
Diethyl phthalate	120	146		ug/L		121	50 - 137	15	30
2,4-Dimethylphenol	120	119		ug/L		99	48 - 120	16	30
Dimethyl phthalate	120	127		ug/L		106	57 - 124	15	30
Di-n-butyl phthalate	120	140		ug/L		116	58 - 126	16	30
4,6-Dinitro-ortho-cresol	240	438	*+	ug/L		183	23 - 148	17	30
2,4-Dinitrophenol	240	385	*+	ug/L		160	10 - 150	10	30
2,4-Dinitrotoluene	120	131		ug/L		109	54 - 142	16	30
2,6-Dinitrotoluene	120	118		ug/L		98	55 - 130	16	30
Di-n-octyl phthalate	120	134		ug/L		111	57 - 138	14	30
1,4-Dioxane	120	94.5	*1	ug/L		79	31 - 120	33	30
1,2-Diphenylhydrazine (as Azobenzene)	120	128		ug/L		107	45 - 124	17	30
Hexachlorobenzene	120	158	*+	ug/L		131	52 - 129	15	30
Hexachlorocyclopentadiene	120	87.1	*1	ug/L		73	10 - 134	35	30
Hexachloroethane	120	126		ug/L		105	20 - 120	17	30
Indene	120	263	*+	ug/L		219	49 - 120	25	30
Isophorone	120	103		ug/L		86	48 - 120	14	30
2-Methylphenol	120	124		ug/L		103	46 - 124	18	30
3 & 4 Methylphenol	120	121		ug/L		101	45 - 120	18	30
2-Nitroaniline	120	126		ug/L		105	51 - 145	4	30
3-Nitroaniline	120	125		ug/L		104	37 - 127	14	30
4-Nitroaniline	120	135		ug/L		113	36 - 137	17	30
Nitrobenzene	120	102		ug/L		85	45 - 120	17	30
2-Nitrophenol	120	101		ug/L		84	40 - 124	19	30
4-Nitrophenol	240	361	*+	ug/L		150	23 - 146	16	30
N-Nitrosodimethylamine	120	165	*+	ug/L		138	29 - 137	29	30
N-Nitrosodi-n-propylamine	120	131		ug/L		109	45 - 120	16	30
N-Nitrosodiphenylamine	119	127		ug/L		107	54 - 120	14	30
Pentachlorophenol	240	283		ug/L		118	31 - 130	15	30
Phenol	120	108		ug/L		90	11 - 120	13	30
Pyridine	240	165		ug/L		69	16 - 120	20	30

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

Lab Sample ID: LCSD 400-598048/3-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Quinoline	120	102		ug/L		85	49 - 130	16	30
2,4,5-Trichlorophenol	120	128		ug/L		107	51 - 136	17	30
2,4,6-Trichlorophenol	120	129		ug/L		108	50 - 127	20	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*90*		*46 - 124*
2-Fluorophenol	*31*		*13 - 113*
Nitrobenzene-d5	*91*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*111*		*44 - 149*
2,4,6-Tribromophenol	*133*		*26 - 150*

Lab Sample ID: LCSD 400-598048/5-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	4.57	J *-	ug/L		4	10 - 120	17	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*46 - 124*
2-Fluorophenol	*58*		*13 - 113*
Nitrobenzene-d5	*94*		*36 - 126*
Phenol-d5	*82*		*17 - 127*
Terphenyl-d14	*118*		*44 - 149*
2,4,6-Tribromophenol	*42*		*26 - 150*

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

Lab Sample ID: MB 400-598048/1-A
Matrix: Water
Analysis Batch: 598584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		10/27/22 10:41	10/31/22 22:11	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/27/22 10:41	10/31/22 22:11	1
Anthracene	ND		0.20	0.032	ug/L		10/27/22 10:41	10/31/22 22:11	1
Benzo[a]anthracene	0.0888	J	0.20	0.046	ug/L		10/27/22 10:41	10/31/22 22:11	1
Benzo[a]pyrene	0.130	J	0.20	0.042	ug/L		10/27/22 10:41	10/31/22 22:11	1
Benzo[b]fluoranthene	0.137	J	0.20	0.034	ug/L		10/27/22 10:41	10/31/22 22:11	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		10/27/22 10:41	10/31/22 22:11	1
Benzo[k]fluoranthene	0.150	J	0.20	0.10	ug/L		10/27/22 10:41	10/31/22 22:11	1
Chrysene	ND		0.20	0.074	ug/L		10/27/22 10:41	10/31/22 22:11	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		10/27/22 10:41	10/31/22 22:11	1
Fluoranthene	ND		0.20	0.068	ug/L		10/27/22 10:41	10/31/22 22:11	1
Fluorene	ND		0.20	0.11	ug/L		10/27/22 10:41	10/31/22 22:11	1
Indeno[1,2,3-cd]pyrene	0.0454	J	0.20	0.043	ug/L		10/27/22 10:41	10/31/22 22:11	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		10/27/22 10:41	10/31/22 22:11	1

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

Lab Sample ID: MB 400-598048/1-A
Matrix: Water
Analysis Batch: 598584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.20	0.060	ug/L		10/27/22 10:41	10/31/22 22:11	1
Phenanthrene	0.0488	J	0.20	0.036	ug/L		10/27/22 10:41	10/31/22 22:11	1
Pyrene	0.0410	J	0.20	0.040	ug/L		10/27/22 10:41	10/31/22 22:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*15 - 122*	*10/27/22 10:41*	*10/31/22 22:11*	*1*
Nitrobenzene-d5	*80*		*19 - 130*	*10/27/22 10:41*	*10/31/22 22:11*	*1*
Terphenyl-d14	*76*		*33 - 138*	*10/27/22 10:41*	*10/31/22 22:11*	*1*

Lab Sample ID: LCS 400-598048/2-A
Matrix: Water
Analysis Batch: 598584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	115		ug/L		96	41 - 120
Acenaphthylene	120	119		ug/L		99	44 - 120
Anthracene	120	130		ug/L		108	49 - 120
Benzo[a]anthracene	120	117		ug/L		98	61 - 135
Benzo[a]pyrene	120	111		ug/L		93	52 - 120
Benzo[b]fluoranthene	120	114		ug/L		95	53 - 134
Benzo[g,h,i]perylene	120	83.4		ug/L		70	47 - 133
Benzo[k]fluoranthene	120	110		ug/L		92	57 - 134
Chrysene	120	121		ug/L		100	55 - 122
Dibenz(a,h)anthracene	120	95.1		ug/L		79	48 - 146
Fluoranthene	120	124		ug/L		103	54 - 128
Fluorene	120	117		ug/L		97	45 - 125
Indeno[1,2,3-cd]pyrene	120	98.7		ug/L		82	43 - 142
1-Methylnaphthalene	120	94.5		ug/L		79	41 - 120
2-Methylnaphthalene	120	101		ug/L		84	32 - 124
Phenanthrene	120	106		ug/L		88	48 - 120
Pyrene	120	115		ug/L		96	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*15 - 122*
Nitrobenzene-d5	*83*		*19 - 130*
Terphenyl-d14	*102*		*33 - 138*

Lab Sample ID: LCSD 400-598048/3-A
Matrix: Water
Analysis Batch: 598584

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	122		ug/L		102	41 - 120	6	56
Acenaphthylene	120	126		ug/L		105	44 - 120	6	56
Anthracene	120	138		ug/L		115	49 - 120	6	51
Benzo[a]anthracene	120	124		ug/L		103	61 - 135	5	49
Benzo[a]pyrene	120	118		ug/L		99	52 - 120	6	50
Benzo[b]fluoranthene	120	119		ug/L		99	53 - 134	3	54

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

Lab Sample ID: LCSD 400-598048/3-A
Matrix: Water
Analysis Batch: 598584

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[g,h,i]perylene	120	86.8		ug/L		72	47 - 133	4	50
Benzo[k]fluoranthene	120	116		ug/L		97	57 - 134	6	52
Chrysene	120	126		ug/L		105	55 - 122	5	50
Dibenz(a,h)anthracene	120	98.6		ug/L		82	48 - 146	4	50
Fluoranthene	120	133		ug/L		111	54 - 128	7	52
Fluorene	120	124		ug/L		103	45 - 125	6	56
Indeno[1,2,3-cd]pyrene	120	103		ug/L		86	43 - 142	4	51
1-Methylnaphthalene	120	102		ug/L		85	41 - 120	7	55
2-Methylnaphthalene	120	107		ug/L		89	32 - 124	5	57
Phenanthrene	120	111		ug/L		93	48 - 120	5	56
Pyrene	120	115		ug/L		96	48 - 132	0	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*97*		*15 - 122*
Nitrobenzene-d5	*88*		*19 - 130*
Terphenyl-d14	*100*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-598726/1-A
Matrix: Water
Analysis Batch: 598749

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598726

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		11/01/22 13:29	11/01/22 18:10	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/01/22 13:29	11/01/22 18:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*78*		*51 - 149*	*11/01/22 13:29*	*11/01/22 18:10*	*1*

Lab Sample ID: LCS 400-598726/2-A
Matrix: Water
Analysis Batch: 598749

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598726

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.134	p	ug/L		133	60 - 140
1,2-Dibromoethane	0.101	0.101		ug/L		101	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*51 - 149*

Lab Sample ID: LCSD 400-598726/3-A
Matrix: Water
Analysis Batch: 598749

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598726

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.145	p *+	ug/L		144	60 - 140	8	30
1,2-Dibromoethane	0.101	0.110		ug/L		109	60 - 140	8	30

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-598726/3-A
Matrix: Water
Analysis Batch: 598749

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598726

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	95		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: 10/24/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.4.2	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, Mary Massa, Brett Howell
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 – 3.4.2
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
SAMPLER NAME(S) (Print): M. Massa, S. Beadle
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

400-227751 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-102422-8260	10/24/2022	0000	Water	2					2	X			
	TB-ROX-102422-8011	10/24/2022	0000	Water	2					2		X		
	MW14-ROX-102422	10/24/2022	0935	Water	6			2		8	X	X	X	X
	MW14-ROX-102422-DUP	10/24/2022	0935	Water	6			2		8	X	X	X	X
	MW13-ROX-102422	10/24/2022	1145	Water	6			2		8	X	X	X	X
	P114R-ROX-102422	10/24/2022	1250	Water	6			2		8	X	X	X	X

Relinquished by: (Signature) MARY MASSA
Received by: (Signature) FEDEX: 1482 3813 0837, 1482 3813 0848
Date: 10/24/2022 Time: 1600

Relinquished by: (Signature)
Received by: (Signature)
Date: Time:

Relinquished by: (Signature)
Received by: (Signature)
Date: 10-25-22 Time: 9:45

Version: 13Oct22

CUSTODY SEALS: 1745796, 1745797, 1745798, 1745799

2.0c, 0.8c ICP

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11/3/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-227751-1

Login Number: 227751
List Number: 1
Creator: Perez, Trina M

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.	True	
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	2.0°C, 0.8°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.	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: 400-227751-1
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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-227853-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/15/2022

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

Sample Identification	Sample Identification
TB-ROX-102522-8260	TB-ROX-102522-8011
MW3-ROX-102522-EB	MW3-ROX-102522
MW28-ROX-102522	MW28-ROX-102522-DUP
MW16-ROX-102522	

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 several PAHs were detected in the method blank and equipment blank MW3-ROX-102522-EB. Several VOC, SVOC and VOC by 8011 LCS/LCSD recoveries, and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. The continuing calibration verification for hexachlorocyclopentadiene was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (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
MW3-ROX-102522-EB	PAHs	Benzo[a]anthracene	0.11 µg/L
MW3-ROX-102522-EB	PAHs	Benzo[a]pyrene	0.16 µg/L
MW3-ROX-102522-EB	PAHs	Benzo[b]fluoranthene	0.15 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
MW3-ROX-102522-EB	PAHs	Benzo[k]fluoranthene	0.20 µg/L
MW3-ROX-102522-EB	PAHs	Chrysene	0.10 µg/L
MW3-ROX-102522-EB	PAHs	Dibenz(a,h)anthracene	0.082 µg/L
MW3-ROX-102522-EB	PAHs	Fluoranthene	0.076 µg/L
MW3-ROX-102522-EB	PAHs	Indeno[1,2,3-cd]pyrene	0.092 µg/L
MW3-ROX-102522-EB	PAHs	Phenanthrene	0.044 µg/L
MW3-ROX-102522-EB	PAHs	Pyrene	0.045 µg/L
MW3-ROX-102522-EB	SVOCs	Diethyl phthalate	0.56 µg/L
MW3-ROX-102522-EB	SVOCs	Dimethyl phthalate	0.29 µg/L
MB 400-598048/1-A	PAHs	Benzo[a]anthracene	0.0888 µg/L
MB 400-598048/1-A	PAHs	Benzo[a]pyrene	0.130 µg/L
MB 400-598048/1-A	PAHs	Benzo[b]fluoranthene	0.137 µg/L
MB 400-598048/1-A	PAHs	Benzo[k]fluoranthene	0.150 µg/L
MB 400-598048/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0454 µg/L
MB 400-598048/1-A	PAHs	Phenanthrene	0.0488 µg/L
MB 400-598048/1-A	PAHs	Pyrene	0.0410 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
MW3-ROX-102522	PAHs	Benzo[a]anthracene	-	U
MW3-ROX-102522	PAHs	Benzo[b]fluoranthene	-	U
MW3-ROX-102522	PAHs	Benzo[a]pyrene	-	U
MW3-ROX-102522	PAHs	Benzo[k]fluoranthene	-	U
MW3-ROX-102522	PAHs	Dibenz(a,h)anthracene	-	U
MW3-ROX-102522	PAHs	Indeno[1,2,3-cd]pyrene	-	U
MW3-ROX-102522	PAHs	Pyrene	-	U
MW28-ROX-102522	PAHs	Benzo[a]anthracene	-	U
MW28-ROX-102522	PAHs	Benzo[a]pyrene	-	U
MW28-ROX-102522	PAHs	Benzo[b]fluoranthene	0.23 µg/L	U
MW28-ROX-102522	PAHs	Benzo[k]fluoranthene	0.28 µg/L	U
MW28-ROX-102522	PAHs	Indeno[1,2,3-cd]pyrene	-	U
MW28-ROX-102522-DUP	PAHs	Benzo[a]anthracene	-	U
MW28-ROX-102522-DUP	PAHs	Benzo[a]pyrene	-	U
MW28-ROX-102522-DUP	PAHs	Benzo[b]fluoranthene	0.25 µg/L	U
MW28-ROX-102522-DUP	PAHs	Benzo[k]fluoranthene	0.35 µg/L	U
MW28-ROX-102522-DUP	PAHs	Indeno[1,2,3-cd]pyrene	-	U
MW28-ROX-102522-DUP	PAHs	Pyrene	-	U
MW16-ROX-102522	PAHs	Benzo[b]fluoranthene	-	U
MW16-ROX-102522	PAHs	Benzo[k]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 400-599180/1002	VOCs	Acetone	**198**	NA	43-160
LCS 400-599180/1002	VOCs	2-Butanone (MEK)	**147**	NA	61-145
LCS/LCSD 400-598048/2-A/3-A	SVOCs	4,6-Dinitro-ortho-cresol	**153/183**	**17**	23-148/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	Indene	**170/219**	**25**	49-120/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	122/**141**	14	36-132/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	2,4-Dinitrophenol	145/**160**	10	10-150/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	1,4-Dioxane	57/79	**33**	31-120/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	Hexachlorobenzene	113/**131**	15	52-129/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	Hexachlorocyclopentadiene	51/73	**35**	10-134/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	4-Nitrophenol	128/**150**	16	23-146/30
LCS/LCSD 400-598048/2-A/3-A	SVOCs	N-Nitrosodimethylamine	103/**138**	29	29-137/30
LCS/LCSD 400-598876/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**153/161**	5	60-140/30
LCS/LCSD 400-598048/4-A/5-A	SVOCs	Benzenethiol	**5/4**	17	10-120/30

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. Analytical data associated with LCS/LCSD RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW3-ROX-102522	SVOCs	Benzenethiol	**UJ**
MW28-ROX-102522	SVOCs	Benzenethiol	**UJ**
MW28-ROX-102522-DUP	SVOCs	Benzenethiol	**UJ**
MW16-ROX-102522	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?

Yes

Field ID	Field Duplicate ID
MW28-ROX-102522	MW28-ROX-102522-DUP

Were field duplicates within evaluation criteria?

Yes

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 (CCV) for hexachlorocyclopentadiene was was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW3-ROX-102522	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW28-ROX-102522	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW28-ROX-102522-DUP	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW16-ROX-102522	SVOCs	Hexachlorocyclopentadiene	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 400-227853-1
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:
11/4/2022 5:19:09 PM

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

Reviewed 12/15/2022
A.V.

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: 400-227853-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-227853-1

Receipt
The samples were received on 10/26/2022 9:12 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 2.3°C and 3.9°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-102522-8260 (400-227853-1), MW3-ROX-102522-EB (400-227853-3), MW3-ROX-102522 (400-227853-4), MW28-ROX-102522 (400-227853-5), MW28-ROX-102522-DUP (400-227853-6) and MW16-ROX-102522 (400-227853-7). 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 laboratory control sample (LCS) for analytical batch 400-599180 recovered outside control limits for the following analytes: Acetone and 2-Butanone (MEK). 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/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-598048 and analytical batch 400-598504 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) for preparation batch 400-598048 and analytical batch 400-598504 recovered outside control limits for the following analytes: Indene and 4,6-Dinitro-2-methylphenol. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The laboratory control sample duplicate (LCSD) for preparation batch 400-598048 and analytical batch 400-598504 recovered outside control limits for the following analytes: N-Nitrosodimethylamine, 3,3'-Dichlorobenzidine, 2,4-Dinitrophenol, 4-Nitrophenol, Indene, Hexachlorobenzene and 4,6-Dinitro-2-methylphenol. These analytes were biased high in the LCSD and were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-598048 and analytical batch 400-598504 recovered outside control limits for the following analytes: 1,4-Dioxane and Hexachlorocyclopentadiene.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-598504 recovered outside acceptance criteria, low biased, for 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 400-598048 and analytical batch 400-598584 contained Indeno[1,2,3-cd]pyrene, Pyrene, Benzo[b]fluoranthene, Phenanthrene, Benzo[k]fluoranthene, Benzo[a]anthracene and Benzo[a]pyrene above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples 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 laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-598876 and analytical batch 400-598971 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These

Job ID: 400-227853-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

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.

Sample Summary

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

Job ID: 400-227853-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-227853-1	TB-ROX-102522-8260	Water	10/25/22 12:00	10/26/22 09:12
400-227853-2	TB-ROX-102522-8011	Water	10/25/22 12:00	10/26/22 09:12
400-227853-3	MW3-ROX-102522-EB	Water	10/25/22 08:55	10/26/22 09:12
400-227853-4	MW3-ROX-102522	Water	10/25/22 09:45	10/26/22 09:12
400-227853-5	MW28-ROX-102522	Water	10/25/22 12:10	10/26/22 09:12
400-227853-6	MW28-ROX-102522-DUP	Water	10/25/22 12:10	10/26/22 09:12
400-227853-7	MW16-ROX-102522	Water	10/25/22 13:35	10/26/22 09:12

Detection Summary

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

Job ID: 400-227853-1

Client Sample ID: TB-ROX-102522-8260

Lab Sample ID: 400-227853-1

No Detections.

Client Sample ID: TB-ROX-102522-8011

Lab Sample ID: 400-227853-2

No Detections.

Client Sample ID: MW3-ROX-102522-EB

Lab Sample ID: 400-227853-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.11	J B	0.18	0.042	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.16	J B	0.18	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.15	J B	0.18	0.031	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.20	B	0.18	0.092	ug/L	1		8270D LL	Total/NA
Chrysene	0.10	J	0.18	0.068	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.082	J	0.18	0.046	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.076	J	0.18	0.063	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.092	J B	0.18	0.040	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.044	J B	0.18	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	0.045	J B	0.18	0.037	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.56	J	9.2	0.22	ug/L	1		8270D	Total/NA
Dimethyl phthalate	0.29	J	9.2	0.16	ug/L	1		8270D	Total/NA

Client Sample ID: MW3-ROX-102522

Lab Sample ID: 400-227853-4

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
Benzo[a]anthracene	~~0.080~~	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	~~0.10~~	J B U	0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.13~~	J B U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.18~~	J B U	0.19	0.093	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	~~0.070~~	J U	0.19	0.047	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	~~0.072~~	J B U	0.19	0.040	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.043~~	J B U	0.19	0.037	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW28-ROX-102522

Lab Sample ID: 400-227853-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.4		1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	~~0.13~~	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	~~0.16~~	J B U	0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.23~~	B U	~~0.19~~ 0.23	0.032	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.14	J	0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.28~~	B U	~~0.19~~ 0.28	0.094	ug/L	1		8270D LL	Total/NA
Chrysene	0.15	J	0.19	0.069	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.15	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	~~0.15~~	J B U	0.19	0.040	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.069	J	0.19	0.056	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW28-ROX-102522-DUP

Lab Sample ID: 400-227853-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.4		1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	~~0.12~~	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	~~0.17~~	J B U	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	~~0.25~~	B U	~~0.19~~ 0.25	0.032	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Pensacola

11/4/2022

Detection Summary

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

Job ID: 400-227853-1

Client Sample ID: MW28-ROX-102522-DUP (Continued)

Lab Sample ID: 400-227853-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[g,h,i]perylene	0.16	J	0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.35~~	B U	~~0.19~~ 0.35	0.094	ug/L	1		8270D LL	Total/NA
Chrysene	0.15	J	0.19	0.070	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.13	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	~~0.17~~	J B U	0.19	0.041	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.039~~	J B U	0.19	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW16-ROX-102522

Lab Sample ID: 400-227853-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	~~0.11~~	J B U	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	~~0.14~~	J B U	0.19	0.094	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-ROX-102522-8260
Date Collected: 10/25/22 12:00
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/22 14:06	1
Acrolein	ND		20	3.3	ug/L			11/03/22 14:06	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 14:06	1
Benzene	ND		1.0	0.13	ug/L			11/03/22 14:06	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 14:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 14:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 14:06	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 14:06	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 14:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 14:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 14:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 14:06	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 14:06	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 14:06	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 14:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 14:06	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 14:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 14:06	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 14:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 14:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 14:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 14:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 14:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 14:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 14:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 14:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 14:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 14:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 14:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 14:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 14:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 14:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 14:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 14:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 14:06	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 14:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 14:06	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 14:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 14:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 14:06	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/03/22 14:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 14:06	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 14:06	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 14:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 14:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 14:06	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 14:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 14:06	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 14:06	1

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

Job ID: 400-227853-1

Client Sample ID: TB-ROX-102522-8260
Date Collected: 10/25/22 12:00
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-1
Matrix: Water

Method: SW846 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			11/03/22 14:06	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 14:06	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 14:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 14:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 14:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 14:06	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 14:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 14:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 14:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 14:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 14:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 14:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 14:06	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 14:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 14:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 14:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 14:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 14:06	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 14:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 14:06	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 14:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/03/22 14:06*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*11/03/22 14:06*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/03/22 14:06*	*1*

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

Job ID: 400-227853-1

Client Sample ID: TB-ROX-102522-8011
Date Collected: 10/25/22 12:00
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-2
Matrix: Water

Method: EPA 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		11/02/22 11:10	11/02/22 21:51	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/02/22 11:10	11/02/22 21:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*75*		*51 - 149*	*11/02/22 11:10*	*11/02/22 21:51*	*1*

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

Job ID: 400-227853-1

Client Sample ID: MW3-ROX-102522-EB
Date Collected: 10/25/22 08:55
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/22 14:31	1
Acrolein	ND		20	3.3	ug/L			11/03/22 14:31	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 14:31	1
Benzene	ND		1.0	0.13	ug/L			11/03/22 14:31	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 14:31	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 14:31	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 14:31	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 14:31	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 14:31	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 14:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 14:31	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 14:31	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 14:31	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 14:31	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 14:31	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 14:31	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 14:31	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 14:31	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 14:31	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 14:31	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 14:31	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 14:31	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 14:31	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 14:31	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 14:31	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 14:31	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 14:31	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 14:31	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 14:31	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 14:31	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 14:31	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 14:31	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 14:31	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 14:31	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 14:31	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 14:31	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 14:31	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 14:31	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 14:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 14:31	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/03/22 14:31	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 14:31	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 14:31	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 14:31	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 14:31	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 14:31	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 14:31	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 14:31	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 14:31	1

Client Sample ID: MW3-ROX-102522-EB
Date Collected: 10/25/22 08:55
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-3
Matrix: Water

Method: SW846 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			11/03/22 14:31	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 14:31	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 14:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 14:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 14:31	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 14:31	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 14:31	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 14:31	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 14:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 14:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 14:31	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 14:31	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 14:31	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 14:31	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 14:31	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 14:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 14:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 14:31	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 14:31	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 14:31	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*11/03/22 14:31*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/03/22 14:31*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/03/22 14:31*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.030	ug/L		10/27/22 10:41	11/01/22 00:11	1
Acenaphthylene	ND		0.18	0.042	ug/L		10/27/22 10:41	11/01/22 00:11	1
Anthracene	ND		0.18	0.030	ug/L		10/27/22 10:41	11/01/22 00:11	1
Benzo[a]anthracene	**0.11**	**J B**	0.18	0.042	ug/L		10/27/22 10:41	11/01/22 00:11	1
Benzo[a]pyrene	**0.16**	**J B**	0.18	0.039	ug/L		10/27/22 10:41	11/01/22 00:11	1
Benzo[b]fluoranthene	**0.15**	**J B**	0.18	0.031	ug/L		10/27/22 10:41	11/01/22 00:11	1
Benzo[g,h,i]perylene	ND		0.18	0.12	ug/L		10/27/22 10:41	11/01/22 00:11	1
Benzo[k]fluoranthene	**0.20**	**B**	0.18	0.092	ug/L		10/27/22 10:41	11/01/22 00:11	1
Chrysene	**0.10**	**J**	0.18	0.068	ug/L		10/27/22 10:41	11/01/22 00:11	1
Dibenz(a,h)anthracene	**0.082**	**J**	0.18	0.046	ug/L		10/27/22 10:41	11/01/22 00:11	1
Fluoranthene	**0.076**	**J**	0.18	0.063	ug/L		10/27/22 10:41	11/01/22 00:11	1
Fluorene	ND		0.18	0.10	ug/L		10/27/22 10:41	11/01/22 00:11	1
Indeno[1,2,3-cd]pyrene	**0.092**	**J B**	0.18	0.040	ug/L		10/27/22 10:41	11/01/22 00:11	1
1-Methylnaphthalene	ND		0.18	0.068	ug/L		10/27/22 10:41	11/01/22 00:11	1
2-Methylnaphthalene	ND		0.18	0.055	ug/L		10/27/22 10:41	11/01/22 00:11	1
Phenanthrene	**0.044**	**J B**	0.18	0.033	ug/L		10/27/22 10:41	11/01/22 00:11	1
Pyrene	**0.045**	**J B**	0.18	0.037	ug/L		10/27/22 10:41	11/01/22 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*15 - 122*	*10/27/22 10:41*	*11/01/22 00:11*	*1*
Nitrobenzene-d5	*86*		*19 - 130*	*10/27/22 10:41*	*11/01/22 00:11*	*1*

Client Sample ID: MW3-ROX-102522-EB
Date Collected: 10/25/22 08:55
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	87		33 - 138	10/27/22 10:41	11/01/22 00:11	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		10/27/22 10:41	10/31/22 17:57	1
Benzenethiol	ND	*-	9.2	1.6	ug/L		10/27/22 10:41	10/31/22 17:57	1
Benzoic acid	ND		28	6.7	ug/L		10/27/22 10:41	10/31/22 17:57	1
Benzyl alcohol	ND		9.2	1.8	ug/L		10/27/22 10:41	10/31/22 17:57	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		10/27/22 10:41	10/31/22 17:57	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		10/27/22 10:41	10/31/22 17:57	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		10/27/22 10:41	10/31/22 17:57	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		10/27/22 10:41	10/31/22 17:57	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		10/27/22 10:41	10/31/22 17:57	1
Butyl benzyl phthalate	ND		9.2	0.18	ug/L		10/27/22 10:41	10/31/22 17:57	1
4-Chloroaniline	ND		9.2	3.1	ug/L		10/27/22 10:41	10/31/22 17:57	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		10/27/22 10:41	10/31/22 17:57	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		10/27/22 10:41	10/31/22 17:57	1
2-Chlorophenol	ND		9.2	2.0	ug/L		10/27/22 10:41	10/31/22 17:57	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		10/27/22 10:41	10/31/22 17:57	1
Dibenz[a,h]acridine	ND		9.2	0.92	ug/L		10/27/22 10:41	10/31/22 17:57	1
Dibenzofuran	ND		9.2	0.16	ug/L		10/27/22 10:41	10/31/22 17:57	1
3,3'-Dichlorobenzidine	ND	*+	9.2	2.4	ug/L		10/27/22 10:41	10/31/22 17:57	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		10/27/22 10:41	10/31/22 17:57	1
Diethyl phthalate	0.56	J	9.2	0.22	ug/L		10/27/22 10:41	10/31/22 17:57	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		10/27/22 10:41	10/31/22 17:57	1
Dimethyl phthalate	0.29	J	9.2	0.16	ug/L		10/27/22 10:41	10/31/22 17:57	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		10/27/22 10:41	10/31/22 17:57	1
4,6-Dinitro-ortho-cresol	ND	*+	9.2	1.5	ug/L		10/27/22 10:41	10/31/22 17:57	1
2,4-Dinitrophenol	ND	*+	28	3.1	ug/L		10/27/22 10:41	10/31/22 17:57	1
2,4-Dinitrotoluene	ND		9.2	1.8	ug/L		10/27/22 10:41	10/31/22 17:57	1
2,6-Dinitrotoluene	ND		9.2	1.8	ug/L		10/27/22 10:41	10/31/22 17:57	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		10/27/22 10:41	10/31/22 17:57	1
1,4-Dioxane	ND	*1	9.2	0.92	ug/L		10/27/22 10:41	10/31/22 17:57	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		10/27/22 10:41	10/31/22 17:57	1
Hexachlorobenzene	ND	*+	9.2	0.16	ug/L		10/27/22 10:41	10/31/22 17:57	1
Hexachlorocyclopentadiene	ND	*1	18	2.4	ug/L		10/27/22 10:41	10/31/22 17:57	1
Hexachloroethane	ND		9.2	3.9	ug/L		10/27/22 10:41	10/31/22 17:57	1
Indene	ND	*+	9.2	0.92	ug/L		10/27/22 10:41	10/31/22 17:57	1
Isophorone	ND		9.2	0.13	ug/L		10/27/22 10:41	10/31/22 17:57	1
2-Methylphenol	ND		9.2	1.7	ug/L		10/27/22 10:41	10/31/22 17:57	1
3 & 4 Methylphenol	ND		18	0.36	ug/L		10/27/22 10:41	10/31/22 17:57	1
2-Nitroaniline	ND		9.2	2.0	ug/L		10/27/22 10:41	10/31/22 17:57	1
3-Nitroaniline	ND		9.2	1.7	ug/L		10/27/22 10:41	10/31/22 17:57	1
4-Nitroaniline	ND		9.2	1.4	ug/L		10/27/22 10:41	10/31/22 17:57	1
Nitrobenzene	ND		9.2	0.12	ug/L		10/27/22 10:41	10/31/22 17:57	1
2-Nitrophenol	ND		9.2	4.8	ug/L		10/27/22 10:41	10/31/22 17:57	1
4-Nitrophenol	ND	*+	9.2	1.9	ug/L		10/27/22 10:41	10/31/22 17:57	1
N-Nitrosodimethylamine	ND	*+	9.2	3.2	ug/L		10/27/22 10:41	10/31/22 17:57	1

Client Sample ID: MW3-ROX-102522-EB
Date Collected: 10/25/22 08:55
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		10/27/22 10:41	10/31/22 17:57	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		10/27/22 10:41	10/31/22 17:57	1
Pentachlorophenol	ND		18	1.3	ug/L		10/27/22 10:41	10/31/22 17:57	1
Phenol	ND		9.2	2.4	ug/L		10/27/22 10:41	10/31/22 17:57	1
Pyridine	ND		9.2	3.0	ug/L		10/27/22 10:41	10/31/22 17:57	1
Quinoline	ND		9.2	4.2	ug/L		10/27/22 10:41	10/31/22 17:57	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		10/27/22 10:41	10/31/22 17:57	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		10/27/22 10:41	10/31/22 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*46 - 124*	*10/27/22 10:41*	*10/31/22 17:57*	*1*
2-Fluorophenol	*51*		*13 - 113*	*10/27/22 10:41*	*10/31/22 17:57*	*1*
Nitrobenzene-d5	*87*		*36 - 126*	*10/27/22 10:41*	*10/31/22 17:57*	*1*
Phenol-d5	*78*		*17 - 127*	*10/27/22 10:41*	*10/31/22 17:57*	*1*
Terphenyl-d14	*106*		*44 - 149*	*10/27/22 10:41*	*10/31/22 17:57*	*1*
2,4,6-Tribromophenol	*97*		*26 - 150*	*10/27/22 10:41*	*10/31/22 17:57*	*1*

Method: EPA 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		11/02/22 11:10	11/02/22 22:31	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		11/02/22 11:10	11/02/22 22:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*11/02/22 11:10*	*11/02/22 22:31*	*1*

Client Sample ID: MW3-ROX-102522
Date Collected: 10/25/22 09:45
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/04/22 11:46	1
Acrolein	ND		20	3.3	ug/L			11/04/22 11:46	1
Acrylonitrile	ND		10	2.8	ug/L			11/04/22 11:46	1
Benzene	ND		1.0	0.13	ug/L			11/04/22 11:46	1
Bromobenzene	ND		1.0	0.54	ug/L			11/04/22 11:46	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/04/22 11:46	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/04/22 11:46	1
Bromoform	ND		5.0	0.25	ug/L			11/04/22 11:46	1
Bromomethane	ND		1.0	0.98	ug/L			11/04/22 11:46	1
2-Butanone (MEK)	ND	*+	25	2.6	ug/L			11/04/22 11:46	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/04/22 11:46	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/04/22 11:46	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/04/22 11:46	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/04/22 11:46	1
Chloroethane	ND		1.0	0.76	ug/L			11/04/22 11:46	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/04/22 11:46	1
Chloroform	ND		1.0	1.0	ug/L			11/04/22 11:46	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/04/22 11:46	1
Chloromethane	ND		1.0	0.32	ug/L			11/04/22 11:46	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/04/22 11:46	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/04/22 11:46	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/04/22 11:46	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/04/22 11:46	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/04/22 11:46	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/04/22 11:46	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/04/22 11:46	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/04/22 11:46	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/04/22 11:46	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/04/22 11:46	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/04/22 11:46	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/04/22 11:46	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/04/22 11:46	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/04/22 11:46	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/04/22 11:46	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/04/22 11:46	1
2-Hexanone	ND		25	1.4	ug/L			11/04/22 11:46	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/04/22 11:46	1
Methylene bromide	ND		5.0	0.22	ug/L			11/04/22 11:46	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/04/22 11:46	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/04/22 11:46	1
Methyl tert-butyl ether	**1.0**		1.0	0.22	ug/L			11/04/22 11:46	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/04/22 11:46	1
Naphthalene	ND		5.0	3.0	ug/L			11/04/22 11:46	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/04/22 11:46	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/04/22 11:46	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/04/22 11:46	1
o-Xylene	ND		5.0	0.60	ug/L			11/04/22 11:46	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/04/22 11:46	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/04/22 11:46	1

Client Sample ID: MW3-ROX-102522
Date Collected: 10/25/22 09:45
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-4
Matrix: Water

Method: SW846 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			11/04/22 11:46	1
Styrene	ND		1.0	1.0	ug/L			11/04/22 11:46	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/04/22 11:46	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/04/22 11:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/04/22 11:46	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/04/22 11:46	1
Toluene	ND		1.0	0.41	ug/L			11/04/22 11:46	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/04/22 11:46	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/04/22 11:46	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/04/22 11:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/04/22 11:46	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/04/22 11:46	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/04/22 11:46	1
Trichloroethene	ND		1.0	0.15	ug/L			11/04/22 11:46	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/04/22 11:46	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/04/22 11:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/04/22 11:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/04/22 11:46	1
Vinyl acetate	ND		25	0.93	ug/L			11/04/22 11:46	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/04/22 11:46	1
Xylenes, Total	ND		10	1.6	ug/L			11/04/22 11:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/04/22 11:46*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*11/04/22 11:46*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/04/22 11:46*	*1*

Method: SW846 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		10/27/22 10:41	11/01/22 00:29	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/27/22 10:41	11/01/22 00:29	1
Anthracene	ND		0.19	0.030	ug/L		10/27/22 10:41	11/01/22 00:29	1
Benzo[a]anthracene	~~0.086~~	J B U	0.19	0.043	ug/L		10/27/22 10:41	11/01/22 00:29	1
Benzo[a]pyrene	~~0.16~~	J B U	0.19	0.039	ug/L		10/27/22 10:41	11/01/22 00:29	1
Benzo[b]fluoranthene	~~0.13~~	J B U	0.19	0.032	ug/L		10/27/22 10:41	11/01/22 00:29	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/27/22 10:41	11/01/22 00:29	1
Benzo[k]fluoranthene	~~0.18~~	J B U	0.19	0.093	ug/L		10/27/22 10:41	11/01/22 00:29	1
Chrysene	ND		0.19	0.069	ug/L		10/27/22 10:41	11/01/22 00:29	1
Dibenz(a,h)anthracene	~~0.070~~ J	U	0.19	0.047	ug/L		10/27/22 10:41	11/01/22 00:29	1
Fluoranthene	ND		0.19	0.064	ug/L		10/27/22 10:41	11/01/22 00:29	1
Fluorene	ND		0.19	0.10	ug/L		10/27/22 10:41	11/01/22 00:29	1
Indeno[1,2,3-cd]pyrene	~~0.072~~	J B U	0.19	0.040	ug/L		10/27/22 10:41	11/01/22 00:29	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		10/27/22 10:41	11/01/22 00:29	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		10/27/22 10:41	11/01/22 00:29	1
Phenanthrene	ND		0.19	0.034	ug/L		10/27/22 10:41	11/01/22 00:29	1
Pyrene	~~0.043~~	J B U	0.19	0.037	ug/L		10/27/22 10:41	11/01/22 00:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*98*		*15 - 122*	*10/27/22 10:41*	*11/01/22 00:29*	*1*
Nitrobenzene-d5	*81*		*19 - 130*	*10/27/22 10:41*	*11/01/22 00:29*	*1*

Client Sample ID: MW3-ROX-102522
Date Collected: 10/25/22 09:45
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	80		33 - 138	10/27/22 10:41	11/01/22 00:29	1

Method: SW846 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		10/27/22 10:41	10/31/22 22:48	1
Benzenethiol	ND	*-	9.3	1.6	ug/L		10/27/22 10:41	10/31/22 22:48	1
Benzoic acid	ND		28	6.8	ug/L		10/27/22 10:41	10/31/22 22:48	1
Benzyl alcohol	ND		9.3	1.9	ug/L		10/27/22 10:41	10/31/22 22:48	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		10/27/22 10:41	10/31/22 22:48	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		10/27/22 10:41	10/31/22 22:48	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		10/27/22 10:41	10/31/22 22:48	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.7	ug/L		10/27/22 10:41	10/31/22 22:48	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		10/27/22 10:41	10/31/22 22:48	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		10/27/22 10:41	10/31/22 22:48	1
4-Chloroaniline	ND		9.3	3.2	ug/L		10/27/22 10:41	10/31/22 22:48	1
4-Chloro-3-methylphenol	ND		9.3	3.6	ug/L		10/27/22 10:41	10/31/22 22:48	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		10/27/22 10:41	10/31/22 22:48	1
2-Chlorophenol	ND		9.3	2.1	ug/L		10/27/22 10:41	10/31/22 22:48	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		10/27/22 10:41	10/31/22 22:48	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		10/27/22 10:41	10/31/22 22:48	1
Dibenzofuran	ND		9.3	0.16	ug/L		10/27/22 10:41	10/31/22 22:48	1
3,3'-Dichlorobenzidine	ND	*+	9.3	2.4	ug/L		10/27/22 10:41	10/31/22 22:48	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		10/27/22 10:41	10/31/22 22:48	1
Diethyl phthalate	ND		9.3	0.22	ug/L		10/27/22 10:41	10/31/22 22:48	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		10/27/22 10:41	10/31/22 22:48	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		10/27/22 10:41	10/31/22 22:48	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		10/27/22 10:41	10/31/22 22:48	1
4,6-Dinitro-ortho-cresol	ND	*+	9.3	1.5	ug/L		10/27/22 10:41	10/31/22 22:48	1
2,4-Dinitrophenol	ND	*+	28	3.2	ug/L		10/27/22 10:41	10/31/22 22:48	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		10/27/22 10:41	10/31/22 22:48	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		10/27/22 10:41	10/31/22 22:48	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		10/27/22 10:41	10/31/22 22:48	1
1,4-Dioxane	ND	*1	9.3	0.93	ug/L		10/27/22 10:41	10/31/22 22:48	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		10/27/22 10:41	10/31/22 22:48	1
Hexachlorobenzene	ND	*+	9.3	0.16	ug/L		10/27/22 10:41	10/31/22 22:48	1
Hexachlorocyclopentadiene	ND	*1	19	2.4	ug/L		10/27/22 10:41	10/31/22 22:48	1
Hexachloroethane	ND		9.3	3.9	ug/L		10/27/22 10:41	10/31/22 22:48	1
Indene	ND	*+	9.3	0.93	ug/L		10/27/22 10:41	10/31/22 22:48	1
Isophorone	ND		9.3	0.13	ug/L		10/27/22 10:41	10/31/22 22:48	1
2-Methylphenol	ND		9.3	1.7	ug/L		10/27/22 10:41	10/31/22 22:48	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		10/27/22 10:41	10/31/22 22:48	1
2-Nitroaniline	ND		9.3	2.1	ug/L		10/27/22 10:41	10/31/22 22:48	1
3-Nitroaniline	ND		9.3	1.7	ug/L		10/27/22 10:41	10/31/22 22:48	1
4-Nitroaniline	ND		9.3	1.4	ug/L		10/27/22 10:41	10/31/22 22:48	1
Nitrobenzene	ND		9.3	0.12	ug/L		10/27/22 10:41	10/31/22 22:48	1
2-Nitrophenol	ND		9.3	4.9	ug/L		10/27/22 10:41	10/31/22 22:48	1
4-Nitrophenol	ND	*+	9.3	2.0	ug/L		10/27/22 10:41	10/31/22 22:48	1
N-Nitrosodimethylamine	ND	*+	9.3	3.3	ug/L		10/27/22 10:41	10/31/22 22:48	1

Client Sample ID: MW3-ROX-102522
Date Collected: 10/25/22 09:45
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-4
Matrix: Water

Method: SW846 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		10/27/22 10:41	10/31/22 22:48	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		10/27/22 10:41	10/31/22 22:48	1
Pentachlorophenol	ND		19	1.3	ug/L		10/27/22 10:41	10/31/22 22:48	1
Phenol	ND		9.3	2.4	ug/L		10/27/22 10:41	10/31/22 22:48	1
Pyridine	ND		9.3	3.0	ug/L		10/27/22 10:41	10/31/22 22:48	1
Quinoline	ND		9.3	4.2	ug/L		10/27/22 10:41	10/31/22 22:48	1
2,4,5-Trichlorophenol	ND		9.3	3.5	ug/L		10/27/22 10:41	10/31/22 22:48	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		10/27/22 10:41	10/31/22 22:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*46 - 124*	*10/27/22 10:41*	*10/31/22 22:48*	*1*
2-Fluorophenol	*42*		*13 - 113*	*10/27/22 10:41*	*10/31/22 22:48*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*10/27/22 10:41*	*10/31/22 22:48*	*1*
Phenol-d5	*74*		*17 - 127*	*10/27/22 10:41*	*10/31/22 22:48*	*1*
Terphenyl-d14	*80*		*44 - 149*	*10/27/22 10:41*	*10/31/22 22:48*	*1*
2,4,6-Tribromophenol	*110*		*26 - 150*	*10/27/22 10:41*	*10/31/22 22:48*	*1*

Method: EPA 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		11/02/22 11:10	11/02/22 22:52	1
1,2-Dibromoethane	ND		0.022	0.017	ug/L		11/02/22 11:10	11/02/22 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*74*		*51 - 149*	*11/02/22 11:10*	*11/02/22 22:52*	*1*

Client Sample ID: MW28-ROX-102522
Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/22 18:45	1
Acrolein	ND		20	3.3	ug/L			11/03/22 18:45	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 18:45	1
Benzene	ND		1.0	0.13	ug/L			11/03/22 18:45	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 18:45	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 18:45	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 18:45	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 18:45	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 18:45	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 18:45	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 18:45	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 18:45	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 18:45	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 18:45	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 18:45	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 18:45	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 18:45	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 18:45	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 18:45	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 18:45	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 18:45	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 18:45	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 18:45	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 18:45	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 18:45	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 18:45	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 18:45	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 18:45	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 18:45	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 18:45	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 18:45	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 18:45	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 18:45	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 18:45	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 18:45	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 18:45	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 18:45	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 18:45	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 18:45	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 18:45	1
Methyl tert-butyl ether	**1.4**		1.0	0.22	ug/L			11/03/22 18:45	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 18:45	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 18:45	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 18:45	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 18:45	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 18:45	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 18:45	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 18:45	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 18:45	1

Client Sample ID: MW28-ROX-102522
Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-5
Matrix: Water

Method: SW846 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			11/03/22 18:45	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 18:45	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 18:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 18:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 18:45	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 18:45	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 18:45	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 18:45	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 18:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 18:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 18:45	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 18:45	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 18:45	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 18:45	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 18:45	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 18:45	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 18:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 18:45	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 18:45	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 18:45	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 18:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/03/22 18:45*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*11/03/22 18:45*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/03/22 18:45*	*1*

Method: SW846 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		10/27/22 10:41	11/01/22 00:46	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/27/22 10:41	11/01/22 00:46	1
Anthracene	ND		0.19	0.030	ug/L		10/27/22 10:41	11/01/22 00:46	1
Benzo[a]anthracene	~~0.13~~ J B U		0.19	0.043	ug/L		10/27/22 10:41	11/01/22 00:46	1
Benzo[a]pyrene	~~0.18~~ J B U		0.19	0.039	ug/L		10/27/22 10:41	11/01/22 00:46	1
Benzo[b]fluoranthene	~~0.23~~ B U		~~0.19~~ 0.23	0.032	ug/L		10/27/22 10:41	11/01/22 00:46	1
Benzo[g,h,i]perylene	0.14 J		0.19	0.12	ug/L		10/27/22 10:41	11/01/22 00:46	1
Benzo[k]fluoranthene	~~0.28~~ B U		~~0.19~~ 0.28	0.094	ug/L		10/27/22 10:41	11/01/22 00:46	1
Chrysene	0.15 J		0.19	0.069	ug/L		10/27/22 10:41	11/01/22 00:46	1
Dibenz(a,h)anthracene	0.15 J		0.19	0.047	ug/L		10/27/22 10:41	11/01/22 00:46	1
Fluoranthene	ND		0.19	0.064	ug/L		10/27/22 10:41	11/01/22 00:46	1
Fluorene	ND		0.19	0.10	ug/L		10/27/22 10:41	11/01/22 00:46	1
Indeno[1,2,3-cd]pyrene	~~0.15~~ J B U		0.19	0.040	ug/L		10/27/22 10:41	11/01/22 00:46	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		10/27/22 10:41	11/01/22 00:46	1
2-Methylnaphthalene	0.069 J		0.19	0.056	ug/L		10/27/22 10:41	11/01/22 00:46	1
Phenanthrene	ND		0.19	0.034	ug/L		10/27/22 10:41	11/01/22 00:46	1
Pyrene	ND		0.19	0.038	ug/L		10/27/22 10:41	11/01/22 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*15 - 122*	*10/27/22 10:41*	*11/01/22 00:46*	*1*
Nitrobenzene-d5	*101*		*19 - 130*	*10/27/22 10:41*	*11/01/22 00:46*	*1*

Client Sample ID: MW28-ROX-102522
Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	94		33 - 138	10/27/22 10:41	11/01/22 00:46	1

Method: SW846 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		10/27/22 10:41	10/31/22 23:09	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		10/27/22 10:41	10/31/22 23:09	1
Benzoic acid	ND		28	6.9	ug/L		10/27/22 10:41	10/31/22 23:09	1
Benzyl alcohol	ND		9.4	1.9	ug/L		10/27/22 10:41	10/31/22 23:09	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/27/22 10:41	10/31/22 23:09	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 23:09	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/27/22 10:41	10/31/22 23:09	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/27/22 10:41	10/31/22 23:09	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/27/22 10:41	10/31/22 23:09	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/27/22 10:41	10/31/22 23:09	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/27/22 10:41	10/31/22 23:09	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/27/22 10:41	10/31/22 23:09	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/27/22 10:41	10/31/22 23:09	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/27/22 10:41	10/31/22 23:09	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/27/22 10:41	10/31/22 23:09	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:09	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:09	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.4	ug/L		10/27/22 10:41	10/31/22 23:09	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/27/22 10:41	10/31/22 23:09	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/27/22 10:41	10/31/22 23:09	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/27/22 10:41	10/31/22 23:09	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:09	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 23:09	1
4,6-Dinitro-ortho-cresol	ND	*+	9.4	1.5	ug/L		10/27/22 10:41	10/31/22 23:09	1
2,4-Dinitrophenol	ND	*+	28	3.2	ug/L		10/27/22 10:41	10/31/22 23:09	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/27/22 10:41	10/31/22 23:09	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/27/22 10:41	10/31/22 23:09	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:09	1
1,4-Dioxane	ND	*1	9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:09	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:09	1
Hexachlorobenzene	ND	*+	9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:09	1
Hexachlorocyclopentadiene	ND	*1 UJ	19	2.4	ug/L		10/27/22 10:41	10/31/22 23:09	1
Hexachloroethane	ND		9.4	3.9	ug/L		10/27/22 10:41	10/31/22 23:09	1
Indene	ND	*+	9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:09	1
Isophorone	ND		9.4	0.13	ug/L		10/27/22 10:41	10/31/22 23:09	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/27/22 10:41	10/31/22 23:09	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/27/22 10:41	10/31/22 23:09	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/27/22 10:41	10/31/22 23:09	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/27/22 10:41	10/31/22 23:09	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/27/22 10:41	10/31/22 23:09	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/27/22 10:41	10/31/22 23:09	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/27/22 10:41	10/31/22 23:09	1
4-Nitrophenol	ND	*+	9.4	2.0	ug/L		10/27/22 10:41	10/31/22 23:09	1
N-Nitrosodimethylamine	ND	*+	9.4	3.3	ug/L		10/27/22 10:41	10/31/22 23:09	1

Client Sample ID: MW28-ROX-102522
Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-5
Matrix: Water

Method: SW846 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		10/27/22 10:41	10/31/22 23:09	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/27/22 10:41	10/31/22 23:09	1
Pentachlorophenol	ND		19	1.3	ug/L		10/27/22 10:41	10/31/22 23:09	1
Phenol	ND		9.4	2.4	ug/L		10/27/22 10:41	10/31/22 23:09	1
Pyridine	ND		9.4	3.0	ug/L		10/27/22 10:41	10/31/22 23:09	1
Quinoline	ND		9.4	4.2	ug/L		10/27/22 10:41	10/31/22 23:09	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/27/22 10:41	10/31/22 23:09	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/27/22 10:41	10/31/22 23:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*10/27/22 10:41*	*10/31/22 23:09*	*1*
2-Fluorophenol	*42*		*13 - 113*	*10/27/22 10:41*	*10/31/22 23:09*	*1*
Nitrobenzene-d5	*89*		*36 - 126*	*10/27/22 10:41*	*10/31/22 23:09*	*1*
Phenol-d5	*75*		*17 - 127*	*10/27/22 10:41*	*10/31/22 23:09*	*1*
Terphenyl-d14	*114*		*44 - 149*	*10/27/22 10:41*	*10/31/22 23:09*	*1*
2,4,6-Tribromophenol	*104*		*26 - 150*	*10/27/22 10:41*	*10/31/22 23:09*	*1*

Method: EPA 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		11/02/22 11:10	11/02/22 23:12	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/02/22 11:10	11/02/22 23:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*78*		*51 - 149*	*11/02/22 11:10*	*11/02/22 23:12*	*1*

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

Job ID: 400-227853-1

Client Sample ID: MW28-ROX-102522-DUP
Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/22 19:10	1
Acrolein	ND		20	3.3	ug/L			11/03/22 19:10	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 19:10	1
Benzene	ND		1.0	0.13	ug/L			11/03/22 19:10	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 19:10	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 19:10	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 19:10	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 19:10	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 19:10	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 19:10	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 19:10	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 19:10	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 19:10	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 19:10	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 19:10	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 19:10	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 19:10	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 19:10	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 19:10	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 19:10	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 19:10	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 19:10	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 19:10	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 19:10	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 19:10	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 19:10	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 19:10	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 19:10	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 19:10	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 19:10	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 19:10	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 19:10	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 19:10	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 19:10	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 19:10	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 19:10	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 19:10	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 19:10	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 19:10	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 19:10	1
Methyl tert-butyl ether	**1.4**		1.0	0.22	ug/L			11/03/22 19:10	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 19:10	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 19:10	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 19:10	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 19:10	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 19:10	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 19:10	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 19:10	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 19:10	1

Client Sample ID: MW28-ROX-102522-DUP
Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-6
Matrix: Water

Method: SW846 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			11/03/22 19:10	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 19:10	1
tert-Butylbenzene	ND		1.0	0.83	ug/L			11/03/22 19:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 19:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 19:10	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 19:10	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 19:10	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 19:10	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 19:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 19:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 19:10	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 19:10	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 19:10	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 19:10	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 19:10	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 19:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 19:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 19:10	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 19:10	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 19:10	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 19:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/03/22 19:10*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/03/22 19:10*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/03/22 19:10*	*1*

Method: SW846 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		10/27/22 10:41	11/01/22 01:03	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/27/22 10:41	11/01/22 01:03	1
Anthracene	ND		0.19	0.030	ug/L		10/27/22 10:41	11/01/22 01:03	1
Benzo[a]anthracene	~~0.12~~	J B	0.19	0.043	ug/L		10/27/22 10:41	11/01/22 01:03	1
Benzo[a]pyrene	~~0.17~~	J B	0.19	0.040	ug/L		10/27/22 10:41	11/01/22 01:03	1
Benzo[b]fluoranthene	~~0.26~~	B	~~0.19~~ 0.25	0.032	ug/L		10/27/22 10:41	11/01/22 01:03	1
Benzo[g,h,i]perylene	0.16	J	0.19	0.12	ug/L		10/27/22 10:41	11/01/22 01:03	1
Benzo[k]fluoranthene	~~0.35~~	B	~~0.19~~ 0.35	0.094	ug/L		10/27/22 10:41	11/01/22 01:03	1
Chrysene	0.15	J	0.19	0.070	ug/L		10/27/22 10:41	11/01/22 01:03	1
Dibenz(a,h)anthracene	0.13	J	0.19	0.047	ug/L		10/27/22 10:41	11/01/22 01:03	1
Fluoranthene	ND		0.19	0.064	ug/L		10/27/22 10:41	11/01/22 01:03	1
Fluorene	ND		0.19	0.10	ug/L		10/27/22 10:41	11/01/22 01:03	1
Indeno[1,2,3-cd]pyrene	~~0.17~~	J B	0.19	0.041	ug/L		10/27/22 10:41	11/01/22 01:03	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		10/27/22 10:41	11/01/22 01:03	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		10/27/22 10:41	11/01/22 01:03	1
Phenanthrene	ND		0.19	0.034	ug/L		10/27/22 10:41	11/01/22 01:03	1
Pyrene	~~0.030~~	J B	0.19	0.038	ug/L		10/27/22 10:41	11/01/22 01:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*109*		*15 - 122*	*10/27/22 10:41*	*11/01/22 01:03*	*1*
Nitrobenzene-d5	*96*		*19 - 130*	*10/27/22 10:41*	*11/01/22 01:03*	*1*

Client Sample ID: MW28-ROX-102522-DUP

Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	106		33 - 138	10/27/22 10:41	11/01/22 01:03	1

Method: SW846 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		10/27/22 10:41	10/31/22 23:30	1
Benzenethiol	ND	*-	9.4	1.6	ug/L		10/27/22 10:41	10/31/22 23:30	1
Benzoic acid	ND		28	6.9	ug/L		10/27/22 10:41	10/31/22 23:30	1
Benzyl alcohol	ND		9.4	1.9	ug/L		10/27/22 10:41	10/31/22 23:30	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/27/22 10:41	10/31/22 23:30	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 23:30	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/27/22 10:41	10/31/22 23:30	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/27/22 10:41	10/31/22 23:30	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/27/22 10:41	10/31/22 23:30	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/27/22 10:41	10/31/22 23:30	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/27/22 10:41	10/31/22 23:30	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/27/22 10:41	10/31/22 23:30	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/27/22 10:41	10/31/22 23:30	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/27/22 10:41	10/31/22 23:30	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/27/22 10:41	10/31/22 23:30	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:30	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:30	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.5	ug/L		10/27/22 10:41	10/31/22 23:30	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/27/22 10:41	10/31/22 23:30	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/27/22 10:41	10/31/22 23:30	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/27/22 10:41	10/31/22 23:30	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:30	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 23:30	1
4,6-Dinitro-ortho-cresol	ND	*+	9.4	1.5	ug/L		10/27/22 10:41	10/31/22 23:30	1
2,4-Dinitrophenol	ND	*+	28	3.2	ug/L		10/27/22 10:41	10/31/22 23:30	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/27/22 10:41	10/31/22 23:30	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/27/22 10:41	10/31/22 23:30	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:30	1
1,4-Dioxane	ND	*1	9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:30	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:30	1
Hexachlorobenzene	ND	*+	9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:30	1
Hexachlorocyclopentadiene	ND	*1	19	2.5	ug/L		10/27/22 10:41	10/31/22 23:30	1
Hexachloroethane	ND		9.4	4.0	ug/L		10/27/22 10:41	10/31/22 23:30	1
Indene	ND	*+	9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:30	1
Isophorone	ND		9.4	0.13	ug/L		10/27/22 10:41	10/31/22 23:30	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/27/22 10:41	10/31/22 23:30	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/27/22 10:41	10/31/22 23:30	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/27/22 10:41	10/31/22 23:30	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/27/22 10:41	10/31/22 23:30	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/27/22 10:41	10/31/22 23:30	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/27/22 10:41	10/31/22 23:30	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/27/22 10:41	10/31/22 23:30	1
4-Nitrophenol	ND	*+	9.4	2.0	ug/L		10/27/22 10:41	10/31/22 23:30	1
N-Nitrosodimethylamine	ND	*+	9.4	3.3	ug/L		10/27/22 10:41	10/31/22 23:30	1

Client Sample ID: MW28-ROX-102522-DUP
Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-6
Matrix: Water

Method: SW846 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		10/27/22 10:41	10/31/22 23:30	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/27/22 10:41	10/31/22 23:30	1
Pentachlorophenol	ND		19	1.3	ug/L		10/27/22 10:41	10/31/22 23:30	1
Phenol	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 23:30	1
Pyridine	ND		9.4	3.0	ug/L		10/27/22 10:41	10/31/22 23:30	1
Quinoline	ND		9.4	4.2	ug/L		10/27/22 10:41	10/31/22 23:30	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/27/22 10:41	10/31/22 23:30	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/27/22 10:41	10/31/22 23:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*10/27/22 10:41*	*10/31/22 23:30*	*1*
2-Fluorophenol	*45*		*13 - 113*	*10/27/22 10:41*	*10/31/22 23:30*	*1*
Nitrobenzene-d5	*87*		*36 - 126*	*10/27/22 10:41*	*10/31/22 23:30*	*1*
Phenol-d5	*77*		*17 - 127*	*10/27/22 10:41*	*10/31/22 23:30*	*1*
Terphenyl-d14	*120*		*44 - 149*	*10/27/22 10:41*	*10/31/22 23:30*	*1*
2,4,6-Tribromophenol	*99*		*26 - 150*	*10/27/22 10:41*	*10/31/22 23:30*	*1*

Method: EPA 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	0.021	ug/L		11/02/22 11:10	11/02/22 23:33	1
1,2-Dibromoethane	ND		0.024	0.018	ug/L		11/02/22 11:10	11/02/22 23:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*69*		*51 - 149*	*11/02/22 11:10*	*11/02/22 23:33*	*1*

Client Sample ID: MW16-ROX-102522
Date Collected: 10/25/22 13:35
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/22 19:35	1
Acrolein	ND		20	3.3	ug/L			11/03/22 19:35	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 19:35	1
Benzene	ND		1.0	0.13	ug/L			11/03/22 19:35	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 19:35	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 19:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 19:35	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 19:35	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 19:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 19:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 19:35	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 19:35	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 19:35	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 19:35	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 19:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 19:35	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 19:35	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 19:35	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 19:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 19:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 19:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 19:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 19:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 19:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 19:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 19:35	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 19:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 19:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 19:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 19:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 19:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 19:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 19:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 19:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 19:35	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 19:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 19:35	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 19:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 19:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 19:35	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/03/22 19:35	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 19:35	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 19:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 19:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 19:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 19:35	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 19:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 19:35	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/22 19:35	1

Client Sample ID: MW16-ROX-102522
Date Collected: 10/25/22 13:35
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-7
Matrix: Water

Method: SW846 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			11/03/22 19:35	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 19:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 19:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 19:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 19:35	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 19:35	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 19:35	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 19:35	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 19:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 19:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 19:35	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 19:35	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 19:35	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 19:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 19:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 19:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 19:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 19:35	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 19:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 19:35	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 19:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/03/22 19:35*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/03/22 19:35*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/03/22 19:35*	*1*

Method: SW846 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		10/27/22 10:41	11/01/22 01:20	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/27/22 10:41	11/01/22 01:20	1
Anthracene	ND		0.19	0.030	ug/L		10/27/22 10:41	11/01/22 01:20	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		10/27/22 10:41	11/01/22 01:20	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/27/22 10:41	11/01/22 01:20	1
Benzo[b]fluoranthene	~~0.11~~	J B U	0.19	0.032	ug/L		10/27/22 10:41	11/01/22 01:20	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/27/22 10:41	11/01/22 01:20	1
Benzo[k]fluoranthene	~~0.14~~	J B U	0.19	0.094	ug/L		10/27/22 10:41	11/01/22 01:20	1
Chrysene	ND		0.19	0.070	ug/L		10/27/22 10:41	11/01/22 01:20	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/27/22 10:41	11/01/22 01:20	1
Fluoranthene	ND		0.19	0.064	ug/L		10/27/22 10:41	11/01/22 01:20	1
Fluorene	ND		0.19	0.10	ug/L		10/27/22 10:41	11/01/22 01:20	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		10/27/22 10:41	11/01/22 01:20	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		10/27/22 10:41	11/01/22 01:20	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		10/27/22 10:41	11/01/22 01:20	1
Phenanthrene	ND		0.19	0.034	ug/L		10/27/22 10:41	11/01/22 01:20	1
Pyrene	ND		0.19	0.038	ug/L		10/27/22 10:41	11/01/22 01:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*15 - 122*	*10/27/22 10:41*	*11/01/22 01:20*	*1*
Nitrobenzene-d5	*101*		*19 - 130*	*10/27/22 10:41*	*11/01/22 01:20*	*1*

Client Sample ID: MW16-ROX-102522
Date Collected: 10/25/22 13:35
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-7
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*87*		*33 - 138*	*10/27/22 10:41*	*11/01/22 01:20*	*1*

Method: SW846 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		10/27/22 10:41	10/31/22 23:50	1
Benzenethiol	ND	*-	9.4	1.6	ug/L		10/27/22 10:41	10/31/22 23:50	1
Benzoic acid	ND		28	6.9	ug/L		10/27/22 10:41	10/31/22 23:50	1
Benzyl alcohol	ND		9.4	1.9	ug/L		10/27/22 10:41	10/31/22 23:50	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/27/22 10:41	10/31/22 23:50	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 23:50	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/27/22 10:41	10/31/22 23:50	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/27/22 10:41	10/31/22 23:50	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/27/22 10:41	10/31/22 23:50	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/27/22 10:41	10/31/22 23:50	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/27/22 10:41	10/31/22 23:50	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/27/22 10:41	10/31/22 23:50	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/27/22 10:41	10/31/22 23:50	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/27/22 10:41	10/31/22 23:50	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/27/22 10:41	10/31/22 23:50	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:50	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:50	1
3,3'-Dichlorobenzidine	ND	*+	9.4	2.4	ug/L		10/27/22 10:41	10/31/22 23:50	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/27/22 10:41	10/31/22 23:50	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/27/22 10:41	10/31/22 23:50	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/27/22 10:41	10/31/22 23:50	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:50	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/27/22 10:41	10/31/22 23:50	1
4,6-Dinitro-ortho-cresol	ND	*+	9.4	1.5	ug/L		10/27/22 10:41	10/31/22 23:50	1
2,4-Dinitrophenol	ND	*+	28	3.2	ug/L		10/27/22 10:41	10/31/22 23:50	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/27/22 10:41	10/31/22 23:50	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/27/22 10:41	10/31/22 23:50	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:50	1
1,4-Dioxane	ND	*1	9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:50	1
Hexachlorobenzene	ND	*+	9.4	0.16	ug/L		10/27/22 10:41	10/31/22 23:50	1
Hexachlorocyclopentadiene	ND	*1	19	2.4	ug/L		10/27/22 10:41	10/31/22 23:50	1
Hexachloroethane	ND		9.4	4.0	ug/L		10/27/22 10:41	10/31/22 23:50	1
Indene	ND	*+	9.4	0.94	ug/L		10/27/22 10:41	10/31/22 23:50	1
Isophorone	ND		9.4	0.13	ug/L		10/27/22 10:41	10/31/22 23:50	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/27/22 10:41	10/31/22 23:50	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/27/22 10:41	10/31/22 23:50	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/27/22 10:41	10/31/22 23:50	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/27/22 10:41	10/31/22 23:50	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/27/22 10:41	10/31/22 23:50	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/27/22 10:41	10/31/22 23:50	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/27/22 10:41	10/31/22 23:50	1
4-Nitrophenol	ND	*+	9.4	2.0	ug/L		10/27/22 10:41	10/31/22 23:50	1
N-Nitrosodimethylamine	ND	*+	9.4	3.3	ug/L		10/27/22 10:41	10/31/22 23:50	1

Client Sample ID: MW16-ROX-102522
Date Collected: 10/25/22 13:35
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-7
Matrix: Water

Method: SW846 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		10/27/22 10:41	10/31/22 23:50	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/27/22 10:41	10/31/22 23:50	1
Pentachlorophenol	ND		19	1.3	ug/L		10/27/22 10:41	10/31/22 23:50	1
Phenol	ND		9.4	2.4	ug/L		10/27/22 10:41	10/31/22 23:50	1
Pyridine	ND		9.4	3.0	ug/L		10/27/22 10:41	10/31/22 23:50	1
Quinoline	ND		9.4	4.2	ug/L		10/27/22 10:41	10/31/22 23:50	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/27/22 10:41	10/31/22 23:50	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/27/22 10:41	10/31/22 23:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*10/27/22 10:41*	*10/31/22 23:50*	*1*
2-Fluorophenol	*48*		*13 - 113*	*10/27/22 10:41*	*10/31/22 23:50*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*10/27/22 10:41*	*10/31/22 23:50*	*1*
Phenol-d5	*70*		*17 - 127*	*10/27/22 10:41*	*10/31/22 23:50*	*1*
Terphenyl-d14	*90*		*44 - 149*	*10/27/22 10:41*	*10/31/22 23:50*	*1*
2,4,6-Tribromophenol	*90*		*26 - 150*	*10/27/22 10:41*	*10/31/22 23:50*	*1*

Method: EPA 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	0.018	ug/L		11/02/22 11:10	11/02/22 23:53	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		11/02/22 11:10	11/02/22 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*76*		*51 - 149*	*11/02/22 11:10*	*11/02/22 23:53*	*1*

Definitions/Glossary

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

Job ID: 400-227853-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

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.
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: 400-227853-1

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)
400-227853-1	TB-ROX-102522-8260	97	99	100
400-227853-3	MW3-ROX-102522-EB	96	100	98
400-227853-4	MW3-ROX-102522	100	102	99
400-227853-5	MW28-ROX-102522	97	99	98
400-227853-6	MW28-ROX-102522-DUP	98	100	98
400-227853-7	MW16-ROX-102522	98	100	99
LCS 400-598984/1002	Lab Control Sample	90	100	98
LCS 400-599180/1002	Lab Control Sample	88	97	96
MB 400-598984/4	Method Blank	100	100	99
MB 400-599180/4	Method Blank	97	101	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)
400-227853-3	MW3-ROX-102522-EB	76	51	87	78	106	97
400-227853-4	MW3-ROX-102522	76	42	84	74	80	110
400-227853-5	MW28-ROX-102522	80	42	89	75	114	104
400-227853-6	MW28-ROX-102522-DUP	81	45	87	77	120	99
400-227853-7	MW16-ROX-102522	79	48	84	70	90	90
LCS 400-598048/2-A	Lab Control Sample	80	41	81	73	101	117
LCS 400-598048/4-A	Lab Control Sample	82	60	91	85	115	86
LCSD 400-598048/3-A	Lab Control Sample Dup	90	31	91	78	111	133
LCSD 400-598048/5-A	Lab Control Sample Dup	85	58	94	82	118	42
MB 400-598048/1-A	Method Blank	69	19	75	52	94	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)
400-227853-3	MW3-ROX-102522-EB	96	86	87
400-227853-4	MW3-ROX-102522	98	81	80
400-227853-5	MW28-ROX-102522	88	101	94
400-227853-6	MW28-ROX-102522-DUP	109	96	106

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-227853-1
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)
400-227853-7	MW16-ROX-102522	81	101	87
LCS 400-598048/2-A	Lab Control Sample	92	83	102
LCSD 400-598048/3-A	Lab Control Sample Dup	97	88	100
MB 400-598048/1-A	Method Blank	73	80	76

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)
400-227853-2	TB-ROX-102522-8011	75
400-227853-3	MW3-ROX-102522-EB	81
400-227853-4	MW3-ROX-102522	74
400-227853-5	MW28-ROX-102522	78
400-227853-6	MW28-ROX-102522-DUP	69
400-227853-7	MW16-ROX-102522	76
LCS 400-598876/2-A	Lab Control Sample	79
LCSD 400-598876/3-A	Lab Control Sample Dup	82
MB 400-598876/1-A	Method Blank	76

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-227853-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET 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: 400-227853-1

Client Sample ID: TB-ROX-102522-8260

Date Collected: 10/25/22 12:00
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-1
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	598984	11/03/22 14:06	AGW	EET PEN

Client Sample ID: TB-ROX-102522-8011

Date Collected: 10/25/22 12:00
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-2
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			34.3 mL	35 mL	598876	11/02/22 11:10	JAW	EET PEN
Total/NA	Analysis	8011		1			598971	11/02/22 21:51	DS	EET PEN

Client Sample ID: MW3-ROX-102522-EB

Date Collected: 10/25/22 08:55
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-3
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	598984	11/03/22 14:31	AGW	EET PEN
Total/NA	Prep	3520C			271 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 17:57	S1B	EET PEN
Total/NA	Prep	3520C			271 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	11/01/22 00:11	PP1	EET PEN
Total/NA	Prep	8011			33.5 mL	35 mL	598876	11/02/22 11:10	JAW	EET PEN
Total/NA	Analysis	8011		1			598971	11/02/22 22:31	DS	EET PEN

Client Sample ID: MW3-ROX-102522

Date Collected: 10/25/22 09:45
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-4
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	599180	11/04/22 11:46	AGW	EET PEN
Total/NA	Prep	3520C			267.4 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 22:48	S1B	EET PEN
Total/NA	Prep	3520C			267.4 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	11/01/22 00:29	PP1	EET PEN
Total/NA	Prep	8011			31.3 mL	35 mL	598876	11/02/22 11:10	JAW	EET PEN
Total/NA	Analysis	8011		1			598971	11/02/22 22:52	DS	EET PEN

Client Sample ID: MW28-ROX-102522

Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

Lab Sample ID: 400-227853-5
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	598984	11/03/22 18:45	AGW	EET PEN
Total/NA	Prep	3520C			266.2 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 23:09	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-227853-1

Client Sample ID: MW28-ROX-102522

Lab Sample ID: 400-227853-5

Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

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			266.2 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	11/01/22 00:46	PP1	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	598876	11/02/22 11:10	JAW	EET PEN
Total/NA	Analysis	8011		1			598971	11/02/22 23:12	DS	EET PEN

Client Sample ID: MW28-ROX-102522-DUP

Lab Sample ID: 400-227853-6

Date Collected: 10/25/22 12:10
Date Received: 10/26/22 09:12

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	598984	11/03/22 19:10	AGW	EET PEN
Total/NA	Prep	3520C			265 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 23:30	S1B	EET PEN
Total/NA	Prep	3520C			265 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	11/01/22 01:03	PP1	EET PEN
Total/NA	Prep	8011			28.9 mL	35 mL	598876	11/02/22 11:10	JAW	EET PEN
Total/NA	Analysis	8011		1			598971	11/02/22 23:33	DS	EET PEN

Client Sample ID: MW16-ROX-102522

Lab Sample ID: 400-227853-7

Date Collected: 10/25/22 13:35
Date Received: 10/26/22 09:12

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	598984	11/03/22 19:35	AGW	EET PEN
Total/NA	Prep	3520C			265.8 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 23:50	S1B	EET PEN
Total/NA	Prep	3520C			265.8 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	11/01/22 01:20	PP1	EET PEN
Total/NA	Prep	8011			32.2 mL	35 mL	598876	11/02/22 11:10	JAW	EET PEN
Total/NA	Analysis	8011		1			598971	11/02/22 23:53	DS	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-598048/1-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	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 14:48	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	598584	10/31/22 22:11	PP1	EET PEN

Lab Chronicle

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

Job ID: 400-227853-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-598876/1-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	598876	11/02/22 11:10	JAW	EET PEN
Total/NA	Analysis	8011		1			598971	11/02/22 15:00	DS	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-598984/4
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	598984	11/03/22 10:44	AGW	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-599180/4
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	599180	11/04/22 10:55	AGW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-598048/2-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	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 15:09	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	598584	10/31/22 22:28	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-598048/4-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	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 15:51	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-598876/2-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	598876	11/02/22 11:10	JAW	EET PEN
Total/NA	Analysis	8011		1			598971	11/02/22 15:20	DS	EET PEN

Lab Chronicle

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

Job ID: 400-227853-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-598984/1002
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	598984	11/03/22 09:47	AGW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-599180/1002
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	599180	11/04/22 09:56	AGW	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-598048/3-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	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 15:30	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	598584	10/31/22 22:46	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-598048/5-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	598048	10/27/22 10:41	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	598504	10/31/22 16:12	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-598876/3-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	598876	11/02/22 11:10	JAW	EET PEN
Total/NA	Analysis	8011		1			598971	11/02/22 15:41	DS	EET PEN

Laboratory References:
EET 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: 400-227853-1

GC/MS VOA

Analysis Batch: 598984

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227853-1	TB-ROX-102522-8260	Total/NA	Water	8260B	
400-227853-3	MW3-ROX-102522-EB	Total/NA	Water	8260B	
400-227853-5	MW28-ROX-102522	Total/NA	Water	8260B	
400-227853-6	MW28-ROX-102522-DUP	Total/NA	Water	8260B	
400-227853-7	MW16-ROX-102522	Total/NA	Water	8260B	
MB 400-598984/4	Method Blank	Total/NA	Water	8260B	
LCS 400-598984/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 599180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227853-4	MW3-ROX-102522	Total/NA	Water	8260B	
MB 400-599180/4	Method Blank	Total/NA	Water	8260B	
LCS 400-599180/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 598048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227853-3	MW3-ROX-102522-EB	Total/NA	Water	3520C	
400-227853-4	MW3-ROX-102522	Total/NA	Water	3520C	
400-227853-5	MW28-ROX-102522	Total/NA	Water	3520C	
400-227853-6	MW28-ROX-102522-DUP	Total/NA	Water	3520C	
400-227853-7	MW16-ROX-102522	Total/NA	Water	3520C	
MB 400-598048/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-598048/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-598048/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-598048/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-598048/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 598504

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227853-3	MW3-ROX-102522-EB	Total/NA	Water	8270D	598048
400-227853-4	MW3-ROX-102522	Total/NA	Water	8270D	598048
400-227853-5	MW28-ROX-102522	Total/NA	Water	8270D	598048
400-227853-6	MW28-ROX-102522-DUP	Total/NA	Water	8270D	598048
400-227853-7	MW16-ROX-102522	Total/NA	Water	8270D	598048
MB 400-598048/1-A	Method Blank	Total/NA	Water	8270D	598048
LCS 400-598048/2-A	Lab Control Sample	Total/NA	Water	8270D	598048
LCS 400-598048/4-A	Lab Control Sample	Total/NA	Water	8270D	598048
LCSD 400-598048/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	598048
LCSD 400-598048/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	598048

Analysis Batch: 598584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227853-3	MW3-ROX-102522-EB	Total/NA	Water	8270D LL	598048
400-227853-4	MW3-ROX-102522	Total/NA	Water	8270D LL	598048
400-227853-5	MW28-ROX-102522	Total/NA	Water	8270D LL	598048
400-227853-6	MW28-ROX-102522-DUP	Total/NA	Water	8270D LL	598048
400-227853-7	MW16-ROX-102522	Total/NA	Water	8270D LL	598048
MB 400-598048/1-A	Method Blank	Total/NA	Water	8270D LL	598048
LCS 400-598048/2-A	Lab Control Sample	Total/NA	Water	8270D LL	598048

GC/MS Semi VOA (Continued)

Analysis Batch: 598584 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-598048/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	598048

GC Semi VOA

Prep Batch: 598876

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227853-2	TB-ROX-102522-8011	Total/NA	Water	8011	
400-227853-3	MW3-ROX-102522-EB	Total/NA	Water	8011	
400-227853-4	MW3-ROX-102522	Total/NA	Water	8011	
400-227853-5	MW28-ROX-102522	Total/NA	Water	8011	
400-227853-6	MW28-ROX-102522-DUP	Total/NA	Water	8011	
400-227853-7	MW16-ROX-102522	Total/NA	Water	8011	
MB 400-598876/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-598876/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-598876/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 598971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227853-2	TB-ROX-102522-8011	Total/NA	Water	8011	598876
400-227853-3	MW3-ROX-102522-EB	Total/NA	Water	8011	598876
400-227853-4	MW3-ROX-102522	Total/NA	Water	8011	598876
400-227853-5	MW28-ROX-102522	Total/NA	Water	8011	598876
400-227853-6	MW28-ROX-102522-DUP	Total/NA	Water	8011	598876
400-227853-7	MW16-ROX-102522	Total/NA	Water	8011	598876
MB 400-598876/1-A	Method Blank	Total/NA	Water	8011	598876
LCS 400-598876/2-A	Lab Control Sample	Total/NA	Water	8011	598876
LCSD 400-598876/3-A	Lab Control Sample Dup	Total/NA	Water	8011	598876

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

Lab Sample ID: MB 400-598984/4
Matrix: Water
Analysis Batch: 598984

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			11/03/22 10:44	1
Acrolein	ND		20	3.3	ug/L			11/03/22 10:44	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/22 10:44	1
Benzene	ND		1.0	0.13	ug/L			11/03/22 10:44	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/22 10:44	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/03/22 10:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/22 10:44	1
Bromoform	ND		5.0	0.25	ug/L			11/03/22 10:44	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/22 10:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/03/22 10:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/22 10:44	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/03/22 10:44	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/03/22 10:44	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/03/22 10:44	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/22 10:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/03/22 10:44	1
Chloroform	ND		1.0	1.0	ug/L			11/03/22 10:44	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/03/22 10:44	1
Chloromethane	ND		1.0	0.32	ug/L			11/03/22 10:44	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/03/22 10:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/22 10:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/22 10:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/22 10:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/22 10:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/22 10:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/22 10:44	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/03/22 10:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 10:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 10:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 10:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/22 10:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/22 10:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/03/22 10:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/22 10:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/22 10:44	1
2-Hexanone	ND		25	1.4	ug/L			11/03/22 10:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/22 10:44	1
Methylene bromide	ND		5.0	0.22	ug/L			11/03/22 10:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/22 10:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/22 10:44	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/03/22 10:44	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/03/22 10:44	1
Naphthalene	ND		5.0	3.0	ug/L			11/03/22 10:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/22 10:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/22 10:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/22 10:44	1
o-Xylene	ND		5.0	0.60	ug/L			11/03/22 10:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/22 10:44	1

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

Lab Sample ID: MB 400-598984/4
Matrix: Water
Analysis Batch: 598984

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			11/03/22 10:44	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/03/22 10:44	1
Styrene	ND		1.0	1.0	ug/L			11/03/22 10:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/22 10:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/03/22 10:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/22 10:44	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/03/22 10:44	1
Toluene	ND		1.0	0.41	ug/L			11/03/22 10:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/22 10:44	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/03/22 10:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/03/22 10:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/22 10:44	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/03/22 10:44	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/03/22 10:44	1
Trichloroethene	ND		1.0	0.15	ug/L			11/03/22 10:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/22 10:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/22 10:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/22 10:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/22 10:44	1
Vinyl acetate	ND		25	0.93	ug/L			11/03/22 10:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/22 10:44	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/22 10:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/03/22 10:44*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/03/22 10:44*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/03/22 10:44*	*1*

Lab Sample ID: LCS 400-598984/1002
Matrix: Water
Analysis Batch: 598984

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	274		ug/L		137	43 - 160
Acrolein	500	486		ug/L		97	38 - 160
Acrylonitrile	500	560		ug/L		112	64 - 142
Benzene	50.0	50.2		ug/L		100	70 - 130
Bromobenzene	50.0	50.4		ug/L		101	70 - 132
Bromochloromethane	50.0	50.2		ug/L		100	70 - 130
Bromodichloromethane	50.0	52.1		ug/L		104	67 - 133
Bromoform	50.0	52.1		ug/L		104	57 - 140
Bromomethane	50.0	47.4		ug/L		95	10 - 160
2-Butanone (MEK)	200	238		ug/L		119	61 - 145
Carbon disulfide	50.0	46.4		ug/L		93	61 - 137
Carbon tetrachloride	50.0	47.7		ug/L		95	61 - 137
Chlorobenzene	50.0	54.7		ug/L		109	70 - 130
Dibromochloromethane	50.0	53.6		ug/L		107	67 - 135
Chloroethane	50.0	45.8		ug/L		92	55 - 141

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

Lab Sample ID: LCS 400-598984/1002
Matrix: Water
Analysis Batch: 598984

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	50.1		ug/L		100	10 - 160
Chloroform	50.0	50.5		ug/L		101	69 - 130
1-Chlorohexane	50.0	53.2		ug/L		106	69 - 130
Chloromethane	50.0	58.6		ug/L		117	58 - 137
cis-1,2-Dichloroethene	50.0	47.4		ug/L		95	68 - 130
cis-1,3-Dichloropropene	50.0	48.4		ug/L		97	69 - 132
1,2-Dichlorobenzene	50.0	59.1		ug/L		118	67 - 130
1,3-Dichlorobenzene	50.0	56.8		ug/L		114	70 - 130
1,4-Dichlorobenzene	50.0	58.4		ug/L		117	70 - 130
Dichlorodifluoromethane	50.0	61.8		ug/L		124	41 - 146
1,1-Dichloroethane	50.0	49.3		ug/L		99	70 - 130
1,2-Dichloroethane	50.0	48.9		ug/L		98	69 - 130
1,1-Dichloroethene	50.0	47.0		ug/L		94	63 - 134
1,2-Dichloropropane	50.0	52.8		ug/L		106	70 - 130
1,3-Dichloropropane	50.0	53.6		ug/L		107	70 - 130
2,2-Dichloropropane	50.0	43.7		ug/L		87	52 - 135
1,1-Dichloropropene	50.0	48.2		ug/L		96	70 - 130
Ethylbenzene	50.0	50.0		ug/L		100	70 - 130
Ethyl methacrylate	50.0	45.8		ug/L		92	68 - 130
Hexachlorobutadiene	50.0	64.9		ug/L		130	53 - 140
2-Hexanone	200	223		ug/L		111	65 - 137
Isopropylbenzene	50.0	50.3		ug/L		101	70 - 130
Methylene bromide	50.0	52.5		ug/L		105	70 - 130
Methylene Chloride	50.0	49.7		ug/L		99	66 - 135
4-Methyl-2-pentanone (MIBK)	200	218		ug/L		109	69 - 138
Methyl tert-butyl ether	50.0	45.4		ug/L		91	66 - 130
m-Xylene & p-Xylene	50.0	49.2		ug/L		98	70 - 130
Naphthalene	50.0	42.8		ug/L		86	47 - 149
n-Butylbenzene	50.0	62.7		ug/L		125	67 - 130
N-Propylbenzene	50.0	51.0		ug/L		102	70 - 130
o-Chlorotoluene	50.0	52.2		ug/L		104	70 - 130
o-Xylene	50.0	50.1		ug/L		100	70 - 130
p-Chlorotoluene	50.0	54.6		ug/L		109	70 - 130
p-Isopropyltoluene	50.0	53.9		ug/L		108	65 - 130
sec-Butylbenzene	50.0	54.0		ug/L		108	66 - 130
Styrene	50.0	51.7		ug/L		103	70 - 130
tert-Butylbenzene	50.0	51.0		ug/L		102	64 - 139
1,1,1,2-Tetrachloroethane	50.0	54.2		ug/L		108	67 - 131
1,1,2,2-Tetrachloroethane	50.0	55.6		ug/L		111	70 - 131
Tetrachloroethene	50.0	52.0		ug/L		104	65 - 130
Toluene	50.0	49.6		ug/L		99	70 - 130
trans-1,2-Dichloroethene	50.0	47.3		ug/L		95	70 - 130
trans-1,3-Dichloropropene	50.0	48.2		ug/L		96	63 - 130
1,2,3-Trichlorobenzene	50.0	50.8		ug/L		102	60 - 138
1,2,4-Trichlorobenzene	50.0	48.2		ug/L		96	60 - 140
1,1,1-Trichloroethane	50.0	48.1		ug/L		96	68 - 130
1,1,2-Trichloroethane	50.0	55.3		ug/L		111	70 - 130
Trichloroethene	50.0	50.3		ug/L		101	70 - 130
Trichlorofluoromethane	50.0	46.7		ug/L		93	65 - 138

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

Lab Sample ID: LCS 400-598984/1002
Matrix: Water
Analysis Batch: 598984

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	55.4		ug/L		111	70 - 130
1,2,4-Trimethylbenzene	50.0	53.5		ug/L		107	70 - 130
1,3,5-Trimethylbenzene	50.0	51.5		ug/L		103	69 - 130
Vinyl acetate	100	105		ug/L		105	26 - 160
Vinyl chloride	50.0	50.1		ug/L		100	59 - 136
Xylenes, Total	100	99.3		ug/L		99	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*90*		*72 - 119*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: MB 400-599180/4
Matrix: Water
Analysis Batch: 599180

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			11/04/22 10:55	1
Acrolein	ND		20	3.3	ug/L			11/04/22 10:55	1
Acrylonitrile	ND		10	2.8	ug/L			11/04/22 10:55	1
Benzene	ND		1.0	0.13	ug/L			11/04/22 10:55	1
Bromobenzene	ND		1.0	0.54	ug/L			11/04/22 10:55	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/04/22 10:55	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/04/22 10:55	1
Bromoform	ND		5.0	0.25	ug/L			11/04/22 10:55	1
Bromomethane	ND		1.0	0.98	ug/L			11/04/22 10:55	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/04/22 10:55	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/04/22 10:55	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/04/22 10:55	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/04/22 10:55	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/04/22 10:55	1
Chloroethane	ND		1.0	0.76	ug/L			11/04/22 10:55	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/04/22 10:55	1
Chloroform	ND		1.0	1.0	ug/L			11/04/22 10:55	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/04/22 10:55	1
Chloromethane	ND		1.0	0.32	ug/L			11/04/22 10:55	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/04/22 10:55	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/04/22 10:55	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/04/22 10:55	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/04/22 10:55	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/04/22 10:55	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/04/22 10:55	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/04/22 10:55	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/04/22 10:55	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/04/22 10:55	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/04/22 10:55	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/04/22 10:55	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/04/22 10:55	1

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

Lab Sample ID: MB 400-599180/4
Matrix: Water
Analysis Batch: 599180

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			11/04/22 10:55	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/04/22 10:55	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/04/22 10:55	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/04/22 10:55	1
2-Hexanone	ND		25	1.4	ug/L			11/04/22 10:55	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/04/22 10:55	1
Methylene bromide	ND		5.0	0.22	ug/L			11/04/22 10:55	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/04/22 10:55	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/04/22 10:55	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/04/22 10:55	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/04/22 10:55	1
Naphthalene	ND		5.0	3.0	ug/L			11/04/22 10:55	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/04/22 10:55	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/04/22 10:55	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/04/22 10:55	1
o-Xylene	ND		5.0	0.60	ug/L			11/04/22 10:55	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/04/22 10:55	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/04/22 10:55	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/04/22 10:55	1
Styrene	ND		1.0	1.0	ug/L			11/04/22 10:55	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/04/22 10:55	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/04/22 10:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/04/22 10:55	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/04/22 10:55	1
Toluene	ND		1.0	0.41	ug/L			11/04/22 10:55	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/04/22 10:55	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/04/22 10:55	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/04/22 10:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/04/22 10:55	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/04/22 10:55	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/04/22 10:55	1
Trichloroethene	ND		1.0	0.15	ug/L			11/04/22 10:55	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/04/22 10:55	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/04/22 10:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/04/22 10:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/04/22 10:55	1
Vinyl acetate	ND		25	0.93	ug/L			11/04/22 10:55	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/04/22 10:55	1
Xylenes, Total	ND		10	1.6	ug/L			11/04/22 10:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/04/22 10:55*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/04/22 10:55*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/04/22 10:55*	*1*

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

Lab Sample ID: LCS 400-599180/1002
Matrix: Water
Analysis Batch: 599180

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	395	*+	ug/L		198	43 - 160
Acrolein	500	469		ug/L		94	38 - 160
Acrylonitrile	500	584		ug/L		117	64 - 142
Benzene	50.0	53.4		ug/L		107	70 - 130
Bromobenzene	50.0	50.5		ug/L		101	70 - 132
Bromochloromethane	50.0	51.2		ug/L		102	70 - 130
Bromodichloromethane	50.0	54.1		ug/L		108	67 - 133
Bromoform	50.0	53.6		ug/L		107	57 - 140
Bromomethane	50.0	54.2		ug/L		108	10 - 160
2-Butanone (MEK)	200	293	*+	ug/L		147	61 - 145
Carbon disulfide	50.0	51.8		ug/L		104	61 - 137
Carbon tetrachloride	50.0	50.8		ug/L		102	61 - 137
Chlorobenzene	50.0	56.6		ug/L		113	70 - 130
Dibromochloromethane	50.0	55.9		ug/L		112	67 - 135
Chloroethane	50.0	42.8		ug/L		86	55 - 141
2-Chloroethyl vinyl ether	50.0	47.5		ug/L		95	10 - 160
Chloroform	50.0	51.7		ug/L		103	69 - 130
1-Chlorohexane	50.0	55.9		ug/L		112	69 - 130
Chloromethane	50.0	62.3		ug/L		125	58 - 137
cis-1,2-Dichloroethene	50.0	49.2		ug/L		98	68 - 130
cis-1,3-Dichloropropene	50.0	49.0		ug/L		98	69 - 132
1,2-Dichlorobenzene	50.0	63.5		ug/L		127	67 - 130
1,3-Dichlorobenzene	50.0	57.2		ug/L		114	70 - 130
1,4-Dichlorobenzene	50.0	59.3		ug/L		119	70 - 130
Dichlorodifluoromethane	50.0	64.8		ug/L		130	41 - 146
1,1-Dichloroethane	50.0	52.0		ug/L		104	70 - 130
1,2-Dichloroethane	50.0	51.8		ug/L		104	69 - 130
1,1-Dichloroethene	50.0	49.6		ug/L		99	63 - 134
1,2-Dichloropropane	50.0	54.6		ug/L		109	70 - 130
1,3-Dichloropropane	50.0	54.9		ug/L		110	70 - 130
2,2-Dichloropropane	50.0	45.6		ug/L		91	52 - 135
1,1-Dichloropropene	50.0	49.4		ug/L		99	70 - 130
Ethylbenzene	50.0	51.5		ug/L		103	70 - 130
Ethyl methacrylate	50.0	44.4		ug/L		89	68 - 130
Hexachlorobutadiene	50.0	65.1		ug/L		130	53 - 140
2-Hexanone	200	268		ug/L		134	65 - 137
Isopropylbenzene	50.0	51.5		ug/L		103	70 - 130
Methylene bromide	50.0	55.6		ug/L		111	70 - 130
Methylene Chloride	50.0	51.1		ug/L		102	66 - 135
4-Methyl-2-pentanone (MIBK)	200	231		ug/L		116	69 - 138
Methyl tert-butyl ether	50.0	45.4		ug/L		91	66 - 130
m-Xylene & p-Xylene	50.0	50.4		ug/L		101	70 - 130
Naphthalene	50.0	41.9		ug/L		84	47 - 149
n-Butylbenzene	50.0	63.2		ug/L		126	67 - 130
N-Propylbenzene	50.0	51.7		ug/L		103	70 - 130
o-Chlorotoluene	50.0	51.8		ug/L		104	70 - 130
o-Xylene	50.0	51.6		ug/L		103	70 - 130
p-Chlorotoluene	50.0	55.4		ug/L		111	70 - 130

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

Lab Sample ID: LCS 400-599180/1002
Matrix: Water
Analysis Batch: 599180

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	54.4		ug/L		109	65 - 130
sec-Butylbenzene	50.0	54.2		ug/L		108	66 - 130
Styrene	50.0	52.2		ug/L		104	70 - 130
tert-Butylbenzene	50.0	51.1		ug/L		102	64 - 139
1,1,1,2-Tetrachloroethane	50.0	56.6		ug/L		113	67 - 131
1,1,2,2-Tetrachloroethane	50.0	57.8		ug/L		116	70 - 131
Tetrachloroethene	50.0	54.7		ug/L		109	65 - 130
Toluene	50.0	51.6		ug/L		103	70 - 130
trans-1,2-Dichloroethene	50.0	50.7		ug/L		101	70 - 130
trans-1,3-Dichloropropene	50.0	48.9		ug/L		98	63 - 130
1,2,3-Trichlorobenzene	50.0	48.8		ug/L		98	60 - 138
1,2,4-Trichlorobenzene	50.0	46.6		ug/L		93	60 - 140
1,1,1-Trichloroethane	50.0	50.1		ug/L		100	68 - 130
1,1,2-Trichloroethane	50.0	57.0		ug/L		114	70 - 130
Trichloroethene	50.0	53.3		ug/L		107	70 - 130
Trichlorofluoromethane	50.0	48.4		ug/L		97	65 - 138
1,2,3-Trichloropropane	50.0	56.9		ug/L		114	70 - 130
1,2,4-Trimethylbenzene	50.0	53.5		ug/L		107	70 - 130
1,3,5-Trimethylbenzene	50.0	52.0		ug/L		104	69 - 130
Vinyl acetate	100	100		ug/L		100	26 - 160
Vinyl chloride	50.0	51.9		ug/L		104	59 - 136
Xylenes, Total	100	102		ug/L		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*72 - 119*
Dibromofluoromethane	*97*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

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

Lab Sample ID: MB 400-598048/1-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/27/22 10:41	10/31/22 14:48	1
Benzenethiol	ND		10	1.7	ug/L		10/27/22 10:41	10/31/22 14:48	1
Benzoic acid	ND		30	7.3	ug/L		10/27/22 10:41	10/31/22 14:48	1
Benzyl alcohol	ND		10	2.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/27/22 10:41	10/31/22 14:48	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/27/22 10:41	10/31/22 14:48	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/27/22 10:41	10/31/22 14:48	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/27/22 10:41	10/31/22 14:48	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Chloroaniline	ND		10	3.4	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/27/22 10:41	10/31/22 14:48	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/27/22 10:41	10/31/22 14:48	1
2-Chlorophenol	ND		10	2.2	ug/L		10/27/22 10:41	10/31/22 14:48	1

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

Lab Sample ID: MB 400-598048/1-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Dibenzofuran	ND		10	0.17	ug/L		10/27/22 10:41	10/31/22 14:48	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Diethyl phthalate	ND		10	0.24	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/27/22 10:41	10/31/22 14:48	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/27/22 10:41	10/31/22 14:48	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/27/22 10:41	10/31/22 14:48	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/27/22 10:41	10/31/22 14:48	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/27/22 10:41	10/31/22 14:48	1
1,4-Dioxane	ND		10	1.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/27/22 10:41	10/31/22 14:48	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/27/22 10:41	10/31/22 14:48	1
Hexachloroethane	ND		10	4.2	ug/L		10/27/22 10:41	10/31/22 14:48	1
Indene	ND		10	1.0	ug/L		10/27/22 10:41	10/31/22 14:48	1
Isophorone	ND		10	0.14	ug/L		10/27/22 10:41	10/31/22 14:48	1
2-Methylphenol	ND		10	1.8	ug/L		10/27/22 10:41	10/31/22 14:48	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/27/22 10:41	10/31/22 14:48	1
2-Nitroaniline	ND		10	2.2	ug/L		10/27/22 10:41	10/31/22 14:48	1
3-Nitroaniline	ND		10	1.8	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Nitroaniline	ND		10	1.5	ug/L		10/27/22 10:41	10/31/22 14:48	1
Nitrobenzene	ND		10	0.13	ug/L		10/27/22 10:41	10/31/22 14:48	1
2-Nitrophenol	ND		10	5.2	ug/L		10/27/22 10:41	10/31/22 14:48	1
4-Nitrophenol	ND		10	2.1	ug/L		10/27/22 10:41	10/31/22 14:48	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/27/22 10:41	10/31/22 14:48	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/27/22 10:41	10/31/22 14:48	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/27/22 10:41	10/31/22 14:48	1
Pentachlorophenol	ND		20	1.4	ug/L		10/27/22 10:41	10/31/22 14:48	1
Phenol	ND		10	2.6	ug/L		10/27/22 10:41	10/31/22 14:48	1
Pyridine	ND		10	3.2	ug/L		10/27/22 10:41	10/31/22 14:48	1
Quinoline	ND		10	4.5	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/27/22 10:41	10/31/22 14:48	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/27/22 10:41	10/31/22 14:48	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*46 - 124*	*10/27/22 10:41*	*10/31/22 14:48*	*1*
2-Fluorophenol	*19*		*13 - 113*	*10/27/22 10:41*	*10/31/22 14:48*	*1*
Nitrobenzene-d5	*75*		*36 - 126*	*10/27/22 10:41*	*10/31/22 14:48*	*1*
Phenol-d5	*52*		*17 - 127*	*10/27/22 10:41*	*10/31/22 14:48*	*1*
Terphenyl-d14	*94*		*44 - 149*	*10/27/22 10:41*	*10/31/22 14:48*	*1*
2,4,6-Tribromophenol	*73*		*26 - 150*	*10/27/22 10:41*	*10/31/22 14:48*	*1*

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

Lab Sample ID: LCS 400-598048/2-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	98.0		ug/L		82	21 - 120
Benzoic acid	513	644		ug/L		125	10 - 144
Benzyl alcohol	120	121		ug/L		101	28 - 120
Bis(2-chloroethoxy)methane	120	79.6		ug/L		66	47 - 120
Bis(2-chloroethyl)ether	120	86.7		ug/L		72	44 - 120
bis (2-chloroisopropyl) ether	120	111		ug/L		93	33 - 121
Bis(2-ethylhexyl) phthalate	120	114		ug/L		95	52 - 147
4-Bromophenyl phenyl ether	120	121		ug/L		101	54 - 122
Butyl benzyl phthalate	120	110		ug/L		91	54 - 133
4-Chloroaniline	120	84.7		ug/L		71	26 - 120
4-Chloro-3-methylphenol	120	105		ug/L		88	48 - 131
2-Chloronaphthalene	120	97.3		ug/L		81	52 - 121
2-Chlorophenol	120	81.2		ug/L		68	40 - 120
4-Chlorophenyl phenyl ether	120	109		ug/L		91	56 - 125
Dibenz[a,h]acridine	120	119		ug/L		99	31 - 150
Dibenzofuran	120	103		ug/L		86	56 - 122
3,3'-Dichlorobenzidine	160	196		ug/L		122	36 - 132
2,4-Dichlorophenol	120	93.3		ug/L		78	49 - 120
Diethyl phthalate	120	125		ug/L		104	50 - 137
2,4-Dimethylphenol	120	101		ug/L		84	48 - 120
Dimethyl phthalate	120	109		ug/L		91	57 - 124
Di-n-butyl phthalate	120	119		ug/L		99	58 - 126
4,6-Dinitro-ortho-cresol	240	368	*+	ug/L		153	23 - 148
2,4-Dinitrophenol	240	349		ug/L		145	10 - 150
2,4-Dinitrotoluene	120	112		ug/L		93	54 - 142
2,6-Dinitrotoluene	120	101		ug/L		84	55 - 130
Di-n-octyl phthalate	120	116		ug/L		97	57 - 138
1,4-Dioxane	120	67.8		ug/L		57	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	108		ug/L		90	45 - 124
Hexachlorobenzene	120	136		ug/L		113	52 - 129
Hexachlorocyclopentadiene	120	60.9		ug/L		51	10 - 134
Hexachloroethane	120	106		ug/L		89	20 - 120
Indene	120	204	*+	ug/L		170	49 - 120
Isophorone	120	89.1		ug/L		74	48 - 120
2-Methylphenol	120	104		ug/L		86	46 - 124
3 & 4 Methylphenol	120	101		ug/L		84	45 - 120
2-Nitroaniline	120	121		ug/L		101	51 - 145
3-Nitroaniline	120	108		ug/L		90	37 - 127
4-Nitroaniline	120	114		ug/L		95	36 - 137
Nitrobenzene	120	86.4		ug/L		72	45 - 120
2-Nitrophenol	120	83.3		ug/L		69	40 - 124
4-Nitrophenol	240	308		ug/L		128	23 - 146
N-Nitrosodimethylamine	120	123		ug/L		103	29 - 137
N-Nitrosodi-n-propylamine	120	111		ug/L		93	45 - 120
N-Nitrosodiphenylamine	119	110		ug/L		93	54 - 120
Pentachlorophenol	240	244		ug/L		102	31 - 130
Phenol	120	94.4		ug/L		79	11 - 120
Pyridine	240	135		ug/L		56	16 - 120

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

Lab Sample ID: LCS 400-598048/2-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Quinoline	120	87.1		ug/L		73	49 - 130
2,4,5-Trichlorophenol	120	109		ug/L		90	51 - 136
2,4,6-Trichlorophenol	120	106		ug/L		89	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*80*		*46 - 124*
2-Fluorophenol	*41*		*13 - 113*
Nitrobenzene-d5	*81*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*101*		*44 - 149*
2,4,6-Tribromophenol	*117*		*26 - 150*

Lab Sample ID: LCS 400-598048/4-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	5.41	J *-	ug/L		5	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*82*		*46 - 124*
2-Fluorophenol	*60*		*13 - 113*
Nitrobenzene-d5	*91*		*36 - 126*
Phenol-d5	*85*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*
2,4,6-Tribromophenol	*86*		*26 - 150*

Lab Sample ID: LCSD 400-598048/3-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	115		ug/L		95	21 - 120	16	30
Benzoic acid	513	564		ug/L		110	10 - 144	13	30
Benzyl alcohol	120	142		ug/L		118	28 - 120	16	30
Bis(2-chloroethoxy)methane	120	96.7		ug/L		81	47 - 120	19	30
Bis(2-chloroethyl)ether	120	106		ug/L		88	44 - 120	20	30
bis (2-chloroisopropyl) ether	120	135		ug/L		112	33 - 121	19	30
Bis(2-ethylhexyl) phthalate	120	128		ug/L		107	52 - 147	12	30
4-Bromophenyl phenyl ether	120	141		ug/L		118	54 - 122	15	30
Butyl benzyl phthalate	120	127		ug/L		106	54 - 133	15	30
4-Chloroaniline	120	97.7		ug/L		81	26 - 120	14	30
4-Chloro-3-methylphenol	120	123		ug/L		103	48 - 131	16	30
2-Chloronaphthalene	120	119		ug/L		99	52 - 121	20	30
2-Chlorophenol	120	84.8		ug/L		71	40 - 120	4	30
4-Chlorophenyl phenyl ether	120	128		ug/L		106	56 - 125	16	30
Dibenz[a,h]acridine	120	143		ug/L		119	31 - 150	18	30
Dibenzofuran	120	124		ug/L		103	56 - 122	18	30

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

Lab Sample ID: LCSD 400-598048/3-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,3'-Dichlorobenzidine	160	225	*+	ug/L		141	36 - 132	14	30
2,4-Dichlorophenol	120	109		ug/L		91	49 - 120	15	30
Diethyl phthalate	120	146		ug/L		121	50 - 137	15	30
2,4-Dimethylphenol	120	119		ug/L		99	48 - 120	16	30
Dimethyl phthalate	120	127		ug/L		106	57 - 124	15	30
Di-n-butyl phthalate	120	140		ug/L		116	58 - 126	16	30
4,6-Dinitro-ortho-cresol	240	438	*+	ug/L		183	23 - 148	17	30
2,4-Dinitrophenol	240	385	*+	ug/L		160	10 - 150	10	30
2,4-Dinitrotoluene	120	131		ug/L		109	54 - 142	16	30
2,6-Dinitrotoluene	120	118		ug/L		98	55 - 130	16	30
Di-n-octyl phthalate	120	134		ug/L		111	57 - 138	14	30
1,4-Dioxane	120	94.5	*1	ug/L		79	31 - 120	33	30
1,2-Diphenylhydrazine (as Azobenzene)	120	128		ug/L		107	45 - 124	17	30
Hexachlorobenzene	120	158	*+	ug/L		131	52 - 129	15	30
Hexachlorocyclopentadiene	120	87.1	*1	ug/L		73	10 - 134	35	30
Hexachloroethane	120	126		ug/L		105	20 - 120	17	30
Indene	120	263	*+	ug/L		219	49 - 120	25	30
Isophorone	120	103		ug/L		86	48 - 120	14	30
2-Methylphenol	120	124		ug/L		103	46 - 124	18	30
3 & 4 Methylphenol	120	121		ug/L		101	45 - 120	18	30
2-Nitroaniline	120	126		ug/L		105	51 - 145	4	30
3-Nitroaniline	120	125		ug/L		104	37 - 127	14	30
4-Nitroaniline	120	135		ug/L		113	36 - 137	17	30
Nitrobenzene	120	102		ug/L		85	45 - 120	17	30
2-Nitrophenol	120	101		ug/L		84	40 - 124	19	30
4-Nitrophenol	240	361	*+	ug/L		150	23 - 146	16	30
N-Nitrosodimethylamine	120	165	*+	ug/L		138	29 - 137	29	30
N-Nitrosodi-n-propylamine	120	131		ug/L		109	45 - 120	16	30
N-Nitrosodiphenylamine	119	127		ug/L		107	54 - 120	14	30
Pentachlorophenol	240	283		ug/L		118	31 - 130	15	30
Phenol	120	108		ug/L		90	11 - 120	13	30
Pyridine	240	165		ug/L		69	16 - 120	20	30
Quinoline	120	102		ug/L		85	49 - 130	16	30
2,4,5-Trichlorophenol	120	128		ug/L		107	51 - 136	17	30
2,4,6-Trichlorophenol	120	129		ug/L		108	50 - 127	20	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*90*		*46 - 124*
2-Fluorophenol	*31*		*13 - 113*
Nitrobenzene-d5	*91*		*36 - 126*
Phenol-d5	*78*		*17 - 127*
Terphenyl-d14	*111*		*44 - 149*
2,4,6-Tribromophenol	*133*		*26 - 150*

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

Lab Sample ID: LCSD 400-598048/5-A
Matrix: Water
Analysis Batch: 598504

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	4.57	J *-	ug/L		4	10 - 120	17	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*85*		*46 - 124*
2-Fluorophenol	*58*		*13 - 113*
Nitrobenzene-d5	*94*		*36 - 126*
Phenol-d5	*82*		*17 - 127*
Terphenyl-d14	*118*		*44 - 149*
2,4,6-Tribromophenol	*42*		*26 - 150*

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

Lab Sample ID: MB 400-598048/1-A
Matrix: Water
Analysis Batch: 598584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598048

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		10/27/22 10:41	10/31/22 22:11	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/27/22 10:41	10/31/22 22:11	1
Anthracene	ND		0.20	0.032	ug/L		10/27/22 10:41	10/31/22 22:11	1
Benzo[a]anthracene	0.0888	J	0.20	0.046	ug/L		10/27/22 10:41	10/31/22 22:11	1
Benzo[a]pyrene	0.130	J	0.20	0.042	ug/L		10/27/22 10:41	10/31/22 22:11	1
Benzo[b]fluoranthene	0.137	J	0.20	0.034	ug/L		10/27/22 10:41	10/31/22 22:11	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		10/27/22 10:41	10/31/22 22:11	1
Benzo[k]fluoranthene	0.150	J	0.20	0.10	ug/L		10/27/22 10:41	10/31/22 22:11	1
Chrysene	ND		0.20	0.074	ug/L		10/27/22 10:41	10/31/22 22:11	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		10/27/22 10:41	10/31/22 22:11	1
Fluoranthene	ND		0.20	0.068	ug/L		10/27/22 10:41	10/31/22 22:11	1
Fluorene	ND		0.20	0.11	ug/L		10/27/22 10:41	10/31/22 22:11	1
Indeno[1,2,3-cd]pyrene	0.0454	J	0.20	0.043	ug/L		10/27/22 10:41	10/31/22 22:11	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		10/27/22 10:41	10/31/22 22:11	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		10/27/22 10:41	10/31/22 22:11	1
Phenanthrene	0.0488	J	0.20	0.036	ug/L		10/27/22 10:41	10/31/22 22:11	1
Pyrene	0.0410	J	0.20	0.040	ug/L		10/27/22 10:41	10/31/22 22:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*15 - 122*	*10/27/22 10:41*	*10/31/22 22:11*	*1*
Nitrobenzene-d5	*80*		*19 - 130*	*10/27/22 10:41*	*10/31/22 22:11*	*1*
Terphenyl-d14	*76*		*33 - 138*	*10/27/22 10:41*	*10/31/22 22:11*	*1*

Lab Sample ID: LCS 400-598048/2-A
Matrix: Water
Analysis Batch: 598584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	115		ug/L		96	41 - 120
Acenaphthylene	120	119		ug/L		99	44 - 120
Anthracene	120	130		ug/L		108	49 - 120

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

Lab Sample ID: LCS 400-598048/2-A
Matrix: Water
Analysis Batch: 598584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[a]anthracene	120	117		ug/L		98	61 - 135
Benzo[a]pyrene	120	111		ug/L		93	52 - 120
Benzo[b]fluoranthene	120	114		ug/L		95	53 - 134
Benzo[g,h,i]perylene	120	83.4		ug/L		70	47 - 133
Benzo[k]fluoranthene	120	110		ug/L		92	57 - 134
Chrysene	120	121		ug/L		100	55 - 122
Dibenz(a,h)anthracene	120	95.1		ug/L		79	48 - 146
Fluoranthene	120	124		ug/L		103	54 - 128
Fluorene	120	117		ug/L		97	45 - 125
Indeno[1,2,3-cd]pyrene	120	98.7		ug/L		82	43 - 142
1-Methylnaphthalene	120	94.5		ug/L		79	41 - 120
2-Methylnaphthalene	120	101		ug/L		84	32 - 124
Phenanthrene	120	106		ug/L		88	48 - 120
Pyrene	120	115		ug/L		96	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*15 - 122*
Nitrobenzene-d5	*83*		*19 - 130*
Terphenyl-d14	*102*		*33 - 138*

Lab Sample ID: LCSD 400-598048/3-A
Matrix: Water
Analysis Batch: 598584

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598048

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	122		ug/L		102	41 - 120	6	56
Acenaphthylene	120	126		ug/L		105	44 - 120	6	56
Anthracene	120	138		ug/L		115	49 - 120	6	51
Benzo[a]anthracene	120	124		ug/L		103	61 - 135	5	49
Benzo[a]pyrene	120	118		ug/L		99	52 - 120	6	50
Benzo[b]fluoranthene	120	119		ug/L		99	53 - 134	3	54
Benzo[g,h,i]perylene	120	86.8		ug/L		72	47 - 133	4	50
Benzo[k]fluoranthene	120	116		ug/L		97	57 - 134	6	52
Chrysene	120	126		ug/L		105	55 - 122	5	50
Dibenz(a,h)anthracene	120	98.6		ug/L		82	48 - 146	4	50
Fluoranthene	120	133		ug/L		111	54 - 128	7	52
Fluorene	120	124		ug/L		103	45 - 125	6	56
Indeno[1,2,3-cd]pyrene	120	103		ug/L		86	43 - 142	4	51
1-Methylnaphthalene	120	102		ug/L		85	41 - 120	7	55
2-Methylnaphthalene	120	107		ug/L		89	32 - 124	5	57
Phenanthrene	120	111		ug/L		93	48 - 120	5	56
Pyrene	120	115		ug/L		96	48 - 132	0	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*97*		*15 - 122*
Nitrobenzene-d5	*88*		*19 - 130*
Terphenyl-d14	*100*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-598876/1-A
Matrix: Water
Analysis Batch: 598971

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598876

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		11/02/22 11:10	11/02/22 15:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/02/22 11:10	11/02/22 15:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*76*		*51 - 149*	*11/02/22 11:10*	*11/02/22 15:00*	*1*

Lab Sample ID: LCS 400-598876/2-A
Matrix: Water
Analysis Batch: 598971

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598876

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.154	*+	ug/L		153	60 - 140
1,2-Dibromoethane	0.101	0.111		ug/L		110	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*79*		*51 - 149*

Lab Sample ID: LCSD 400-598876/3-A
Matrix: Water
Analysis Batch: 598971

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598876

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.162	*+	ug/L		161	60 - 140	5	30
1,2-Dibromoethane	0.101	0.118		ug/L		117	60 - 140	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*82*		*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: 10/25/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.4.2	USPC/00114/R/02	

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
AECOM		900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60674381 – 3.4.2

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	AECOM Other ID:
100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA	Melissa Remiger - please see special instructions	314-802-1207	melissa.remiger@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to):
Melissa Remiger, Mary Massa, Brett Howell

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

SAMPLER NAME(S) (Print):
M. Massa, S. Beadle

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

- ☑ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED
- ☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
2.3°C 3.9°C IRB

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-102522-8260	10/25/2022	0000	Water	2					2	X			
	TB-ROX-102522-8011	10/25/2022	0000	Water	2					2		X		
	MW3-ROX-102522-EB	10/25/2022	0855	Water	6			2		8	X	X	X	X
	MW3-ROX-102522	10/25/2022	0945	Water	6			2		8	X	X	X	X
	MW28-ROX-102522	10/25/2022	1210	Water	6			2		8	X	X	X	X
	MW28-ROX-102522-DUP	10/25/2022	1210	Water	6			2		8	X	X	X	X
	MW16-ROX-102522	10/25/2022	1335	Water	6			2		8	X	X	X	X

400-227853 COC

Sam Beadle 10/25/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 1482 3813 0815, 1482 3813 0826	10/25/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 10-26-22	Time: 912
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1745800, 1745801, 1745802, 1745803

11/4/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-227853-1

Login Number: 227853
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	2.3, 3.9°C IR8
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: 400-227853-1

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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-227911-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/16/2022

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

Sample Identification	Sample Identification
TB-ROX-102622-8260-BP	TB-ROX-102622-8011-BP
MW23-ROX-102622	-

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 benzo[a]anthracene was detected in the method blank. LCS/LCSD recoveries for benzenethiol and 1,2-dibromo-3-chloropropane were outside evaluation criteria. The PAH surrogate recovery for 2-fluorobiphenyl was outside criteria in sample MW23-ROX-102622 and the method blank. The continuing calibration verifications (CCV) for 2-chloroethyl vinyl ether, hexachlorocyclopentadiene and quinoline were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (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
MB 400-598868/1-A	PAHs	Benzo[a]anthracene	0.0679 ug/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
MW23-ROX-102622	PAHs	Benzo[a]anthracene	-	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 400-598868 /3-A/4-A	SVOCs	Benzenethiol	**6/7**	10	10-120/30
LCS/LCSD 400-599117 /2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**152/155**	2	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-102622	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW23-ROX-102622	PAHs	2-Fluorobiphenyl	**123**	15-122
MB 400-598868/1-A	PAHs	2-Fluorobiphenyl	**128**	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?

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 (CCV) for 2-chloroethyl vinyl ether, hexachlorocyclopentadiene and quinoline were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-102622	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW23-ROX-102622	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW23-ROX-102622	SVOCs	Quinoline	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

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

Laboratory Job ID: 400-227911-1
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:
11/10/2022 7:32:32 AM

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

Links

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Reviewed 12/16/2022 A.N.

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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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Case Narrative

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

Job ID: 400-227911-1

Job ID: 400-227911-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-227911-1

Receipt
The samples were received on 10/27/2022 9:24 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 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-102622-8260-BP (400-227911-1) and MW23-ROX-102622 (400-227911-3). 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 400-598868 and analytical batch 400-599074 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 400-599088 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene 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_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: MW23-ROX-102622 (400-227911-3), (MB 400-598868/1-A) and (400-227912-G-3-B). These results have been reported and qualified.

Method 8270D_LL: The method blank for preparation batch 400-598868 and analytical batch 400-599109 contained 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.

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 laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-599117 and analytical batch 400-599042 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.

Sample Summary

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

Job ID: 400-227911-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-227911-1	TB-ROX-102622-8260-BP	Water	10/26/22 12:00	10/27/22 09:24
400-227911-2	TB-ROX-102622-8011-BP	Water	10/26/22 12:00	10/27/22 09:24
400-227911-3	MW23-ROX-102622	Water	10/26/22 13:20	10/27/22 09:24

Detection Summary

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

Job ID: 400-227911-1

Client Sample ID: TB-ROX-102622-8260-BP

Lab Sample ID: 400-227911-1

No Detections.

Client Sample ID: TB-ROX-102622-8011-BP

Lab Sample ID: 400-227911-2

No Detections.

Client Sample ID: MW23-ROX-102622

Lab Sample ID: 400-227911-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.42	J	1.0	0.22	ug/L	1		8260B	Total/NA
Anthracene	0.059	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.084	J B	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.15	J	0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.11	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.15	J	0.19	0.093	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.13	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.083	J	0.19	0.063	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.12	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.056	J	0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.056	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.062	J	0.19	0.037	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.57	J	9.3	0.22	ug/L	1		8270D	Total/NA
Dimethyl phthalate	0.52	J	9.3	0.16	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-ROX-102622-8260-BP

Date Collected: 10/26/22 12:00
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227911-1

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/08/22 16:49	1
Acrolein	ND		20	3.3	ug/L			11/08/22 16:49	1
Acrylonitrile	ND		10	2.8	ug/L			11/08/22 16:49	1
Benzene	ND		1.0	0.13	ug/L			11/08/22 16:49	1
Bromobenzene	ND		1.0	0.54	ug/L			11/08/22 16:49	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/08/22 16:49	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/08/22 16:49	1
Bromoform	ND		5.0	0.25	ug/L			11/08/22 16:49	1
Bromomethane	ND		1.0	0.98	ug/L			11/08/22 16:49	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/08/22 16:49	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/08/22 16:49	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/08/22 16:49	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/08/22 16:49	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/08/22 16:49	1
Chloroethane	ND		1.0	0.76	ug/L			11/08/22 16:49	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/08/22 16:49	1
Chloroform	ND		1.0	1.0	ug/L			11/08/22 16:49	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/08/22 16:49	1
Chloromethane	ND		1.0	0.32	ug/L			11/08/22 16:49	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/08/22 16:49	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/08/22 16:49	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/08/22 16:49	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/08/22 16:49	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/08/22 16:49	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/08/22 16:49	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/08/22 16:49	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/08/22 16:49	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 16:49	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 16:49	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 16:49	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 16:49	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/08/22 16:49	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/08/22 16:49	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/08/22 16:49	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/08/22 16:49	1
2-Hexanone	ND		25	1.4	ug/L			11/08/22 16:49	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/08/22 16:49	1
Methylene bromide	ND		5.0	0.22	ug/L			11/08/22 16:49	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/08/22 16:49	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/08/22 16:49	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/08/22 16:49	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/08/22 16:49	1
Naphthalene	ND		5.0	3.0	ug/L			11/08/22 16:49	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/08/22 16:49	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/08/22 16:49	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/08/22 16:49	1
o-Xylene	ND		5.0	0.60	ug/L			11/08/22 16:49	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/08/22 16:49	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/08/22 16:49	1

Client Sample ID: TB-ROX-102622-8260-BP
Date Collected: 10/26/22 12:00
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227911-1
Matrix: Water

Method: SW846 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			11/08/22 16:49	1
Styrene	ND		1.0	1.0	ug/L			11/08/22 16:49	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/08/22 16:49	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/08/22 16:49	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/08/22 16:49	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/08/22 16:49	1
Toluene	ND		1.0	0.41	ug/L			11/08/22 16:49	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 16:49	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/08/22 16:49	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/08/22 16:49	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/08/22 16:49	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/08/22 16:49	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/08/22 16:49	1
Trichloroethene	ND		1.0	0.15	ug/L			11/08/22 16:49	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/08/22 16:49	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/08/22 16:49	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/08/22 16:49	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/08/22 16:49	1
Vinyl acetate	ND		25	0.93	ug/L			11/08/22 16:49	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/08/22 16:49	1
Xylenes, Total	ND		10	1.6	ug/L			11/08/22 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/08/22 16:49*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/08/22 16:49*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/08/22 16:49*	*1*

Client Sample Results

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

Job ID: 400-227911-1

Client Sample ID: TB-ROX-102622-8011-BP
Date Collected: 10/26/22 12:00
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227911-2
Matrix: Water

Method: EPA 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		11/03/22 15:17	11/04/22 13:55	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		11/03/22 15:17	11/04/22 13:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*76*		*51 - 149*	*11/03/22 15:17*	*11/04/22 13:55*	*1*

Client Sample Results

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

Job ID: 400-227911-1

Client Sample ID: MW23-ROX-102622
Date Collected: 10/26/22 13:20
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227911-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/08/22 18:12	1
Acrolein	ND		20	3.3	ug/L			11/08/22 18:12	1
Acrylonitrile	ND		10	2.8	ug/L			11/08/22 18:12	1
Benzene	ND		1.0	0.13	ug/L			11/08/22 18:12	1
Bromobenzene	ND		1.0	0.54	ug/L			11/08/22 18:12	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/08/22 18:12	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/08/22 18:12	1
Bromoform	ND		5.0	0.25	ug/L			11/08/22 18:12	1
Bromomethane	ND		1.0	0.98	ug/L			11/08/22 18:12	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/08/22 18:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/08/22 18:12	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/08/22 18:12	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/08/22 18:12	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/08/22 18:12	1
Chloroethane	ND		1.0	0.76	ug/L			11/08/22 18:12	1
2-Chloroethyl vinyl ether	ND	U5	5.0	2.0	ug/L			11/08/22 18:12	1
Chloroform	ND		1.0	1.0	ug/L			11/08/22 18:12	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/08/22 18:12	1
Chloromethane	ND		1.0	0.32	ug/L			11/08/22 18:12	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/08/22 18:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/08/22 18:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/08/22 18:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/08/22 18:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/08/22 18:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/08/22 18:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/08/22 18:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/08/22 18:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 18:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 18:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 18:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 18:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/08/22 18:12	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/08/22 18:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/08/22 18:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/08/22 18:12	1
2-Hexanone	ND		25	1.4	ug/L			11/08/22 18:12	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/08/22 18:12	1
Methylene bromide	ND		5.0	0.22	ug/L			11/08/22 18:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/08/22 18:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/08/22 18:12	1
Methyl tert-butyl ether	**0.42**	**J**	1.0	0.22	ug/L			11/08/22 18:12	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/08/22 18:12	1
Naphthalene	ND		5.0	3.0	ug/L			11/08/22 18:12	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/08/22 18:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/08/22 18:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/08/22 18:12	1
o-Xylene	ND		5.0	0.60	ug/L			11/08/22 18:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/08/22 18:12	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/08/22 18:12	1

Client Sample ID: MW23-ROX-102622
Date Collected: 10/26/22 13:20
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227911-3
Matrix: Water

Method: SW846 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			11/08/22 18:12	1
Styrene	ND		1.0	1.0	ug/L			11/08/22 18:12	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/08/22 18:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/08/22 18:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/08/22 18:12	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/08/22 18:12	1
Toluene	ND		1.0	0.41	ug/L			11/08/22 18:12	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 18:12	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/08/22 18:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/08/22 18:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/08/22 18:12	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/08/22 18:12	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/08/22 18:12	1
Trichloroethene	ND		1.0	0.15	ug/L			11/08/22 18:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/08/22 18:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/08/22 18:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/08/22 18:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/08/22 18:12	1
Vinyl acetate	ND		25	0.93	ug/L			11/08/22 18:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/08/22 18:12	1
Xylenes, Total	ND		10	1.6	ug/L			11/08/22 18:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*11/08/22 18:12*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*11/08/22 18:12*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/08/22 18:12*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 22:28	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/02/22 10:47	11/03/22 22:28	1
Anthracene	**0.059**	**J**	0.19	0.030	ug/L		11/02/22 10:47	11/03/22 22:28	1
Benzo[a]anthracene	~~0.094~~	J B U	0.19	0.043	ug/L		11/02/22 10:47	11/03/22 22:28	1
Benzo[a]pyrene	**0.15**	**J**	0.19	0.039	ug/L		11/02/22 10:47	11/03/22 22:28	1
Benzo[b]fluoranthene	**0.11**	**J**	0.19	0.032	ug/L		11/02/22 10:47	11/03/22 22:28	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/02/22 10:47	11/04/22 16:24	1
Benzo[k]fluoranthene	**0.15**	**J**	0.19	0.093	ug/L		11/02/22 10:47	11/03/22 22:28	1
Chrysene	ND		0.19	0.069	ug/L		11/02/22 10:47	11/03/22 22:28	1
Dibenz(a,h)anthracene	**0.13**	**J**	0.19	0.047	ug/L		11/02/22 10:47	11/03/22 22:28	1
Fluoranthene	**0.083**	**J**	0.19	0.063	ug/L		11/02/22 10:47	11/03/22 22:28	1
Fluorene	ND		0.19	0.10	ug/L		11/02/22 10:47	11/03/22 22:28	1
Indeno[1,2,3-cd]pyrene	**0.12**	**J**	0.19	0.040	ug/L		11/02/22 10:47	11/03/22 22:28	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		11/02/22 10:47	11/03/22 22:28	1
2-Methylnaphthalene	**0.056**	**J**	0.19	0.056	ug/L		11/02/22 10:47	11/03/22 22:28	1
Phenanthrene	**0.056**	**J**	0.19	0.034	ug/L		11/02/22 10:47	11/03/22 22:28	1
Pyrene	**0.062**	**J**	0.19	0.037	ug/L		11/02/22 10:47	11/03/22 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*123*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/03/22 22:28*	*1*
Nitrobenzene-d5	*90*		*19 - 130*	*11/02/22 10:47*	*11/03/22 22:28*	*1*

Client Sample ID: MW23-ROX-102622
Date Collected: 10/26/22 13:20
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227911-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	98		33 - 138	11/02/22 10:47	11/03/22 22:28	1

Method: SW846 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		11/02/22 10:47	11/03/22 18:16	1
Benzenethiol	ND	*-	9.3	1.6	ug/L		11/02/22 10:47	11/03/22 18:16	1
Benzoic acid	ND		28	6.8	ug/L		11/02/22 10:47	11/03/22 18:16	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 18:16	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 18:16	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 18:16	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 18:16	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.7	ug/L		11/02/22 10:47	11/03/22 18:16	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/02/22 10:47	11/03/22 18:16	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/02/22 10:47	11/03/22 18:16	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 18:16	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/02/22 10:47	11/03/22 18:16	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 18:16	1
2-Chlorophenol	ND		9.3	2.1	ug/L		11/02/22 10:47	11/03/22 18:16	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 18:16	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 18:16	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 18:16	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 18:16	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/02/22 10:47	11/03/22 18:16	1
Diethyl phthalate	**0.57**	**J**	9.3	0.22	ug/L		11/02/22 10:47	11/03/22 18:16	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 18:16	1
Dimethyl phthalate	**0.52**	**J**	9.3	0.16	ug/L		11/02/22 10:47	11/03/22 18:16	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 18:16	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/02/22 10:47	11/03/22 18:16	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 18:16	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 18:16	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 18:16	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 18:16	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 18:16	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 18:16	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 18:16	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		11/02/22 10:47	11/03/22 18:16	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/02/22 10:47	11/03/22 18:16	1
Indene	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 18:16	1
Isophorone	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 18:16	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 18:16	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/02/22 10:47	11/03/22 18:16	1
2-Nitroaniline	ND		9.3	2.1	ug/L		11/02/22 10:47	11/03/22 18:16	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 18:16	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/02/22 10:47	11/03/22 18:16	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/02/22 10:47	11/03/22 18:16	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/02/22 10:47	11/03/22 18:16	1
4-Nitrophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 18:16	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 18:16	1

Client Sample ID: MW23-ROX-102622
Date Collected: 10/26/22 13:20
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227911-3
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 18:16	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/02/22 10:47	11/03/22 18:16	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 18:16	1
Phenol	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 18:16	1
Pyridine	ND		9.3	3.0	ug/L		11/02/22 10:47	11/03/22 18:16	1
Quinoline	ND	us	9.3	4.2	ug/L		11/02/22 10:47	11/03/22 18:16	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/02/22 10:47	11/03/22 18:16	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*46 - 124*	*11/02/22 10:47*	*11/03/22 18:16*	*1*
2-Fluorophenol	*25*		*13 - 113*	*11/02/22 10:47*	*11/03/22 18:16*	*1*
Nitrobenzene-d5	*86*		*36 - 126*	*11/02/22 10:47*	*11/03/22 18:16*	*1*
Phenol-d5	*67*		*17 - 127*	*11/02/22 10:47*	*11/03/22 18:16*	*1*
Terphenyl-d14	*95*		*44 - 149*	*11/02/22 10:47*	*11/03/22 18:16*	*1*
2,4,6-Tribromophenol	*111*		*26 - 150*	*11/02/22 10:47*	*11/03/22 18:16*	*1*

Method: EPA 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		11/03/22 15:17	11/04/22 14:15	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/03/22 15:17	11/04/22 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*84*		*51 - 149*	*11/03/22 15:17*	*11/04/22 14:15*	*1*

Definitions/Glossary

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

Job ID: 400-227911-1

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.
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.
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: 400-227911-1

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)
400-227911-1	TB-ROX-102622-8260-BP	98	101	99
400-227911-3	MW23-ROX-102622	94	104	99
LCS 400-599673/1002	Lab Control Sample	99	96	101
MB 400-599673/4	Method Blank	101	98	102

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)
400-227911-3	MW23-ROX-102622	76	25	86	67	95	111
LCS 400-598868/2-A	Lab Control Sample	91	43	87	68	101	123
LCS 400-598868/3-A	Lab Control Sample	96	34	84	62	109	78
LCSD 400-598868/4-A	Lab Control Sample Dup	98	52	86	75	109	68
MB 400-598868/1-A	Method Blank	95	15	83	51	108	87

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)
400-227911-3	MW23-ROX-102622	123 S1+	90	98
LCS 400-598868/2-A	Lab Control Sample	98	83	106
MB 400-598868/1-A	Method Blank	128 S1+	93	118

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)
400-227911-2	TB-ROX-102622-8011-BP	76

Surrogate Summary

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

Job ID: 400-227911-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		BFB2
Lab Sample ID	**Client Sample ID**	**(51-149)**
400-227911-3	MW23-ROX-102622	84
LCS 400-599117/2-A	Lab Control Sample	80
LCSD 400-599117/3-A	Lab Control Sample Dup	82
MB 400-599117/1-A	Method Blank	74

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-227911-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET 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: 400-227911-1

Client Sample ID: TB-ROX-102622-8260-BP

Lab Sample ID: 400-227911-1

Date Collected: 10/26/22 12:00
Matrix: Water
Date Received: 10/27/22 09:24

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	599673	11/08/22 16:49	AGW	EET PEN

Client Sample ID: TB-ROX-102622-8011-BP

Lab Sample ID: 400-227911-2

Date Collected: 10/26/22 12:00
Matrix: Water
Date Received: 10/27/22 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.7 mL	35 mL	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/04/22 13:55	JAW	EET PEN

Client Sample ID: MW23-ROX-102622

Lab Sample ID: 400-227911-3

Date Collected: 10/26/22 13:20
Matrix: Water
Date Received: 10/27/22 09:24

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	599673	11/08/22 18:12	AGW	EET PEN
Total/NA	Prep	3520C			268.2 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 18:16	S1B	EET PEN
Total/NA	Prep	3520C			268.2 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 22:28	PP1	EET PEN
Total/NA	Prep	3520C			268.2 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599295	11/04/22 16:24	PP1	EET PEN
Total/NA	Prep	8011			34.5 mL	35 mL	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/04/22 14:15	JAW	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-598868/1-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 16:50	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 20:45	PP1	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-599117/1-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	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/03/22 19:03	JAW	EET PEN

Lab Chronicle

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

Job ID: 400-227911-1

Client Sample ID: Method Blank

Lab Sample ID: MB 400-599673/4

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	599673	11/08/22 10:55	AGW	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-598868/2-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	3520C			250 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:58	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599109	11/03/22 21:02	PP1	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-598868/3-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:13	VC1	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-599117/2-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	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/03/22 19:24	JAW	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-599673/1002

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	599673	11/08/22 10:01	AGW	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-598868/4-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:35	VC1	EET PEN

Lab Chronicle

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

Job ID: 400-227911-1

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-599117/3-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	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/03/22 19:44	JAW	EET PEN

Laboratory References:

EET 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: 400-227911-1

GC/MS VOA

Analysis Batch: 599673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227911-1	TB-ROX-102622-8260-BP	Total/NA	Water	8260B	
400-227911-3	MW23-ROX-102622	Total/NA	Water	8260B	
MB 400-599673/4	Method Blank	Total/NA	Water	8260B	
LCS 400-599673/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 598868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227911-3	MW23-ROX-102622	Total/NA	Water	3520C	
MB 400-598868/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-598868/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-598868/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 599074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-598868/1-A	Method Blank	Total/NA	Water	8270D	598868
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	8270D	598868
LCS 400-598868/3-A	Lab Control Sample	Total/NA	Water	8270D	598868
LCSD 400-598868/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	598868

Analysis Batch: 599088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227911-3	MW23-ROX-102622	Total/NA	Water	8270D	598868

Analysis Batch: 599109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227911-3	MW23-ROX-102622	Total/NA	Water	8270D LL	598868
MB 400-598868/1-A	Method Blank	Total/NA	Water	8270D LL	598868
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	8270D LL	598868

Analysis Batch: 599295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227911-3	MW23-ROX-102622	Total/NA	Water	8270D LL	598868

GC Semi VOA

Analysis Batch: 599042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227911-2	TB-ROX-102622-8011-BP	Total/NA	Water	8011	599117
400-227911-3	MW23-ROX-102622	Total/NA	Water	8011	599117
MB 400-599117/1-A	Method Blank	Total/NA	Water	8011	599117
LCS 400-599117/2-A	Lab Control Sample	Total/NA	Water	8011	599117
LCSD 400-599117/3-A	Lab Control Sample Dup	Total/NA	Water	8011	599117

Prep Batch: 599117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227911-2	TB-ROX-102622-8011-BP	Total/NA	Water	8011	
400-227911-3	MW23-ROX-102622	Total/NA	Water	8011	
MB 400-599117/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-599117/2-A	Lab Control Sample	Total/NA	Water	8011	

GC Semi VOA (Continued)

Prep Batch: 599117 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-599117/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

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

Lab Sample ID: MB 400-599673/4
Matrix: Water
Analysis Batch: 599673

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			11/08/22 10:55	1
Acrolein	ND		20	3.3	ug/L			11/08/22 10:55	1
Acrylonitrile	ND		10	2.8	ug/L			11/08/22 10:55	1
Benzene	ND		1.0	0.13	ug/L			11/08/22 10:55	1
Bromobenzene	ND		1.0	0.54	ug/L			11/08/22 10:55	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/08/22 10:55	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Bromoform	ND		5.0	0.25	ug/L			11/08/22 10:55	1
Bromomethane	ND		1.0	0.98	ug/L			11/08/22 10:55	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/08/22 10:55	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/08/22 10:55	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/08/22 10:55	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/08/22 10:55	1
Chloroethane	ND		1.0	0.76	ug/L			11/08/22 10:55	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/08/22 10:55	1
Chloroform	ND		1.0	1.0	ug/L			11/08/22 10:55	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/08/22 10:55	1
Chloromethane	ND		1.0	0.32	ug/L			11/08/22 10:55	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/08/22 10:55	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/08/22 10:55	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/08/22 10:55	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/08/22 10:55	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/08/22 10:55	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/08/22 10:55	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/08/22 10:55	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 10:55	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/08/22 10:55	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/08/22 10:55	1
2-Hexanone	ND		25	1.4	ug/L			11/08/22 10:55	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/08/22 10:55	1
Methylene bromide	ND		5.0	0.22	ug/L			11/08/22 10:55	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/08/22 10:55	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/08/22 10:55	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/08/22 10:55	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/08/22 10:55	1
Naphthalene	ND		5.0	3.0	ug/L			11/08/22 10:55	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/08/22 10:55	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/08/22 10:55	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/08/22 10:55	1
o-Xylene	ND		5.0	0.60	ug/L			11/08/22 10:55	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/08/22 10:55	1

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

Lab Sample ID: MB 400-599673/4
Matrix: Water
Analysis Batch: 599673

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			11/08/22 10:55	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/08/22 10:55	1
Styrene	ND		1.0	1.0	ug/L			11/08/22 10:55	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/08/22 10:55	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/08/22 10:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/08/22 10:55	1
Toluene	ND		1.0	0.41	ug/L			11/08/22 10:55	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 10:55	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/08/22 10:55	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/08/22 10:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/08/22 10:55	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/08/22 10:55	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/08/22 10:55	1
Trichloroethene	ND		1.0	0.15	ug/L			11/08/22 10:55	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/08/22 10:55	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/08/22 10:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/08/22 10:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/08/22 10:55	1
Vinyl acetate	ND		25	0.93	ug/L			11/08/22 10:55	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Xylenes, Total	ND		10	1.6	ug/L			11/08/22 10:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/08/22 10:55*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*11/08/22 10:55*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/08/22 10:55*	*1*

Lab Sample ID: LCS 400-599673/1002
Matrix: Water
Analysis Batch: 599673

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	550		ug/L		110	38 - 160
Acrylonitrile	500	454		ug/L		91	64 - 142
Benzene	50.0	44.5		ug/L		89	70 - 130
Bromobenzene	50.0	46.4		ug/L		93	70 - 132
Bromochloromethane	50.0	43.0		ug/L		86	70 - 130
Bromodichloromethane	50.0	43.0		ug/L		86	67 - 133
Bromoform	50.0	42.7		ug/L		85	57 - 140
Bromomethane	50.0	69.3		ug/L		139	10 - 160
2-Butanone (MEK)	200	167		ug/L		83	61 - 145
Carbon disulfide	50.0	40.6		ug/L		81	61 - 137
Carbon tetrachloride	50.0	42.4		ug/L		85	61 - 137
Chlorobenzene	50.0	46.3		ug/L		93	70 - 130
Dibromochloromethane	50.0	43.3		ug/L		87	67 - 135
Chloroethane	50.0	40.8		ug/L		82	55 - 141

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

Lab Sample ID: LCS 400-599673/1002
Matrix: Water
Analysis Batch: 599673

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	12.7		ug/L		25	10 - 160
Chloroform	50.0	43.0		ug/L		86	69 - 130
1-Chlorohexane	50.0	50.6		ug/L		101	69 - 130
Chloromethane	50.0	48.5		ug/L		97	58 - 137
cis-1,2-Dichloroethene	50.0	44.1		ug/L		88	68 - 130
cis-1,3-Dichloropropene	50.0	43.6		ug/L		87	69 - 132
1,2-Dichlorobenzene	50.0	46.4		ug/L		93	67 - 130
1,3-Dichlorobenzene	50.0	48.2		ug/L		96	70 - 130
1,4-Dichlorobenzene	50.0	47.9		ug/L		96	70 - 130
Dichlorodifluoromethane	50.0	44.0		ug/L		88	41 - 146
1,1-Dichloroethane	50.0	44.2		ug/L		88	70 - 130
1,2-Dichloroethane	50.0	42.0		ug/L		84	69 - 130
1,1-Dichloroethene	50.0	42.1		ug/L		84	63 - 134
1,2-Dichloropropane	50.0	45.8		ug/L		92	70 - 130
1,3-Dichloropropane	50.0	44.2		ug/L		88	70 - 130
2,2-Dichloropropane	50.0	39.8		ug/L		80	52 - 135
1,1-Dichloropropene	50.0	43.9		ug/L		88	70 - 130
Ethylbenzene	50.0	47.2		ug/L		94	70 - 130
Ethyl methacrylate	50.0	43.3		ug/L		87	68 - 130
Hexachlorobutadiene	50.0	45.2		ug/L		90	53 - 140
2-Hexanone	200	182		ug/L		91	65 - 137
Isopropylbenzene	50.0	47.9		ug/L		96	70 - 130
Methylene bromide	50.0	40.4		ug/L		81	70 - 130
Methylene Chloride	50.0	42.7		ug/L		85	66 - 135
4-Methyl-2-pentanone (MIBK)	200	180		ug/L		90	69 - 138
Methyl tert-butyl ether	50.0	39.6		ug/L		79	66 - 130
m-Xylene & p-Xylene	50.0	46.5		ug/L		93	70 - 130
Naphthalene	50.0	43.9		ug/L		88	47 - 149
n-Butylbenzene	50.0	45.8		ug/L		92	67 - 130
N-Propylbenzene	50.0	49.4		ug/L		99	70 - 130
o-Chlorotoluene	50.0	43.8		ug/L		88	70 - 130
o-Xylene	50.0	45.9		ug/L		92	70 - 130
p-Chlorotoluene	50.0	47.9		ug/L		96	70 - 130
p-Isopropyltoluene	50.0	49.7		ug/L		99	65 - 130
sec-Butylbenzene	50.0	50.6		ug/L		101	66 - 130
Styrene	50.0	45.3		ug/L		91	70 - 130
tert-Butylbenzene	50.0	48.5		ug/L		97	64 - 139
1,1,1,2-Tetrachloroethane	50.0	44.1		ug/L		88	67 - 131
1,1,2,2-Tetrachloroethane	50.0	46.3		ug/L		93	70 - 131
Tetrachloroethene	50.0	44.8		ug/L		90	65 - 130
Toluene	50.0	46.6		ug/L		93	70 - 130
trans-1,2-Dichloroethene	50.0	43.3		ug/L		87	70 - 130
trans-1,3-Dichloropropene	50.0	42.6		ug/L		85	63 - 130
1,2,3-Trichlorobenzene	50.0	43.8		ug/L		88	60 - 138
1,2,4-Trichlorobenzene	50.0	44.8		ug/L		90	60 - 140
1,1,1-Trichloroethane	50.0	42.7		ug/L		85	68 - 130
1,1,2-Trichloroethane	50.0	44.5		ug/L		89	70 - 130
Trichloroethene	50.0	43.5		ug/L		87	70 - 130
Trichlorofluoromethane	50.0	47.6		ug/L		95	65 - 138

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

Lab Sample ID: LCS 400-599673/1002
Matrix: Water
Analysis Batch: 599673

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	44.8		ug/L		90	70 - 130
1,2,4-Trimethylbenzene	50.0	49.3		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	50.0	49.2		ug/L		98	69 - 130
Vinyl acetate	100	78.7		ug/L		79	26 - 160
Vinyl chloride	50.0	52.9		ug/L		106	59 - 136
Xylenes, Total	100	92.4		ug/L		92	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzenethiol	ND		10	1.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzoic acid	ND		30	7.3	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzyl alcohol	ND		10	2.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/02/22 10:47	11/03/22 16:50	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Chloroaniline	ND		10	3.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Chlorophenol	ND		10	2.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dibenzofuran	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Diethyl phthalate	ND		10	0.24	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/02/22 10:47	11/03/22 16:50	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
1,4-Dioxane	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachloroethane	ND		10	4.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
Indene	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Isophorone	ND		10	0.14	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Methylphenol	ND		10	1.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Nitroaniline	ND		10	2.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
3-Nitroaniline	ND		10	1.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Nitroaniline	ND		10	1.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
Nitrobenzene	ND		10	0.13	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Nitrophenol	ND		10	5.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Nitrophenol	ND		10	2.1	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/02/22 10:47	11/03/22 16:50	1
Pentachlorophenol	ND		20	1.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
Phenol	ND		10	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
Pyridine	ND		10	3.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
Quinoline	ND		10	4.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*46 - 124*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
2-Fluorophenol	*15*		*13 - 113*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Nitrobenzene-d5	*83*		*36 - 126*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Phenol-d5	*51*		*17 - 127*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Terphenyl-d14	*108*		*44 - 149*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
2,4,6-Tribromophenol	*87*		*26 - 150*	*11/02/22 10:47*	*11/03/22 16:50*	*1*

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	119		ug/L		99	21 - 120
Benzoic acid	513	388		ug/L		76	10 - 144
Benzyl alcohol	120	106		ug/L		88	28 - 120
Bis(2-chloroethoxy)methane	120	91.3		ug/L		76	47 - 120
Bis(2-chloroethyl)ether	120	74.2		ug/L		62	44 - 120
bis (2-chloroisopropyl) ether	120	76.9		ug/L		64	33 - 121
Bis(2-ethylhexyl) phthalate	120	116		ug/L		97	52 - 147
4-Bromophenyl phenyl ether	120	130		ug/L		109	54 - 122
Butyl benzyl phthalate	120	116		ug/L		96	54 - 133
4-Chloroaniline	120	85.6		ug/L		71	26 - 120
4-Chloro-3-methylphenol	120	120		ug/L		100	48 - 131

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

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	114		ug/L		95	52 - 121
2-Chlorophenol	120	81.6		ug/L		68	40 - 120
4-Chlorophenyl phenyl ether	120	129		ug/L		107	56 - 125
Dibenz[a,h]acridine	120	127		ug/L		106	31 - 150
Dibenzofuran	120	121		ug/L		101	56 - 122
3,3'-Dichlorobenzidine	160	201		ug/L		126	36 - 132
2,4-Dichlorophenol	120	108		ug/L		90	49 - 120
Diethyl phthalate	120	123		ug/L		103	50 - 137
2,4-Dimethylphenol	120	105		ug/L		87	48 - 120
Dimethyl phthalate	120	121		ug/L		101	57 - 124
Di-n-butyl phthalate	120	118		ug/L		98	58 - 126
4,6-Dinitro-ortho-cresol	240	272		ug/L		113	23 - 148
2,4-Dinitrophenol	240	261		ug/L		109	10 - 150
2,4-Dinitrotoluene	120	129		ug/L		108	54 - 142
2,6-Dinitrotoluene	120	118		ug/L		98	55 - 130
Di-n-octyl phthalate	120	118		ug/L		98	57 - 138
1,4-Dioxane	120	62.5		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	90.6		ug/L		76	45 - 124
Hexachlorobenzene	120	141		ug/L		117	52 - 129
Hexachlorocyclopentadiene	120	92.2		ug/L		77	10 - 134
Hexachloroethane	120	101		ug/L		85	20 - 120
Indene	120	96.6		ug/L		81	49 - 120
Isophorone	120	93.7		ug/L		78	48 - 120
2-Methylphenol	120	98.0		ug/L		82	46 - 124
3 & 4 Methylphenol	120	98.0		ug/L		82	45 - 120
2-Nitroaniline	120	98.4		ug/L		82	51 - 145
3-Nitroaniline	120	92.2		ug/L		77	37 - 127
4-Nitroaniline	120	121		ug/L		101	36 - 137
Nitrobenzene	120	92.5		ug/L		77	45 - 120
2-Nitrophenol	120	97.7		ug/L		81	40 - 124
4-Nitrophenol	240	273		ug/L		114	23 - 146
N-Nitrosodimethylamine	120	72.2		ug/L		60	29 - 137
N-Nitrosodi-n-propylamine	120	101		ug/L		84	45 - 120
N-Nitrosodiphenylamine	119	113		ug/L		95	54 - 120
Pentachlorophenol	240	258		ug/L		107	31 - 130
Phenol	120	79.6		ug/L		66	11 - 120
Pyridine	240	138		ug/L		57	16 - 120
Quinoline	120	113		ug/L		94	49 - 130
2,4,5-Trichlorophenol	120	117		ug/L		97	51 - 136
2,4,6-Trichlorophenol	120	115		ug/L		96	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*87*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*101*		*44 - 149*

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

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*123*		*26 - 150*

Lab Sample ID: LCS 400-598868/3-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	7.34	J *-	ug/L		6	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*96*		*46 - 124*
2-Fluorophenol	*34*		*13 - 113*
Nitrobenzene-d5	*84*		*36 - 126*
Phenol-d5	*62*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*78*		*26 - 150*

Lab Sample ID: LCSD 400-598868/4-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	8.10	J *-	ug/L		7	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*68*		*26 - 150*

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/02/22 10:47	11/03/22 20:45	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/02/22 10:47	11/03/22 20:45	1
Anthracene	ND		0.20	0.032	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[a]anthracene	0.0679	J	0.20	0.046	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/02/22 10:47	11/03/22 20:45	1
Chrysene	ND		0.20	0.074	ug/L		11/02/22 10:47	11/03/22 20:45	1

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/02/22 10:47	11/03/22 20:45	1
Fluoranthene	ND		0.20	0.068	ug/L		11/02/22 10:47	11/03/22 20:45	1
Fluorene	ND		0.20	0.11	ug/L		11/02/22 10:47	11/03/22 20:45	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/02/22 10:47	11/03/22 20:45	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/02/22 10:47	11/03/22 20:45	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/02/22 10:47	11/03/22 20:45	1
Phenanthrene	ND		0.20	0.036	ug/L		11/02/22 10:47	11/03/22 20:45	1
Pyrene	ND		0.20	0.040	ug/L		11/02/22 10:47	11/03/22 20:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*128*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/03/22 20:45*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*11/02/22 10:47*	*11/03/22 20:45*	*1*
Terphenyl-d14	*118*		*33 - 138*	*11/02/22 10:47*	*11/03/22 20:45*	*1*

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	124		ug/L		103	41 - 120
Acenaphthylene	120	121		ug/L		100	44 - 120
Anthracene	120	128		ug/L		107	49 - 120
Benzo[a]anthracene	120	135		ug/L		112	61 - 135
Benzo[a]pyrene	120	122		ug/L		102	52 - 120
Benzo[b]fluoranthene	120	124		ug/L		104	53 - 134
Benzo[g,h,i]perylene	120	92.5		ug/L		77	47 - 133
Benzo[k]fluoranthene	120	123		ug/L		102	57 - 134
Chrysene	120	128		ug/L		107	55 - 122
Dibenz(a,h)anthracene	120	107		ug/L		89	48 - 146
Fluoranthene	120	146		ug/L		122	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	109		ug/L		91	43 - 142
1-Methylnaphthalene	120	93.9		ug/L		78	41 - 120
2-Methylnaphthalene	120	99.9		ug/L		83	32 - 124
Phenanthrene	120	111		ug/L		92	48 - 120
Pyrene	120	111		ug/L		93	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*15 - 122*
Nitrobenzene-d5	*83*		*19 - 130*
Terphenyl-d14	*106*		*33 - 138*

QC Sample Results

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

Job ID: 400-227911-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-599117/1-A
Matrix: Water
Analysis Batch: 599042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599117

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		11/03/22 15:17	11/03/22 19:03	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/03/22 15:17	11/03/22 19:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*74*		*51 - 149*	*11/03/22 15:17*	*11/03/22 19:03*	*1*

Lab Sample ID: LCS 400-599117/2-A
Matrix: Water
Analysis Batch: 599042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.153	*+	ug/L		152	60 - 140
1,2-Dibromoethane	0.101	0.114		ug/L		113	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*80*		*51 - 149*

Lab Sample ID: LCSD 400-599117/3-A
Matrix: Water
Analysis Batch: 599042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599117

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.155	p *+	ug/L		155	60 - 140	2	30
1,2-Dibromoethane	0.101	0.116		ug/L		115	60 - 140	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*82*		*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: 10/26/2022
PO #	GSAP Project ID	PAGE: 1 of 1
60674381 – 3.4.2	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 – 3.4.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, S. Beadle
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

*Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 0.0c 0.0°C IR4

Container PID Readings or Laboratory Notes:

400-227911 COC

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
33	TB-ROX-102622-8260-BP	10/26/2022	0000	Water	2					2	X			
	TB-ROX-102622-8011-BP	10/26/2022	0000	Water	2					2		X		
	MW23-ROX-102622	10/26/2022	1320	Water	6			2		8	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 1482 3813 0804, 9495 6601 2934	10/26/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 10-27-22	Time: 924
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1748500, 1748501, 1748502, 1748503

11/10/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-227911-1

Login Number: 227911
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,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: 400-227911-1
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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-227912-1-Rev.1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/16/2022

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

Sample Identification	Sample Identification
TB-ROX-102622-8260	TB-ROX-102622-8011
MW12-ROX-102622	MW27-ROX-102622

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 PAHs in sample MW12-ROX-102622 was re-extracted outside of the extraction time criteria. Benzo[a]anthracene, fluoranthene and pyrene were detected in the method blanks. LCS/LCSD recoveries for benzenethiol and 1,2-dibromo-3-chloropropane were outside evaluation criteria. The PAH surrogate recovery for 2-fluorobiphenyl was outside evaluation criteria in sample MW12-ROX-102622 the method blank. Several VOC, VOC by 8011 and SVOC MS/MSD recoveries were outside evaluation criteria in sample MW12-ROX-102622. The continuing calibration verification (CCV) for several VOCs, SVOCs and PAHs was outside evaluation criteria, biased low. The CCV for fluoranthene was outside evaluation criteria, biased high. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on December 7, 2022, to report confirmation PAH results for sample MW12-ROX-102622; both original and reanalysis results are reported.

Three of 70 (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 MW12-ROX-102622 were re-extracted 27 days outside extraction time criteria (7 days) and then re-analyzed for confirmation due to method blank detections. 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. Data requiring qualification is summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW12-ROX-102622 – RERA	PAHs	All non-detects	**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
MB 400-598868/1-A	PAHs	Benzo[a]anthracene	0.0679 µg/L
MB 400-602887/1-A	PAHs	Fluoranthene	0.113 µg/L
MB 400-602887/1-A	PAHs	Pyrene	0.0611 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, or previously qualified did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW12-ROX-102622	PAHs	Benzo[a]anthracene	-	**U**
MW27-ROX-102622	PAHs	Benzo[a]anthracene	-	**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 400-598868/3-A/4-A_	SVOCs	Benzenethiol	**6/7**	10	10-120/30
LCS/LCSD 400-599117/2-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**152/155**	2	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
MW12-ROX-102622	SVOCs	Benzenethiol	**UJ**
MW27-ROX-102622	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW12-ROX-102622	PAHs	2-Fluorobiphenyl	**125**	15-122
MB 400-598868/1-A	PAHs	2-Fluorobiphenyl	**128**	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?

Yes, sample MW12-ROX-102622 was spiked and duplicated 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
400-227912-3 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
400-227912-3 MS/MSD	SVOCs	1,4-Dioxane	**41/41**	3	50-150/40
400-227912-3 MS/MSD	SVOCs	2-Nitroaniline	**29/30**	4	45-120/33
400-227912-3 MS/MSD	SVOCs	Nitrobenzene	**129/126**	3	39-120/35
400-227912-3 MS/MSD	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**167/160**	7	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
MW12-ROX-102622	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW12-ROX-102622	SVOCs	1,4-Dioxane	**UJ**
MW12-ROX-102622	SVOCs	2-Nitroaniline	**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 verification (CCV) for 2-chloroethyl vinyl ether, 1,4-dioxane, pyridine, bis(2-chloroethyl)ether, and fluorene was outside evaluation criteria, biased low. 1,4-Dioxane in sample MW12-ROX-102622 was previously qualified in Section 7.0 of this data review due to MSMSD recoveries outside evaluation criteria; no further qualification is required. The CCV for fluoranthene was outside evaluation criteria, biased high. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW27-ROX-102622	VOCs	2-Chloroethyl vinyl ether	**UJ**
MW12-ROX-102622	SVOCs	Pyridine	**UJ**
MW12-ROX-102622	SVOCs	bis(2-Chloroethyl)ether	**UJ**
MW27-ROX-102622	SVOCs	1,4-Dioxane	**UJ**
MW27-ROX-102622	SVOCs	Pyridine	**UJ**
MW27-ROX-102622	SVOCs	bis(2-Chloroethyl)ether	**UJ**
MW12-ROX-102622	PAHs	Fluorene	**UJ**
MW12-ROX-102622	PAHs	Fluoranthene	**J**
MW27-ROX-102622	PAHs	Fluorene	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/7/2022 11:38:05 AM Revision 1

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-227912-1

Reviewed 12/16/2022
A.V.

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Eurofins Pensacola

Job Notes

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. Eurofins Environment Testing Southeast LLC, Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization

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Revision 1

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

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Case Narrative

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

Job ID: 400-227912-1

Job ID: 400-227912-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-227912-1

Comments
Revised Report
Report revised to reanalyze for PAHs due to method blank detection.
Supersedes report dated 11-10-2022.

Receipt
The samples were received on 10/27/2022 9:24 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-599673 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 400-599673 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-599673 recovered outside acceptance criteria, low biased, for 2-chloroethyl vinyl ether. 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-102622-8260 (400-227912-1), MW12-ROX-102622 (400-227912-3) and MW27-ROX-102622 (400-227912-4). 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 400-598868 and analytical batch 400-599074 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-598868 and analytical batch 400-599074 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 400-599074 recovered outside acceptance criteria, low biased, for Pyridine, 1,4-Dioxane and Bis(2-chloroethyl)ether. 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: MW12-ROX-102622 (400-227912-3) and (MB 400-598868/1-A). These results have been reported and qualified.

Method 8270D_LL: The method blank for preparation batch 400-598868 and analytical batch 400-599109 contained 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.

Job ID: 400-227912-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

Method 8270D LL: The method blank for preparation batch 400-602887 and analytical batch 400-603239 contained Fluoranther and 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: The following sample was re-prepared outside of preparation holding time due to client request verification of results: MW12-ROX-102622 (400-227912-3). 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 400-599042 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 continuing calibration verification (CCV) associated with batch 400-599042 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 400-599117 and analytical batch 400-599042 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-599117 and analytical batch 400-599042 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

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

Sample Summary

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

Job ID: 400-227912-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-227912-1	TB-ROX-102622-8260	Water	10/26/22 12:00	10/27/22 09:24
400-227912-2	TB-ROX-102622-8011	Water	10/26/22 12:00	10/27/22 09:24
400-227912-3	MW12-ROX-102622	Water	10/26/22 09:30	10/27/22 09:24
400-227912-4	MW27-ROX-102622	Water	10/26/22 11:20	10/27/22 09:24

Detection Summary

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

Job ID: 400-227912-1

Client Sample ID: TB-ROX-102622-8260 — Lab Sample ID: 400-227912-1

No Detections.

Client Sample ID: TB-ROX-102622-8011 — Lab Sample ID: 400-227912-2

No Detections.

Client Sample ID: MW12-ROX-102622 — Lab Sample ID: 400-227912-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.068	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.10~~	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.26		0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.22		0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[g,h,i]perylene	0.20		0.19	0.12	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.25		0.19	0.093	ug/L	1		8270D LL	Total/NA
Chrysene	0.072	J	0.19	0.069	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.18	J	0.19	0.046	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.088	J	0.19	0.063	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.17	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.097	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	0.080	J	0.19	0.037	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.57	J	9.3	0.22	ug/L	1		8270D	Total/NA

Client Sample ID: MW27-ROX-102622 — Lab Sample ID: 400-227912-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene	0.033	J	0.18	0.029	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.067~~	J B U	0.18	0.042	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.17	J	0.18	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.12	J	0.18	0.031	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.14	J	0.18	0.092	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.12	J	0.18	0.046	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.14	J	0.18	0.040	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.044	J	0.18	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	0.039	J	0.18	0.037	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.60	J	9.2	0.22	ug/L	1		8270D	Total/NA
Dimethyl phthalate	0.45	J	9.2	0.16	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-ROX-102622-8260
Date Collected: 10/26/22 12:00
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/08/22 16:28	1
Acrolein	ND		20	3.3	ug/L			11/08/22 16:28	1
Acrylonitrile	ND		10	2.8	ug/L			11/08/22 16:28	1
Benzene	ND		1.0	0.13	ug/L			11/08/22 16:28	1
Bromobenzene	ND		1.0	0.54	ug/L			11/08/22 16:28	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/08/22 16:28	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/08/22 16:28	1
Bromoform	ND		5.0	0.25	ug/L			11/08/22 16:28	1
Bromomethane	ND		1.0	0.98	ug/L			11/08/22 16:28	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/08/22 16:28	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/08/22 16:28	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/08/22 16:28	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/08/22 16:28	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/08/22 16:28	1
Chloroethane	ND		1.0	0.76	ug/L			11/08/22 16:28	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/08/22 16:28	1
Chloroform	ND		1.0	1.0	ug/L			11/08/22 16:28	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/08/22 16:28	1
Chloromethane	ND		1.0	0.32	ug/L			11/08/22 16:28	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/08/22 16:28	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/08/22 16:28	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/08/22 16:28	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/08/22 16:28	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/08/22 16:28	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/08/22 16:28	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/08/22 16:28	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/08/22 16:28	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 16:28	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 16:28	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 16:28	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 16:28	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/08/22 16:28	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/08/22 16:28	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/08/22 16:28	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/08/22 16:28	1
2-Hexanone	ND		25	1.4	ug/L			11/08/22 16:28	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/08/22 16:28	1
Methylene bromide	ND		5.0	0.22	ug/L			11/08/22 16:28	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/08/22 16:28	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/08/22 16:28	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/08/22 16:28	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/08/22 16:28	1
Naphthalene	ND		5.0	3.0	ug/L			11/08/22 16:28	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/08/22 16:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/08/22 16:28	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/08/22 16:28	1
o-Xylene	ND		5.0	0.60	ug/L			11/08/22 16:28	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/08/22 16:28	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/08/22 16:28	1

Client Sample ID: TB-ROX-102622-8260
Date Collected: 10/26/22 12:00
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-1
Matrix: Water

Method: SW846 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			11/08/22 16:28	1
Styrene	ND		1.0	1.0	ug/L			11/08/22 16:28	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/08/22 16:28	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/08/22 16:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/08/22 16:28	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/08/22 16:28	1
Toluene	ND		1.0	0.41	ug/L			11/08/22 16:28	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 16:28	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/08/22 16:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/08/22 16:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/08/22 16:28	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/08/22 16:28	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/08/22 16:28	1
Trichloroethene	ND		1.0	0.15	ug/L			11/08/22 16:28	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/08/22 16:28	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/08/22 16:28	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/08/22 16:28	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/08/22 16:28	1
Vinyl acetate	ND		25	0.93	ug/L			11/08/22 16:28	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/08/22 16:28	1
Xylenes, Total	ND		10	1.6	ug/L			11/08/22 16:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*11/08/22 16:28*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*11/08/22 16:28*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*11/08/22 16:28*	*1*

Client Sample ID: TB-ROX-102622-8011
Date Collected: 10/26/22 12:00
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-2
Matrix: Water

Method: EPA 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		11/03/22 15:17	11/04/22 14:57	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/03/22 15:17	11/04/22 14:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*51 - 149*	*11/03/22 15:17*	*11/04/22 14:57*	*1*

Client Sample Results

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

Job ID: 400-227912-1

Client Sample ID: MW12-ROX-102622
Date Collected: 10/26/22 09:30
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/08/22 14:03	1
Acrolein	ND		20	3.3	ug/L			11/08/22 14:03	1
Acrylonitrile	ND		10	2.8	ug/L			11/08/22 14:03	1
Benzene	ND		1.0	0.13	ug/L			11/08/22 14:03	1
Bromobenzene	ND		1.0	0.54	ug/L			11/08/22 14:03	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/08/22 14:03	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/08/22 14:03	1
Bromoform	ND		5.0	0.25	ug/L			11/08/22 14:03	1
Bromomethane	ND		1.0	0.98	ug/L			11/08/22 14:03	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/08/22 14:03	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/08/22 14:03	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/08/22 14:03	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/08/22 14:03	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/08/22 14:03	1
Chloroethane	ND		1.0	0.76	ug/L			11/08/22 14:03	1
2-Chloroethyl vinyl ether	ND	F1	5.0	2.0	ug/L			11/08/22 14:03	1
Chloroform	ND		1.0	1.0	ug/L			11/08/22 14:03	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/08/22 14:03	1
Chloromethane	ND		1.0	0.32	ug/L			11/08/22 14:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/08/22 14:03	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/08/22 14:03	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/08/22 14:03	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/08/22 14:03	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/08/22 14:03	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/08/22 14:03	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/08/22 14:03	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/08/22 14:03	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 14:03	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 14:03	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 14:03	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 14:03	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/08/22 14:03	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/08/22 14:03	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/08/22 14:03	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/08/22 14:03	1
2-Hexanone	ND		25	1.4	ug/L			11/08/22 14:03	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/08/22 14:03	1
Methylene bromide	ND		5.0	0.22	ug/L			11/08/22 14:03	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/08/22 14:03	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/08/22 14:03	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/08/22 14:03	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/08/22 14:03	1
Naphthalene	ND		5.0	3.0	ug/L			11/08/22 14:03	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/08/22 14:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/08/22 14:03	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/08/22 14:03	1
o-Xylene	ND		5.0	0.60	ug/L			11/08/22 14:03	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/08/22 14:03	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/08/22 14:03	1

Client Sample ID: MW12-ROX-102622
Date Collected: 10/26/22 09:30
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-3
Matrix: Water

Method: SW846 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			11/08/22 14:03	1
Styrene	ND		1.0	1.0	ug/L			11/08/22 14:03	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/08/22 14:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/08/22 14:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/08/22 14:03	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/08/22 14:03	1
Toluene	ND		1.0	0.41	ug/L			11/08/22 14:03	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 14:03	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/08/22 14:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/08/22 14:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/08/22 14:03	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/08/22 14:03	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/08/22 14:03	1
Trichloroethene	ND		1.0	0.15	ug/L			11/08/22 14:03	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/08/22 14:03	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/08/22 14:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/08/22 14:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/08/22 14:03	1
Vinyl acetate	ND		25	0.93	ug/L			11/08/22 14:03	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/08/22 14:03	1
Xylenes, Total	ND		10	1.6	ug/L			11/08/22 14:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*11/08/22 14:03*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/08/22 14:03*	*1*
Toluene-d8 (Surr)	*103*		*64 - 132*		*11/08/22 14:03*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 21:54	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/02/22 10:47	11/03/22 21:54	1
Anthracene	**0.068**	**J**	0.19	0.030	ug/L		11/02/22 10:47	11/03/22 21:54	1
Benzo[a]anthracene	**0.10**	**J B**	0.19	0.043	ug/L		11/02/22 10:47	11/03/22 21:54	1
Benzo[a]pyrene	**0.26**		0.19	0.039	ug/L		11/02/22 10:47	11/03/22 21:54	1
Benzo[b]fluoranthene	**0.22**		0.19	0.032	ug/L		11/02/22 10:47	11/03/22 21:54	1
Benzo[g,h,i]perylene	**0.20**		0.19	0.12	ug/L		11/02/22 10:47	11/04/22 15:49	1
Benzo[k]fluoranthene	**0.25**		0.19	0.093	ug/L		11/02/22 10:47	11/03/22 21:54	1
Chrysene	**0.072**	**J**	0.19	0.069	ug/L		11/02/22 10:47	11/03/22 21:54	1
Dibenz(a,h)anthracene	**0.18**	**J**	0.19	0.046	ug/L		11/02/22 10:47	11/03/22 21:54	1
Fluoranthene	**0.088**	**J**	0.19	0.063	ug/L		11/02/22 10:47	11/03/22 21:54	1
Fluorene	ND		0.19	0.10	ug/L		11/02/22 10:47	11/03/22 21:54	1
Indeno[1,2,3-cd]pyrene	**0.17**	**J**	0.19	0.040	ug/L		11/02/22 10:47	11/03/22 21:54	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		11/02/22 10:47	11/03/22 21:54	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		11/02/22 10:47	11/03/22 21:54	1
Phenanthrene	**0.097**	**J**	0.19	0.033	ug/L		11/02/22 10:47	11/03/22 21:54	1
Pyrene	**0.080**	**J**	0.19	0.037	ug/L		11/02/22 10:47	11/03/22 21:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*125*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/03/22 21:54*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*11/02/22 10:47*	*11/03/22 21:54*	*1*

Client Sample ID: MW12-ROX-102622
Date Collected: 10/26/22 09:30
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	98		33 - 138	11/02/22 10:47	11/03/22 21:54	1

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.19	0.030	ug/L		11/30/22 14:01	12/01/22 18:12	1
Acenaphthylene	ND	H	0.19	0.042	ug/L		11/30/22 14:01	12/01/22 18:12	1
Anthracene	ND	H	0.19	0.030	ug/L		11/30/22 14:01	12/01/22 18:12	1
Benzo[a]anthracene	ND	H	0.19	0.043	ug/L		11/30/22 14:01	12/01/22 18:12	1
Benzo[a]pyrene	ND	H	0.19	0.039	ug/L		11/30/22 14:01	12/01/22 18:12	1
Benzo[b]fluoranthene	ND	H	0.19	0.032	ug/L		11/30/22 14:01	12/01/22 18:12	1
Benzo[g,h,i]perylene	ND	H	0.19	0.12	ug/L		11/30/22 14:01	12/01/22 18:12	1
Benzo[k]fluoranthene	ND	H	0.19	0.094	ug/L		11/30/22 14:01	12/01/22 18:12	1
Chrysene	ND	H	0.19	0.069	ug/L		11/30/22 14:01	12/01/22 18:12	1
Dibenz(a,h)anthracene	ND	H	0.19	0.047	ug/L		11/30/22 14:01	12/01/22 18:12	1
Fluoranthene	ND	H	0.19	0.064	ug/L		11/30/22 14:01	12/01/22 18:12	1
Fluorene	ND	H	0.19	0.10	ug/L		11/30/22 14:01	12/01/22 18:12	1
Indeno[1,2,3-cd]pyrene	ND	H	0.19	0.040	ug/L		11/30/22 14:01	12/01/22 18:12	1
1-Methylnaphthalene	ND	H	0.19	0.069	ug/L		11/30/22 14:01	12/01/22 18:12	1
2-Methylnaphthalene	ND	H	0.19	0.056	ug/L		11/30/22 14:01	12/01/22 18:12	1
Phenanthrene	ND	H	0.19	0.034	ug/L		11/30/22 14:01	12/01/22 18:12	1
Pyrene	ND	H	0.19	0.038	ug/L		11/30/22 14:01	12/01/22 18:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	80		15 - 122	11/30/22 14:01	12/01/22 18:12	1
Nitrobenzene-d5	66		19 - 130	11/30/22 14:01	12/01/22 18:12	1
Terphenyl-d14	102		33 - 138	11/30/22 14:01	12/01/22 18:12	1

Method: SW846 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		11/02/22 10:47	11/03/22 19:05	1
Benzenethiol	ND		9.3	1.6	ug/L		11/02/22 10:47	11/03/22 19:05	1
Benzoic acid	ND		28	6.8	ug/L		11/02/22 10:47	11/03/22 19:05	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 19:05	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 19:05	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 19:05	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 19:05	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.6	ug/L		11/02/22 10:47	11/03/22 19:05	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/02/22 10:47	11/03/22 19:05	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/02/22 10:47	11/03/22 19:05	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 19:05	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/02/22 10:47	11/03/22 19:05	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 19:05	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 19:05	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 19:05	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 19:05	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 19:05	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 19:05	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/02/22 10:47	11/03/22 19:05	1
Diethyl phthalate	0.57	J	9.3	0.22	ug/L		11/02/22 10:47	11/03/22 19:05	1
2,4-Dimethylphenol	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 19:05	1

Client Sample ID: MW12-ROX-102622
Date Collected: 10/26/22 09:30
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 19:05	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 19:05	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/02/22 10:47	11/03/22 19:05	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 19:05	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 19:05	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 19:05	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 19:05	1
1,4-Dioxane	ND	F1 UJ	9.3	0.93	ug/L		11/02/22 10:47	11/03/22 19:05	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 19:05	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 19:05	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		11/02/22 10:47	11/03/22 19:05	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/02/22 10:47	11/03/22 19:05	1
Indene	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 19:05	1
Isophorone	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 19:05	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 19:05	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/02/22 10:47	11/03/22 19:05	1
2-Nitroaniline	ND	F1 UJ	9.3	2.0	ug/L		11/02/22 10:47	11/03/22 19:05	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 19:05	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/02/22 10:47	11/03/22 19:05	1
Nitrobenzene	ND	F1	9.3	0.12	ug/L		11/02/22 10:47	11/03/22 19:05	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/02/22 10:47	11/03/22 19:05	1
4-Nitrophenol	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 19:05	1
N-Nitrosodimethylamine	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 19:05	1
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		11/02/22 10:47	11/03/22 19:05	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/02/22 10:47	11/03/22 19:05	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 19:05	1
Phenol	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 19:05	1
Pyridine	ND	UJ	9.3	3.0	ug/L		11/02/22 10:47	11/03/22 19:05	1
Quinoline	ND		9.3	4.2	ug/L		11/02/22 10:47	11/03/22 19:05	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/02/22 10:47	11/03/22 19:05	1
2,4,6-Trichlorophenol	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 19:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*97*		*46 - 124*	*11/02/22 10:47*	*11/03/22 19:05*	*1*
2-Fluorophenol	*17*		*13 - 113*	*11/02/22 10:47*	*11/03/22 19:05*	*1*
Nitrobenzene-d5	*88*		*36 - 126*	*11/02/22 10:47*	*11/03/22 19:05*	*1*
Phenol-d5	*56*		*17 - 127*	*11/02/22 10:47*	*11/03/22 19:05*	*1*
Terphenyl-d14	*103*		*44 - 149*	*11/02/22 10:47*	*11/03/22 19:05*	*1*
2,4,6-Tribromophenol	*94*		*26 - 150*	*11/02/22 10:47*	*11/03/22 19:05*	*1*

Method: EPA 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 *+	0.030	0.017	ug/L		11/03/22 15:17	11/04/22 15:18	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/03/22 15:17	11/04/22 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*51 - 149*	*11/03/22 15:17*	*11/04/22 15:18*	*1*

Client Sample ID: MW27-ROX-102622
Date Collected: 10/26/22 11:20
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/08/22 17:51	1
Acrolein	ND		20	3.3	ug/L			11/08/22 17:51	1
Acrylonitrile	ND		10	2.8	ug/L			11/08/22 17:51	1
Benzene	ND		1.0	0.13	ug/L			11/08/22 17:51	1
Bromobenzene	ND		1.0	0.54	ug/L			11/08/22 17:51	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/08/22 17:51	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/08/22 17:51	1
Bromoform	ND		5.0	0.25	ug/L			11/08/22 17:51	1
Bromomethane	ND		1.0	0.98	ug/L			11/08/22 17:51	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/08/22 17:51	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/08/22 17:51	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/08/22 17:51	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/08/22 17:51	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/08/22 17:51	1
Chloroethane	ND		1.0	0.76	ug/L			11/08/22 17:51	1
2-Chloroethyl vinyl ether	ND	UJ	5.0	2.0	ug/L			11/08/22 17:51	1
Chloroform	ND		1.0	1.0	ug/L			11/08/22 17:51	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/08/22 17:51	1
Chloromethane	ND		1.0	0.32	ug/L			11/08/22 17:51	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/08/22 17:51	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/08/22 17:51	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/08/22 17:51	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/08/22 17:51	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/08/22 17:51	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/08/22 17:51	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/08/22 17:51	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/08/22 17:51	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 17:51	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 17:51	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 17:51	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 17:51	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/08/22 17:51	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/08/22 17:51	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/08/22 17:51	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/08/22 17:51	1
2-Hexanone	ND		25	1.4	ug/L			11/08/22 17:51	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/08/22 17:51	1
Methylene bromide	ND		5.0	0.22	ug/L			11/08/22 17:51	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/08/22 17:51	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/08/22 17:51	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/08/22 17:51	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/08/22 17:51	1
Naphthalene	ND		5.0	3.0	ug/L			11/08/22 17:51	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/08/22 17:51	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/08/22 17:51	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/08/22 17:51	1
o-Xylene	ND		5.0	0.60	ug/L			11/08/22 17:51	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/08/22 17:51	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/08/22 17:51	1

Client Sample ID: MW27-ROX-102622
Date Collected: 10/26/22 11:20
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-4
Matrix: Water

Method: SW846 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			11/08/22 17:51	1
Styrene	ND		1.0	1.0	ug/L			11/08/22 17:51	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/08/22 17:51	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/08/22 17:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/08/22 17:51	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/08/22 17:51	1
Toluene	ND		1.0	0.41	ug/L			11/08/22 17:51	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 17:51	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/08/22 17:51	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/08/22 17:51	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/08/22 17:51	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/08/22 17:51	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/08/22 17:51	1
Trichloroethene	ND		1.0	0.15	ug/L			11/08/22 17:51	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/08/22 17:51	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/08/22 17:51	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/08/22 17:51	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/08/22 17:51	1
Vinyl acetate	ND		25	0.93	ug/L			11/08/22 17:51	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/08/22 17:51	1
Xylenes, Total	ND		10	1.6	ug/L			11/08/22 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*11/08/22 17:51*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/08/22 17:51*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/08/22 17:51*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.029	ug/L		11/02/22 10:47	11/03/22 22:11	1
Acenaphthylene	ND		0.18	0.041	ug/L		11/02/22 10:47	11/03/22 22:11	1
Anthracene	**0.033**	**J**	0.18	0.029	ug/L		11/02/22 10:47	11/03/22 22:11	1
Benzo[a]anthracene	~~0.067~~	J B U	0.18	0.042	ug/L		11/02/22 10:47	11/03/22 22:11	1
Benzo[a]pyrene	**0.17**	**J**	0.18	0.039	ug/L		11/02/22 10:47	11/03/22 22:11	1
Benzo[b]fluoranthene	**0.12**	**J**	0.18	0.031	ug/L		11/02/22 10:47	11/03/22 22:11	1
Benzo[g,h,i]perylene	ND		0.18	0.12	ug/L		11/02/22 10:47	11/04/22 16:07	1
Benzo[k]fluoranthene	**0.14**	**J**	0.18	0.092	ug/L		11/02/22 10:47	11/03/22 22:11	1
Chrysene	ND		0.18	0.068	ug/L		11/02/22 10:47	11/03/22 22:11	1
Dibenz(a,h)anthracene	**0.12**	**J**	0.18	0.046	ug/L		11/02/22 10:47	11/03/22 22:11	1
Fluoranthene	ND		0.18	0.063	ug/L		11/02/22 10:47	11/03/22 22:11	1
Fluorene	ND	U5	0.18	0.10	ug/L		11/02/22 10:47	11/03/22 22:11	1
Indeno[1,2,3-cd]pyrene	**0.14**	**J**	0.18	0.040	ug/L		11/02/22 10:47	11/03/22 22:11	1
1-Methylnaphthalene	ND		0.18	0.068	ug/L		11/02/22 10:47	11/03/22 22:11	1
2-Methylnaphthalene	ND		0.18	0.055	ug/L		11/02/22 10:47	11/03/22 22:11	1
Phenanthrene	**0.044**	**J**	0.18	0.033	ug/L		11/02/22 10:47	11/03/22 22:11	1
Pyrene	**0.039**	**J**	0.18	0.037	ug/L		11/02/22 10:47	11/03/22 22:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*122*		*15 - 122*	*11/02/22 10:47*	*11/03/22 22:11*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*11/02/22 10:47*	*11/03/22 22:11*	*1*

Client Sample ID: MW27-ROX-102622
Date Collected: 10/26/22 11:20
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	113		33 - 138	11/02/22 10:47	11/03/22 22:11	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		11/02/22 10:47	11/03/22 19:28	1
Benzenethiol	ND	*- UJ	9.2	1.6	ug/L		11/02/22 10:47	11/03/22 19:28	1
Benzoic acid	ND		28	6.7	ug/L		11/02/22 10:47	11/03/22 19:28	1
Benzyl alcohol	ND		9.2	1.8	ug/L		11/02/22 10:47	11/03/22 19:28	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		11/02/22 10:47	11/03/22 19:28	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		11/02/22 10:47	11/03/22 19:28	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		11/02/22 10:47	11/03/22 19:28	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		11/02/22 10:47	11/03/22 19:28	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		11/02/22 10:47	11/03/22 19:28	1
Butyl benzyl phthalate	ND		9.2	0.18	ug/L		11/02/22 10:47	11/03/22 19:28	1
4-Chloroaniline	ND		9.2	3.1	ug/L		11/02/22 10:47	11/03/22 19:28	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		11/02/22 10:47	11/03/22 19:28	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		11/02/22 10:47	11/03/22 19:28	1
2-Chlorophenol	ND		9.2	2.0	ug/L		11/02/22 10:47	11/03/22 19:28	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		11/02/22 10:47	11/03/22 19:28	1
Dibenz[a,h]acridine	ND		9.2	0.92	ug/L		11/02/22 10:47	11/03/22 19:28	1
Dibenzofuran	ND		9.2	0.16	ug/L		11/02/22 10:47	11/03/22 19:28	1
3,3'-Dichlorobenzidine	ND		9.2	2.4	ug/L		11/02/22 10:47	11/03/22 19:28	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		11/02/22 10:47	11/03/22 19:28	1
Diethyl phthalate	**0.60**	**J**	9.2	0.22	ug/L		11/02/22 10:47	11/03/22 19:28	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		11/02/22 10:47	11/03/22 19:28	1
Dimethyl phthalate	**0.45**	**J**	9.2	0.16	ug/L		11/02/22 10:47	11/03/22 19:28	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		11/02/22 10:47	11/03/22 19:28	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		11/02/22 10:47	11/03/22 19:28	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		11/02/22 10:47	11/03/22 19:28	1
2,4-Dinitrotoluene	ND		9.2	1.8	ug/L		11/02/22 10:47	11/03/22 19:28	1
2,6-Dinitrotoluene	ND		9.2	1.8	ug/L		11/02/22 10:47	11/03/22 19:28	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		11/02/22 10:47	11/03/22 19:28	1
1,4-Dioxane	ND	UJ	9.2	0.92	ug/L		11/02/22 10:47	11/03/22 19:28	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		11/02/22 10:47	11/03/22 19:28	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		11/02/22 10:47	11/03/22 19:28	1
Hexachlorocyclopentadiene	ND		18	2.4	ug/L		11/02/22 10:47	11/03/22 19:28	1
Hexachloroethane	ND		9.2	3.9	ug/L		11/02/22 10:47	11/03/22 19:28	1
Indene	ND		9.2	0.92	ug/L		11/02/22 10:47	11/03/22 19:28	1
Isophorone	ND		9.2	0.13	ug/L		11/02/22 10:47	11/03/22 19:28	1
2-Methylphenol	ND		9.2	1.7	ug/L		11/02/22 10:47	11/03/22 19:28	1
3 & 4 Methylphenol	ND		18	0.36	ug/L		11/02/22 10:47	11/03/22 19:28	1
2-Nitroaniline	ND		9.2	2.0	ug/L		11/02/22 10:47	11/03/22 19:28	1
3-Nitroaniline	ND		9.2	1.7	ug/L		11/02/22 10:47	11/03/22 19:28	1
4-Nitroaniline	ND		9.2	1.4	ug/L		11/02/22 10:47	11/03/22 19:28	1
Nitrobenzene	ND		9.2	0.12	ug/L		11/02/22 10:47	11/03/22 19:28	1
2-Nitrophenol	ND		9.2	4.8	ug/L		11/02/22 10:47	11/03/22 19:28	1
4-Nitrophenol	ND		9.2	1.9	ug/L		11/02/22 10:47	11/03/22 19:28	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		11/02/22 10:47	11/03/22 19:28	1

Client Sample ID: MW27-ROX-102622
Date Collected: 10/26/22 11:20
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		11/02/22 10:47	11/03/22 19:28	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		11/02/22 10:47	11/03/22 19:28	1
Pentachlorophenol	ND		18	1.3	ug/L		11/02/22 10:47	11/03/22 19:28	1
Phenol	ND		9.2	2.4	ug/L		11/02/22 10:47	11/03/22 19:28	1
Pyridine	ND		9.2	2.9	ug/L		11/02/22 10:47	11/03/22 19:28	1
Quinoline	ND		9.2	4.1	ug/L		11/02/22 10:47	11/03/22 19:28	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		11/02/22 10:47	11/03/22 19:28	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		11/02/22 10:47	11/03/22 19:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*88*		*46 - 124*	*11/02/22 10:47*	*11/03/22 19:28*	*1*
2-Fluorophenol	*45*		*13 - 113*	*11/02/22 10:47*	*11/03/22 19:28*	*1*
Nitrobenzene-d5	*79*		*36 - 126*	*11/02/22 10:47*	*11/03/22 19:28*	*1*
Phenol-d5	*65*		*17 - 127*	*11/02/22 10:47*	*11/03/22 19:28*	*1*
Terphenyl-d14	*103*		*44 - 149*	*11/02/22 10:47*	*11/03/22 19:28*	*1*
2,4,6-Tribromophenol	*91*		*26 - 150*	*11/02/22 10:47*	*11/03/22 19:28*	*1*

Method: EPA 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		11/03/22 15:17	11/04/22 16:20	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/03/22 15:17	11/04/22 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*83*		*51 - 149*	*11/03/22 15:17*	*11/04/22 16:20*	*1*

Definitions/Glossary

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

Job ID: 400-227912-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
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.
F1	MS and/or MSD recovery 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)
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: 400-227912-1

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)
400-227912-1	TB-ROX-102622-8260	99	102	103
400-227912-3	MW12-ROX-102622	102	100	103
400-227912-3 MS	MW12-ROX-102622	95	98	99
400-227912-3 MSD	MW12-ROX-102622	99	98	100
400-227912-4	MW27-ROX-102622	94	101	101
LCS 400-599673/1002	Lab Control Sample	99	96	101
MB 400-599673/4	Method Blank	101	98	102

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)
400-227912-3	MW12-ROX-102622	97	17	88	56	103	94
400-227912-3 MS	MW12-ROX-102622	94	38	88	70	102	123
400-227912-3 MSD	MW12-ROX-102622	91	51	86	74	102	121
400-227912-4	MW27-ROX-102622	88	45	79	65	103	91
LCS 400-598868/2-A	Lab Control Sample	91	43	87	68	101	123
LCS 400-598868/3-A	Lab Control Sample	96	34	84	62	109	78
LCSD 400-598868/4-A	Lab Control Sample Dup	98	52	86	75	109	68
MB 400-598868/1-A	Method Blank	95	15	83	51	108	87

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)
400-227912-3	MW12-ROX-102622	125 S1+	93	98
400-227912-3 - RERA	MW12-ROX-102622	80	66	102
400-227912-3 MS	MW12-ROX-102622	91	86	100
400-227912-3 MSD	MW12-ROX-102622	95	84	102
400-227912-4	MW27-ROX-102622	122	94	113
LCS 400-598868/2-A	Lab Control Sample	98	83	106
LCS 400-602887/2-A	Lab Control Sample	94	76	95
LCSD 400-602887/3-A	Lab Control Sample Dup	105	83	108
MB 400-598868/1-A	Method Blank	128 S1+	93	118

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-227912-1
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 400-602887/1-A	Method Blank	77	61	89

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)
400-227912-2	TB-ROX-102622-8011	83
400-227912-3	MW12-ROX-102622	85
400-227912-3 MS	MW12-ROX-102622	88
400-227912-3 MSD	MW12-ROX-102622	89
400-227912-4	MW27-ROX-102622	83
LCS 400-599117/2-A	Lab Control Sample	80
LCSD 400-599117/3-A	Lab Control Sample Dup	82
MB 400-599117/1-A	Method Blank	74

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-227912-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET 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: 400-227912-1

Client Sample ID: TB-ROX-102622-8260

Lab Sample ID: 400-227912-1

Date Collected: 10/26/22 12:00
Matrix: Water
Date Received: 10/27/22 09:24

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	599673	11/08/22 16:28	AGW	EET PEN

Client Sample ID: TB-ROX-102622-8011

Lab Sample ID: 400-227912-2

Date Collected: 10/26/22 12:00
Matrix: Water
Date Received: 10/27/22 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.5 mL	35 mL	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/04/22 14:57	JAW	EET PEN

Client Sample ID: MW12-ROX-102622

Lab Sample ID: 400-227912-3

Date Collected: 10/26/22 09:30
Matrix: Water
Date Received: 10/27/22 09:24

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	599673	11/08/22 14:03	AGW	EET PEN
Total/NA	Prep	3520C			269.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 19:05	VC1	EET PEN
Total/NA	Prep	3520C			269.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 21:54	PP1	EET PEN
Total/NA	Prep	3520C			269.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599295	11/04/22 15:49	PP1	EET PEN
Total/NA	Prep	3520C	RERA		266.2 mL	1 mL	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL	RERA	1	0.4 mL	0.4 mL	603041	12/01/22 18:12	PP1	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/04/22 15:18	JAW	EET PEN

Client Sample ID: MW27-ROX-102622

Lab Sample ID: 400-227912-4

Date Collected: 10/26/22 11:20
Matrix: Water
Date Received: 10/27/22 09:24

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	599673	11/08/22 17:51	AGW	EET PEN
Total/NA	Prep	3520C			271.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 19:28	VC1	EET PEN
Total/NA	Prep	3520C			271.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 22:11	PP1	EET PEN
Total/NA	Prep	3520C			271.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599295	11/04/22 16:07	PP1	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/04/22 16:20	JAW	EET PEN

Lab Chronicle

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

Job ID: 400-227912-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-598868/1-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 16:50	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 20:45	PP1	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-599117/1-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	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/03/22 19:03	JAW	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-599673/4
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	599673	11/08/22 10:55	AGW	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-602887/1-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	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	603239	12/02/22 14:31	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-598868/2-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:58	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599109	11/03/22 21:02	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-598868/3-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:13	VC1	EET PEN

Lab Chronicle

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

Job ID: 400-227912-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-599117/2-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	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/03/22 19:24	JAW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-599673/1002
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	599673	11/08/22 10:01	AGW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-602887/2-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	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	603041	12/01/22 17:38	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-598868/4-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:35	VC1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-599117/3-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	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/03/22 19:44	JAW	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-602887/3-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	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	603041	12/01/22 17:55	PP1	EET PEN

Lab Chronicle

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

Job ID: 400-227912-1

Client Sample ID: MW12-ROX-102622

Date Collected: 10/26/22 09:30
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-3 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	599673	11/08/22 15:26	AGW	EET PEN
Total/NA	Prep	3520C			269.6 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 18:20	VC1	EET PEN
Total/NA	Prep	3520C			269.6 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599109	11/03/22 21:19	PP1	EET PEN
Total/NA	Prep	8011			32.9 mL	35 mL	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/04/22 15:38	JAW	EET PEN

Client Sample ID: MW12-ROX-102622

Date Collected: 10/26/22 09:30
Date Received: 10/27/22 09:24

Lab Sample ID: 400-227912-3 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	599673	11/08/22 15:47	AGW	EET PEN
Total/NA	Prep	3520C			272 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 18:43	VC1	EET PEN
Total/NA	Prep	3520C			272 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599109	11/03/22 21:37	PP1	EET PEN
Total/NA	Prep	8011			33.8 mL	35 mL	599117	11/03/22 15:17	JAW	EET PEN
Total/NA	Analysis	8011		1			599042	11/04/22 15:59	JAW	EET PEN

Laboratory References:

EET 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: 400-227912-1

GC/MS VOA

Analysis Batch: 599673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227912-1	TB-ROX-102622-8260	Total/NA	Water	8260B	
400-227912-3	MW12-ROX-102622	Total/NA	Water	8260B	
400-227912-4	MW27-ROX-102622	Total/NA	Water	8260B	
MB 400-599673/4	Method Blank	Total/NA	Water	8260B	
LCS 400-599673/1002	Lab Control Sample	Total/NA	Water	8260B	
400-227912-3 MS	MW12-ROX-102622	Total/NA	Water	8260B	
400-227912-3 MSD	MW12-ROX-102622	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 598868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227912-3	MW12-ROX-102622	Total/NA	Water	3520C	
400-227912-4	MW27-ROX-102622	Total/NA	Water	3520C	
MB 400-598868/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-598868/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-598868/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-227912-3 MS	MW12-ROX-102622	Total/NA	Water	3520C	
400-227912-3 MSD	MW12-ROX-102622	Total/NA	Water	3520C	

Analysis Batch: 599074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227912-3	MW12-ROX-102622	Total/NA	Water	8270D	598868
400-227912-4	MW27-ROX-102622	Total/NA	Water	8270D	598868
MB 400-598868/1-A	Method Blank	Total/NA	Water	8270D	598868
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	8270D	598868
LCS 400-598868/3-A	Lab Control Sample	Total/NA	Water	8270D	598868
LCSD 400-598868/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	598868
400-227912-3 MS	MW12-ROX-102622	Total/NA	Water	8270D	598868
400-227912-3 MSD	MW12-ROX-102622	Total/NA	Water	8270D	598868

Analysis Batch: 599109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227912-3	MW12-ROX-102622	Total/NA	Water	8270D LL	598868
400-227912-4	MW27-ROX-102622	Total/NA	Water	8270D LL	598868
MB 400-598868/1-A	Method Blank	Total/NA	Water	8270D LL	598868
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	8270D LL	598868
400-227912-3 MS	MW12-ROX-102622	Total/NA	Water	8270D LL	598868
400-227912-3 MSD	MW12-ROX-102622	Total/NA	Water	8270D LL	598868

Analysis Batch: 599295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227912-3	MW12-ROX-102622	Total/NA	Water	8270D LL	598868
400-227912-4	MW27-ROX-102622	Total/NA	Water	8270D LL	598868

Prep Batch: 602887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227912-3 - RERA	MW12-ROX-102622	Total/NA	Water	3520C	
MB 400-602887/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-602887/2-A	Lab Control Sample	Total/NA	Water	3520C	

GC/MS Semi VOA (Continued)

Prep Batch: 602887 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-602887/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 603041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227912-3 - RERA	MW12-ROX-102622	Total/NA	Water	8270D LL	602887
LCS 400-602887/2-A	Lab Control Sample	Total/NA	Water	8270D LL	602887
LCSD 400-602887/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	602887

Analysis Batch: 603239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-602887/1-A	Method Blank	Total/NA	Water	8270D LL	602887

GC Semi VOA

Analysis Batch: 599042

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227912-2	TB-ROX-102622-8011	Total/NA	Water	8011	599117
400-227912-3	MW12-ROX-102622	Total/NA	Water	8011	599117
400-227912-4	MW27-ROX-102622	Total/NA	Water	8011	599117
MB 400-599117/1-A	Method Blank	Total/NA	Water	8011	599117
LCS 400-599117/2-A	Lab Control Sample	Total/NA	Water	8011	599117
LCSD 400-599117/3-A	Lab Control Sample Dup	Total/NA	Water	8011	599117
400-227912-3 MS	MW12-ROX-102622	Total/NA	Water	8011	599117
400-227912-3 MSD	MW12-ROX-102622	Total/NA	Water	8011	599117

Prep Batch: 599117

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227912-2	TB-ROX-102622-8011	Total/NA	Water	8011	
400-227912-3	MW12-ROX-102622	Total/NA	Water	8011	
400-227912-4	MW27-ROX-102622	Total/NA	Water	8011	
MB 400-599117/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-599117/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-599117/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-227912-3 MS	MW12-ROX-102622	Total/NA	Water	8011	
400-227912-3 MSD	MW12-ROX-102622	Total/NA	Water	8011	

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

Lab Sample ID: MB 400-599673/4
Matrix: Water
Analysis Batch: 599673

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			11/08/22 10:55	1
Acrolein	ND		20	3.3	ug/L			11/08/22 10:55	1
Acrylonitrile	ND		10	2.8	ug/L			11/08/22 10:55	1
Benzene	ND		1.0	0.13	ug/L			11/08/22 10:55	1
Bromobenzene	ND		1.0	0.54	ug/L			11/08/22 10:55	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/08/22 10:55	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Bromoform	ND		5.0	0.25	ug/L			11/08/22 10:55	1
Bromomethane	ND		1.0	0.98	ug/L			11/08/22 10:55	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/08/22 10:55	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/08/22 10:55	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/08/22 10:55	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/08/22 10:55	1
Chloroethane	ND		1.0	0.76	ug/L			11/08/22 10:55	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/08/22 10:55	1
Chloroform	ND		1.0	1.0	ug/L			11/08/22 10:55	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/08/22 10:55	1
Chloromethane	ND		1.0	0.32	ug/L			11/08/22 10:55	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/08/22 10:55	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/08/22 10:55	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/08/22 10:55	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/08/22 10:55	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/08/22 10:55	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/08/22 10:55	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/08/22 10:55	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 10:55	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/08/22 10:55	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/08/22 10:55	1
2-Hexanone	ND		25	1.4	ug/L			11/08/22 10:55	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/08/22 10:55	1
Methylene bromide	ND		5.0	0.22	ug/L			11/08/22 10:55	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/08/22 10:55	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/08/22 10:55	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/08/22 10:55	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/08/22 10:55	1
Naphthalene	ND		5.0	3.0	ug/L			11/08/22 10:55	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/08/22 10:55	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/08/22 10:55	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/08/22 10:55	1
o-Xylene	ND		5.0	0.60	ug/L			11/08/22 10:55	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/08/22 10:55	1

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

Lab Sample ID: MB 400-599673/4
Matrix: Water
Analysis Batch: 599673

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			11/08/22 10:55	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/08/22 10:55	1
Styrene	ND		1.0	1.0	ug/L			11/08/22 10:55	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/08/22 10:55	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/08/22 10:55	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/08/22 10:55	1
Toluene	ND		1.0	0.41	ug/L			11/08/22 10:55	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/08/22 10:55	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/08/22 10:55	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/08/22 10:55	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/08/22 10:55	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/08/22 10:55	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/08/22 10:55	1
Trichloroethene	ND		1.0	0.15	ug/L			11/08/22 10:55	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/08/22 10:55	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/08/22 10:55	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/08/22 10:55	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/08/22 10:55	1
Vinyl acetate	ND		25	0.93	ug/L			11/08/22 10:55	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/08/22 10:55	1
Xylenes, Total	ND		10	1.6	ug/L			11/08/22 10:55	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/08/22 10:55*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*11/08/22 10:55*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/08/22 10:55*	*1*

Lab Sample ID: LCS 400-599673/1002
Matrix: Water
Analysis Batch: 599673

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	550		ug/L		110	38 - 160
Acrylonitrile	500	454		ug/L		91	64 - 142
Benzene	50.0	44.5		ug/L		89	70 - 130
Bromobenzene	50.0	46.4		ug/L		93	70 - 132
Bromochloromethane	50.0	43.0		ug/L		86	70 - 130
Bromodichloromethane	50.0	43.0		ug/L		86	67 - 133
Bromoform	50.0	42.7		ug/L		85	57 - 140
Bromomethane	50.0	69.3		ug/L		139	10 - 160
2-Butanone (MEK)	200	167		ug/L		83	61 - 145
Carbon disulfide	50.0	40.6		ug/L		81	61 - 137
Carbon tetrachloride	50.0	42.4		ug/L		85	61 - 137
Chlorobenzene	50.0	46.3		ug/L		93	70 - 130
Dibromochloromethane	50.0	43.3		ug/L		87	67 - 135
Chloroethane	50.0	40.8		ug/L		82	55 - 141

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

Lab Sample ID: LCS 400-599673/1002
Matrix: Water
Analysis Batch: 599673

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	12.7		ug/L		25	10 - 160
Chloroform	50.0	43.0		ug/L		86	69 - 130
1-Chlorohexane	50.0	50.6		ug/L		101	69 - 130
Chloromethane	50.0	48.5		ug/L		97	58 - 137
cis-1,2-Dichloroethene	50.0	44.1		ug/L		88	68 - 130
cis-1,3-Dichloropropene	50.0	43.6		ug/L		87	69 - 132
1,2-Dichlorobenzene	50.0	46.4		ug/L		93	67 - 130
1,3-Dichlorobenzene	50.0	48.2		ug/L		96	70 - 130
1,4-Dichlorobenzene	50.0	47.9		ug/L		96	70 - 130
Dichlorodifluoromethane	50.0	44.0		ug/L		88	41 - 146
1,1-Dichloroethane	50.0	44.2		ug/L		88	70 - 130
1,2-Dichloroethane	50.0	42.0		ug/L		84	69 - 130
1,1-Dichloroethene	50.0	42.1		ug/L		84	63 - 134
1,2-Dichloropropane	50.0	45.8		ug/L		92	70 - 130
1,3-Dichloropropane	50.0	44.2		ug/L		88	70 - 130
2,2-Dichloropropane	50.0	39.8		ug/L		80	52 - 135
1,1-Dichloropropene	50.0	43.9		ug/L		88	70 - 130
Ethylbenzene	50.0	47.2		ug/L		94	70 - 130
Ethyl methacrylate	50.0	43.3		ug/L		87	68 - 130
Hexachlorobutadiene	50.0	45.2		ug/L		90	53 - 140
2-Hexanone	200	182		ug/L		91	65 - 137
Isopropylbenzene	50.0	47.9		ug/L		96	70 - 130
Methylene bromide	50.0	40.4		ug/L		81	70 - 130
Methylene Chloride	50.0	42.7		ug/L		85	66 - 135
4-Methyl-2-pentanone (MIBK)	200	180		ug/L		90	69 - 138
Methyl tert-butyl ether	50.0	39.6		ug/L		79	66 - 130
m-Xylene & p-Xylene	50.0	46.5		ug/L		93	70 - 130
Naphthalene	50.0	43.9		ug/L		88	47 - 149
n-Butylbenzene	50.0	45.8		ug/L		92	67 - 130
N-Propylbenzene	50.0	49.4		ug/L		99	70 - 130
o-Chlorotoluene	50.0	43.8		ug/L		88	70 - 130
o-Xylene	50.0	45.9		ug/L		92	70 - 130
p-Chlorotoluene	50.0	47.9		ug/L		96	70 - 130
p-Isopropyltoluene	50.0	49.7		ug/L		99	65 - 130
sec-Butylbenzene	50.0	50.6		ug/L		101	66 - 130
Styrene	50.0	45.3		ug/L		91	70 - 130
tert-Butylbenzene	50.0	48.5		ug/L		97	64 - 139
1,1,1,2-Tetrachloroethane	50.0	44.1		ug/L		88	67 - 131
1,1,2,2-Tetrachloroethane	50.0	46.3		ug/L		93	70 - 131
Tetrachloroethene	50.0	44.8		ug/L		90	65 - 130
Toluene	50.0	46.6		ug/L		93	70 - 130
trans-1,2-Dichloroethene	50.0	43.3		ug/L		87	70 - 130
trans-1,3-Dichloropropene	50.0	42.6		ug/L		85	63 - 130
1,2,3-Trichlorobenzene	50.0	43.8		ug/L		88	60 - 138
1,2,4-Trichlorobenzene	50.0	44.8		ug/L		90	60 - 140
1,1,1-Trichloroethane	50.0	42.7		ug/L		85	68 - 130
1,1,2-Trichloroethane	50.0	44.5		ug/L		89	70 - 130
Trichloroethene	50.0	43.5		ug/L		87	70 - 130
Trichlorofluoromethane	50.0	47.6		ug/L		95	65 - 138

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

Lab Sample ID: LCS 400-599673/1002
Matrix: Water
Analysis Batch: 599673

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	44.8		ug/L		90	70 - 130
1,2,4-Trimethylbenzene	50.0	49.3		ug/L		99	70 - 130
1,3,5-Trimethylbenzene	50.0	49.2		ug/L		98	69 - 130
Vinyl acetate	100	78.7		ug/L		79	26 - 160
Vinyl chloride	50.0	52.9		ug/L		106	59 - 136
Xylenes, Total	100	92.4		ug/L		92	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*101*		*64 - 132*

Lab Sample ID: 400-227912-3 MS
Matrix: Water
Analysis Batch: 599673

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	172		ug/L		86	43 - 150
Acrolein	ND		500	670		ug/L		134	38 - 150
Acrylonitrile	ND		500	504		ug/L		101	62 - 149
Benzene	ND		50.0	44.4		ug/L		89	56 - 142
Bromobenzene	ND		50.0	45.0		ug/L		90	59 - 136
Bromochloromethane	ND		50.0	45.8		ug/L		92	64 - 140
Bromodichloromethane	ND		50.0	43.7		ug/L		87	59 - 143
Bromoform	ND		50.0	41.6		ug/L		83	50 - 140
Bromomethane	ND		50.0	74.2		ug/L		148	10 - 150
2-Butanone (MEK)	ND		200	169		ug/L		84	55 - 150
Carbon disulfide	ND		50.0	40.6		ug/L		81	48 - 150
Carbon tetrachloride	ND		50.0	42.5		ug/L		85	55 - 145
Chlorobenzene	ND		50.0	45.3		ug/L		91	64 - 130
Dibromochloromethane	ND		50.0	44.3		ug/L		89	56 - 143
Chloroethane	ND		50.0	46.1		ug/L		92	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	44.1		ug/L		88	60 - 141
1-Chlorohexane	ND		50.0	49.2		ug/L		98	56 - 136
Chloromethane	ND		50.0	58.3		ug/L		117	49 - 148
cis-1,2-Dichloroethene	ND		50.0	45.4		ug/L		91	59 - 143
cis-1,3-Dichloropropene	ND		50.0	43.4		ug/L		87	57 - 140
1,2-Dichlorobenzene	ND		50.0	47.1		ug/L		94	52 - 137
1,3-Dichlorobenzene	ND		50.0	46.7		ug/L		93	54 - 135
1,4-Dichlorobenzene	ND		50.0	46.7		ug/L		93	53 - 135
Dichlorodifluoromethane	ND		50.0	50.0		ug/L		100	16 - 150
1,1-Dichloroethane	ND		50.0	47.3		ug/L		95	61 - 144
1,2-Dichloroethane	ND		50.0	45.2		ug/L		90	60 - 141
1,1-Dichloroethene	ND		50.0	41.8		ug/L		84	54 - 147
1,2-Dichloropropane	ND		50.0	47.8		ug/L		96	66 - 137
1,3-Dichloropropane	ND		50.0	45.3		ug/L		91	66 - 133
2,2-Dichloropropane	ND		50.0	39.5		ug/L		79	42 - 144

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

Lab Sample ID: 400-227912-3 MS
Matrix: Water
Analysis Batch: 599673

Client Sample ID: MW12-ROX-102622
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	43.2		ug/L		86	65 - 136
Ethylbenzene	ND		50.0	44.9		ug/L		90	58 - 131
Ethyl methacrylate	ND		50.0	42.6		ug/L		85	64 - 130
Hexachlorobutadiene	ND		50.0	43.3		ug/L		87	31 - 149
2-Hexanone	ND		200	190		ug/L		95	65 - 140
Isopropylbenzene	ND		50.0	44.9		ug/L		90	56 - 133
Methylene bromide	ND		50.0	44.4		ug/L		89	63 - 138
Methylene Chloride	ND		50.0	45.3		ug/L		91	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	201		ug/L		101	63 - 146
Methyl tert-butyl ether	ND		50.0	42.0		ug/L		84	59 - 137
m-Xylene & p-Xylene	ND		50.0	44.3		ug/L		89	57 - 130
Naphthalene	ND		50.0	41.8		ug/L		84	25 - 150
n-Butylbenzene	ND		50.0	43.4		ug/L		87	41 - 142
N-Propylbenzene	ND		50.0	45.3		ug/L		91	51 - 138
o-Chlorotoluene	ND		50.0	42.8		ug/L		86	53 - 134
o-Xylene	ND		50.0	44.0		ug/L		88	61 - 130
p-Chlorotoluene	ND		50.0	46.5		ug/L		93	54 - 133
p-Isopropyltoluene	ND		50.0	45.8		ug/L		92	48 - 139
sec-Butylbenzene	ND		50.0	46.2		ug/L		92	50 - 138
Styrene	ND		50.0	45.2		ug/L		90	58 - 131
tert-Butylbenzene	ND		50.0	44.2		ug/L		88	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	44.1		ug/L		88	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	46.7		ug/L		93	66 - 135
Tetrachloroethene	ND		50.0	41.0		ug/L		82	52 - 133
Toluene	ND		50.0	43.7		ug/L		87	65 - 130
trans-1,2-Dichloroethene	ND		50.0	43.2		ug/L		86	61 - 143
trans-1,3-Dichloropropene	ND		50.0	42.8		ug/L		86	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	44.5		ug/L		89	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	43.2		ug/L		86	39 - 148
1,1,1-Trichloroethane	ND		50.0	42.3		ug/L		85	57 - 142
1,1,2-Trichloroethane	ND		50.0	46.1		ug/L		92	66 - 131
Trichloroethene	ND		50.0	42.6		ug/L		85	64 - 136
Trichlorofluoromethane	ND		50.0	53.5		ug/L		107	54 - 150
1,2,3-Trichloropropane	ND		50.0	45.1		ug/L		90	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	46.2		ug/L		92	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	44.7		ug/L		89	52 - 135
Vinyl acetate	ND		100	88.0		ug/L		88	26 - 150
Vinyl chloride	ND		50.0	59.8		ug/L		120	46 - 150
Xylenes, Total	ND		100	88.3		ug/L		88	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

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

Lab Sample ID: 400-227912-3 MSD
Matrix: Water
Analysis Batch: 599673

Client Sample ID: MW12-ROX-102622
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	178		ug/L		89	43 - 150	4	30
Acrolein	ND		500	646		ug/L		129	38 - 150	4	31
Acrylonitrile	ND		500	524		ug/L		105	62 - 149	4	30
Benzene	ND		50.0	44.5		ug/L		89	56 - 142	0	30
Bromobenzene	ND		50.0	42.6		ug/L		85	59 - 136	5	30
Bromochloromethane	ND		50.0	46.4		ug/L		93	64 - 140	1	30
Bromodichloromethane	ND		50.0	44.6		ug/L		89	59 - 143	2	30
Bromoform	ND		50.0	44.8		ug/L		90	50 - 140	7	30
Bromomethane	ND		50.0	73.3		ug/L		147	10 - 150	1	50
2-Butanone (MEK)	ND		200	169		ug/L		85	55 - 150	0	30
Carbon disulfide	ND		50.0	41.9		ug/L		84	48 - 150	3	30
Carbon tetrachloride	ND		50.0	43.3		ug/L		87	55 - 145	2	30
Chlorobenzene	ND		50.0	42.9		ug/L		86	64 - 130	5	30
Dibromochloromethane	ND		50.0	45.0		ug/L		90	56 - 143	1	30
Chloroethane	ND		50.0	43.3		ug/L		87	50 - 150	6	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	45.3		ug/L		91	60 - 141	3	30
1-Chlorohexane	ND		50.0	44.4		ug/L		89	56 - 136	10	30
Chloromethane	ND		50.0	61.0		ug/L		122	49 - 148	4	31
cis-1,2-Dichloroethene	ND		50.0	46.9		ug/L		94	59 - 143	3	30
cis-1,3-Dichloropropene	ND		50.0	43.7		ug/L		87	57 - 140	1	30
1,2-Dichlorobenzene	ND		50.0	42.9		ug/L		86	52 - 137	9	30
1,3-Dichlorobenzene	ND		50.0	42.1		ug/L		84	54 - 135	10	30
1,4-Dichlorobenzene	ND		50.0	41.8		ug/L		84	53 - 135	11	30
Dichlorodifluoromethane	ND		50.0	47.9		ug/L		96	16 - 150	4	31
1,1-Dichloroethane	ND		50.0	47.7		ug/L		95	61 - 144	1	30
1,2-Dichloroethane	ND		50.0	45.8		ug/L		92	60 - 141	1	30
1,1-Dichloroethene	ND		50.0	42.4		ug/L		85	54 - 147	2	30
1,2-Dichloropropane	ND		50.0	47.9		ug/L		96	66 - 137	0	30
1,3-Dichloropropane	ND		50.0	46.8		ug/L		94	66 - 133	3	30
2,2-Dichloropropane	ND		50.0	41.0		ug/L		82	42 - 144	4	31
1,1-Dichloropropene	ND		50.0	43.6		ug/L		87	65 - 136	1	30
Ethylbenzene	ND		50.0	41.7		ug/L		83	58 - 131	7	30
Ethyl methacrylate	ND		50.0	46.3		ug/L		93	64 - 130	8	30
Hexachlorobutadiene	ND		50.0	34.7		ug/L		69	31 - 149	22	36
2-Hexanone	ND		200	202		ug/L		101	65 - 140	6	30
Isopropylbenzene	ND		50.0	40.1		ug/L		80	56 - 133	11	30
Methylene bromide	ND		50.0	45.1		ug/L		90	63 - 138	2	30
Methylene Chloride	ND		50.0	45.8		ug/L		92	60 - 146	1	32
4-Methyl-2-pentanone (MIBK)	ND		200	212		ug/L		106	63 - 146	6	30
Methyl tert-butyl ether	ND		50.0	43.6		ug/L		87	59 - 137	4	30
m-Xylene & p-Xylene	ND		50.0	41.3		ug/L		83	57 - 130	7	30
Naphthalene	ND		50.0	43.2		ug/L		86	25 - 150	3	30
n-Butylbenzene	ND		50.0	35.0		ug/L		70	41 - 142	21	31
N-Propylbenzene	ND		50.0	40.3		ug/L		81	51 - 138	12	30
o-Chlorotoluene	ND		50.0	38.7		ug/L		77	53 - 134	10	30
o-Xylene	ND		50.0	41.0		ug/L		82	61 - 130	7	30
p-Chlorotoluene	ND		50.0	41.7		ug/L		83	54 - 133	11	30

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

Lab Sample ID: 400-227912-3 MSD
Matrix: Water
Analysis Batch: 599673

Client Sample ID: MW12-ROX-102622
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	39.5		ug/L		79	48 - 139	15	30
sec-Butylbenzene	ND		50.0	40.6		ug/L		81	50 - 138	13	30
Styrene	ND		50.0	41.3		ug/L		83	58 - 131	9	30
tert-Butylbenzene	ND		50.0	39.8		ug/L		80	54 - 146	11	30
1,1,1,2-Tetrachloroethane	ND		50.0	43.3		ug/L		87	59 - 137	2	30
1,1,2,2-Tetrachloroethane	ND		50.0	50.7		ug/L		101	66 - 135	8	30
Tetrachloroethene	ND		50.0	40.4		ug/L		81	52 - 133	2	30
Toluene	ND		50.0	43.3		ug/L		87	65 - 130	1	30
trans-1,2-Dichloroethene	ND		50.0	44.3		ug/L		89	61 - 143	3	30
trans-1,3-Dichloropropene	ND		50.0	43.0		ug/L		86	53 - 133	1	30
1,2,3-Trichlorobenzene	ND		50.0	41.1		ug/L		82	43 - 145	8	30
1,2,4-Trichlorobenzene	ND		50.0	39.0		ug/L		78	39 - 148	10	30
1,1,1-Trichloroethane	ND		50.0	42.8		ug/L		86	57 - 142	1	30
1,1,2-Trichloroethane	ND		50.0	47.6		ug/L		95	66 - 131	3	30
Trichloroethene	ND		50.0	42.1		ug/L		84	64 - 136	1	30
Trichlorofluoromethane	ND		50.0	51.3		ug/L		103	54 - 150	4	30
1,2,3-Trichloropropane	ND		50.0	48.5		ug/L		97	65 - 133	7	30
1,2,4-Trimethylbenzene	ND		50.0	40.0		ug/L		80	50 - 139	14	30
1,3,5-Trimethylbenzene	ND		50.0	40.8		ug/L		82	52 - 135	9	30
Vinyl acetate	ND		100	81.6		ug/L		82	26 - 150	8	33
Vinyl chloride	ND		50.0	57.2		ug/L		114	46 - 150	5	30
Xylenes, Total	ND		100	82.3		ug/L		82	59 - 130	7	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzenethiol	ND		10	1.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzoic acid	ND		30	7.3	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzyl alcohol	ND		10	2.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/02/22 10:47	11/03/22 16:50	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Chloroaniline	ND		10	3.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Chlorophenol	ND		10	2.2	ug/L		11/02/22 10:47	11/03/22 16:50	1

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dibenzofuran	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Diethyl phthalate	ND		10	0.24	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/02/22 10:47	11/03/22 16:50	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
1,4-Dioxane	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachloroethane	ND		10	4.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
Indene	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Isophorone	ND		10	0.14	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Methylphenol	ND		10	1.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Nitroaniline	ND		10	2.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
3-Nitroaniline	ND		10	1.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Nitroaniline	ND		10	1.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
Nitrobenzene	ND		10	0.13	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Nitrophenol	ND		10	5.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Nitrophenol	ND		10	2.1	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/02/22 10:47	11/03/22 16:50	1
Pentachlorophenol	ND		20	1.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
Phenol	ND		10	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
Pyridine	ND		10	3.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
Quinoline	ND		10	4.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*46 - 124*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
2-Fluorophenol	*15*		*13 - 113*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Nitrobenzene-d5	*83*		*36 - 126*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Phenol-d5	*51*		*17 - 127*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Terphenyl-d14	*108*		*44 - 149*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
2,4,6-Tribromophenol	*87*		*26 - 150*	*11/02/22 10:47*	*11/03/22 16:50*	*1*

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

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	119		ug/L		99	21 - 120
Benzoic acid	513	388		ug/L		76	10 - 144
Benzyl alcohol	120	106		ug/L		88	28 - 120
Bis(2-chloroethoxy)methane	120	91.3		ug/L		76	47 - 120
Bis(2-chloroethyl)ether	120	74.2		ug/L		62	44 - 120
bis (2-chloroisopropyl) ether	120	76.9		ug/L		64	33 - 121
Bis(2-ethylhexyl) phthalate	120	116		ug/L		97	52 - 147
4-Bromophenyl phenyl ether	120	130		ug/L		109	54 - 122
Butyl benzyl phthalate	120	116		ug/L		96	54 - 133
4-Chloroaniline	120	85.6		ug/L		71	26 - 120
4-Chloro-3-methylphenol	120	120		ug/L		100	48 - 131
2-Chloronaphthalene	120	114		ug/L		95	52 - 121
2-Chlorophenol	120	81.6		ug/L		68	40 - 120
4-Chlorophenyl phenyl ether	120	129		ug/L		107	56 - 125
Dibenz[a,h]acridine	120	127		ug/L		106	31 - 150
Dibenzofuran	120	121		ug/L		101	56 - 122
3,3'-Dichlorobenzidine	160	201		ug/L		126	36 - 132
2,4-Dichlorophenol	120	108		ug/L		90	49 - 120
Diethyl phthalate	120	123		ug/L		103	50 - 137
2,4-Dimethylphenol	120	105		ug/L		87	48 - 120
Dimethyl phthalate	120	121		ug/L		101	57 - 124
Di-n-butyl phthalate	120	118		ug/L		98	58 - 126
4,6-Dinitro-ortho-cresol	240	272		ug/L		113	23 - 148
2,4-Dinitrophenol	240	261		ug/L		109	10 - 150
2,4-Dinitrotoluene	120	129		ug/L		108	54 - 142
2,6-Dinitrotoluene	120	118		ug/L		98	55 - 130
Di-n-octyl phthalate	120	118		ug/L		98	57 - 138
1,4-Dioxane	120	62.5		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	90.6		ug/L		76	45 - 124
Hexachlorobenzene	120	141		ug/L		117	52 - 129
Hexachlorocyclopentadiene	120	92.2		ug/L		77	10 - 134
Hexachloroethane	120	101		ug/L		85	20 - 120
Indene	120	96.6		ug/L		81	49 - 120
Isophorone	120	93.7		ug/L		78	48 - 120
2-Methylphenol	120	98.0		ug/L		82	46 - 124
3 & 4 Methylphenol	120	98.0		ug/L		82	45 - 120
2-Nitroaniline	120	98.4		ug/L		82	51 - 145
3-Nitroaniline	120	92.2		ug/L		77	37 - 127
4-Nitroaniline	120	121		ug/L		101	36 - 137
Nitrobenzene	120	92.5		ug/L		77	45 - 120
2-Nitrophenol	120	97.7		ug/L		81	40 - 124
4-Nitrophenol	240	273		ug/L		114	23 - 146
N-Nitrosodimethylamine	120	72.2		ug/L		60	29 - 137
N-Nitrosodi-n-propylamine	120	101		ug/L		84	45 - 120
N-Nitrosodiphenylamine	119	113		ug/L		95	54 - 120
Pentachlorophenol	240	258		ug/L		107	31 - 130
Phenol	120	79.6		ug/L		66	11 - 120
Pyridine	240	138		ug/L		57	16 - 120

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

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Quinoline	120	113		ug/L		94	49 - 130
2,4,5-Trichlorophenol	120	117		ug/L		97	51 - 136
2,4,6-Trichlorophenol	120	115		ug/L		96	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*87*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*101*		*44 - 149*
2,4,6-Tribromophenol	*123*		*26 - 150*

Lab Sample ID: LCS 400-598868/3-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	7.34	J *-	ug/L		6	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*96*		*46 - 124*
2-Fluorophenol	*34*		*13 - 113*
Nitrobenzene-d5	*84*		*36 - 126*
Phenol-d5	*62*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*78*		*26 - 150*

Lab Sample ID: LCSD 400-598868/4-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	8.10	J *-	ug/L		7	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*68*		*26 - 150*

Lab Sample ID: 400-227912-3 MS
Matrix: Water
Analysis Batch: 599074

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		111	129		ug/L		116	10 - 120

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

Lab Sample ID: 400-227912-3 MS
Matrix: Water
Analysis Batch: 599074

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzoic acid	ND		476	464		ug/L		98	10 - 149
Benzyl alcohol	ND		111	101		ug/L		91	33 - 120
Bis(2-chloroethoxy)methane	ND		111	84.1		ug/L		76	26 - 120
Bis(2-chloroethyl)ether	ND		111	64.2		ug/L		58	42 - 120
bis (2-chloroisopropyl) ether	ND		111	72.1		ug/L		65	28 - 120
Bis(2-ethylhexyl) phthalate	ND		111	105		ug/L		95	39 - 120
4-Bromophenyl phenyl ether	ND		111	122		ug/L		110	40 - 120
Butyl benzyl phthalate	ND		111	107		ug/L		96	45 - 120
4-Chloroaniline	ND		111	67.3		ug/L		60	10 - 120
4-Chloro-3-methylphenol	ND		111	116		ug/L		104	34 - 120
2-Chloronaphthalene	ND		111	108		ug/L		97	39 - 120
2-Chlorophenol	ND		111	77.8		ug/L		70	25 - 120
4-Chlorophenyl phenyl ether	ND		111	122		ug/L		109	44 - 120
Dibenz[a,h]acridine	ND		111	118		ug/L		106	50 - 150
Dibenzofuran	ND		111	116		ug/L		104	25 - 130
3,3'-Dichlorobenzidine	ND		148	56.4		ug/L		38	10 - 120
2,4-Dichlorophenol	ND		111	105		ug/L		95	31 - 120
Diethyl phthalate	0.57	J	111	115		ug/L		103	46 - 120
2,4-Dimethylphenol	ND		111	95.5		ug/L		86	21 - 120
Dimethyl phthalate	ND		111	113		ug/L		102	38 - 120
Di-n-butyl phthalate	ND		111	107		ug/L		96	49 - 120
4,6-Dinitro-ortho-cresol	ND		223	264		ug/L		119	25 - 120
2,4-Dinitrophenol	ND		223	271		ug/L		122	15 - 140
2,4-Dinitrotoluene	ND		111	125		ug/L		112	53 - 120
2,6-Dinitrotoluene	ND		111	112		ug/L		101	43 - 120
Di-n-octyl phthalate	ND		111	107		ug/L		96	35 - 121
1,4-Dioxane	ND	F1	111	45.8	F1	ug/L		41	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		111	84.3		ug/L		76	50 - 150
Hexachlorobenzene	ND		111	132		ug/L		118	38 - 122
Hexachlorocyclopentadiene	ND		111	92.7		ug/L		83	10 - 120
Hexachloroethane	ND		111	92.8		ug/L		83	10 - 150
Indene	ND		111	91.0		ug/L		82	50 - 150
Isophorone	ND		111	87.4		ug/L		79	42 - 120
2-Methylphenol	ND		111	97.7		ug/L		88	28 - 120
3 & 4 Methylphenol	ND		111	95.1		ug/L		85	31 - 120
2-Nitroaniline	ND	F1	111	32.0	F1	ug/L		29	45 - 120
3-Nitroaniline	ND		111	73.1		ug/L		66	10 - 130
4-Nitroaniline	ND		111	44.3		ug/L		40	10 - 132
Nitrobenzene	ND	F1	111	143	F1	ug/L		129	39 - 120
2-Nitrophenol	ND		111	100		ug/L		90	33 - 120
4-Nitrophenol	ND		223	264		ug/L		119	10 - 120
N-Nitrosodimethylamine	ND		111	86.2		ug/L		77	10 - 139
N-Nitrosodi-n-propylamine	ND		111	95.5		ug/L		86	37 - 124
N-Nitrosodiphenylamine	ND		110	99.3		ug/L		90	10 - 150
Pentachlorophenol	ND		223	251		ug/L		113	29 - 130
Phenol	ND		111	75.6		ug/L		68	10 - 150
Pyridine	ND		223	127		ug/L		57	10 - 120
Quinoline	ND		111	109		ug/L		98	51 - 120

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

Lab Sample ID: 400-227912-3 MS
Matrix: Water
Analysis Batch: 599074

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
2,4,5-Trichlorophenol	ND		111	115		ug/L		103	34 - 120
2,4,6-Trichlorophenol	ND		111	111		ug/L		99	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*94*		*46 - 124*
2-Fluorophenol	*38*		*13 - 113*
Nitrobenzene-d5	*88*		*36 - 126*
Phenol-d5	*70*		*17 - 127*
Terphenyl-d14	*102*		*44 - 149*
2,4,6-Tribromophenol	*123*		*26 - 150*

Lab Sample ID: 400-227912-3 MSD
Matrix: Water
Analysis Batch: 599074

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		110	117		ug/L		106	10 - 120	9	63
Benzoic acid	ND		472	480		ug/L		102	10 - 149	3	49
Benzyl alcohol	ND		110	97.4		ug/L		88	33 - 120	4	37
Bis(2-chloroethoxy)methane	ND		110	82.5		ug/L		75	26 - 120	2	70
Bis(2-chloroethyl)ether	ND		110	66.7		ug/L		61	42 - 120	4	42
bis (2-chloroisopropyl) ether	ND		110	70.1		ug/L		64	28 - 120	3	41
Bis(2-ethylhexyl) phthalate	ND		110	107		ug/L		97	39 - 120	1	35
4-Bromophenyl phenyl ether	ND		110	120		ug/L		109	40 - 120	2	30
Butyl benzyl phthalate	ND		110	108		ug/L		98	45 - 120	1	32
4-Chloroaniline	ND		110	68.2		ug/L		62	10 - 120	1	94
4-Chloro-3-methylphenol	ND		110	113		ug/L		103	34 - 120	3	40
2-Chloronaphthalene	ND		110	104		ug/L		94	39 - 120	4	29
2-Chlorophenol	ND		110	85.0		ug/L		77	25 - 120	9	42
4-Chlorophenyl phenyl ether	ND		110	117		ug/L		106	44 - 120	3	27
Dibenz[a,h]acridine	ND		110	110		ug/L		100	50 - 150	7	40
Dibenzofuran	ND		110	111		ug/L		100	25 - 130	5	29
3,3'-Dichlorobenzidine	ND		147	55.6		ug/L		38	10 - 120	1	58
2,4-Dichlorophenol	ND		110	106		ug/L		96	31 - 120	1	43
Diethyl phthalate	0.57	J	110	112		ug/L		101	46 - 120	3	40
2,4-Dimethylphenol	ND		110	93.9		ug/L		85	21 - 120	2	47
Dimethyl phthalate	ND		110	110		ug/L		100	38 - 120	3	36
Di-n-butyl phthalate	ND		110	105		ug/L		95	49 - 120	2	32
4,6-Dinitro-ortho-cresol	ND		221	253		ug/L		115	25 - 120	4	42
2,4-Dinitrophenol	ND		221	251		ug/L		114	15 - 140	8	36
2,4-Dinitrotoluene	ND		110	119		ug/L		108	53 - 120	5	28
2,6-Dinitrotoluene	ND		110	108		ug/L		98	43 - 120	4	28
Di-n-octyl phthalate	ND		110	107		ug/L		97	35 - 121	0	35
1,4-Dioxane	ND	F1	110	44.7	F1	ug/L		41	50 - 150	3	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		110	83.1		ug/L		75	50 - 150	2	40
Hexachlorobenzene	ND		110	129		ug/L		117	38 - 122	2	33
Hexachlorocyclopentadiene	ND		110	87.1		ug/L		79	10 - 120	6	50
Hexachloroethane	ND		110	89.9		ug/L		82	10 - 150	3	41

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

Lab Sample ID: 400-227912-3 MSD
Matrix: Water
Analysis Batch: 599074

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indene	ND		110	86.7		ug/L		79	50 - 150	5	40
Isophorone	ND		110	85.4		ug/L		77	42 - 120	2	33
2-Methylphenol	ND		110	97.4		ug/L		88	28 - 120	0	47
3 & 4 Methylphenol	ND		110	94.0		ug/L		85	31 - 120	1	47
2-Nitroaniline	ND	F1	110	33.3	F1	ug/L		30	45 - 120	4	33
3-Nitroaniline	ND		110	69.1		ug/L		63	10 - 130	6	39
4-Nitroaniline	ND		110	41.3		ug/L		37	10 - 132	7	50
Nitrobenzene	ND	F1	110	139	F1	ug/L		126	39 - 120	3	35
2-Nitrophenol	ND		110	99.2		ug/L		90	33 - 120	1	43
4-Nitrophenol	ND		221	245		ug/L		111	10 - 120	7	82
N-Nitrosodimethylamine	ND		110	78.6		ug/L		71	10 - 139	9	62
N-Nitrosodi-n-propylamine	ND		110	92.8		ug/L		84	37 - 124	3	36
N-Nitrosodiphenylamine	ND		109	97.2		ug/L		89	10 - 150	2	34
Pentachlorophenol	ND		221	242		ug/L		110	29 - 130	4	42
Phenol	ND		110	80.0		ug/L		72	10 - 150	6	52
Pyridine	ND		221	110		ug/L		50	10 - 120	14	55
Quinoline	ND		110	105		ug/L		95	51 - 120	3	40
2,4,5-Trichlorophenol	ND		110	111		ug/L		101	34 - 120	3	42
2,4,6-Trichlorophenol	ND		110	110		ug/L		99	33 - 120	1	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*51*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*102*		*44 - 149*
2,4,6-Tribromophenol	*121*		*26 - 150*

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/02/22 10:47	11/03/22 20:45	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/02/22 10:47	11/03/22 20:45	1
Anthracene	ND		0.20	0.032	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[a]anthracene	0.0679	J	0.20	0.046	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/02/22 10:47	11/03/22 20:45	1
Chrysene	ND		0.20	0.074	ug/L		11/02/22 10:47	11/03/22 20:45	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/02/22 10:47	11/03/22 20:45	1
Fluoranthene	ND		0.20	0.068	ug/L		11/02/22 10:47	11/03/22 20:45	1
Fluorene	ND		0.20	0.11	ug/L		11/02/22 10:47	11/03/22 20:45	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/02/22 10:47	11/03/22 20:45	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/02/22 10:47	11/03/22 20:45	1

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/02/22 10:47	11/03/22 20:45	1
Phenanthrene	ND		0.20	0.036	ug/L		11/02/22 10:47	11/03/22 20:45	1
Pyrene	ND		0.20	0.040	ug/L		11/02/22 10:47	11/03/22 20:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*128*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/03/22 20:45*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*11/02/22 10:47*	*11/03/22 20:45*	*1*
Terphenyl-d14	*118*		*33 - 138*	*11/02/22 10:47*	*11/03/22 20:45*	*1*

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	124		ug/L		103	41 - 120
Acenaphthylene	120	121		ug/L		100	44 - 120
Anthracene	120	128		ug/L		107	49 - 120
Benzo[a]anthracene	120	135		ug/L		112	61 - 135
Benzo[a]pyrene	120	122		ug/L		102	52 - 120
Benzo[b]fluoranthene	120	124		ug/L		104	53 - 134
Benzo[g,h,i]perylene	120	92.5		ug/L		77	47 - 133
Benzo[k]fluoranthene	120	123		ug/L		102	57 - 134
Chrysene	120	128		ug/L		107	55 - 122
Dibenz(a,h)anthracene	120	107		ug/L		89	48 - 146
Fluoranthene	120	146		ug/L		122	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	109		ug/L		91	43 - 142
1-Methylnaphthalene	120	93.9		ug/L		78	41 - 120
2-Methylnaphthalene	120	99.9		ug/L		83	32 - 124
Phenanthrene	120	111		ug/L		92	48 - 120
Pyrene	120	111		ug/L		93	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*15 - 122*
Nitrobenzene-d5	*83*		*19 - 130*
Terphenyl-d14	*106*		*33 - 138*

Lab Sample ID: 400-227912-3 MS
Matrix: Water
Analysis Batch: 599109

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		111	105		ug/L		95	35 - 113
Acenaphthylene	ND		111	104		ug/L		93	41 - 118
Anthracene	0.068	J	111	108		ug/L		97	45 - 122
Benzo[a]anthracene	0.10	J B	111	120		ug/L		108	55 - 133
Benzo[a]pyrene	0.26		111	103		ug/L		92	50 - 108
Benzo[b]fluoranthene	0.22		111	116		ug/L		104	50 - 128

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

Lab Sample ID: 400-227912-3 MS
Matrix: Water
Analysis Batch: 599109

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[g,h,i]perylene	0.18	J	111	78.5		ug/L		70	46 - 133
Benzo[k]fluoranthene	0.25		111	103		ug/L		92	52 - 128
Chrysene	0.072	J	111	116		ug/L		104	52 - 116
Dibenz(a,h)anthracene	0.18	J	111	91.3		ug/L		82	52 - 143
Fluoranthene	0.088	J	111	132		ug/L		118	32 - 150
Fluorene	ND		111	104		ug/L		94	15 - 150
Indeno[1,2,3-cd]pyrene	0.17	J	111	93.9		ug/L		84	41 - 141
1-Methylnaphthalene	ND		111	48.6		ug/L		44	10 - 150
2-Methylnaphthalene	ND		111	51.9		ug/L		47	10 - 150
Phenanthrene	0.097	J	111	101		ug/L		91	36 - 125
Pyrene	0.080	J	111	100		ug/L		90	41 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*15 - 122*
Nitrobenzene-d5	*86*		*19 - 130*
Terphenyl-d14	*100*		*33 - 138*

Lab Sample ID: 400-227912-3 MSD
Matrix: Water
Analysis Batch: 599109

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		110	109		ug/L		99	35 - 113	4	49
Acenaphthylene	ND		110	107		ug/L		97	41 - 118	3	48
Anthracene	0.068	J	110	110		ug/L		100	45 - 122	2	56
Benzo[a]anthracene	0.10	J B	110	123		ug/L		111	55 - 133	3	57
Benzo[a]pyrene	0.26		110	106		ug/L		96	50 - 108	3	59
Benzo[b]fluoranthene	0.22		110	114		ug/L		103	50 - 128	2	62
Benzo[g,h,i]perylene	0.18	J	110	81.3		ug/L		74	46 - 133	3	58
Benzo[k]fluoranthene	0.25		110	111		ug/L		100	52 - 128	8	58
Chrysene	0.072	J	110	116		ug/L		105	52 - 116	0	59
Dibenz(a,h)anthracene	0.18	J	110	95.0		ug/L		86	52 - 143	4	60
Fluoranthene	0.088	J	110	134		ug/L		121	32 - 150	1	59
Fluorene	ND		110	109		ug/L		99	15 - 150	4	49
Indeno[1,2,3-cd]pyrene	0.17	J	110	96.4		ug/L		87	41 - 141	3	58
1-Methylnaphthalene	ND		110	87.8		ug/L		80	10 - 150	57	66
2-Methylnaphthalene	ND		110	89.7		ug/L		81	10 - 150	53	66
Phenanthrene	0.097	J	110	101		ug/L		91	36 - 125	0	69
Pyrene	0.080	J	110	100		ug/L		91	41 - 127	0	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*95*		*15 - 122*
Nitrobenzene-d5	*84*		*19 - 130*
Terphenyl-d14	*102*		*33 - 138*

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

Lab Sample ID: MB 400-602887/1-A
Matrix: Water
Analysis Batch: 603239

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602887

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/30/22 14:01	12/02/22 14:31	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/30/22 14:01	12/02/22 14:31	1
Anthracene	ND		0.20	0.032	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/30/22 14:01	12/02/22 14:31	1
Chrysene	ND		0.20	0.074	ug/L		11/30/22 14:01	12/02/22 14:31	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/30/22 14:01	12/02/22 14:31	1
Fluoranthene	0.113	J	0.20	0.068	ug/L		11/30/22 14:01	12/02/22 14:31	1
Fluorene	ND		0.20	0.11	ug/L		11/30/22 14:01	12/02/22 14:31	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/30/22 14:01	12/02/22 14:31	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/30/22 14:01	12/02/22 14:31	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/30/22 14:01	12/02/22 14:31	1
Phenanthrene	ND		0.20	0.036	ug/L		11/30/22 14:01	12/02/22 14:31	1
Pyrene	0.0611	J	0.20	0.040	ug/L		11/30/22 14:01	12/02/22 14:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*15 - 122*	*11/30/22 14:01*	*12/02/22 14:31*	*1*
Nitrobenzene-d5	*61*		*19 - 130*	*11/30/22 14:01*	*12/02/22 14:31*	*1*
Terphenyl-d14	*89*		*33 - 138*	*11/30/22 14:01*	*12/02/22 14:31*	*1*

Lab Sample ID: LCS 400-602887/2-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	118		ug/L		98	41 - 120
Acenaphthylene	120	119		ug/L		99	44 - 120
Anthracene	120	124		ug/L		103	49 - 120
Benzo[a]anthracene	120	117		ug/L		98	61 - 135
Benzo[a]pyrene	120	104		ug/L		87	52 - 120
Benzo[b]fluoranthene	120	99.3		ug/L		83	53 - 134
Benzo[g,h,i]perylene	120	94.3		ug/L		79	47 - 133
Benzo[k]fluoranthene	120	114		ug/L		95	57 - 134
Chrysene	120	116		ug/L		97	55 - 122
Dibenz(a,h)anthracene	120	88.3		ug/L		74	48 - 146
Fluoranthene	120	121		ug/L		101	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	95.1		ug/L		79	43 - 142
1-Methylnaphthalene	120	122		ug/L		102	41 - 120
2-Methylnaphthalene	120	123		ug/L		102	32 - 124
Phenanthrene	120	113		ug/L		94	48 - 120
Pyrene	120	114		ug/L		95	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*94*		*15 - 122*

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

Lab Sample ID: LCS 400-602887/2-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602887

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	76		19 - 130
Terphenyl-d14	95		33 - 138

Lab Sample ID: LCSD 400-602887/3-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 602887

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	131		ug/L		109	41 - 120	10	56
Acenaphthylene	120	133		ug/L		111	44 - 120	11	56
Anthracene	120	138		ug/L		115	49 - 120	10	51
Benzo[a]anthracene	120	131		ug/L		109	61 - 135	11	49
Benzo[a]pyrene	120	117		ug/L		97	52 - 120	12	50
Benzo[b]fluoranthene	120	113		ug/L		94	53 - 134	13	54
Benzo[g,h,i]perylene	120	103		ug/L		86	47 - 133	9	50
Benzo[k]fluoranthene	120	129		ug/L		107	57 - 134	12	52
Chrysene	120	129		ug/L		108	55 - 122	11	50
Dibenz(a,h)anthracene	120	97.9		ug/L		82	48 - 146	10	50
Fluoranthene	120	132		ug/L		110	54 - 128	9	52
Fluorene	120	133		ug/L		111	45 - 125	9	56
Indeno[1,2,3-cd]pyrene	120	105		ug/L		88	43 - 142	10	51
1-Methylnaphthalene	120	139		ug/L		116	41 - 120	13	55
2-Methylnaphthalene	120	139		ug/L		116	32 - 124	12	57
Phenanthrene	120	127		ug/L		106	48 - 120	12	56
Pyrene	120	129		ug/L		108	48 - 132	13	52

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	105		15 - 122
Nitrobenzene-d5	83		19 - 130
Terphenyl-d14	108		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-599117/1-A
Matrix: Water
Analysis Batch: 599042

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599117

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		11/03/22 15:17	11/03/22 19:03	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/03/22 15:17	11/03/22 19:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	74		51 - 149	11/03/22 15:17	11/03/22 19:03	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-599117/2-A
Matrix: Water
Analysis Batch: 599042

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599117

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.153	*+	ug/L		152	60 - 140
1,2-Dibromoethane	0.101	0.114		ug/L		113	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*80*		*51 - 149*

Lab Sample ID: LCSD 400-599117/3-A
Matrix: Water
Analysis Batch: 599042

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599117

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.155	p *+	ug/L		155	60 - 140	2	30
1,2-Dibromoethane	0.101	0.116		ug/L		115	60 - 140	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*82*		*51 - 149*

Lab Sample ID: 400-227912-3 MS
Matrix: Water
Analysis Batch: 599042

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA
Prep Batch: 599117

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	ND	F1 *+	0.107	0.179	F1	ug/L		167	10 - 150
1,2-Dibromoethane	ND		0.107	0.129		ug/L		120	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*51 - 149*

Lab Sample ID: 400-227912-3 MSD
Matrix: Water
Analysis Batch: 599042

Client Sample ID: MW12-ROX-102622
Prep Type: Total/NA
Prep Batch: 599117

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 *+	0.104	0.166	F1	ug/L		160	10 - 150	7	20
1,2-Dibromoethane	ND		0.104	0.123		ug/L		118	39 - 150	5	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*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: 10/26/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.4.2	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 – 3.4.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, S. Beadle
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuiS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

400-227912 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
0.0c
0.0c
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-102622-8260	10/26/2022	0000	Water	2					2	X			
	TB-ROX-102622-8011	10/26/2022	0000	Water	2					2		X		
	MW12-ROX-102622	10/26/2022	0930	Water	6			2		8	X	X	X	X
	MW12-ROX-102622-MS	10/26/2022	0930	Water	6			2		8	X	X	X	X
	MW12-ROX-102622-MSD	10/26/2022	0930	Water	6			2		8	X	X	X	X
	MW27-ROX-102622	10/26/2022	1120	Water	6			2		8	X	X	X	X

S. Beadle 10/26/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 1482 3813 0804, 9495 6601 2934	10/26/2022	1600
		10-27-22	924

CUSTODY SEALS: 1748500, 1748501, 1748502, 1748503

Version: 13Oct22

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12/7/2022 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-227912-1

Login Number: 227912
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, 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: 400-227912-1
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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-227995-1-Rev.1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/19/2022

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

Sample Identification	Sample Identification
TB-ROX-102722-8260	MW9-ROX-102722
TB-ROX-102722-8011	ROST3MW-ROX-102722
P54-ROX-102722	ROST4PZG-ROX-102722
MW5-ROX-102722	

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 PAHs in sample ROST4PZG-ROX-102722 were re-extracted outside extraction time criteria, and napththalene and 1,2,4-trimethylbenzene in sample MW9-ROX-102722 were re-analyzed outside holding time criteria. Several PAHs were detected in the method blanks. LCS/LCSD recoveries for 1,2-dibromo-3-Chloropropane, benzenethiol and acetone were outside evaluation criteria. The PAH surrogate recovery for 2-fluorobiphenyl in several investigative and quality control samples were outside criteria. MS/MSD recoveries for 2-chloroethyl vinyl ether, 3,3'-dichlorobenzidine, 1,4-dioxane, 1,2-dibromo-3-Chloropropane were outside evaluation criteria. Several PAH internal standard recoveries were outside evaluation criteria in samples MW5-ROX-102722 and ROST4PZG-ROX-102722. Several PAHs in sample MW5-ROX-102722 were diluted due to the nature of the sample matrix. Several continuing calibration verifications (CCV) were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (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 ROST4PZG-ROX-102722 were re-extracted 27 days outside extraction time criteria (7 days) and then reanalyzed for confirmation due to method blank detections. 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 following table. Pyrene and fluoranthene in the secondary run for sample ROST4PZG-ROX-102722 are further qualified in Section 4.0 of this data review due to blank contamination.

Per the laboratory case narrative, initial napththalene and 1,2,4-trimethylbenzene results in sample MW9-ROX-102722 were due to carryover from the previous sample; napththalene and 1,2,4-trimethylbenzene were re-analyzed one (1) day outside holding time criteria (14 days).

Additionally, bis(2-ethylhexyl) phthalate in sample MW5-ROX-102722 was re-extracted 6 days outside extraction holding time criteria (7 days) and then re-analyzed for confirmation.

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-102722 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	**UJ**
MW9-ROX-102722 – RA	VOCs	Naphthalene	**UJ**
MW9-ROX-102722 – RA	VOCs	1,2,4-Trimethylbenzene	**UJ**
ROST4PZG-ROX-102722 – Run #2	PAHs	Benzo[a]anthracene	**UJ**
ROST4PZG-ROX-102722 – Run #2	PAHs	Benzo[a]pyrene	**UJ**
ROST4PZG-ROX-102722 – Run #2	PAHs	Benzo[b]fluoranthene	**UJ**
ROST4PZG-ROX-102722 – Run #2	PAHs	Benzo[g,h,i]perylene	**UJ**
ROST4PZG-ROX-102722 – Run #2	PAHs	Benzo[k]fluoranthene	**UJ**
ROST4PZG-ROX-102722 – Run #2	PAHs	Chrysene	**UJ**
ROST4PZG-ROX-102722 – Run #2	PAHs	Dibenz(a,h)anthracene	**UJ**
ROST4PZG-ROX-102722 – Run #2	PAHs	Indeno[1,2,3-cd]pyrene	**UJ**
ROST4PZG-ROX-102722 – Run #2	PAHs	Pyrene	**J**
ROST4PZG-ROX-102722 – RERA	PAHs	Acenaphthene	**UJ**
ROST4PZG-ROX-102722 – RERA	PAHs	Acenaphthylene	**UJ**
ROST4PZG-ROX-102722 – RERA	PAHs	Anthracene	**J**
ROST4PZG-ROX-102722 – RERA	PAHs	Fluoranthene	**J**
ROST4PZG-ROX-102722 – RERA	PAHs	Fluorene	**UJ**
ROST4PZG-ROX-102722 – RERA	PAHs	1-Methylnaphthalene	**UJ**
ROST4PZG-ROX-102722 – RERA	PAHs	2-Methylnaphthalene	**J**
ROST4PZG-ROX-102722 – RERA	PAHs	Phenanthrene	**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
MB 400-598868/1-A	PAHs	Benzo[a]anthracene	0.0679 µg/L
MB 400-602887/1-A	PAHs	Fluoranthene	0.113 µg/L
MB 400-602887/1-A	PAHs	Pyrene	0.0611 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
P54-ROX-102722	PAHs	Benzo[a]anthracene	-	**U**
MW9-ROX-102722	PAHs	Benzo[a]anthracene	-	**U**
ROST4PZG-ROX-102722 – Run #2	PAHs	Pyrene	-	**U**
ROST4PZG-ROX-102722 – RERA	PAHs	Fluoranthene	-	**U**

5.0 Laboratory Control Sample

Were LCS/LCSD recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
LCS/LCSD 400-599301 /2-A/3-A	VOCs	1,2-Dibromo-3-Chloropropane	**153/165**	8	60-140/30
LCS/LCSD 400-598868/3-A/4-A	SVOCs	Benzenethiol	**6/7**	10	10-120/30
LCS 400-599957/1002	VOCs	Acetone	**175**	NA	43-160
LCS 400-600020/1002	VOCs	Acetone	**176**	NA	43-160

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
P54-ROX-102722	SVOCs	Benzenethiol	**UJ**
MW5-ROX-102722	SVOCs	Benzenethiol	**UJ**
MW9-ROX-102722	SVOCs	Benzenethiol	**UJ**
ROST3MW-ROX-102722	SVOCs	Benzenethiol	**UJ**
ROST4PZG-ROX-102722	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P54-ROX-102722	PAHs	2-Fluorobiphenyl	**125**	15-122
MW5-ROX-102722	PAHs	2-Fluorobiphenyl	**150**	15-122
MW9-ROX-102722	PAHs	2-Fluorobiphenyl	**124**	15-122
ROST3MW-ROX-102722	PAHs	2-Fluorobiphenyl	**132**	15-122

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
ROST4PZG-ROX-102722	PAHs	2-Fluorobiphenyl	**131**	15-122
MB 400-598868/1-A	PAHs	2-Fluorobiphenyl	**128**	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?

Yes

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
ROST3MW-ROX-102722 MS/MSD	VOCs	2-Chloroethyl vinyl ether	**0/0**	NC	10-150/50
ROST3MW-ROX-102722 MS/MSD	SVOCs	3,3'-Dichlorobenzidine	**122**/116	7	10-120/58
ROST3MW-ROX-102722 MS/MSD	SVOCs	1,4-Dioxane	**42**/53	21	50-150/21
ROST3MW-ROX-102722 MS/MSD	SVOCs	1,2-Dibromo-3-Chloropropane	**163/170**	2	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
ROST3MW-ROX-102722	VOCs	2-Chloroethyl vinyl ether	**UJ**
ROST3MW-ROX-102722	SVOCs	1,4-Dioxane	**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
MW5-ROX-102722	PAHs	Acenaphthene-d_{10}	**377867**	777314	388657-1554628
ROST4PZG-ROX-102722 – RERA	PAHs	Chrysene-d_{12}	**739533**	1799340	899670-3598680

Sample ID	Parameter	Analyte	IS Area Recovery	12/24 Hour Standard	IS Criteria
ROST4PZG-ROX-102722 – RERA	PAHs	Perylene-d_{12}	**710443**	1674999	837500-3349998

Analytes in sample ROST4PZG-ROX-102722 – RERA associated with internal standard recoveries outside evaluation criteria are qualified in Sections 3.0 and 4.0 of this data review due to holding time criteria and method blank contamination, respectively. Analytical data in sample MW5-ROX-102722 associated with internal standard area recoveries reported as greater than 20% but less than 50% of the opening CCV are qualified in Section 12.0 of this data review due to sample dilution and historical detections. No further 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 non-detect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted with the exception of acenaphthalene, acenaphthylene, and fluorene in sample MW5-ROX-102722 due to the nature of the sample matrix. These PAHs were non-detect at a dilution factor of 2X, with a raised reporting limit of 0.38 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 verifications (CCV) for pyridine, 1,4-dioxane and bis(2-chloroethyl) ether, hexachlorocyclopentadiene, and quinoline were outside evaluation criteria, biased low. 1,4-Dioxane in sample ROST3MW-ROX-10272, has been qualified in Section 7.0 of this data review due to MS/MSD recoveries outside evaluation criteria; no further qualification of data is required.

Sample ID	Parameter	Analyte	Qualification
ROST3MW-ROX-102722	SVOCs	Pyridine	**UJ**
ROST3MW-ROX-102722	SVOCs	Bis(2-chloroethyl) ether	**UJ**
P54-ROX-102722	SVOCs	Hexachlorocyclopentadiene	**UJ**
P54-ROX-102722	SVOCs	Quinoline	**UJ**
MW5-ROX-102722	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW5-ROX-102722	SVOCs	Quinoline	**UJ**
MW9-ROX-102722	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW9-ROX-102722	SVOCs	Quinoline	**UJ**
ROST4PZG-ROX-102722	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST4PZG-ROX-102722	SVOCs	Quinoline	**UJ**

Additionally, certain PAHs in sample MW5-ROX-102722 were qualified as estimated non-detect due to sample dilution and historical detections.

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-102722	PAHs	Acenaphthene	**UJ**
MW5-ROX-102722	PAHs	Acenaphthylene	**UJ**
MW5-ROX-102722	PAHs	Fluorene	**UJ**

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ANALYTICAL REPORT

PREPARED FOR

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

Generated 12/7/2022 11:21:38 AM Revision 1

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-227995-1

Reviewed 12/19/2022
A.N.

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Eurofins Pensacola

Job Notes

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. Eurofins Environment Testing Southeast LLC, Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization

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Revision 1

Authorized for release by
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Case Narrative

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

Job ID: 400-227995-1

Job ID: 400-227995-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-227995-1

Comments
Revised Report
Report revised to reanalyze for PAHs due to method blank detection.
Supersedes report dated 11-12-2022.

Receipt
The samples were received on 10/28/2022 8:59 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 time was 0.0°C

GC/MS VOA
Method 8260B: The continuing calibration verification (CCV) associated with batch 400-599957 recovered above the upper control limit for Acetone. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-599957 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 400-599957 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-599957 recovered outside control limits for the following analyte: Acetone. 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 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-102722-8260 (400-227995-1), P54-ROX-102722 (400-227995-3), MW5-ROX-102722 (400-227995-4) and ROST3MW-ROX-102722 (400-227995-6). 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 initial calibration verification (ICV) analyzed in batch 400-588656 was outside method criteria for the following analyte(s): Bromomethane and Dichlorodifluoromethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-600020 recovered above the upper control limit for Acetone. 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 400-600020 recovered outside control limits for the following analyte: Acetone. 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 results for 1,2,4-Trimethylbenzene and Naphthalene for sample MW9-ROX-102722 (400-227995-5) were due to carryover from the previous sample. Reanalysis was performed outside of holding time. The original analysis is reported as primary and the reanalysis is reported as secondary for 1,2,4-Trimethylbenzene and Naphthalene.

Method 8260B: Reanalysis of the following sample was performed outside of the analytical holding time due to carryover on the initial analysis: MW9-ROX-102722 (400-227995-5).

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

Job ID: 400-227995-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

400-598868 and analytical batch 400-599074 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-598868 and analytical batch 400-599074 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 400-599074 recovered outside acceptance criteria, low biased, for Pyridine, 1,4-Dioxane and Bis(2-chloroethyl)ether. 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 400-599088 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene 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: The samples were re-extracted due to the confirmation of Bis(2-ethylhexyl) Phthalate was detected above the method detection limit (MDL 6.0ug/L) for the following sample(s): 400-227995-G-4-A, 400-227995-G-5-A, 400-228254-G-4-A, and 400-228456-G-3-A. Samples were re-prepared and/or re-analyzed outside holding time, and both sets of 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: P54-ROX-102722 (400-227995-3), MW9-ROX-102722 (400-227995-5), ROST3MW-ROX-102722 (400-227995-6), ROST3MW-ROX-102722 (400-227995-6[MS]), ROST4PZG-ROX-102722 (400-227995-7), (MB 400-598868/1-A) and (400-227912-G-3-B). These results have been reported and qualified.

Method 8270D_LL: The method blank for preparation batch 400-598868 and analytical batch 400-599109 contained 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 following sample was diluted due to the nature of the sample matrix: MW5-ROX-102722 (400-227995-4). Elevated reporting limits (RLs) are provided.

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: MW5-ROX-102722 (400-227995-4). These results have been reported and qualified.

Method 8270D LL: The method blank for preparation batch 400-602887 and analytical batch 400-603239 contained Fluoranther and 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: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: ROST4PZG-ROX-102722 (400-227995-7).

Method 8270D LL: The following sample was re-prepared outside of preparation holding time due to client requested verification sample results: ROST4PZG-ROX-102722 (400-227995-7). 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 400-599348 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

Job ID: 400-227995-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-599348 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 400-599301 and analytical batch 400-599348 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-599301 and analytical batch 400-599348 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

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

Sample Summary

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

Job ID: 400-227995-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-227995-1	TB-ROX-102722-8260	Water	10/27/22 12:00	10/28/22 08:59
400-227995-2	TB-ROX-102722-8011	Water	10/27/22 12:00	10/28/22 08:59
400-227995-3	P54-ROX-102722	Water	10/27/22 09:20	10/28/22 08:59
400-227995-4	MW5-ROX-102722	Water	10/27/22 10:15	10/28/22 08:59
400-227995-5	MW9-ROX-102722	Water	10/27/22 11:25	10/28/22 08:59
400-227995-6	ROST3MW-ROX-102722	Water	10/27/22 12:25	10/28/22 08:59
400-227995-7	ROST4PZG-ROX-102722	Water	10/27/22 14:00	10/28/22 08:59

Detection Summary

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

Job ID: 400-227995-1

Client Sample ID: TB-ROX-102722-8260 — Lab Sample ID: 400-227995-1

No Detections.

Client Sample ID: TB-ROX-102722-8011 — Lab Sample ID: 400-227995-2

No Detections.

Client Sample ID: P54-ROX-102722 — Lab Sample ID: 400-227995-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	~~0.065~~	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.039	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	4.6	J	9.3	4.6	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.32	J	9.3	0.22	ug/L	1		8270D	Total/NA

Client Sample ID: MW5-ROX-102722 — Lab Sample ID: 400-227995-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	2.7		1.0	0.22	ug/L	1		8260B	Total/NA
tert-Butylbenzene	2.1		1.0	0.63	ug/L	1		8260B	Total/NA
Indeno[1,2,3-cd]pyrene	0.042	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	8.0	J	9.4	4.7	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.46	J	9.4	0.23	ug/L	1		8270D	Total/NA
Dimethyl phthalate	0.35	J	9.4	0.16	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	2.6	J	9.4	2.5	ug/L	1		8270D	Total/NA

Client Sample ID: MW9-ROX-102722 — Lab Sample ID: 400-227995-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	3.7	J	5.0	3.0	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	3.0		1.0	0.82	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	~~0.076~~	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	6.0	J	9.4	4.7	ug/L	1		8270D	Total/NA

Client Sample ID: ROST3MW-ROX-102722 — Lab Sample ID: 400-227995-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m-Xylene & p-Xylene	0.71	J	5.0	0.63	ug/L	1		8260B	Total/NA
Acetone - RA	23	J	25	10	ug/L	1		8260B	Total/NA
1-Methylnaphthalene	0.20		0.19	0.069	ug/L	1		8270D LL	Total/NA

Client Sample ID: ROST4PZG-ROX-102722 — Lab Sample ID: 400-227995-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.47	J	1.0	0.13	ug/L	1		8260B	Total/NA
Anthracene	0.075	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.44		0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.38		0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.38		0.19	0.094	ug/L	1		8270D LL	Total/NA
Chrysene	0.16	J	0.19	0.069	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.24		0.19	0.047	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.12	J	0.19	0.064	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.25		0.19	0.040	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.12	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.12	J	0.19	0.037	ug/L	1		8270D LL	Total/NA
Pyrene	~~0.13~~	J H B UJ	0.37	0.075	ug/L	2		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: 400-227995-1

Client Sample ID: ROST4PZG-ROX-102722 (Continued)

Lab Sample ID: 400-227995-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Anthracene - RERA	0.067	J H J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Fluoranthene - RERA	~~0.15~~	J H B UJ	0.19	0.064	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene - RERA	0.12	J H J	0.19	0.056	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: 400-227995-1

Client Sample ID: TB-ROX-102722-8260
Date Collected: 10/27/22 12:00
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/09/22 22:28	1
Acrolein	ND		20	3.3	ug/L			11/09/22 22:28	1
Acrylonitrile	ND		10	2.8	ug/L			11/09/22 22:28	1
Benzene	ND		1.0	0.13	ug/L			11/09/22 22:28	1
Bromobenzene	ND		1.0	0.54	ug/L			11/09/22 22:28	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/09/22 22:28	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/09/22 22:28	1
Bromoform	ND		5.0	0.25	ug/L			11/09/22 22:28	1
Bromomethane	ND		1.0	0.98	ug/L			11/09/22 22:28	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/09/22 22:28	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/09/22 22:28	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/09/22 22:28	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/09/22 22:28	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/09/22 22:28	1
Chloroethane	ND		1.0	0.76	ug/L			11/09/22 22:28	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/09/22 22:28	1
Chloroform	ND		1.0	1.0	ug/L			11/09/22 22:28	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/09/22 22:28	1
Chloromethane	ND		1.0	0.32	ug/L			11/09/22 22:28	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/09/22 22:28	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/09/22 22:28	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/09/22 22:28	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/09/22 22:28	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/09/22 22:28	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/09/22 22:28	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/09/22 22:28	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/09/22 22:28	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/09/22 22:28	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 22:28	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 22:28	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 22:28	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/09/22 22:28	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/09/22 22:28	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/09/22 22:28	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/09/22 22:28	1
2-Hexanone	ND		25	1.4	ug/L			11/09/22 22:28	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/09/22 22:28	1
Methylene bromide	ND		5.0	0.22	ug/L			11/09/22 22:28	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/09/22 22:28	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/09/22 22:28	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/09/22 22:28	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/09/22 22:28	1
Naphthalene	ND		5.0	3.0	ug/L			11/09/22 22:28	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/09/22 22:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/09/22 22:28	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/09/22 22:28	1
o-Xylene	ND		5.0	0.60	ug/L			11/09/22 22:28	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/09/22 22:28	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/09/22 22:28	1

Client Sample ID: TB-ROX-102722-8260

Date Collected: 10/27/22 12:00
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-1

Matrix: Water

Method: SW846 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			11/09/22 22:28	1
Styrene	ND		1.0	1.0	ug/L			11/09/22 22:28	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/09/22 22:28	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/09/22 22:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/09/22 22:28	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/09/22 22:28	1
Toluene	ND		1.0	0.41	ug/L			11/09/22 22:28	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/09/22 22:28	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/09/22 22:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/09/22 22:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/09/22 22:28	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/09/22 22:28	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/09/22 22:28	1
Trichloroethene	ND		1.0	0.15	ug/L			11/09/22 22:28	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/09/22 22:28	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/09/22 22:28	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/09/22 22:28	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/09/22 22:28	1
Vinyl acetate	ND		25	0.93	ug/L			11/09/22 22:28	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/09/22 22:28	1
Xylenes, Total	ND		10	1.6	ug/L			11/09/22 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/09/22 22:28*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/09/22 22:28*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*11/09/22 22:28*	*1*

Client Sample Results

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

Job ID: 400-227995-1

Client Sample ID: TB-ROX-102722-8011
Date Collected: 10/27/22 12:00
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-2
Matrix: Water

Method: EPA 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		11/04/22 14:48	11/04/22 21:49	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		11/04/22 14:48	11/04/22 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*74*		*51 - 149*	*11/04/22 14:48*	*11/04/22 21:49*	*1*

Client Sample Results

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

Job ID: 400-227995-1

Client Sample ID: P54-ROX-102722
Date Collected: 10/27/22 09:20
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/09/22 22:53	1
Acrolein	ND		20	3.3	ug/L			11/09/22 22:53	1
Acrylonitrile	ND		10	2.8	ug/L			11/09/22 22:53	1
Benzene	ND		1.0	0.13	ug/L			11/09/22 22:53	1
Bromobenzene	ND		1.0	0.54	ug/L			11/09/22 22:53	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/09/22 22:53	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/09/22 22:53	1
Bromoform	ND		5.0	0.25	ug/L			11/09/22 22:53	1
Bromomethane	ND		1.0	0.98	ug/L			11/09/22 22:53	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/09/22 22:53	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/09/22 22:53	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/09/22 22:53	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/09/22 22:53	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/09/22 22:53	1
Chloroethane	ND		1.0	0.76	ug/L			11/09/22 22:53	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/09/22 22:53	1
Chloroform	ND		1.0	1.0	ug/L			11/09/22 22:53	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/09/22 22:53	1
Chloromethane	ND		1.0	0.32	ug/L			11/09/22 22:53	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/09/22 22:53	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/09/22 22:53	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/09/22 22:53	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/09/22 22:53	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/09/22 22:53	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/09/22 22:53	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/09/22 22:53	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/09/22 22:53	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/09/22 22:53	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 22:53	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 22:53	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 22:53	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/09/22 22:53	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/09/22 22:53	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/09/22 22:53	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/09/22 22:53	1
2-Hexanone	ND		25	1.4	ug/L			11/09/22 22:53	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/09/22 22:53	1
Methylene bromide	ND		5.0	0.22	ug/L			11/09/22 22:53	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/09/22 22:53	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/09/22 22:53	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/09/22 22:53	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/09/22 22:53	1
Naphthalene	ND		5.0	3.0	ug/L			11/09/22 22:53	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/09/22 22:53	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/09/22 22:53	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/09/22 22:53	1
o-Xylene	ND		5.0	0.60	ug/L			11/09/22 22:53	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/09/22 22:53	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/09/22 22:53	1

Client Sample ID: P54-ROX-102722
Date Collected: 10/27/22 09:20
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-3
Matrix: Water

Method: SW846 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			11/09/22 22:53	1
Styrene	ND		1.0	1.0	ug/L			11/09/22 22:53	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/09/22 22:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/09/22 22:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/09/22 22:53	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/09/22 22:53	1
Toluene	ND		1.0	0.41	ug/L			11/09/22 22:53	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/09/22 22:53	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/09/22 22:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/09/22 22:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/09/22 22:53	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/09/22 22:53	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/09/22 22:53	1
Trichloroethene	ND		1.0	0.15	ug/L			11/09/22 22:53	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/09/22 22:53	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/09/22 22:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/09/22 22:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/09/22 22:53	1
Vinyl acetate	ND		25	0.93	ug/L			11/09/22 22:53	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/09/22 22:53	1
Xylenes, Total	ND		10	1.6	ug/L			11/09/22 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/09/22 22:53*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/09/22 22:53*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/09/22 22:53*	*1*

Method: SW846 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		11/02/22 10:47	11/04/22 01:56	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/02/22 10:47	11/04/22 01:56	1
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/04/22 01:56	1
Benzo[a]anthracene	~~0.065~~	J B	0.19	0.043	ug/L		11/02/22 10:47	11/04/22 01:56	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/02/22 10:47	11/04/22 01:56	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/02/22 10:47	11/04/22 01:56	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/02/22 10:47	11/04/22 01:56	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		11/02/22 10:47	11/04/22 01:56	1
Chrysene	ND		0.19	0.069	ug/L		11/02/22 10:47	11/04/22 01:56	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		11/02/22 10:47	11/04/22 01:56	1
Fluoranthene	ND		0.19	0.063	ug/L		11/02/22 10:47	11/04/22 01:56	1
Fluorene	ND		0.19	0.10	ug/L		11/02/22 10:47	11/04/22 01:56	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		11/02/22 10:47	11/04/22 01:56	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		11/02/22 10:47	11/04/22 01:56	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		11/02/22 10:47	11/04/22 01:56	1
Phenanthrene	0.039	J	0.19	0.033	ug/L		11/02/22 10:47	11/04/22 01:56	1
Pyrene	ND		0.19	0.037	ug/L		11/02/22 10:47	11/04/22 01:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*125*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/04/22 01:56*	*1*
Nitrobenzene-d5	*89*		*19 - 130*	*11/02/22 10:47*	*11/04/22 01:56*	*1*

Client Sample ID: P54-ROX-102722
Date Collected: 10/27/22 09:20
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	106		33 - 138	11/02/22 10:47	11/04/22 01:56	1

Method: SW846 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		11/02/22 10:47	11/03/22 22:28	1
Benzenethiol	ND	*-	9.3	1.6	ug/L		11/02/22 10:47	11/03/22 22:28	1
Benzoic acid	ND		28	6.8	ug/L		11/02/22 10:47	11/03/22 22:28	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 22:28	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 22:28	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 22:28	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 22:28	1
Bis(2-ethylhexyl) phthalate	4.6	J	9.3	4.6	ug/L		11/02/22 10:47	11/03/22 22:28	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/02/22 10:47	11/03/22 22:28	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/02/22 10:47	11/03/22 22:28	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 22:28	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/02/22 10:47	11/03/22 22:28	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 22:28	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 22:28	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 22:28	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 22:28	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 22:28	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 22:28	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/02/22 10:47	11/03/22 22:28	1
Diethyl phthalate	0.32	J	9.3	0.22	ug/L		11/02/22 10:47	11/03/22 22:28	1
2,4-Dimethylphenol	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 22:28	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 22:28	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 22:28	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/02/22 10:47	11/03/22 22:28	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 22:28	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 22:28	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 22:28	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 22:28	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 22:28	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 22:28	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 22:28	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		11/02/22 10:47	11/03/22 22:28	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/02/22 10:47	11/03/22 22:28	1
Indene	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 22:28	1
Isophorone	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 22:28	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 22:28	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/02/22 10:47	11/03/22 22:28	1
2-Nitroaniline	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 22:28	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 22:28	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/02/22 10:47	11/03/22 22:28	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/02/22 10:47	11/03/22 22:28	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/02/22 10:47	11/03/22 22:28	1
4-Nitrophenol	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 22:28	1
N-Nitrosodimethylamine	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 22:28	1

Client Sample ID: P54-ROX-102722
Date Collected: 10/27/22 09:20
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-3
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 22:28	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/02/22 10:47	11/03/22 22:28	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 22:28	1
Phenol	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 22:28	1
Pyridine	ND		9.3	3.0	ug/L		11/02/22 10:47	11/03/22 22:28	1
Quinoline	ND		9.3	4.2	ug/L		11/02/22 10:47	11/03/22 22:28	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/02/22 10:47	11/03/22 22:28	1
2,4,6-Trichlorophenol	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 22:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*11/02/22 10:47*	*11/03/22 22:28*	*1*
2-Fluorophenol	*44*		*13 - 113*	*11/02/22 10:47*	*11/03/22 22:28*	*1*
Nitrobenzene-d5	*91*		*36 - 126*	*11/02/22 10:47*	*11/03/22 22:28*	*1*
Phenol-d5	*73*		*17 - 127*	*11/02/22 10:47*	*11/03/22 22:28*	*1*
Terphenyl-d14	*119*		*44 - 149*	*11/02/22 10:47*	*11/03/22 22:28*	*1*
2,4,6-Tribromophenol	*107*		*26 - 150*	*11/02/22 10:47*	*11/03/22 22:28*	*1*

Method: EPA 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		11/04/22 14:48	11/04/22 22:10	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/04/22 14:48	11/04/22 22:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*51 - 149*	*11/04/22 14:48*	*11/04/22 22:10*	*1*

Client Sample ID: MW5-ROX-102722
Date Collected: 10/27/22 10:15
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/09/22 23:18	1
Acrolein	ND		20	3.3	ug/L			11/09/22 23:18	1
Acrylonitrile	ND		10	2.8	ug/L			11/09/22 23:18	1
Benzene	ND		1.0	0.13	ug/L			11/09/22 23:18	1
Bromobenzene	ND		1.0	0.54	ug/L			11/09/22 23:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/09/22 23:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/09/22 23:18	1
Bromoform	ND		5.0	0.25	ug/L			11/09/22 23:18	1
Bromomethane	ND		1.0	0.98	ug/L			11/09/22 23:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/09/22 23:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/09/22 23:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/09/22 23:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/09/22 23:18	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/09/22 23:18	1
Chloroethane	ND		1.0	0.76	ug/L			11/09/22 23:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/09/22 23:18	1
Chloroform	ND		1.0	1.0	ug/L			11/09/22 23:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/09/22 23:18	1
Chloromethane	ND		1.0	0.32	ug/L			11/09/22 23:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/09/22 23:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/09/22 23:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/09/22 23:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/09/22 23:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/09/22 23:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/09/22 23:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/09/22 23:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/09/22 23:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/09/22 23:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 23:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 23:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 23:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/09/22 23:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/09/22 23:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/09/22 23:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/09/22 23:18	1
2-Hexanone	ND		25	1.4	ug/L			11/09/22 23:18	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/09/22 23:18	1
Methylene bromide	ND		5.0	0.22	ug/L			11/09/22 23:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/09/22 23:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/09/22 23:18	1
Methyl tert-butyl ether	**2.7**		1.0	0.22	ug/L			11/09/22 23:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/09/22 23:18	1
Naphthalene	ND		5.0	3.0	ug/L			11/09/22 23:18	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/09/22 23:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/09/22 23:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/09/22 23:18	1
o-Xylene	ND		5.0	0.60	ug/L			11/09/22 23:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/09/22 23:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/09/22 23:18	1

Client Sample ID: MW5-ROX-102722
Date Collected: 10/27/22 10:15
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-4
Matrix: Water

Method: SW846 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			11/09/22 23:18	1
Styrene	ND		1.0	1.0	ug/L			11/09/22 23:18	1
tert-Butylbenzene	2.1		1.0	0.63	ug/L			11/09/22 23:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/09/22 23:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/09/22 23:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/09/22 23:18	1
Toluene	ND		1.0	0.41	ug/L			11/09/22 23:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/09/22 23:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/09/22 23:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/09/22 23:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/09/22 23:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/09/22 23:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/09/22 23:18	1
Trichloroethene	ND		1.0	0.15	ug/L			11/09/22 23:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/09/22 23:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/09/22 23:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/09/22 23:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/09/22 23:18	1
Vinyl acetate	ND		25	0.93	ug/L			11/09/22 23:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/09/22 23:18	1
Xylenes, Total	ND		10	1.6	ug/L			11/09/22 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/09/22 23:18*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/09/22 23:18*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/09/22 23:18*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.38	0.060	ug/L		11/02/22 10:47	11/04/22 18:25	2
Acenaphthylene	ND	UJ	0.38	0.085	ug/L		11/02/22 10:47	11/04/22 18:25	2
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/04/22 02:13	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		11/02/22 10:47	11/04/22 02:13	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		11/02/22 10:47	11/04/22 02:13	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/02/22 10:47	11/04/22 02:13	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/02/22 10:47	11/04/22 02:13	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		11/02/22 10:47	11/04/22 02:13	1
Chrysene	ND		0.19	0.070	ug/L		11/02/22 10:47	11/04/22 02:13	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		11/02/22 10:47	11/04/22 02:13	1
Fluoranthene	ND		0.19	0.064	ug/L		11/02/22 10:47	11/04/22 02:13	1
Fluorene	ND	UJ	0.38	0.21	ug/L		11/02/22 10:47	11/04/22 18:25	2
Indeno[1,2,3-cd]pyrene	0.042	J	0.19	0.041	ug/L		11/02/22 10:47	11/04/22 02:13	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		11/02/22 10:47	11/04/22 02:13	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		11/02/22 10:47	11/04/22 02:13	1
Phenanthrene	ND		0.19	0.034	ug/L		11/02/22 10:47	11/04/22 02:13	1
Pyrene	ND		0.19	0.038	ug/L		11/02/22 10:47	11/04/22 02:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*150*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/04/22 18:25*	*2*
Nitrobenzene-d5	*94*		*19 - 130*	*11/02/22 10:47*	*11/04/22 02:13*	*1*

Client Sample ID: MW5-ROX-102722
Date Collected: 10/27/22 10:15
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	92		33 - 138	11/02/22 10:47	11/04/22 02:13	1

Method: SW846 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		11/02/22 10:47	11/03/22 22:49	1
Benzenethiol	ND	*-	9.4	1.6	ug/L		11/02/22 10:47	11/03/22 22:49	1
Benzoic acid	ND		28	6.9	ug/L		11/02/22 10:47	11/03/22 22:49	1
Benzyl alcohol	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 22:49	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 22:49	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 22:49	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 22:49	1
Bis(2-ethylhexyl) phthalate	**8.0**	**J**	9.4	4.7	ug/L		11/02/22 10:47	11/03/22 22:49	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		11/02/22 10:47	11/03/22 22:49	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		11/02/22 10:47	11/03/22 22:49	1
4-Chloroaniline	ND		9.4	3.2	ug/L		11/02/22 10:47	11/03/22 22:49	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		11/02/22 10:47	11/03/22 22:49	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 22:49	1
2-Chlorophenol	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 22:49	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 22:49	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 22:49	1
Dibenzofuran	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 22:49	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 22:49	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		11/02/22 10:47	11/03/22 22:49	1
Diethyl phthalate	**0.46**	**J**	9.4	0.23	ug/L		11/02/22 10:47	11/03/22 22:49	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 22:49	1
Dimethyl phthalate	**0.35**	**J**	9.4	0.16	ug/L		11/02/22 10:47	11/03/22 22:49	1
Di-n-butyl phthalate	**2.6**	**J**	9.4	2.5	ug/L		11/02/22 10:47	11/03/22 22:49	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		11/02/22 10:47	11/03/22 22:49	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 22:49	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 22:49	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 22:49	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 22:49	1
1,4-Dioxane	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 22:49	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 22:49	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 22:49	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		11/02/22 10:47	11/03/22 22:49	1
Hexachloroethane	ND		9.4	4.0	ug/L		11/02/22 10:47	11/03/22 22:49	1
Indene	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 22:49	1
Isophorone	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 22:49	1
2-Methylphenol	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 22:49	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		11/02/22 10:47	11/03/22 22:49	1
2-Nitroaniline	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 22:49	1
3-Nitroaniline	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 22:49	1
4-Nitroaniline	ND		9.4	1.4	ug/L		11/02/22 10:47	11/03/22 22:49	1
Nitrobenzene	ND		9.4	0.12	ug/L		11/02/22 10:47	11/03/22 22:49	1
2-Nitrophenol	ND		9.4	4.9	ug/L		11/02/22 10:47	11/03/22 22:49	1
4-Nitrophenol	ND		9.4	2.0	ug/L		11/02/22 10:47	11/03/22 22:49	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 22:49	1

Client Sample Results

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

Job ID: 400-227995-1

Client Sample ID: MW5-ROX-102722
Date Collected: 10/27/22 10:15
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-4
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 22:49	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		11/02/22 10:47	11/03/22 22:49	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 22:49	1
Phenol	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 22:49	1
Pyridine	ND		9.4	3.0	ug/L		11/02/22 10:47	11/03/22 22:49	1
Quinoline	ND	UJ	9.4	4.2	ug/L		11/02/22 10:47	11/03/22 22:49	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		11/02/22 10:47	11/03/22 22:49	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 22:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*11/02/22 10:47*	*11/03/22 22:49*	*1*
2-Fluorophenol	*49*		*13 - 113*	*11/02/22 10:47*	*11/03/22 22:49*	*1*
Nitrobenzene-d5	*90*		*36 - 126*	*11/02/22 10:47*	*11/03/22 22:49*	*1*
Phenol-d5	*82*		*17 - 127*	*11/02/22 10:47*	*11/03/22 22:49*	*1*
Terphenyl-d14	*98*		*44 - 149*	*11/02/22 10:47*	*11/03/22 22:49*	*1*
2,4,6-Tribromophenol	*125*		*26 - 150*	*11/02/22 10:47*	*11/03/22 22:49*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H UJ	9.3	4.7	ug/L		11/09/22 09:13	11/11/22 17:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*11/09/22 09:13*	*11/11/22 17:23*	*1*
Nitrobenzene-d5	*90*		*36 - 126*	*11/09/22 09:13*	*11/11/22 17:23*	*1*
Terphenyl-d14	*105*		*44 - 149*	*11/09/22 09:13*	*11/11/22 17:23*	*1*

Method: EPA 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		11/04/22 14:48	11/04/22 22:51	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		11/04/22 14:48	11/04/22 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*74*		*51 - 149*	*11/04/22 14:48*	*11/04/22 22:51*	*1*

Client Sample ID: MW9-ROX-102722
Date Collected: 10/27/22 11:25
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/10/22 12:45	1
Acrolein	ND		20	3.3	ug/L			11/10/22 12:45	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 12:45	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 12:45	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 12:45	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 12:45	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 12:45	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 12:45	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 12:45	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 12:45	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 12:45	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 12:45	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 12:45	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 12:45	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 12:45	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 12:45	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 12:45	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 12:45	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 12:45	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 12:45	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 12:45	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 12:45	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 12:45	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 12:45	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 12:45	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 12:45	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 12:45	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 12:45	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 12:45	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 12:45	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 12:45	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 12:45	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 12:45	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 12:45	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 12:45	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 12:45	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 12:45	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 12:45	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 12:45	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 12:45	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 12:45	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 12:45	1
Naphthalene	**3.7**	**J**	5.0	3.0	ug/L			11/10/22 12:45	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 12:45	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 12:45	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 12:45	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 12:45	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 12:45	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 12:45	1

Client Sample ID: MW9-ROX-102722
Date Collected: 10/27/22 11:25
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-5
Matrix: Water

Method: SW846 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			11/10/22 12:45	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 12:45	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 12:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 12:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 12:45	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 12:45	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 12:45	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 12:45	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 12:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 12:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 12:45	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 12:45	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 12:45	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 12:45	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 12:45	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 12:45	1
1,2,4-Trimethylbenzene	**3.0**		1.0	0.82	ug/L			11/10/22 12:45	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 12:45	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 12:45	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 12:45	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 12:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/10/22 12:45*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*11/10/22 12:45*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/10/22 12:45*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	H UJ	5.0	3.0	ug/L			11/11/22 12:37	1
1,2,4-Trimethylbenzene	ND	H UJ	1.0	0.82	ug/L			11/11/22 12:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/11/22 12:37*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/11/22 12:37*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/11/22 12:37*	*1*

Method: SW846 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		11/02/22 10:47	11/04/22 02:30	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/02/22 10:47	11/04/22 02:30	1
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/04/22 02:30	1
Benzo[a]anthracene	~~0.076~~ J B U		0.19	0.043	ug/L		11/02/22 10:47	11/04/22 02:30	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		11/02/22 10:47	11/04/22 02:30	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/02/22 10:47	11/04/22 02:30	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/02/22 10:47	11/04/22 02:30	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		11/02/22 10:47	11/04/22 02:30	1
Chrysene	ND		0.19	0.070	ug/L		11/02/22 10:47	11/04/22 02:30	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		11/02/22 10:47	11/04/22 02:30	1
Fluoranthene	ND		0.19	0.064	ug/L		11/02/22 10:47	11/04/22 02:30	1

Client Sample ID: MW9-ROX-102722
Date Collected: 10/27/22 11:25
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		0.19	0.10	ug/L		11/02/22 10:47	11/04/22 02:30	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		11/02/22 10:47	11/04/22 02:30	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		11/02/22 10:47	11/04/22 02:30	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		11/02/22 10:47	11/04/22 02:30	1
Phenanthrene	ND		0.19	0.034	ug/L		11/02/22 10:47	11/04/22 02:30	1
Pyrene	ND		0.19	0.038	ug/L		11/02/22 10:47	11/04/22 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*124*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/04/22 02:30*	*1*
Nitrobenzene-d5	*94*		*19 - 130*	*11/02/22 10:47*	*11/04/22 02:30*	*1*
Terphenyl-d14	*108*		*33 - 138*	*11/02/22 10:47*	*11/04/22 02:30*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 23:10	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		11/02/22 10:47	11/03/22 23:10	1
Benzoic acid	ND		28	6.9	ug/L		11/02/22 10:47	11/03/22 23:10	1
Benzyl alcohol	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 23:10	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 23:10	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 23:10	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 23:10	1
Bis(2-ethylhexyl) phthalate	**6.0**	J	9.4	4.7	ug/L		11/02/22 10:47	11/03/22 23:10	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		11/02/22 10:47	11/03/22 23:10	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		11/02/22 10:47	11/03/22 23:10	1
4-Chloroaniline	ND		9.4	3.2	ug/L		11/02/22 10:47	11/03/22 23:10	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		11/02/22 10:47	11/03/22 23:10	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 23:10	1
2-Chlorophenol	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 23:10	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 23:10	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 23:10	1
Dibenzofuran	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 23:10	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		11/02/22 10:47	11/03/22 23:10	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		11/02/22 10:47	11/03/22 23:10	1
Diethyl phthalate	ND		9.4	0.23	ug/L		11/02/22 10:47	11/03/22 23:10	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 23:10	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 23:10	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 23:10	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		11/02/22 10:47	11/03/22 23:10	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 23:10	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 23:10	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 23:10	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 23:10	1
1,4-Dioxane	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 23:10	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 23:10	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 23:10	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/02/22 10:47	11/03/22 23:10	1
Hexachloroethane	ND		9.4	4.0	ug/L		11/02/22 10:47	11/03/22 23:10	1
Indene	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 23:10	1
Isophorone	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 23:10	1

Client Sample ID: MW9-ROX-102722
Date Collected: 10/27/22 11:25
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-5
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylphenol	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 23:10	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		11/02/22 10:47	11/03/22 23:10	1
2-Nitroaniline	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 23:10	1
3-Nitroaniline	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 23:10	1
4-Nitroaniline	ND		9.4	1.4	ug/L		11/02/22 10:47	11/03/22 23:10	1
Nitrobenzene	ND		9.4	0.12	ug/L		11/02/22 10:47	11/03/22 23:10	1
2-Nitrophenol	ND		9.4	4.9	ug/L		11/02/22 10:47	11/03/22 23:10	1
4-Nitrophenol	ND		9.4	2.0	ug/L		11/02/22 10:47	11/03/22 23:10	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 23:10	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		11/02/22 10:47	11/03/22 23:10	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		11/02/22 10:47	11/03/22 23:10	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 23:10	1
Phenol	ND		9.4	2.4	ug/L		11/02/22 10:47	11/03/22 23:10	1
Pyridine	ND		9.4	3.0	ug/L		11/02/22 10:47	11/03/22 23:10	1
Quinoline	ND	U5	9.4	4.2	ug/L		11/02/22 10:47	11/03/22 23:10	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		11/02/22 10:47	11/03/22 23:10	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 23:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*11/02/22 10:47*	*11/03/22 23:10*	*1*
2-Fluorophenol	*30*		*13 - 113*	*11/02/22 10:47*	*11/03/22 23:10*	*1*
Nitrobenzene-d5	*89*		*36 - 126*	*11/02/22 10:47*	*11/03/22 23:10*	*1*
Phenol-d5	*72*		*17 - 127*	*11/02/22 10:47*	*11/03/22 23:10*	*1*
Terphenyl-d14	*119*		*44 - 149*	*11/02/22 10:47*	*11/03/22 23:10*	*1*
2,4,6-Tribromophenol	*107*		*26 - 150*	*11/02/22 10:47*	*11/03/22 23:10*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H	9.4	4.7	ug/L		11/09/22 09:13	11/11/22 17:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*11/09/22 09:13*	*11/11/22 17:44*	*1*
Nitrobenzene-d5	*90*		*36 - 126*	*11/09/22 09:13*	*11/11/22 17:44*	*1*
Terphenyl-d14	*108*		*44 - 149*	*11/09/22 09:13*	*11/11/22 17:44*	*1*

Method: EPA 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		11/04/22 14:48	11/04/22 23:11	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/04/22 14:48	11/04/22 23:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*51 - 149*	*11/04/22 14:48*	*11/04/22 23:11*	*1*

Client Sample Results

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

Job ID: 400-227995-1

Client Sample ID: ROST3MW-ROX-102722
Date Collected: 10/27/22 12:25
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acrolein	ND		20	3.3	ug/L			11/09/22 18:16	1
Acrylonitrile	ND		10	2.8	ug/L			11/09/22 18:16	1
Benzene	ND		1.0	0.13	ug/L			11/09/22 18:16	1
Bromobenzene	ND		1.0	0.54	ug/L			11/09/22 18:16	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/09/22 18:16	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/09/22 18:16	1
Bromoform	ND		5.0	0.25	ug/L			11/09/22 18:16	1
Bromomethane	ND		1.0	0.98	ug/L			11/09/22 18:16	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/09/22 18:16	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/09/22 18:16	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/09/22 18:16	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/09/22 18:16	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/09/22 18:16	1
Chloroethane	ND		1.0	0.76	ug/L			11/09/22 18:16	1
2-Chloroethyl vinyl ether	ND	F1 UJ	5.0	2.0	ug/L			11/09/22 18:16	1
Chloroform	ND		1.0	1.0	ug/L			11/09/22 18:16	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/09/22 18:16	1
Chloromethane	ND		1.0	0.32	ug/L			11/09/22 18:16	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/09/22 18:16	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/09/22 18:16	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/09/22 18:16	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/09/22 18:16	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/09/22 18:16	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/09/22 18:16	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/09/22 18:16	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/09/22 18:16	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/09/22 18:16	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 18:16	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 18:16	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 18:16	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/09/22 18:16	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/09/22 18:16	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/09/22 18:16	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/09/22 18:16	1
2-Hexanone	ND		25	1.4	ug/L			11/09/22 18:16	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/09/22 18:16	1
Methylene bromide	ND		5.0	0.22	ug/L			11/09/22 18:16	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/09/22 18:16	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/09/22 18:16	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/09/22 18:16	1
m-Xylene & p-Xylene	**0.71**	**J**	5.0	0.63	ug/L			11/09/22 18:16	1
Naphthalene	ND		5.0	3.0	ug/L			11/09/22 18:16	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/09/22 18:16	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/09/22 18:16	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/09/22 18:16	1
o-Xylene	ND		5.0	0.60	ug/L			11/09/22 18:16	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/09/22 18:16	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/09/22 18:16	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/09/22 18:16	1

Client Sample ID: ROST3MW-ROX-102722
Date Collected: 10/27/22 12:25
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-6
Matrix: Water

Method: SW846 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			11/09/22 18:16	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/09/22 18:16	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/09/22 18:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/09/22 18:16	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/09/22 18:16	1
Toluene	ND		1.0	0.41	ug/L			11/09/22 18:16	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/09/22 18:16	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/09/22 18:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/09/22 18:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/09/22 18:16	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/09/22 18:16	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/09/22 18:16	1
Trichloroethene	ND		1.0	0.15	ug/L			11/09/22 18:16	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/09/22 18:16	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/09/22 18:16	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/09/22 18:16	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/09/22 18:16	1
Vinyl acetate	ND		25	0.93	ug/L			11/09/22 18:16	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/09/22 18:16	1
Xylenes, Total	ND		10	1.6	ug/L			11/09/22 18:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/09/22 18:16*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/09/22 18:16*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/09/22 18:16*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	23	J	25	10	ug/L			11/10/22 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/10/22 13:47*	*1*
Dibromofluoromethane	*106*		*75 - 126*		*11/10/22 13:47*	*1*
Toluene-d8 (Surr)	*105*		*64 - 132*		*11/10/22 13:47*	*1*

Method: SW846 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		11/02/22 10:47	11/04/22 02:47	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/02/22 10:47	11/04/22 02:47	1
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/04/22 02:47	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		11/02/22 10:47	11/04/22 02:47	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/02/22 10:47	11/04/22 02:47	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/02/22 10:47	11/04/22 02:47	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/02/22 10:47	11/04/22 02:47	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		11/02/22 10:47	11/04/22 02:47	1
Chrysene	ND		0.19	0.069	ug/L		11/02/22 10:47	11/04/22 02:47	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		11/02/22 10:47	11/04/22 02:47	1
Fluoranthene	ND		0.19	0.063	ug/L		11/02/22 10:47	11/04/22 02:47	1
Fluorene	ND		0.19	0.10	ug/L		11/02/22 10:47	11/04/22 02:47	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		11/02/22 10:47	11/04/22 02:47	1

Client Sample ID: ROST3MW-ROX-102722

Date Collected: 10/27/22 12:25
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.20		0.19	0.069	ug/L		11/02/22 10:47	11/04/22 02:47	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		11/02/22 10:47	11/04/22 02:47	1
Phenanthrene	ND		0.19	0.034	ug/L		11/02/22 10:47	11/04/22 02:47	1
Pyrene	ND		0.19	0.037	ug/L		11/02/22 10:47	11/04/22 02:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*132*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/04/22 02:47*	*1*
Nitrobenzene-d5	*95*		*19 - 130*	*11/02/22 10:47*	*11/04/22 02:47*	*1*
Terphenyl-d14	*112*		*33 - 138*	*11/02/22 10:47*	*11/04/22 02:47*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 19:50	1
Benzenethiol	ND	*- UJ	9.3	1.6	ug/L		11/02/22 10:47	11/03/22 19:50	1
Benzoic acid	ND		28	6.8	ug/L		11/02/22 10:47	11/03/22 19:50	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 19:50	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 19:50	1
Bis(2-chloroethyl)ether	ND	UJ	9.3	2.5	ug/L		11/02/22 10:47	11/03/22 19:50	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 19:50	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.7	ug/L		11/02/22 10:47	11/03/22 19:50	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/02/22 10:47	11/03/22 19:50	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/02/22 10:47	11/03/22 19:50	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 19:50	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/02/22 10:47	11/03/22 19:50	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 19:50	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 19:50	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 19:50	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 19:50	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 19:50	1
3,3'-Dichlorobenzidine	ND	F1	9.3	2.4	ug/L		11/02/22 10:47	11/03/22 19:50	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/02/22 10:47	11/03/22 19:50	1
Diethyl phthalate	ND		9.3	0.22	ug/L		11/02/22 10:47	11/03/22 19:50	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 19:50	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 19:50	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 19:50	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/02/22 10:47	11/03/22 19:50	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 19:50	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 19:50	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 19:50	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 19:50	1
1,4-Dioxane	ND	F1 UJ	9.3	0.93	ug/L		11/02/22 10:47	11/03/22 19:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 19:50	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 19:50	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		11/02/22 10:47	11/03/22 19:50	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/02/22 10:47	11/03/22 19:50	1
Indene	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 19:50	1
Isophorone	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 19:50	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 19:50	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/02/22 10:47	11/03/22 19:50	1

Client Sample ID: ROST3MW-ROX-102722

Date Collected: 10/27/22 12:25
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-6
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 19:50	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 19:50	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/02/22 10:47	11/03/22 19:50	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/02/22 10:47	11/03/22 19:50	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/02/22 10:47	11/03/22 19:50	1
4-Nitrophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 19:50	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 19:50	1
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		11/02/22 10:47	11/03/22 19:50	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/02/22 10:47	11/03/22 19:50	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 19:50	1
Phenol	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 19:50	1
Pyridine	ND	U	9.3	3.0	ug/L		11/02/22 10:47	11/03/22 19:50	1
Quinoline	ND		9.3	4.2	ug/L		11/02/22 10:47	11/03/22 19:50	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/02/22 10:47	11/03/22 19:50	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 19:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*96*		*46 - 124*	*11/02/22 10:47*	*11/03/22 19:50*	*1*
2-Fluorophenol	*31*		*13 - 113*	*11/02/22 10:47*	*11/03/22 19:50*	*1*
Nitrobenzene-d5	*84*		*36 - 126*	*11/02/22 10:47*	*11/03/22 19:50*	*1*
Phenol-d5	*62*		*17 - 127*	*11/02/22 10:47*	*11/03/22 19:50*	*1*
Terphenyl-d14	*113*		*44 - 149*	*11/02/22 10:47*	*11/03/22 19:50*	*1*
2,4,6-Tribromophenol	*100*		*26 - 150*	*11/02/22 10:47*	*11/03/22 19:50*	*1*

Method: EPA 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 *+	0.030	0.017	ug/L		11/04/22 14:48	11/04/22 23:32	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/04/22 14:48	11/04/22 23:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*80*		*51 - 149*	*11/04/22 14:48*	*11/04/22 23:32*	*1*

Client Sample ID: ROST4PZG-ROX-102722
Date Collected: 10/27/22 14:00
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/10/22 13:11	1
Acrolein	ND		20	3.3	ug/L			11/10/22 13:11	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 13:11	1
Benzene	0.47	J	1.0	0.13	ug/L			11/10/22 13:11	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 13:11	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 13:11	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 13:11	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 13:11	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 13:11	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 13:11	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 13:11	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 13:11	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 13:11	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 13:11	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 13:11	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 13:11	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 13:11	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 13:11	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 13:11	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 13:11	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 13:11	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 13:11	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 13:11	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 13:11	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 13:11	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 13:11	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 13:11	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 13:11	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 13:11	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 13:11	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 13:11	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 13:11	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 13:11	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 13:11	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 13:11	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 13:11	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 13:11	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 13:11	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 13:11	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 13:11	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 13:11	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 13:11	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 13:11	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 13:11	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 13:11	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 13:11	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 13:11	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 13:11	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 13:11	1

Client Sample ID: ROST4PZG-ROX-102722
Date Collected: 10/27/22 14:00
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-7
Matrix: Water

Method: SW846 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			11/10/22 13:11	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 13:11	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 13:11	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 13:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 13:11	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 13:11	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 13:11	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 13:11	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 13:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 13:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 13:11	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 13:11	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 13:11	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 13:11	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 13:11	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 13:11	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 13:11	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 13:11	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 13:11	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 13:11	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 13:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*11/10/22 13:11*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/10/22 13:11*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/10/22 13:11*	*1*

Method: SW846 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		11/02/22 10:47	11/04/22 03:40	1
Acenaphthylene	ND			0.19	0.042	ug/L		11/02/22 10:47	11/04/22 03:40	1
Anthracene	**0.075**	**J**		0.19	0.030	ug/L		11/02/22 10:47	11/04/22 03:40	1
Benzo[a]anthracene	ND			0.19	0.043	ug/L		11/02/22 10:47	11/04/22 03:40	1
Benzo[a]anthracene	ND	H	UJ	0.37	0.086	ug/L		11/30/22 14:01	12/02/22 15:06	2
Benzo[a]pyrene	**0.44**			0.19	0.039	ug/L		11/02/22 10:47	11/04/22 03:40	1
Benzo[a]pyrene	ND	H	UJ	0.37	0.079	ug/L		11/30/22 14:01	12/02/22 15:06	2
Benzo[b]fluoranthene	**0.38**			0.19	0.032	ug/L		11/02/22 10:47	11/04/22 03:40	1
Benzo[b]fluoranthene	ND	H	UJ	0.37	0.064	ug/L		11/30/22 14:01	12/02/22 15:06	2
Benzo[g,h,i]perylene	ND			0.19	0.12	ug/L		11/02/22 10:47	11/04/22 18:42	1
Benzo[g,h,i]perylene	ND	H	UJ	0.37	0.24	ug/L		11/30/22 14:01	12/02/22 15:06	2
Benzo[k]fluoranthene	**0.38**			0.19	0.094	ug/L		11/02/22 10:47	11/04/22 03:40	1
Benzo[k]fluoranthene	ND	H	UJ	0.37	0.19	ug/L		11/30/22 14:01	12/02/22 15:06	2
Chrysene	**0.16**	**J**		0.19	0.069	ug/L		11/02/22 10:47	11/04/22 03:40	1
Chrysene	ND	H	UJ	0.37	0.14	ug/L		11/30/22 14:01	12/02/22 15:06	2
Dibenz(a,h)anthracene	**0.24**			0.19	0.047	ug/L		11/02/22 10:47	11/04/22 03:40	1
Dibenz(a,h)anthracene	ND	H	UJ	0.37	0.094	ug/L		11/30/22 14:01	12/02/22 15:06	2
Fluoranthene	**0.12**	**J**		0.19	0.064	ug/L		11/02/22 10:47	11/06/22 12:33	1
Fluorene	ND			0.19	0.10	ug/L		11/02/22 10:47	11/04/22 03:40	1
Indeno[1,2,3-cd]pyrene	**0.25**			0.19	0.040	ug/L		11/02/22 10:47	11/04/22 03:40	1
Indeno[1,2,3-cd]pyrene	ND	H	UJ	0.37	0.081	ug/L		11/30/22 14:01	12/02/22 15:06	2

Client Sample Results

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

Job ID: 400-227995-1

Client Sample ID: ROST4PZG-ROX-102722
Date Collected: 10/27/22 14:00
Date Received: 10/28/22 08:59

Lab Sample ID: 400-227995-7
Matrix: Water

Method: SW846 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	0.069	ug/L		11/02/22 10:47	11/04/22 03:40	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		11/02/22 10:47	11/04/22 03:40	1
Phenanthrene	0.12	J	0.19	0.034	ug/L		11/02/22 10:47	11/04/22 03:40	1
Pyrene	0.12	J	0.19	0.037	ug/L		11/02/22 10:47	11/04/22 03:40	1
Pyrene	~~0.43~~	J H B UJ	0.37	0.075	ug/L		11/30/22 14:01	12/02/22 15:06	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*131*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/04/22 03:40*	*1*
Nitrobenzene-d5	*97*		*19 - 130*	*11/02/22 10:47*	*11/04/22 03:40*	*1*
Terphenyl-d14	*89*		*33 - 138*	*11/02/22 10:47*	*11/04/22 03:40*	*1*
Terphenyl-d14	*106*		*33 - 138*	*11/30/22 14:01*	*12/02/22 15:06*	*2*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H UJ	0.19	0.030	ug/L		11/30/22 14:01	12/01/22 18:47	1
Acenaphthylene	ND	H UJ	0.19	0.042	ug/L		11/30/22 14:01	12/01/22 18:47	1
Anthracene	0.067	J H J	0.19	0.030	ug/L		11/30/22 14:01	12/01/22 18:47	1
Fluoranthene	~~0.15~~	J H B UJ	0.19	0.064	ug/L		11/30/22 14:01	12/01/22 18:47	1
Fluorene	ND	H UJ	0.19	0.10	ug/L		11/30/22 14:01	12/01/22 18:47	1
1-Methylnaphthalene	ND	H UJ	0.19	0.069	ug/L		11/30/22 14:01	12/01/22 18:47	1
2-Methylnaphthalene	0.12	J H J	0.19	0.056	ug/L		11/30/22 14:01	12/01/22 18:47	1
Phenanthrene	ND	H UJ	0.19	0.034	ug/L		11/30/22 14:01	12/01/22 18:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*15 - 122*	*11/30/22 14:01*	*12/01/22 18:47*	*1*
Nitrobenzene-d5	*62*		*19 - 130*	*11/30/22 14:01*	*12/01/22 18:47*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 23:31	1
Benzenethiol	ND	UJ	9.4	1.6	ug/L		11/02/22 10:47	11/03/22 23:31	1
Benzoic acid	ND		28	6.8	ug/L		11/02/22 10:47	11/03/22 23:31	1
Benzyl alcohol	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 23:31	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 23:31	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 23:31	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 23:31	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		11/02/22 10:47	11/03/22 23:31	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		11/02/22 10:47	11/03/22 23:31	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		11/02/22 10:47	11/03/22 23:31	1
4-Chloroaniline	ND		9.4	3.2	ug/L		11/02/22 10:47	11/03/22 23:31	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		11/02/22 10:47	11/03/22 23:31	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 23:31	1
2-Chlorophenol	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 23:31	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 23:31	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 23:31	1
Dibenzofuran	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 23:31	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		11/02/22 10:47	11/03/22 23:31	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		11/02/22 10:47	11/03/22 23:31	1
Diethyl phthalate	ND		9.4	0.22	ug/L		11/02/22 10:47	11/03/22 23:31	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 23:31	1

Client Sample ID: ROST4PZG-ROX-102722

Lab Sample ID: 400-227995-7

Date Collected: 10/27/22 14:00
Matrix: Water
Date Received: 10/28/22 08:59

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 23:31	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 23:31	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		11/02/22 10:47	11/03/22 23:31	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 23:31	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 23:31	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 23:31	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 23:31	1
1,4-Dioxane	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 23:31	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 23:31	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 23:31	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/02/22 10:47	11/03/22 23:31	1
Hexachloroethane	ND		9.4	3.9	ug/L		11/02/22 10:47	11/03/22 23:31	1
Indene	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 23:31	1
Isophorone	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 23:31	1
2-Methylphenol	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 23:31	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/02/22 10:47	11/03/22 23:31	1
2-Nitroaniline	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 23:31	1
3-Nitroaniline	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 23:31	1
4-Nitroaniline	ND		9.4	1.4	ug/L		11/02/22 10:47	11/03/22 23:31	1
Nitrobenzene	ND		9.4	0.12	ug/L		11/02/22 10:47	11/03/22 23:31	1
2-Nitrophenol	ND		9.4	4.9	ug/L		11/02/22 10:47	11/03/22 23:31	1
4-Nitrophenol	ND		9.4	2.0	ug/L		11/02/22 10:47	11/03/22 23:31	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 23:31	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		11/02/22 10:47	11/03/22 23:31	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		11/02/22 10:47	11/03/22 23:31	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 23:31	1
Phenol	ND		9.4	2.4	ug/L		11/02/22 10:47	11/03/22 23:31	1
Pyridine	ND		9.4	3.0	ug/L		11/02/22 10:47	11/03/22 23:31	1
Quinoline	ND	UJ	9.4	4.2	ug/L		11/02/22 10:47	11/03/22 23:31	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		11/02/22 10:47	11/03/22 23:31	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*11/02/22 10:47*	*11/03/22 23:31*	*1*
2-Fluorophenol	*48*		*13 - 113*	*11/02/22 10:47*	*11/03/22 23:31*	*1*
Nitrobenzene-d5	*89*		*36 - 126*	*11/02/22 10:47*	*11/03/22 23:31*	*1*
Phenol-d5	*79*		*17 - 127*	*11/02/22 10:47*	*11/03/22 23:31*	*1*
Terphenyl-d14	*96*		*44 - 149*	*11/02/22 10:47*	*11/03/22 23:31*	*1*
2,4,6-Tribromophenol	*113*		*26 - 150*	*11/02/22 10:47*	*11/03/22 23:31*	*1*

Method: EPA 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		11/04/22 14:48	11/05/22 00:33	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		11/04/22 14:48	11/05/22 00:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*11/04/22 14:48*	*11/05/22 00:33*	*1*

Definitions/Glossary

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

Job ID: 400-227995-1

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.
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/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
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.
F1	MS and/or MSD recovery 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)
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: 400-227995-1

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)
400-227995-1	TB-ROX-102722-8260	97	101	97
400-227995-3	P54-ROX-102722	97	100	99
400-227995-4	MW5-ROX-102722	98	101	98
400-227995-5	MW9-ROX-102722	101	95	101
400-227995-5 - RA	MW9-ROX-102722	100	100	98
400-227995-6	ROST3MW-ROX-102722	98	101	100
400-227995-6 - RA	ROST3MW-ROX-102722	93	106	105
400-227995-6 MS	ROST3MW-ROX-102722	88	96	97
400-227995-6 MSD	ROST3MW-ROX-102722	89	96	96
400-227995-7	ROST4PZG-ROX-102722	99	101	99
LCS 400-599957/1002	Lab Control Sample	89	97	97
LCS 400-600010/1002	Lab Control Sample	89	104	98
LCS 400-600020/1002	Lab Control Sample	88	96	95
LCS 400-600212/1002	Lab Control Sample	89	97	96
MB 400-599957/4	Method Blank	100	100	100
MB 400-600010/4	Method Blank	95	99	102
MB 400-600020/4	Method Blank	100	101	98
MB 400-600212/4	Method Blank	98	100	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)
400-227995-3	P54-ROX-102722	81	44	91	73	119	107
400-227995-4	MW5-ROX-102722	81	49	90	82	98	125
400-227995-4 - RERA	MW5-ROX-102722	81		90		105	
400-227995-5	MW9-ROX-102722	80	30	89	72	119	107
400-227995-5 - RERA	MW9-ROX-102722	80		90		108	
400-227995-6	ROST3MW-ROX-102722	96	31	84	62	113	100
400-227995-6 MS	ROST3MW-ROX-102722	97	55	91	83	115	134
400-227995-6 MSD	ROST3MW-ROX-102722	93	46	88	76	108	128
400-227995-7	ROST4PZG-ROX-102722	77	48	89	79	96	113
LCS 400-598868/2-A	Lab Control Sample	91	43	87	68	101	123
LCS 400-598868/3-A	Lab Control Sample	96	34	84	62	109	78
LCS 400-599854/2-A	Lab Control Sample	84		97		107	
LCSD 400-598868/4-A	Lab Control Sample Dup	98	52	86	75	109	68
LCSD 400-599854/3-A	Lab Control Sample Dup	83		97		109	
MB 400-598868/1-A	Method Blank	95	15	83	51	108	87
MB 400-599854/1-A	Method Blank	82		93		128	

Surrogate Legend

FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5

Surrogate Summary

Client: AECOM Technical Services Inc.
Job ID: 400-227995-1
Project/Site: ROXANA QUARTERLY GW

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)
400-227995-3	P54-ROX-102722	125 S1+	89	106
400-227995-4	MW5-ROX-102722		94	92
400-227995-4	MW5-ROX-102722	150 S1+		
400-227995-5	MW9-ROX-102722	124 S1+	94	108
400-227995-6	ROST3MW-ROX-102722	132 S1+	95	112
400-227995-6 MS	ROST3MW-ROX-102722	183 S1+	87	107
400-227995-6 MSD	ROST3MW-ROX-102722	98	82	102
400-227995-7	ROST4PZG-ROX-102722	131 S1+	97	89
400-227995-7 - RERA	ROST4PZG-ROX-102722	77	62	
400-227995-7	ROST4PZG-ROX-102722			106
LCS 400-598868/2-A	Lab Control Sample	98	83	106
LCS 400-602887/2-A	Lab Control Sample	94	76	95
LCSD 400-602887/3-A	Lab Control Sample Dup	105	83	108
MB 400-598868/1-A	Method Blank	128 S1+	93	118
MB 400-602887/1-A	Method Blank	77	61	89

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)
400-227995-2	TB-ROX-102722-8011	74
400-227995-3	P54-ROX-102722	80
400-227995-4	MW5-ROX-102722	74
400-227995-5	MW9-ROX-102722	82
400-227995-6	ROST3MW-ROX-102722	80
400-227995-6 MS	ROST3MW-ROX-102722	84
400-227995-6 MSD	ROST3MW-ROX-102722	95
400-227995-7	ROST4PZG-ROX-102722	86
LCS 400-599301/2-A	Lab Control Sample	79
LCSD 400-599301/3-A	Lab Control Sample Dup	89
MB 400-599301/1-A	Method Blank	65 p

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-227995-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET 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: 400-227995-1

Client Sample ID: TB-ROX-102722-8260

Lab Sample ID: 400-227995-1

Date Collected: 10/27/22 12:00
Matrix: Water
Date Received: 10/28/22 08:59

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	599957	11/09/22 22:28	BPO	EET PEN

Client Sample ID: TB-ROX-102722-8011

Lab Sample ID: 400-227995-2

Date Collected: 10/27/22 12:00
Matrix: Water
Date Received: 10/28/22 08:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.2 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 21:49	JAW	EET PEN

Client Sample ID: P54-ROX-102722

Lab Sample ID: 400-227995-3

Date Collected: 10/27/22 09:20
Matrix: Water
Date Received: 10/28/22 08:59

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	599957	11/09/22 22:53	BPO	EET PEN
Total/NA	Prep	3520C			269.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 22:28	S1B	EET PEN
Total/NA	Prep	3520C			269.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 01:56	PP1	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 22:10	JAW	EET PEN

Client Sample ID: MW5-ROX-102722

Lab Sample ID: 400-227995-4

Date Collected: 10/27/22 10:15
Matrix: Water
Date Received: 10/28/22 08:59

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	599957	11/09/22 23:18	BPO	EET PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 22:49	S1B	EET PEN
Total/NA	Prep	3520C	RERA		268.6 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D	RERA	1	0.4 mL	0.4 mL	600291	11/11/22 17:23	S1B	EET PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 02:13	PP1	EET PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		2	0.4 mL	0.4 mL	599295	11/04/22 18:25	PP1	EET PEN
Total/NA	Prep	8011			32.7 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 22:51	JAW	EET PEN

Lab Chronicle

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

Job ID: 400-227995-1

Client Sample ID: MW9-ROX-102722

Lab Sample ID: 400-227995-5

Date Collected: 10/27/22 11:25
Matrix: Water
Date Received: 10/28/22 08:59

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	600020	11/10/22 12:45	BPO	EET PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	600212	11/11/22 12:37	AGW	EET PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 23:10	S1B	EET PEN
Total/NA	Prep	3520C	RERA		266.2 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D	RERA	1	0.4 mL	0.4 mL	600291	11/11/22 17:44	S1B	EET PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 02:30	PP1	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 23:11	JAW	EET PEN

Client Sample ID: ROST3MW-ROX-102722

Lab Sample ID: 400-227995-6

Date Collected: 10/27/22 12:25
Matrix: Water
Date Received: 10/28/22 08:59

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	599957	11/09/22 18:16	BPO	EET PEN
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	600010	11/10/22 13:47	AGW	EET PEN
Total/NA	Prep	3520C			268.6 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 19:50	VC1	EET PEN
Total/NA	Prep	3520C			268.6 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 02:47	PP1	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 23:32	JAW	EET PEN

Client Sample ID: ROST4PZG-ROX-102722

Lab Sample ID: 400-227995-7

Date Collected: 10/27/22 14:00
Matrix: Water
Date Received: 10/28/22 08:59

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	600020	11/10/22 13:11	BPO	EET PEN
Total/NA	Prep	3520C			267.2 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 23:31	S1B	EET PEN
Total/NA	Prep	3520C			267.2 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 03:40	PP1	EET PEN
Total/NA	Prep	3520C			267.2 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599295	11/04/22 18:42	PP1	EET PEN
Total/NA	Prep	3520C			267.2 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599431	11/06/22 12:33	PP1	EET PEN
Total/NA	Prep	3520C	RERA		267 mL	1 mL	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL	RERA	1	0.4 mL	0.4 mL	603041	12/01/22 18:47	PP1	EET PEN
Total/NA	Prep	3520C			267 mL	1 mL	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		2	0.4 mL	0.4 mL	603239	12/02/22 15:06	KJA	EET PEN

Lab Chronicle

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

Job ID: 400-227995-1

Client Sample ID: ROST4PZG-ROX-102722

Lab Sample ID: 400-227995-7

Date Collected: 10/27/22 14:00
Matrix: Water
Date Received: 10/28/22 08:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.2 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/05/22 00:33	JAW	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-598868/1-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 16:50	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 20:45	PP1	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-599301/1-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	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 19:05	JAW	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-599854/1-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:13	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-599957/4

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	599957	11/09/22 17:26	BPO	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-600010/4

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	600010	11/10/22 10:58	AGW	EET PEN

Lab Chronicle

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

Job ID: 400-227995-1

Client Sample ID: Method Blank
Lab Sample ID: MB 400-600020/4
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	600020	11/10/22 11:30	BPO	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-600212/4
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	600212	11/11/22 10:31	AGW	EET PEN

Client Sample ID: Method Blank
Lab Sample ID: MB 400-602887/1-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	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	603239	12/02/22 14:31	KJA	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-598868/2-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:58	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599109	11/03/22 21:02	PP1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-598868/3-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:13	VC1	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-599301/2-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	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 19:25	JAW	EET PEN

Lab Chronicle

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

Job ID: 400-227995-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-599854/2-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:33	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-599957/1002
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	599957	11/09/22 16:04	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-600010/1002
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	600010	11/10/22 10:06	AGW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-600020/1002
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	600020	11/10/22 10:16	BPO	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-600212/1002
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	600212	11/11/22 09:23	AGW	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-602887/2-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	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	603041	12/01/22 17:38	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-598868/4-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:35	VC1	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-599301/3-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	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 19:46	JAW	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-599854/3-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:54	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-602887/3-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	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	603041	12/01/22 17:55	PP1	EET PEN

Client Sample ID: ROST3MW-ROX-102722

Lab Sample ID: 400-227995-6 MS

Date Collected: 10/27/22 12:25
Matrix: Water
Date Received: 10/28/22 08:59

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	599957	11/09/22 20:22	BPO	EET PEN
Total/NA	Prep	3520C			261.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 20:13	VC1	EET PEN
Total/NA	Prep	3520C			261.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599109	11/04/22 03:05	PP1	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 23:52	JAW	EET PEN

Client Sample ID: ROST3MW-ROX-102722

Lab Sample ID: 400-227995-6 MSD

Date Collected: 10/27/22 12:25
Matrix: Water
Date Received: 10/28/22 08:59

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	599957	11/09/22 20:47	BPO	EET PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 20:35	VC1	EET PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599109	11/04/22 03:22	PP1	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/05/22 00:13	JAW	EET PEN

Lab Chronicle

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

Job ID: 400-227995-1

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 599957

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-1	TB-ROX-102722-8260	Total/NA	Water	8260B	
400-227995-3	P54-ROX-102722	Total/NA	Water	8260B	
400-227995-4	MW5-ROX-102722	Total/NA	Water	8260B	
400-227995-6	ROST3MW-ROX-102722	Total/NA	Water	8260B	
MB 400-599957/4	Method Blank	Total/NA	Water	8260B	
LCS 400-599957/1002	Lab Control Sample	Total/NA	Water	8260B	
400-227995-6 MS	ROST3MW-ROX-102722	Total/NA	Water	8260B	
400-227995-6 MSD	ROST3MW-ROX-102722	Total/NA	Water	8260B	

Analysis Batch: 600010

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-6 - RA	ROST3MW-ROX-102722	Total/NA	Water	8260B	
MB 400-600010/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600010/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 600020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-5	MW9-ROX-102722	Total/NA	Water	8260B	
400-227995-7	ROST4PZG-ROX-102722	Total/NA	Water	8260B	
MB 400-600020/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600020/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 600212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-5 - RA	MW9-ROX-102722	Total/NA	Water	8260B	
MB 400-600212/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600212/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 598868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-3	P54-ROX-102722	Total/NA	Water	3520C	
400-227995-4	MW5-ROX-102722	Total/NA	Water	3520C	
400-227995-5	MW9-ROX-102722	Total/NA	Water	3520C	
400-227995-6	ROST3MW-ROX-102722	Total/NA	Water	3520C	
400-227995-7	ROST4PZG-ROX-102722	Total/NA	Water	3520C	
MB 400-598868/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-598868/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-598868/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-227995-6 MS	ROST3MW-ROX-102722	Total/NA	Water	3520C	
400-227995-6 MSD	ROST3MW-ROX-102722	Total/NA	Water	3520C	

Analysis Batch: 599074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-6	ROST3MW-ROX-102722	Total/NA	Water	8270D	598868
MB 400-598868/1-A	Method Blank	Total/NA	Water	8270D	598868
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	8270D	598868
LCS 400-598868/3-A	Lab Control Sample	Total/NA	Water	8270D	598868
LCSD 400-598868/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	598868

GC/MS Semi VOA (Continued)

Analysis Batch: 599074 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-6 MS	ROST3MW-ROX-102722	Total/NA	Water	8270D	598868
400-227995-6 MSD	ROST3MW-ROX-102722	Total/NA	Water	8270D	598868

Analysis Batch: 599088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-3	P54-ROX-102722	Total/NA	Water	8270D	598868
400-227995-4	MW5-ROX-102722	Total/NA	Water	8270D	598868
400-227995-5	MW9-ROX-102722	Total/NA	Water	8270D	598868
400-227995-7	ROST4PZG-ROX-102722	Total/NA	Water	8270D	598868

Analysis Batch: 599109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-3	P54-ROX-102722	Total/NA	Water	8270D LL	598868
400-227995-4	MW5-ROX-102722	Total/NA	Water	8270D LL	598868
400-227995-5	MW9-ROX-102722	Total/NA	Water	8270D LL	598868
400-227995-6	ROST3MW-ROX-102722	Total/NA	Water	8270D LL	598868
400-227995-7	ROST4PZG-ROX-102722	Total/NA	Water	8270D LL	598868
MB 400-598868/1-A	Method Blank	Total/NA	Water	8270D LL	598868
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	8270D LL	598868
400-227995-6 MS	ROST3MW-ROX-102722	Total/NA	Water	8270D LL	598868
400-227995-6 MSD	ROST3MW-ROX-102722	Total/NA	Water	8270D LL	598868

Analysis Batch: 599295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-4	MW5-ROX-102722	Total/NA	Water	8270D LL	598868
400-227995-7	ROST4PZG-ROX-102722	Total/NA	Water	8270D LL	598868

Analysis Batch: 599431

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-7	ROST4PZG-ROX-102722	Total/NA	Water	8270D LL	598868

Prep Batch: 599854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-4 - RERA	MW5-ROX-102722	Total/NA	Water	3520C	
400-227995-5 - RERA	MW9-ROX-102722	Total/NA	Water	3520C	
MB 400-599854/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-599854/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-599854/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 600049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-599854/1-A	Method Blank	Total/NA	Water	8270D	599854
LCS 400-599854/2-A	Lab Control Sample	Total/NA	Water	8270D	599854
LCSD 400-599854/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	599854

Analysis Batch: 600291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-4 - RERA	MW5-ROX-102722	Total/NA	Water	8270D	599854
400-227995-5 - RERA	MW9-ROX-102722	Total/NA	Water	8270D	599854

QC Association Summary

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

Job ID: 400-227995-1

GC/MS Semi VOA

Prep Batch: 602887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-7 - RERA	ROST4PZG-ROX-102722	Total/NA	Water	3520C	
400-227995-7	ROST4PZG-ROX-102722	Total/NA	Water	3520C	
MB 400-602887/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-602887/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-602887/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 603041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-7 - RERA	ROST4PZG-ROX-102722	Total/NA	Water	8270D LL	602887
LCS 400-602887/2-A	Lab Control Sample	Total/NA	Water	8270D LL	602887
LCSD 400-602887/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	602887

Analysis Batch: 603239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-7	ROST4PZG-ROX-102722	Total/NA	Water	8270D LL	602887
MB 400-602887/1-A	Method Blank	Total/NA	Water	8270D LL	602887

GC Semi VOA

Prep Batch: 599301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-2	TB-ROX-102722-8011	Total/NA	Water	8011	
400-227995-3	P54-ROX-102722	Total/NA	Water	8011	
400-227995-4	MW5-ROX-102722	Total/NA	Water	8011	
400-227995-5	MW9-ROX-102722	Total/NA	Water	8011	
400-227995-6	ROST3MW-ROX-102722	Total/NA	Water	8011	
400-227995-7	ROST4PZG-ROX-102722	Total/NA	Water	8011	
MB 400-599301/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-599301/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-599301/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-227995-6 MS	ROST3MW-ROX-102722	Total/NA	Water	8011	
400-227995-6 MSD	ROST3MW-ROX-102722	Total/NA	Water	8011	

Analysis Batch: 599348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-227995-2	TB-ROX-102722-8011	Total/NA	Water	8011	599301
400-227995-3	P54-ROX-102722	Total/NA	Water	8011	599301
400-227995-4	MW5-ROX-102722	Total/NA	Water	8011	599301
400-227995-5	MW9-ROX-102722	Total/NA	Water	8011	599301
400-227995-6	ROST3MW-ROX-102722	Total/NA	Water	8011	599301
400-227995-7	ROST4PZG-ROX-102722	Total/NA	Water	8011	599301
MB 400-599301/1-A	Method Blank	Total/NA	Water	8011	599301
LCS 400-599301/2-A	Lab Control Sample	Total/NA	Water	8011	599301
LCSD 400-599301/3-A	Lab Control Sample Dup	Total/NA	Water	8011	599301
400-227995-6 MS	ROST3MW-ROX-102722	Total/NA	Water	8011	599301
400-227995-6 MSD	ROST3MW-ROX-102722	Total/NA	Water	8011	599301

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

Lab Sample ID: MB 400-599957/4
Matrix: Water
Analysis Batch: 599957

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			11/09/22 17:26	1
Acrolein	ND		20	3.3	ug/L			11/09/22 17:26	1
Acrylonitrile	ND		10	2.8	ug/L			11/09/22 17:26	1
Benzene	ND		1.0	0.13	ug/L			11/09/22 17:26	1
Bromobenzene	ND		1.0	0.54	ug/L			11/09/22 17:26	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/09/22 17:26	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/09/22 17:26	1
Bromoform	ND		5.0	0.25	ug/L			11/09/22 17:26	1
Bromomethane	ND		1.0	0.98	ug/L			11/09/22 17:26	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/09/22 17:26	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/09/22 17:26	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/09/22 17:26	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/09/22 17:26	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/09/22 17:26	1
Chloroethane	ND		1.0	0.76	ug/L			11/09/22 17:26	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/09/22 17:26	1
Chloroform	ND		1.0	1.0	ug/L			11/09/22 17:26	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/09/22 17:26	1
Chloromethane	ND		1.0	0.32	ug/L			11/09/22 17:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/09/22 17:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/09/22 17:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/09/22 17:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/09/22 17:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/09/22 17:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/09/22 17:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/09/22 17:26	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/09/22 17:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/09/22 17:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 17:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 17:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/09/22 17:26	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/09/22 17:26	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/09/22 17:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/09/22 17:26	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/09/22 17:26	1
2-Hexanone	ND		25	1.4	ug/L			11/09/22 17:26	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/09/22 17:26	1
Methylene bromide	ND		5.0	0.22	ug/L			11/09/22 17:26	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/09/22 17:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/09/22 17:26	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/09/22 17:26	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/09/22 17:26	1
Naphthalene	ND		5.0	3.0	ug/L			11/09/22 17:26	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/09/22 17:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/09/22 17:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/09/22 17:26	1
o-Xylene	ND		5.0	0.60	ug/L			11/09/22 17:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/09/22 17:26	1

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

Lab Sample ID: MB 400-599957/4
Matrix: Water
Analysis Batch: 599957

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			11/09/22 17:26	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/09/22 17:26	1
Styrene	ND		1.0	1.0	ug/L			11/09/22 17:26	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/09/22 17:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/09/22 17:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/09/22 17:26	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/09/22 17:26	1
Toluene	ND		1.0	0.41	ug/L			11/09/22 17:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/09/22 17:26	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/09/22 17:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/09/22 17:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/09/22 17:26	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/09/22 17:26	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/09/22 17:26	1
Trichloroethene	ND		1.0	0.15	ug/L			11/09/22 17:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/09/22 17:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/09/22 17:26	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/09/22 17:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/09/22 17:26	1
Vinyl acetate	ND		25	0.93	ug/L			11/09/22 17:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/09/22 17:26	1
Xylenes, Total	ND		10	1.6	ug/L			11/09/22 17:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/09/22 17:26*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/09/22 17:26*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/09/22 17:26*	*1*

Lab Sample ID: LCS 400-599957/1002
Matrix: Water
Analysis Batch: 599957

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	350	*+	ug/L		175	43 - 160
Acrolein	500	526		ug/L		105	38 - 160
Acrylonitrile	500	521		ug/L		104	64 - 142
Benzene	50.0	51.1		ug/L		102	70 - 130
Bromobenzene	50.0	48.3		ug/L		97	70 - 132
Bromochloromethane	50.0	48.2		ug/L		96	70 - 130
Bromodichloromethane	50.0	51.1		ug/L		102	67 - 133
Bromoform	50.0	48.3		ug/L		97	57 - 140
Bromomethane	50.0	44.3		ug/L		89	10 - 160
2-Butanone (MEK)	200	269		ug/L		134	61 - 145
Carbon disulfide	50.0	48.5		ug/L		97	61 - 137
Carbon tetrachloride	50.0	48.1		ug/L		96	61 - 137
Chlorobenzene	50.0	55.0		ug/L		110	70 - 130
Dibromochloromethane	50.0	52.2		ug/L		104	67 - 135
Chloroethane	50.0	44.8		ug/L		90	55 - 141

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

Lab Sample ID: LCS 400-599957/1002
Matrix: Water
Analysis Batch: 599957

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	46.2		ug/L		92	10 - 160
Chloroform	50.0	49.2		ug/L		98	69 - 130
1-Chlorohexane	50.0	53.1		ug/L		106	69 - 130
Chloromethane	50.0	61.1		ug/L		122	58 - 137
cis-1,2-Dichloroethene	50.0	46.9		ug/L		94	68 - 130
cis-1,3-Dichloropropene	50.0	46.9		ug/L		94	69 - 132
1,2-Dichlorobenzene	50.0	55.4		ug/L		111	67 - 130
1,3-Dichlorobenzene	50.0	53.9		ug/L		108	70 - 130
1,4-Dichlorobenzene	50.0	55.5		ug/L		111	70 - 130
Dichlorodifluoromethane	50.0	62.5		ug/L		125	41 - 146
1,1-Dichloroethane	50.0	50.0		ug/L		100	70 - 130
1,2-Dichloroethane	50.0	48.7		ug/L		97	69 - 130
1,1-Dichloroethene	50.0	46.9		ug/L		94	63 - 134
1,2-Dichloropropane	50.0	53.1		ug/L		106	70 - 130
1,3-Dichloropropane	50.0	52.0		ug/L		104	70 - 130
2,2-Dichloropropane	50.0	43.7		ug/L		87	52 - 135
1,1-Dichloropropene	50.0	47.1		ug/L		94	70 - 130
Ethylbenzene	50.0	49.7		ug/L		99	70 - 130
Ethyl methacrylate	50.0	43.3		ug/L		87	68 - 130
Hexachlorobutadiene	50.0	57.9		ug/L		116	53 - 140
2-Hexanone	200	245		ug/L		122	65 - 137
Isopropylbenzene	50.0	49.1		ug/L		98	70 - 130
Methylene bromide	50.0	51.1		ug/L		102	70 - 130
Methylene Chloride	50.0	48.5		ug/L		97	66 - 135
4-Methyl-2-pentanone (MIBK)	200	212		ug/L		106	69 - 138
Methyl tert-butyl ether	50.0	41.9		ug/L		84	66 - 130
m-Xylene & p-Xylene	50.0	48.3		ug/L		97	70 - 130
Naphthalene	50.0	33.4		ug/L		67	47 - 149
n-Butylbenzene	50.0	59.5		ug/L		119	67 - 130
N-Propylbenzene	50.0	49.5		ug/L		99	70 - 130
o-Chlorotoluene	50.0	52.1		ug/L		104	70 - 130
o-Xylene	50.0	49.8		ug/L		100	70 - 130
p-Chlorotoluene	50.0	52.8		ug/L		106	70 - 130
p-Isopropyltoluene	50.0	50.9		ug/L		102	65 - 130
sec-Butylbenzene	50.0	50.9		ug/L		102	66 - 130
Styrene	50.0	50.4		ug/L		101	70 - 130
tert-Butylbenzene	50.0	49.1		ug/L		98	64 - 139
1,1,1,2-Tetrachloroethane	50.0	53.4		ug/L		107	67 - 131
1,1,2,2-Tetrachloroethane	50.0	53.3		ug/L		107	70 - 131
Tetrachloroethene	50.0	51.1		ug/L		102	65 - 130
Toluene	50.0	50.1		ug/L		100	70 - 130
trans-1,2-Dichloroethene	50.0	48.2		ug/L		96	70 - 130
trans-1,3-Dichloropropene	50.0	46.3		ug/L		93	63 - 130
1,2,3-Trichlorobenzene	50.0	40.8		ug/L		82	60 - 138
1,2,4-Trichlorobenzene	50.0	40.9		ug/L		82	60 - 140
1,1,1-Trichloroethane	50.0	47.8		ug/L		96	68 - 130
1,1,2-Trichloroethane	50.0	53.3		ug/L		107	70 - 130
Trichloroethene	50.0	51.1		ug/L		102	70 - 130
Trichlorofluoromethane	50.0	44.8		ug/L		90	65 - 138

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

Lab Sample ID: LCS 400-599957/1002
Matrix: Water
Analysis Batch: 599957

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	51.3		ug/L		103	70 - 130
1,2,4-Trimethylbenzene	50.0	51.0		ug/L		102	70 - 130
1,3,5-Trimethylbenzene	50.0	49.0		ug/L		98	69 - 130
Vinyl acetate	100	88.1		ug/L		88	26 - 160
Vinyl chloride	50.0	51.3		ug/L		103	59 - 136
Xylenes, Total	100	98.1		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*97*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Lab Sample ID: 400-227995-6 MS
Matrix: Water
Analysis Batch: 599957

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	29	*+	200	292		ug/L		132	43 - 150
Acrolein	ND		500	567		ug/L		113	38 - 150
Acrylonitrile	ND		500	600		ug/L		120	62 - 149
Benzene	ND		50.0	56.5		ug/L		113	56 - 142
Bromobenzene	ND		50.0	51.4		ug/L		103	59 - 136
Bromochloromethane	ND		50.0	54.7		ug/L		109	64 - 140
Bromodichloromethane	ND		50.0	56.7		ug/L		113	59 - 143
Bromoform	ND		50.0	53.8		ug/L		108	50 - 140
Bromomethane	ND		50.0	49.1		ug/L		98	10 - 150
2-Butanone (MEK)	ND		200	233		ug/L		117	55 - 150
Carbon disulfide	ND		50.0	54.6		ug/L		109	48 - 150
Carbon tetrachloride	ND		50.0	52.5		ug/L		105	55 - 145
Chlorobenzene	ND		50.0	59.2		ug/L		118	64 - 130
Dibromochloromethane	ND		50.0	58.3		ug/L		117	56 - 143
Chloroethane	ND		50.0	40.2		ug/L		80	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	54.9		ug/L		110	60 - 141
1-Chlorohexane	ND		50.0	55.6		ug/L		111	56 - 136
Chloromethane	ND		50.0	62.2		ug/L		124	49 - 148
cis-1,2-Dichloroethene	ND		50.0	51.9		ug/L		104	59 - 143
cis-1,3-Dichloropropene	ND		50.0	50.9		ug/L		102	57 - 140
1,2-Dichlorobenzene	ND		50.0	58.4		ug/L		117	52 - 137
1,3-Dichlorobenzene	ND		50.0	55.4		ug/L		111	54 - 135
1,4-Dichlorobenzene	ND		50.0	57.8		ug/L		116	53 - 135
Dichlorodifluoromethane	ND		50.0	64.9		ug/L		130	16 - 150
1,1-Dichloroethane	ND		50.0	55.3		ug/L		111	61 - 144
1,2-Dichloroethane	ND		50.0	54.7		ug/L		109	60 - 141
1,1-Dichloroethene	ND		50.0	52.9		ug/L		106	54 - 147
1,2-Dichloropropane	ND		50.0	59.5		ug/L		119	66 - 137
1,3-Dichloropropane	ND		50.0	58.0		ug/L		116	66 - 133
2,2-Dichloropropane	ND		50.0	46.4		ug/L		93	42 - 144

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

Lab Sample ID: 400-227995-6 MS
Matrix: Water
Analysis Batch: 599957

Client Sample ID: ROST3MW-ROX-102722
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	51.5		ug/L		103	65 - 136
Ethylbenzene	ND		50.0	52.6		ug/L		105	58 - 131
Ethyl methacrylate	ND		50.0	46.6		ug/L		93	64 - 130
Hexachlorobutadiene	ND		50.0	56.2		ug/L		112	31 - 149
2-Hexanone	ND		200	228		ug/L		114	65 - 140
Isopropylbenzene	ND		50.0	51.3		ug/L		103	56 - 133
Methylene bromide	ND		50.0	57.0		ug/L		114	63 - 138
Methylene Chloride	ND		50.0	55.6		ug/L		111	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	237		ug/L		118	63 - 146
Methyl tert-butyl ether	ND		50.0	46.9		ug/L		94	59 - 137
m-Xylene & p-Xylene	0.71	J	50.0	52.2		ug/L		103	57 - 130
Naphthalene	ND		50.0	39.6		ug/L		79	25 - 150
n-Butylbenzene	ND		50.0	57.5		ug/L		115	41 - 142
N-Propylbenzene	ND		50.0	49.9		ug/L		100	51 - 138
o-Chlorotoluene	ND		50.0	52.8		ug/L		106	53 - 134
o-Xylene	ND		50.0	53.4		ug/L		107	61 - 130
p-Chlorotoluene	ND		50.0	55.0		ug/L		110	54 - 133
p-Isopropyltoluene	ND		50.0	50.9		ug/L		102	48 - 139
sec-Butylbenzene	ND		50.0	51.7		ug/L		103	50 - 138
Styrene	ND		50.0	53.8		ug/L		108	58 - 131
tert-Butylbenzene	ND		50.0	50.4		ug/L		101	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	59.1		ug/L		118	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	60.1		ug/L		120	66 - 135
Tetrachloroethene	ND		50.0	52.8		ug/L		106	52 - 133
Toluene	ND		50.0	54.0		ug/L		108	65 - 130
trans-1,2-Dichloroethene	ND		50.0	52.6		ug/L		105	61 - 143
trans-1,3-Dichloropropene	ND		50.0	50.8		ug/L		102	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	42.2		ug/L		84	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	47.2		ug/L		94	39 - 148
1,1,1-Trichloroethane	ND		50.0	52.4		ug/L		105	57 - 142
1,1,2-Trichloroethane	ND		50.0	60.4		ug/L		121	66 - 131
Trichloroethene	ND		50.0	55.6		ug/L		111	64 - 136
Trichlorofluoromethane	ND		50.0	48.9		ug/L		98	54 - 150
1,2,3-Trichloropropane	ND		50.0	57.7		ug/L		115	65 - 133
1,2,4-Trimethylbenzene	ND		50.0	52.5		ug/L		105	50 - 139
1,3,5-Trimethylbenzene	ND		50.0	51.3		ug/L		103	52 - 135
Vinyl acetate	ND		100	92.3		ug/L		92	26 - 150
Vinyl chloride	ND		50.0	51.5		ug/L		103	46 - 150
Xylenes, Total	ND		100	106		ug/L		106	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

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

Lab Sample ID: 400-227995-6 MSD
Matrix: Water
Analysis Batch: 599957

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acetone	29	*+	200	316		ug/L		143	43 - 150	8	30
Acrolein	ND		500	646		ug/L		129	38 - 150	13	31
Acrylonitrile	ND		500	648		ug/L		130	62 - 149	8	30
Benzene	ND		50.0	59.1		ug/L		118	56 - 142	4	30
Bromobenzene	ND		50.0	53.4		ug/L		107	59 - 136	4	30
Bromochloromethane	ND		50.0	55.9		ug/L		112	64 - 140	2	30
Bromodichloromethane	ND		50.0	58.5		ug/L		117	59 - 143	3	30
Bromoform	ND		50.0	55.8		ug/L		112	50 - 140	4	30
Bromomethane	ND		50.0	50.5		ug/L		101	10 - 150	3	50
2-Butanone (MEK)	ND		200	260		ug/L		130	55 - 150	11	30
Carbon disulfide	ND		50.0	57.4		ug/L		115	48 - 150	5	30
Carbon tetrachloride	ND		50.0	55.7		ug/L		111	55 - 145	6	30
Chlorobenzene	ND		50.0	60.9		ug/L		122	64 - 130	3	30
Dibromochloromethane	ND		50.0	59.0		ug/L		118	56 - 143	1	30
Chloroethane	ND		50.0	49.1		ug/L		98	50 - 150	20	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	56.7		ug/L		113	60 - 141	3	30
1-Chlorohexane	ND		50.0	59.6		ug/L		119	56 - 136	7	30
Chloromethane	ND		50.0	71.7		ug/L		143	49 - 148	14	31
cis-1,2-Dichloroethene	ND		50.0	55.0		ug/L		110	59 - 143	6	30
cis-1,3-Dichloropropene	ND		50.0	53.5		ug/L		107	57 - 140	5	30
1,2-Dichlorobenzene	ND		50.0	60.9		ug/L		122	52 - 137	4	30
1,3-Dichlorobenzene	ND		50.0	58.2		ug/L		116	54 - 135	5	30
1,4-Dichlorobenzene	ND		50.0	60.0		ug/L		120	53 - 135	4	30
Dichlorodifluoromethane	ND		50.0	73.4		ug/L		147	16 - 150	12	31
1,1-Dichloroethane	ND		50.0	57.8		ug/L		116	61 - 144	4	30
1,2-Dichloroethane	ND		50.0	56.7		ug/L		113	60 - 141	4	30
1,1-Dichloroethene	ND		50.0	55.7		ug/L		111	54 - 147	5	30
1,2-Dichloropropane	ND		50.0	61.2		ug/L		122	66 - 137	3	30
1,3-Dichloropropane	ND		50.0	60.3		ug/L		121	66 - 133	4	30
2,2-Dichloropropane	ND		50.0	50.6		ug/L		101	42 - 144	9	31
1,1-Dichloropropene	ND		50.0	55.9		ug/L		112	65 - 136	8	30
Ethylbenzene	ND		50.0	55.8		ug/L		112	58 - 131	6	30
Ethyl methacrylate	ND		50.0	51.6		ug/L		103	64 - 130	10	30
Hexachlorobutadiene	ND		50.0	64.7		ug/L		129	31 - 149	14	36
2-Hexanone	ND		200	246		ug/L		123	65 - 140	8	30
Isopropylbenzene	ND		50.0	54.6		ug/L		109	56 - 133	6	30
Methylene bromide	ND		50.0	59.4		ug/L		119	63 - 138	4	30
Methylene Chloride	ND		50.0	56.2		ug/L		112	60 - 146	1	32
4-Methyl-2-pentanone (MIBK)	ND		200	256		ug/L		128	63 - 146	8	30
Methyl tert-butyl ether	ND		50.0	50.3		ug/L		101	59 - 137	7	30
m-Xylene & p-Xylene	0.71	J	50.0	55.4		ug/L		109	57 - 130	6	30
Naphthalene	ND		50.0	44.7		ug/L		89	25 - 150	12	30
n-Butylbenzene	ND		50.0	62.9		ug/L		126	41 - 142	9	31
N-Propylbenzene	ND		50.0	54.3		ug/L		109	51 - 138	8	30
o-Chlorotoluene	ND		50.0	56.1		ug/L		112	53 - 134	6	30
o-Xylene	ND		50.0	55.8		ug/L		112	61 - 130	4	30
p-Chlorotoluene	ND		50.0	58.0		ug/L		116	54 - 133	5	30

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

Lab Sample ID: 400-227995-6 MSD
Matrix: Water
Analysis Batch: 599957

Client Sample ID: ROST3MW-ROX-102722
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	55.3		ug/L		111	48 - 139	8	30
sec-Butylbenzene	ND		50.0	56.4		ug/L		113	50 - 138	9	30
Styrene	ND		50.0	56.0		ug/L		112	58 - 131	4	30
tert-Butylbenzene	ND		50.0	54.6		ug/L		109	54 - 146	8	30
1,1,1,2-Tetrachloroethane	ND		50.0	60.0		ug/L		120	59 - 137	2	30
1,1,2,2-Tetrachloroethane	ND		50.0	62.3		ug/L		125	66 - 135	4	30
Tetrachloroethene	ND		50.0	55.7		ug/L		111	52 - 133	5	30
Toluene	ND		50.0	56.8		ug/L		114	65 - 130	5	30
trans-1,2-Dichloroethene	ND		50.0	55.9		ug/L		112	61 - 143	6	30
trans-1,3-Dichloropropene	ND		50.0	52.2		ug/L		104	53 - 133	3	30
1,2,3-Trichlorobenzene	ND		50.0	47.0		ug/L		94	43 - 145	11	30
1,2,4-Trichlorobenzene	ND		50.0	50.2		ug/L		100	39 - 148	6	30
1,1,1-Trichloroethane	ND		50.0	55.9		ug/L		112	57 - 142	7	30
1,1,2-Trichloroethane	ND		50.0	61.8		ug/L		124	66 - 131	2	30
Trichloroethene	ND		50.0	57.7		ug/L		115	64 - 136	4	30
Trichlorofluoromethane	ND		50.0	53.4		ug/L		107	54 - 150	9	30
1,2,3-Trichloropropane	ND		50.0	60.8		ug/L		122	65 - 133	5	30
1,2,4-Trimethylbenzene	ND		50.0	55.8		ug/L		112	50 - 139	6	30
1,3,5-Trimethylbenzene	ND		50.0	54.6		ug/L		109	52 - 135	6	30
Vinyl acetate	ND		100	106		ug/L		106	26 - 150	14	33
Vinyl chloride	ND		50.0	60.4		ug/L		121	46 - 150	16	30
Xylenes, Total	ND		100	111		ug/L		111	59 - 130	5	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

Lab Sample ID: MB 400-600010/4
Matrix: Water
Analysis Batch: 600010

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			11/10/22 10:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*11/10/22 10:58*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*11/10/22 10:58*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/10/22 10:58*	*1*

Lab Sample ID: LCS 400-600010/1002
Matrix: Water
Analysis Batch: 600010

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	261		ug/L		130	43 - 160

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

Lab Sample ID: LCS 400-600010/1002
Matrix: Water
Analysis Batch: 600010

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*104*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: MB 400-600020/4
Matrix: Water
Analysis Batch: 600020

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			11/10/22 11:30	1
Acrolein	ND		20	3.3	ug/L			11/10/22 11:30	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 11:30	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 11:30	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 11:30	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 11:30	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 11:30	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 11:30	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 11:30	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 11:30	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 11:30	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 11:30	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 11:30	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 11:30	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 11:30	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 11:30	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 11:30	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 11:30	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 11:30	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 11:30	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 11:30	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 11:30	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 11:30	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 11:30	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 11:30	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 11:30	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 11:30	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 11:30	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 11:30	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 11:30	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 11:30	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 11:30	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 11:30	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 11:30	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 11:30	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 11:30	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 11:30	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 11:30	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 11:30	1

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

Lab Sample ID: MB 400-600020/4
Matrix: Water
Analysis Batch: 600020

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 11:30	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 11:30	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 11:30	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 11:30	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 11:30	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 11:30	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 11:30	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 11:30	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 11:30	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 11:30	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/10/22 11:30	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 11:30	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 11:30	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 11:30	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 11:30	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 11:30	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 11:30	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 11:30	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 11:30	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 11:30	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 11:30	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 11:30	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 11:30	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 11:30	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 11:30	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 11:30	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 11:30	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 11:30	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 11:30	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 11:30	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 11:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/10/22 11:30*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/10/22 11:30*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/10/22 11:30*	*1*

Lab Sample ID: LCS 400-600020/1002
Matrix: Water
Analysis Batch: 600020

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	353	*+	ug/L		176	43 - 160
Acrolein	500	519		ug/L		104	38 - 160
Acrylonitrile	500	516		ug/L		103	64 - 142
Benzene	50.0	51.3		ug/L		103	70 - 130
Bromobenzene	50.0	47.5		ug/L		95	70 - 132
Bromochloromethane	50.0	47.7		ug/L		95	70 - 130

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

Lab Sample ID: LCS 400-600020/1002
Matrix: Water
Analysis Batch: 600020

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	50.0	51.5		ug/L		103	67 - 133
Bromoform	50.0	48.6		ug/L		97	57 - 140
Bromomethane	50.0	47.8		ug/L		96	10 - 160
2-Butanone (MEK)	200	261		ug/L		130	61 - 145
Carbon disulfide	50.0	48.9		ug/L		98	61 - 137
Carbon tetrachloride	50.0	49.4		ug/L		99	61 - 137
Chlorobenzene	50.0	54.4		ug/L		109	70 - 130
Dibromochloromethane	50.0	51.4		ug/L		103	67 - 135
Chloroethane	50.0	45.7		ug/L		91	55 - 141
2-Chloroethyl vinyl ether	50.0	45.4		ug/L		91	10 - 160
Chloroform	50.0	49.3		ug/L		99	69 - 130
1-Chlorohexane	50.0	53.9		ug/L		108	69 - 130
Chloromethane	50.0	59.6		ug/L		119	58 - 137
cis-1,2-Dichloroethene	50.0	46.9		ug/L		94	68 - 130
cis-1,3-Dichloropropene	50.0	45.7		ug/L		91	69 - 132
1,2-Dichlorobenzene	50.0	56.0		ug/L		112	67 - 130
1,3-Dichlorobenzene	50.0	53.7		ug/L		107	70 - 130
1,4-Dichlorobenzene	50.0	55.3		ug/L		111	70 - 130
Dichlorodifluoromethane	50.0	64.1		ug/L		128	41 - 146
1,1-Dichloroethane	50.0	50.0		ug/L		100	70 - 130
1,2-Dichloroethane	50.0	48.9		ug/L		98	69 - 130
1,1-Dichloroethene	50.0	47.5		ug/L		95	63 - 134
1,2-Dichloropropane	50.0	52.8		ug/L		106	70 - 130
1,3-Dichloropropane	50.0	51.2		ug/L		102	70 - 130
2,2-Dichloropropane	50.0	43.4		ug/L		87	52 - 135
1,1-Dichloropropene	50.0	48.5		ug/L		97	70 - 130
Ethylbenzene	50.0	49.5		ug/L		99	70 - 130
Ethyl methacrylate	50.0	39.7		ug/L		79	68 - 130
Hexachlorobutadiene	50.0	58.2		ug/L		116	53 - 140
2-Hexanone	200	239		ug/L		119	65 - 137
Isopropylbenzene	50.0	48.6		ug/L		97	70 - 130
Methylene bromide	50.0	51.1		ug/L		102	70 - 130
Methylene Chloride	50.0	48.1		ug/L		96	66 - 135
4-Methyl-2-pentanone (MIBK)	200	208		ug/L		104	69 - 138
Methyl tert-butyl ether	50.0	40.7		ug/L		81	66 - 130
m-Xylene & p-Xylene	50.0	47.9		ug/L		96	70 - 130
Naphthalene	50.0	32.1		ug/L		64	47 - 149
n-Butylbenzene	50.0	60.8		ug/L		122	67 - 130
N-Propylbenzene	50.0	49.4		ug/L		99	70 - 130
o-Chlorotoluene	50.0	52.6		ug/L		105	70 - 130
o-Xylene	50.0	49.0		ug/L		98	70 - 130
p-Chlorotoluene	50.0	53.5		ug/L		107	70 - 130
p-Isopropyltoluene	50.0	51.3		ug/L		103	65 - 130
sec-Butylbenzene	50.0	51.2		ug/L		102	66 - 130
Styrene	50.0	50.7		ug/L		101	70 - 130
tert-Butylbenzene	50.0	49.1		ug/L		98	64 - 139
1,1,1,2-Tetrachloroethane	50.0	53.2		ug/L		106	67 - 131
1,1,2,2-Tetrachloroethane	50.0	52.4		ug/L		105	70 - 131
Tetrachloroethene	50.0	52.9		ug/L		106	65 - 130

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

Lab Sample ID: LCS 400-600020/1002
Matrix: Water
Analysis Batch: 600020

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	50.0	50.0		ug/L		100	70 - 130
trans-1,2-Dichloroethene	50.0	48.3		ug/L		97	70 - 130
trans-1,3-Dichloropropene	50.0	45.1		ug/L		90	63 - 130
1,2,3-Trichlorobenzene	50.0	40.0		ug/L		80	60 - 138
1,2,4-Trichlorobenzene	50.0	38.5		ug/L		77	60 - 140
1,1,1-Trichloroethane	50.0	48.4		ug/L		97	68 - 130
1,1,2-Trichloroethane	50.0	53.4		ug/L		107	70 - 130
Trichloroethene	50.0	51.2		ug/L		102	70 - 130
Trichlorofluoromethane	50.0	47.7		ug/L		95	65 - 138
1,2,3-Trichloropropane	50.0	51.0		ug/L		102	70 - 130
1,2,4-Trimethylbenzene	50.0	51.2		ug/L		102	70 - 130
1,3,5-Trimethylbenzene	50.0	49.5		ug/L		99	69 - 130
Vinyl acetate	100	84.1		ug/L		84	26 - 160
Vinyl chloride	50.0	50.0		ug/L		100	59 - 136
Xylenes, Total	100	96.9		ug/L		97	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*95*		*64 - 132*

Lab Sample ID: MB 400-600212/4
Matrix: Water
Analysis Batch: 600212

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	3.0	ug/L			11/11/22 10:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/11/22 10:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/11/22 10:31*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/11/22 10:31*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*11/11/22 10:31*	*1*

Lab Sample ID: LCS 400-600212/1002
Matrix: Water
Analysis Batch: 600212

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Naphthalene	50.0	34.4		ug/L		69	47 - 149
1,2,4-Trimethylbenzene	50.0	52.0		ug/L		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*97*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzenethiol	ND		10	1.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzoic acid	ND		30	7.3	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzyl alcohol	ND		10	2.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/02/22 10:47	11/03/22 16:50	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Chloroaniline	ND		10	3.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Chlorophenol	ND		10	2.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dibenzofuran	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Diethyl phthalate	ND		10	0.24	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/02/22 10:47	11/03/22 16:50	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
1,4-Dioxane	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachloroethane	ND		10	4.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
Indene	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Isophorone	ND		10	0.14	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Methylphenol	ND		10	1.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Nitroaniline	ND		10	2.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
3-Nitroaniline	ND		10	1.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Nitroaniline	ND		10	1.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
Nitrobenzene	ND		10	0.13	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Nitrophenol	ND		10	5.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Nitrophenol	ND		10	2.1	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/02/22 10:47	11/03/22 16:50	1
Pentachlorophenol	ND		20	1.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
Phenol	ND		10	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyridine	ND		10	3.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
Quinoline	ND		10	4.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*46 - 124*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
2-Fluorophenol	*15*		*13 - 113*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Nitrobenzene-d5	*83*		*36 - 126*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Phenol-d5	*51*		*17 - 127*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Terphenyl-d14	*108*		*44 - 149*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
2,4,6-Tribromophenol	*87*		*26 - 150*	*11/02/22 10:47*	*11/03/22 16:50*	*1*

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	119		ug/L		99	21 - 120
Benzoic acid	513	388		ug/L		76	10 - 144
Benzyl alcohol	120	106		ug/L		88	28 - 120
Bis(2-chloroethoxy)methane	120	91.3		ug/L		76	47 - 120
Bis(2-chloroethyl)ether	120	74.2		ug/L		62	44 - 120
bis (2-chloroisopropyl) ether	120	76.9		ug/L		64	33 - 121
Bis(2-ethylhexyl) phthalate	120	116		ug/L		97	52 - 147
4-Bromophenyl phenyl ether	120	130		ug/L		109	54 - 122
Butyl benzyl phthalate	120	116		ug/L		96	54 - 133
4-Chloroaniline	120	85.6		ug/L		71	26 - 120
4-Chloro-3-methylphenol	120	120		ug/L		100	48 - 131
2-Chloronaphthalene	120	114		ug/L		95	52 - 121
2-Chlorophenol	120	81.6		ug/L		68	40 - 120
4-Chlorophenyl phenyl ether	120	129		ug/L		107	56 - 125
Dibenz[a,h]acridine	120	127		ug/L		106	31 - 150
Dibenzofuran	120	121		ug/L		101	56 - 122
3,3'-Dichlorobenzidine	160	201		ug/L		126	36 - 132
2,4-Dichlorophenol	120	108		ug/L		90	49 - 120
Diethyl phthalate	120	123		ug/L		103	50 - 137
2,4-Dimethylphenol	120	105		ug/L		87	48 - 120
Dimethyl phthalate	120	121		ug/L		101	57 - 124
Di-n-butyl phthalate	120	118		ug/L		98	58 - 126
4,6-Dinitro-ortho-cresol	240	272		ug/L		113	23 - 148
2,4-Dinitrophenol	240	261		ug/L		109	10 - 150
2,4-Dinitrotoluene	120	129		ug/L		108	54 - 142
2,6-Dinitrotoluene	120	118		ug/L		98	55 - 130
Di-n-octyl phthalate	120	118		ug/L		98	57 - 138
1,4-Dioxane	120	62.5		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	90.6		ug/L		76	45 - 124
Hexachlorobenzene	120	141		ug/L		117	52 - 129

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

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Hexachlorocyclopentadiene	120	92.2		ug/L		77	10 - 134
Hexachloroethane	120	101		ug/L		85	20 - 120
Indene	120	96.6		ug/L		81	49 - 120
Isophorone	120	93.7		ug/L		78	48 - 120
2-Methylphenol	120	98.0		ug/L		82	46 - 124
3 & 4 Methylphenol	120	98.0		ug/L		82	45 - 120
2-Nitroaniline	120	98.4		ug/L		82	51 - 145
3-Nitroaniline	120	92.2		ug/L		77	37 - 127
4-Nitroaniline	120	121		ug/L		101	36 - 137
Nitrobenzene	120	92.5		ug/L		77	45 - 120
2-Nitrophenol	120	97.7		ug/L		81	40 - 124
4-Nitrophenol	240	273		ug/L		114	23 - 146
N-Nitrosodimethylamine	120	72.2		ug/L		60	29 - 137
N-Nitrosodi-n-propylamine	120	101		ug/L		84	45 - 120
N-Nitrosodiphenylamine	119	113		ug/L		95	54 - 120
Pentachlorophenol	240	258		ug/L		107	31 - 130
Phenol	120	79.6		ug/L		66	11 - 120
Pyridine	240	138		ug/L		57	16 - 120
Quinoline	120	113		ug/L		94	49 - 130
2,4,5-Trichlorophenol	120	117		ug/L		97	51 - 136
2,4,6-Trichlorophenol	120	115		ug/L		96	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*87*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*101*		*44 - 149*
2,4,6-Tribromophenol	*123*		*26 - 150*

Lab Sample ID: LCS 400-598868/3-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	7.34	J *-	ug/L		6	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*96*		*46 - 124*
2-Fluorophenol	*34*		*13 - 113*
Nitrobenzene-d5	*84*		*36 - 126*
Phenol-d5	*62*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*78*		*26 - 150*

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

Lab Sample ID: LCSD 400-598868/4-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	8.10	J *-	ug/L		7	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*68*		*26 - 150*

Lab Sample ID: 400-227995-6 MS
Matrix: Water
Analysis Batch: 599074

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	ND		115	119		ug/L		104	10 - 120
Benzoic acid	ND		490	484		ug/L		99	10 - 149
Benzyl alcohol	ND		115	101		ug/L		88	33 - 120
Bis(2-chloroethoxy)methane	ND		115	88.7		ug/L		77	26 - 120
Bis(2-chloroethyl)ether	ND		115	74.7		ug/L		65	42 - 120
bis (2-chloroisopropyl) ether	ND		115	75.2		ug/L		66	28 - 120
Bis(2-ethylhexyl) phthalate	ND		115	114		ug/L		100	39 - 120
4-Bromophenyl phenyl ether	ND		115	131		ug/L		114	40 - 120
Butyl benzyl phthalate	ND		115	117		ug/L		102	45 - 120
4-Chloroaniline	ND		115	76.2		ug/L		67	10 - 120
4-Chloro-3-methylphenol	ND		115	128		ug/L		111	34 - 120
2-Chloronaphthalene	ND		115	111		ug/L		97	39 - 120
2-Chlorophenol	ND		115	93.3		ug/L		81	25 - 120
4-Chlorophenyl phenyl ether	ND		115	127		ug/L		111	44 - 120
Dibenz[a,h]acridine	ND		115	119		ug/L		104	50 - 150
Dibenzofuran	ND		115	121		ug/L		105	25 - 130
3,3'-Dichlorobenzidine	ND	F1	153	187	F1	ug/L		122	10 - 120
2,4-Dichlorophenol	ND		115	116		ug/L		101	31 - 120
Diethyl phthalate	ND		115	121		ug/L		106	46 - 120
2,4-Dimethylphenol	ND		115	108		ug/L		94	21 - 120
Dimethyl phthalate	ND		115	119		ug/L		104	38 - 120
Di-n-butyl phthalate	ND		115	112		ug/L		98	49 - 120
4,6-Dinitro-ortho-cresol	ND		229	272		ug/L		119	25 - 120
2,4-Dinitrophenol	ND		229	263		ug/L		115	15 - 140
2,4-Dinitrotoluene	ND		115	129		ug/L		113	53 - 120
2,6-Dinitrotoluene	ND		115	116		ug/L		102	43 - 120
Di-n-octyl phthalate	ND		115	114		ug/L		100	35 - 121
1,4-Dioxane	ND	F1	115	48.7	F1	ug/L		42	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		115	89.7		ug/L		78	50 - 150
Hexachlorobenzene	ND		115	140		ug/L		122	38 - 122
Hexachlorocyclopentadiene	ND		115	90.2		ug/L		79	10 - 120
Hexachloroethane	ND		115	97.4		ug/L		85	10 - 150

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

Lab Sample ID: 400-227995-6 MS
Matrix: Water
Analysis Batch: 599074

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Indene	ND		115	95.0		ug/L		83	50 - 150
Isophorone	ND		115	91.4		ug/L		80	42 - 120
2-Methylphenol	ND		115	109		ug/L		95	28 - 120
3 & 4 Methylphenol	ND		115	108		ug/L		94	31 - 120
2-Nitroaniline	ND		115	97.8		ug/L		85	45 - 120
3-Nitroaniline	ND		115	85.9		ug/L		75	10 - 130
4-Nitroaniline	ND		115	120		ug/L		105	10 - 132
Nitrobenzene	ND		115	89.6		ug/L		78	39 - 120
2-Nitrophenol	ND		115	103		ug/L		90	33 - 120
4-Nitrophenol	ND		229	265		ug/L		116	10 - 120
N-Nitrosodimethylamine	ND		115	87.0		ug/L		76	10 - 139
N-Nitrosodi-n-propylamine	ND		115	101		ug/L		88	37 - 124
N-Nitrosodiphenylamine	ND		114	112		ug/L		98	10 - 150
Pentachlorophenol	ND		229	268		ug/L		117	29 - 130
Phenol	ND		115	88.5		ug/L		77	10 - 150
Pyridine	ND		229	131		ug/L		57	10 - 120
Quinoline	ND		115	115		ug/L		100	51 - 120
2,4,5-Trichlorophenol	ND		115	122		ug/L		106	34 - 120
2,4,6-Trichlorophenol	ND		115	118		ug/L		103	33 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*97*		*46 - 124*
2-Fluorophenol	*55*		*13 - 113*
Nitrobenzene-d5	*91*		*36 - 126*
Phenol-d5	*83*		*17 - 127*
Terphenyl-d14	*115*		*44 - 149*
2,4,6-Tribromophenol	*134*		*26 - 150*

Lab Sample ID: 400-227995-6 MSD
Matrix: Water
Analysis Batch: 599074

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	ND		113	118		ug/L		105	10 - 120	0	63
Benzoic acid	ND		483	462		ug/L		96	10 - 149	5	49
Benzyl alcohol	ND		113	97.8		ug/L		87	33 - 120	3	37
Bis(2-chloroethoxy)methane	ND		113	86.6		ug/L		77	26 - 120	2	70
Bis(2-chloroethyl)ether	ND		113	71.6		ug/L		63	42 - 120	4	42
bis (2-chloroisopropyl) ether	ND		113	73.0		ug/L		65	28 - 120	3	41
Bis(2-ethylhexyl) phthalate	ND		113	110		ug/L		97	39 - 120	4	35
4-Bromophenyl phenyl ether	ND		113	125		ug/L		111	40 - 120	4	30
Butyl benzyl phthalate	ND		113	114		ug/L		101	45 - 120	3	32
4-Chloroaniline	ND		113	79.9		ug/L		71	10 - 120	5	94
4-Chloro-3-methylphenol	ND		113	123		ug/L		108	34 - 120	4	40
2-Chloronaphthalene	ND		113	109		ug/L		97	39 - 120	2	29
2-Chlorophenol	ND		113	86.6		ug/L		77	25 - 120	8	42
4-Chlorophenyl phenyl ether	ND		113	123		ug/L		109	44 - 120	4	27
Dibenz[a,h]acridine	ND		113	114		ug/L		101	50 - 150	4	40

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

Lab Sample ID: 400-227995-6 MSD
Matrix: Water
Analysis Batch: 599074

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Dibenzofuran	ND		113	118		ug/L		104	25 - 130	2	29
3,3'-Dichlorobenzidine	ND	F1	151	175		ug/L		116	10 - 120	7	58
2,4-Dichlorophenol	ND		113	113		ug/L		100	31 - 120	2	43
Diethyl phthalate	ND		113	117		ug/L		104	46 - 120	3	40
2,4-Dimethylphenol	ND		113	104		ug/L		92	21 - 120	3	47
Dimethyl phthalate	ND		113	116		ug/L		102	38 - 120	3	36
Di-n-butyl phthalate	ND		113	108		ug/L		96	49 - 120	4	32
4,6-Dinitro-ortho-cresol	ND		226	262		ug/L		116	25 - 120	4	42
2,4-Dinitrophenol	ND		226	250		ug/L		111	15 - 140	5	36
2,4-Dinitrotoluene	ND		113	126		ug/L		111	53 - 120	3	28
2,6-Dinitrotoluene	ND		113	113		ug/L		100	43 - 120	3	28
Di-n-octyl phthalate	ND		113	109		ug/L		97	35 - 121	5	35
1,4-Dioxane	ND	F1	113	59.9		ug/L		53	50 - 150	21	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		113	87.0		ug/L		77	50 - 150	3	40
Hexachlorobenzene	ND		113	137		ug/L		121	38 - 122	3	33
Hexachlorocyclopentadiene	ND		113	82.2		ug/L		73	10 - 120	9	50
Hexachloroethane	ND		113	93.9		ug/L		83	10 - 150	4	41
Indene	ND		113	91.3		ug/L		81	50 - 150	4	40
Isophorone	ND		113	88.8		ug/L		79	42 - 120	3	33
2-Methylphenol	ND		113	105		ug/L		93	28 - 120	4	47
3 & 4 Methylphenol	ND		113	104		ug/L		92	31 - 120	4	47
2-Nitroaniline	ND		113	95.2		ug/L		84	45 - 120	3	33
3-Nitroaniline	ND		113	85.3		ug/L		76	10 - 130	1	39
4-Nitroaniline	ND		113	118		ug/L		104	10 - 132	2	50
Nitrobenzene	ND		113	88.3		ug/L		78	39 - 120	2	35
2-Nitrophenol	ND		113	101		ug/L		90	33 - 120	1	43
4-Nitrophenol	ND		226	255		ug/L		113	10 - 120	4	82
N-Nitrosodimethylamine	ND		113	85.6		ug/L		76	10 - 139	2	62
N-Nitrosodi-n-propylamine	ND		113	97.5		ug/L		86	37 - 124	4	36
N-Nitrosodiphenylamine	ND		112	107		ug/L		95	10 - 150	5	34
Pentachlorophenol	ND		226	258		ug/L		114	29 - 130	4	42
Phenol	ND		113	82.2		ug/L		73	10 - 150	7	52
Pyridine	ND		226	134		ug/L		59	10 - 120	2	55
Quinoline	ND		113	109		ug/L		97	51 - 120	5	40
2,4,5-Trichlorophenol	ND		113	121		ug/L		107	34 - 120	1	42
2,4,6-Trichlorophenol	ND		113	117		ug/L		103	33 - 120	1	44

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*93*		*46 - 124*
2-Fluorophenol	*46*		*13 - 113*
Nitrobenzene-d5	*88*		*36 - 126*
Phenol-d5	*76*		*17 - 127*
Terphenyl-d14	*108*		*44 - 149*
2,4,6-Tribromophenol	*128*		*26 - 150*

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

Lab Sample ID: MB 400-599854/1-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/09/22 09:13	11/10/22 21:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*11/09/22 09:13*	*11/10/22 21:13*	*1*
Nitrobenzene-d5	*93*		*36 - 126*	*11/09/22 09:13*	*11/10/22 21:13*	*1*
Terphenyl-d14	*128*		*44 - 149*	*11/09/22 09:13*	*11/10/22 21:13*	*1*

Lab Sample ID: LCS 400-599854/2-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599854

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-ethylhexyl) phthalate	120	141		ug/L		117	52 - 147

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
Nitrobenzene-d5	*97*		*36 - 126*
Terphenyl-d14	*107*		*44 - 149*

Lab Sample ID: LCSD 400-599854/3-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599854

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate	120	146		ug/L		121	52 - 147	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
Nitrobenzene-d5	*97*		*36 - 126*
Terphenyl-d14	*109*		*44 - 149*

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/02/22 10:47	11/03/22 20:45	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/02/22 10:47	11/03/22 20:45	1
Anthracene	ND		0.20	0.032	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[a]anthracene	0.0679	J	0.20	0.046	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/02/22 10:47	11/03/22 20:45	1
Chrysene	ND		0.20	0.074	ug/L		11/02/22 10:47	11/03/22 20:45	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/02/22 10:47	11/03/22 20:45	1

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	ND		0.20	0.068	ug/L		11/02/22 10:47	11/03/22 20:45	1
Fluorene	ND		0.20	0.11	ug/L		11/02/22 10:47	11/03/22 20:45	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/02/22 10:47	11/03/22 20:45	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/02/22 10:47	11/03/22 20:45	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/02/22 10:47	11/03/22 20:45	1
Phenanthrene	ND		0.20	0.036	ug/L		11/02/22 10:47	11/03/22 20:45	1
Pyrene	ND		0.20	0.040	ug/L		11/02/22 10:47	11/03/22 20:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*128*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/03/22 20:45*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*11/02/22 10:47*	*11/03/22 20:45*	*1*
Terphenyl-d14	*118*		*33 - 138*	*11/02/22 10:47*	*11/03/22 20:45*	*1*

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	124		ug/L		103	41 - 120
Acenaphthylene	120	121		ug/L		100	44 - 120
Anthracene	120	128		ug/L		107	49 - 120
Benzo[a]anthracene	120	135		ug/L		112	61 - 135
Benzo[a]pyrene	120	122		ug/L		102	52 - 120
Benzo[b]fluoranthene	120	124		ug/L		104	53 - 134
Benzo[g,h,i]perylene	120	92.5		ug/L		77	47 - 133
Benzo[k]fluoranthene	120	123		ug/L		102	57 - 134
Chrysene	120	128		ug/L		107	55 - 122
Dibenz(a,h)anthracene	120	107		ug/L		89	48 - 146
Fluoranthene	120	146		ug/L		122	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	109		ug/L		91	43 - 142
1-Methylnaphthalene	120	93.9		ug/L		78	41 - 120
2-Methylnaphthalene	120	99.9		ug/L		83	32 - 124
Phenanthrene	120	111		ug/L		92	48 - 120
Pyrene	120	111		ug/L		93	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*15 - 122*
Nitrobenzene-d5	*83*		*19 - 130*
Terphenyl-d14	*106*		*33 - 138*

Lab Sample ID: 400-227995-6 MS
Matrix: Water
Analysis Batch: 599109

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	ND		115	124		ug/L		109	35 - 113
Acenaphthylene	ND		115	126		ug/L		110	41 - 118

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

Lab Sample ID: 400-227995-6 MS
Matrix: Water
Analysis Batch: 599109

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Anthracene	ND		115	132		ug/L		115	45 - 122
Benzo[a]anthracene	ND		115	139		ug/L		121	55 - 133
Benzo[a]pyrene	ND		115	122		ug/L		107	50 - 108
Benzo[b]fluoranthene	ND		115	134		ug/L		117	50 - 128
Benzo[g,h,i]perylene	ND		115	85.1		ug/L		74	46 - 133
Benzo[k]fluoranthene	ND		115	122		ug/L		106	52 - 128
Chrysene	ND		115	130		ug/L		113	52 - 116
Dibenz(a,h)anthracene	ND		115	104		ug/L		90	52 - 143
Fluoranthene	ND		115	155		ug/L		136	32 - 150
Fluorene	ND		115	124		ug/L		108	15 - 150
Indeno[1,2,3-cd]pyrene	ND		115	104		ug/L		91	41 - 141
1-Methylnaphthalene	0.20		115	91.7		ug/L		80	10 - 150
2-Methylnaphthalene	ND		115	98.1		ug/L		86	10 - 150
Phenanthrene	ND		115	115		ug/L		101	36 - 125
Pyrene	ND		115	107		ug/L		93	41 - 127

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2-Fluorobiphenyl	*183*	*S1+*	*15 - 122*
Nitrobenzene-d5	*87*		*19 - 130*
Terphenyl-d14	*107*		*33 - 138*

Lab Sample ID: 400-227995-6 MSD
Matrix: Water
Analysis Batch: 599109

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	ND		113	120		ug/L		106	35 - 113	4	49
Acenaphthylene	ND		113	117		ug/L		103	41 - 118	7	48
Anthracene	ND		113	125		ug/L		111	45 - 122	5	56
Benzo[a]anthracene	ND		113	132		ug/L		117	55 - 133	5	57
Benzo[a]pyrene	ND		113	120		ug/L		106	50 - 108	2	59
Benzo[b]fluoranthene	ND		113	128		ug/L		114	50 - 128	4	62
Benzo[g,h,i]perylene	ND		113	81.6		ug/L		72	46 - 133	4	58
Benzo[k]fluoranthene	ND		113	121		ug/L		107	52 - 128	1	58
Chrysene	ND		113	124		ug/L		110	52 - 116	5	59
Dibenz(a,h)anthracene	ND		113	98.6		ug/L		87	52 - 143	5	60
Fluoranthene	ND		113	146		ug/L		129	32 - 150	6	59
Fluorene	ND		113	121		ug/L		107	15 - 150	3	49
Indeno[1,2,3-cd]pyrene	ND		113	99.6		ug/L		88	41 - 141	4	58
1-Methylnaphthalene	0.20		113	90.8		ug/L		80	10 - 150	1	66
2-Methylnaphthalene	ND		113	96.0		ug/L		85	10 - 150	2	66
Phenanthrene	ND		113	108		ug/L		95	36 - 125	7	69
Pyrene	ND		113	103		ug/L		92	41 - 127	3	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*15 - 122*
Nitrobenzene-d5	*82*		*19 - 130*
Terphenyl-d14	*102*		*33 - 138*

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

Lab Sample ID: MB 400-602887/1-A
Matrix: Water
Analysis Batch: 603239

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602887

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/30/22 14:01	12/02/22 14:31	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/30/22 14:01	12/02/22 14:31	1
Anthracene	ND		0.20	0.032	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/30/22 14:01	12/02/22 14:31	1
Chrysene	ND		0.20	0.074	ug/L		11/30/22 14:01	12/02/22 14:31	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/30/22 14:01	12/02/22 14:31	1
Fluoranthene	0.113	J	0.20	0.068	ug/L		11/30/22 14:01	12/02/22 14:31	1
Fluorene	ND		0.20	0.11	ug/L		11/30/22 14:01	12/02/22 14:31	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/30/22 14:01	12/02/22 14:31	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/30/22 14:01	12/02/22 14:31	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/30/22 14:01	12/02/22 14:31	1
Phenanthrene	ND		0.20	0.036	ug/L		11/30/22 14:01	12/02/22 14:31	1
Pyrene	0.0611	J	0.20	0.040	ug/L		11/30/22 14:01	12/02/22 14:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*15 - 122*	*11/30/22 14:01*	*12/02/22 14:31*	*1*
Nitrobenzene-d5	*61*		*19 - 130*	*11/30/22 14:01*	*12/02/22 14:31*	*1*
Terphenyl-d14	*89*		*33 - 138*	*11/30/22 14:01*	*12/02/22 14:31*	*1*

Lab Sample ID: LCS 400-602887/2-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	118		ug/L		98	41 - 120
Acenaphthylene	120	119		ug/L		99	44 - 120
Anthracene	120	124		ug/L		103	49 - 120
Benzo[a]anthracene	120	117		ug/L		98	61 - 135
Benzo[a]pyrene	120	104		ug/L		87	52 - 120
Benzo[b]fluoranthene	120	99.3		ug/L		83	53 - 134
Benzo[g,h,i]perylene	120	94.3		ug/L		79	47 - 133
Benzo[k]fluoranthene	120	114		ug/L		95	57 - 134
Chrysene	120	116		ug/L		97	55 - 122
Dibenz(a,h)anthracene	120	88.3		ug/L		74	48 - 146
Fluoranthene	120	121		ug/L		101	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	95.1		ug/L		79	43 - 142
1-Methylnaphthalene	120	122		ug/L		102	41 - 120
2-Methylnaphthalene	120	123		ug/L		102	32 - 124
Phenanthrene	120	113		ug/L		94	48 - 120
Pyrene	120	114		ug/L		95	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*94*		*15 - 122*

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

Lab Sample ID: LCS 400-602887/2-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602887

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	76		19 - 130
Terphenyl-d14	95		33 - 138

Lab Sample ID: LCSD 400-602887/3-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 602887

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	131		ug/L		109	41 - 120	10	56
Acenaphthylene	120	133		ug/L		111	44 - 120	11	56
Anthracene	120	138		ug/L		115	49 - 120	10	51
Benzo[a]anthracene	120	131		ug/L		109	61 - 135	11	49
Benzo[a]pyrene	120	117		ug/L		97	52 - 120	12	50
Benzo[b]fluoranthene	120	113		ug/L		94	53 - 134	13	54
Benzo[g,h,i]perylene	120	103		ug/L		86	47 - 133	9	50
Benzo[k]fluoranthene	120	129		ug/L		107	57 - 134	12	52
Chrysene	120	129		ug/L		108	55 - 122	11	50
Dibenz(a,h)anthracene	120	97.9		ug/L		82	48 - 146	10	50
Fluoranthene	120	132		ug/L		110	54 - 128	9	52
Fluorene	120	133		ug/L		111	45 - 125	9	56
Indeno[1,2,3-cd]pyrene	120	105		ug/L		88	43 - 142	10	51
1-Methylnaphthalene	120	139		ug/L		116	41 - 120	13	55
2-Methylnaphthalene	120	139		ug/L		116	32 - 124	12	57
Phenanthrene	120	127		ug/L		106	48 - 120	12	56
Pyrene	120	129		ug/L		108	48 - 132	13	52

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	105		15 - 122
Nitrobenzene-d5	83		19 - 130
Terphenyl-d14	108		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-599301/1-A
Matrix: Water
Analysis Batch: 599348

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599301

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		11/04/22 14:48	11/04/22 19:05	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/04/22 14:48	11/04/22 19:05	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	65	p	51 - 149	11/04/22 14:48	11/04/22 19:05	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-599301/2-A
Matrix: Water
Analysis Batch: 599348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599301

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.154	p *+	ug/L		153	60 - 140
1,2-Dibromoethane	0.101	0.114		ug/L		113	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*79*		*51 - 149*

Lab Sample ID: LCSD 400-599301/3-A
Matrix: Water
Analysis Batch: 599348

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599301

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.166	*+	ug/L		165	60 - 140	8	30
1,2-Dibromoethane	0.101	0.121		ug/L		120	60 - 140	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*51 - 149*

Lab Sample ID: 400-227995-6 MS
Matrix: Water
Analysis Batch: 599348

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA
Prep Batch: 599301

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	ND	F1 *+	0.102	0.167	F1	ug/L		163	10 - 150
1,2-Dibromoethane	ND		0.103	0.117		ug/L		114	39 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*84*		*51 - 149*

Lab Sample ID: 400-227995-6 MSD
Matrix: Water
Analysis Batch: 599348

Client Sample ID: ROST3MW-ROX-102722
Prep Type: Total/NA
Prep Batch: 599301

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 *+	0.100	0.171	F1	ug/L		170	10 - 150	2	20
1,2-Dibromoethane	ND		0.100	0.119		ug/L		119	39 - 150	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene	*95*		*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: 10/27/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.4.2	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 – 3.4.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): M. Massa, S. Beadle
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

FIELD NOTES: 0.0 IR9 10/28/22 IR9
TEMPERATURE ON RECEIPT C°

SPECIAL INSTRUCTIONS OR NOTES :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

1) Please include "J" values on Reports.
2) Please provide sample receipt upon login.
3) Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

400-227995 COC

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:
	TB-ROX-102722-8260	10/27/2022	0000	Water	2					2	X				
	TB-ROX-102722-8011	10/27/2022	0000	Water	2					2		X			
	P54-ROX-102722	10/27/2022	0920	Water	6			2		8	X	X	X	X	
	MW5-ROX-102722	10/27/2022	1015	Water	6			2		8	X	X	X	X	
	MW9-ROX-102722	10/27/2022	1125	Water	6			2		8	X	X	X	X	
	ROST3MW-ROX-102722	10/27/2022	1225	Water	6			2		8	X	X	X	X	
	ROST3MW-ROX-102722-MS	10/27/2022	1225	Water	6			2		8	X	X	X	X	
	ROST3MW-ROX-102722-MSD	10/27/2022	1225	Water	6			2		8	X	X	X	X	
	ROST4PZG-ROX-102722	10/27/2022	1400	Water	6			2		8	X	X	X	X	

Lam Beadle 10/27/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 9495 6601 2923	10/27/2022	1600
Relinquished by: (Signature)	Received by: (Signature) EETS	Date: 10/28/22	Time: 859
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

CUSTODY SEALS: 1748504, 1748505

Version: 13Oct22

10/27/2022 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-227995-1

Login Number: 227995
List Number: 1
Creator: Perez, Trina M

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.	True	1748504, 1748505
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 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.	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: 400-227995-1

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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-228051-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/20/2022

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

Sample Identification	Sample Identification
TB-ROX-102822-8260-A	TB-ROX-102822-8011-A
MW22-ROX-102822	ROST4PZC-ROX-102822
MW2-ROX-102822	MW26-ROX-102822
TB-ROX-102822-8260-B	TB-ROX-102822-8011-B
ROST4PZE-ROX-102822-EB	ROST4PZE-ROX-102822
ROST4PZE-ROX-102822-DUP	P57-ROX-102822-EB
P57-ROX-102822	P74-ROX-102822
P74-ROX-102822-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 that PAHs in sample P57-ROX-102822 were re-extracted outside extraction time criteria. Several PAHs were detected in the equipment blanks and method blanks, and bis(2-ethylhexyl) phthalate was detected in equipment blank P57-ROX-102822-EB. LCS/LCSD recoveries for acetone, chloromethane, benzenethiol, and 1,2-dibromo-3-chloropropane were outside evaluation criteria. Several PAH, SVOC, and VOC by 8011 surrogate recoveries in several investigative and quality control samples were outside evaluation criteria. Several PAH internal standard recoveries were outside evaluation criteria in several investigative and quality control samples. 1-Methylnaphthalene and 2-methylnaphthalene in field duplicate pair ROST4PZE-ROX-102822/ROST4PZE-ROX-102822-DUP, and benzene in field duplicate pair P74-ROX-102822/P74-ROX-102822-DUP, were qualified as estimated (**J**/**J**) due to field duplicate RPD above evaluation criteria. The initial calibration verification (ICV) for acetone was outside evaluation criteria, biased high. The continuing calibration verification (CCV) for carbon disulfide and several SVOCs and PAHs were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (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 P57-ROX-102822 and equipment blank P57-ROX-102822-EB were re-extracted 5 days and 26 days, respectively, outside extraction holding time criteria (7 days) and then re-analyzed for confirmation due to method blank detections. The initial analysis results in sample P57-ROX-102822 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. Holding time exceedance for P57-ROX-102822 was not greater than two times (2X) criteria; analytical data requiring qualification is summarized in the following table. Equipment blanks are quality control samples and do not require qualification. Benzo[b]fluoranthene in the secondary run for sample P57-ROX-102822 is further qualified in Section 4.0 of this data review due to method blank contamination.

Additionally, bis(2-ethylhexyl) phthalate in several samples was re-extracted 5 days outside extraction holding time criteria (7 days) and then re-analyzed for confirmation.

Sample ID	Parameter	Analyte	Qualification
P57-ROX-102822 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	**J**
P74-ROX-102822-DUP – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	**UJ**
P57-ROX-102822 – Run #2	PAHs	Acenaphthene	**J**
P57-ROX-102822 – Run #2	PAHs	Acenaphthylene	**UJ**
P57-ROX-102822 – Run #2	PAHs	Anthracene	**UJ**
P57-ROX-102822 – Run #2	PAHs	Fluoranthene	**UJ**
P57-ROX-102822 – Run #2	PAHs	Fluorene	**J**
P57-ROX-102822 – Run #2	PAHs	Phenanthrene	**J**
P57-ROX-102822 – RERA	PAHs	Benzo[a]anthracene	**UJ**
P57-ROX-102822 – RERA	PAHs	Benzo[a]pyrene	**UJ**
P57-ROX-102822 – RERA	PAHs	Benzo[b]fluoranthene	**J**
P57-ROX-102822 – RERA	PAHs	Benzo[g,h,i]perylene	**UJ**
P57-ROX-102822 – RERA	PAHs	Benzo[k]fluoranthene	**J**
P57-ROX-102822 – RERA	PAHs	Chrysene	**UJ**
P57-ROX-102822 – RERA	PAHs	Dibenz(a,h)anthracene	**UJ**
P57-ROX-102822 – RERA	PAHs	Indeno[1,2,3-cd]pyrene	**UJ**
P57-ROX-102822 – RERA	PAHs	1-Methylnaphthalene	**J**
P57-ROX-102822 – RERA	PAHs	2-Methylnaphthalene	**J**
P57-ROX-102822 – RERA	PAHs	Pyrene	**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
ROST4PZE-ROX-102822-EB	PAHs	Benzo[a]anthracene	0.074 µg/L
ROST4PZE-ROX-102822-EB	PAHs	Benzo[a]pyrene	0.11 µg/L
ROST4PZE-ROX-102822-EB	PAHs	Benzo[b]fluoranthene	0.11 µg/L
ROST4PZE-ROX-102822-EB	PAHs	Benzo[k]fluoranthene	0.13 µg/L

Blank ID	Parameter	Analyte	Concentration /Amount
ROST4PZE-ROX-102822-EB	PAHs	Phenanthrene	0.054 µg/L
ROST4PZE-ROX-102822-EB	PAHs	Pyrene	0.058 µg/L
P57-ROX-102822-EB	PAHs	Benzo[a]anthracene	0.061 µg/L
P57-ROX-102822-EB	PAHs	2-Methylnaphthalene	0.058 µg/L
P57-ROX-102822-EB	PAHs	Phenanthrene	0.038 µg/L
P57-ROX-102822-EB	SVOCs	bis(2-Ethylhexyl) phthalate	6.0 µg/L
MB 400-598868/1-A	PAHs	Benzo[a]anthracene	0.0679 µg/L
MB 400-599854/1-A	PAHs	Benzo[a]anthracene	0.0781 µg/L
MB 400-599854/1-A	PAHs	Benzo[a]pyrene	0.0919 µg/L
MB 400-599854/1-A	PAHs	Benzo[b]fluoranthene	0.141 µg/L
MB 400-602887/1-A	PAHs	Fluoranthene	0.113 µg/L
MB 400-602887/1-A	PAHs	Pyrene	0.0611 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. bis(2-Ethylhexyl) phthalate in sample P57-ROX-102822 is reported from the confirmation run and is previously qualified in Section 3.0 of this data review due to hold time exceedance; no further qualification is needed.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
P57-ROX-102822 -RERA	PAHs	Benzo[b]fluoranthene	-	**U**
MW22-ROX-102822	PAHs	Benzo[a]anthracene	-	**U**
ROST4PZC-ROX-102822	PAHs	Benzo[a]anthracene	-	**U**
MW2-ROX-102822	PAHs	Benzo[a]anthracene	-	**U**
MW26-ROX-102822	PAHs	Benzo[a]anthracene	-	**U**
ROST4PZE-ROX-102822	PAHs	Benzo[a]anthracene	-	**U**
ROST4PZE-ROX-102822	PAHs	Benzo(b)fluoranthene	-	**U(EB)**
ROST4PZE-ROX-102822-DUP	PAHs	Benzo[a]anthracene	-	**U**
P57-ROX-102822	PAHs	Benzo[a]anthracene	0.20	**U**
P74-ROX-102822	PAHs	Benzo[a]anthracene	-	**U**
P74-ROX-102822-DUP	PAHs	Benzo[a]anthracene	-	**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 400-600212/1002	VOCs	Acetone	**195**	NA	43 - 160
LCS 400-600212/1002	VOCs	Chloromethane	**140**	NA	58-137

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD/ RPD Criteria
LCS/LCSD 400-599301/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	**153/165**	8	63-140/30
LCS /LCSD400-598868/3-A/4-A	SVOCs	Benzenethiol	**6/7**	10	10-120/30

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. Acetone in sample P57-ROX-102822 is qualified in Section 12.0 of this data review due to CCV recovery outside evaluation criteria; no further qualification is required.

Sample ID	Parameter	Analyte	Qualification
MW22-ROX-102822	SVOCs	Benzenethiol	**UJ**
ROST4PZC-ROX-102822	SVOCs	Benzenethiol	**UJ**
MW2-ROX-102822	SVOCs	Benzenethiol	**UJ**
MW26-ROX-102822	SVOCs	Benzenethiol	**UJ**
ROST4PZE-ROX-102822	SVOCs	Benzenethiol	**UJ**
ROST4PZE-ROX-102822-DUP	SVOCs	Benzenethiol	**UJ**
P57-ROX-102822	SVOCs	Benzenethiol	**UJ**
P74-ROX-102822	SVOCs	Benzenethiol	**UJ**
P74-ROX-102822-DUP	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
ROST4PZE-ROX-102822	SVOCs	2-Fluorophenol	**4**	13-113
ROST4PZE-ROX-102822	SVOCs	Phenol-d_5	**12**	17-127
MW26-ROX-102822	PAHs	2-Fluorobiphenyl	**130**	15-122
ROST4PZE-ROX-102822-EB	PAHs	2-Fluorobiphenyl	**127**	15-122
P57-ROX-102822-EB	PAHs	2-Fluorobiphenyl	**125**	15-122
P74-ROX-102822	PAHs	2-Fluorobiphenyl	**154**	15-122
MB 400-598868/1-A	PAHs	2-Fluorobiphenyl	**128**	15-122
ROST4PZE-ROX-102822	VOCs by 8011	4-Bromofluorobenzene	**4642**	51-149
ROST4PZE-ROX-102822-DUP	VOCs by 8011	4-Bromofluorobenzene	**4338**	51-149

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. Equipment blanks and method blanks are quality control samples and do not require

qualification.

Sample ID	Parameter	Analyte	Qualification
ROST4PZE-ROX-102822	SVOCs	Phenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	2,4,5-Trichlorophenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	2,4,6-Trichlorophenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	2,4-Dimethylphenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	2,4-Dinitrophenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	2-Chlorophenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	2-Methylphenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	2-Nitrophenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	4-Chloro-3-methylphenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	4-Nitrophenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	Benzoic Acid	**UJ**
ROST4PZE-ROX-102822	SVOCs	Benzyl Alcohol	**UJ**
ROST4PZE-ROX-102822	SVOCs	Pentachlorophenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	2,4-Dichlorophenol	**UJ**
ROST4PZE-ROX-102822	SVOCs	4,6-Dinitro-ortho-cresol	**UJ**
ROST4PZE-ROX-102822	SVOCs	3&4-Methylphenol	**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?

No

Sample ID	Parameter	Analyte	IS Area Recovery	12/24 Hour Standard	IS Criteria
MW2-ROX-102822	PAHs	Naphthalene-d_8	**567527**	1174953	587477-2349906
MW2-ROX-102822	PAHs	Acenaphthene-d_{10}	**383553**	777314	388657-1554628
MW2-ROX-102822	PAHs	Chrysene-d_{12}	**868837**	414595	207298-829190
MW2-ROX-102822	PAHs	Perylene-d_{12}	**766813**	336431	168216-672862
ROST4PZE-ROX-102822	PAHs	Acenaphthene-d_{10}	**367397**	777314	388657-1554628
ROST4PZE-ROX-102822-DUP	PAHs	Naphthalene-d_8	**572660**	1174953	587477-2349906
ROST4PZE-ROX-102822-DUP	PAHs	Acenaphthene-d_{10}	**345511**	777314	388657-1554628
ROST4PZE-ROX-102822-DUP	PAHs	Perylene-d_{12}	**701849**	336431	168216-672862
P57-ROX-102822	PAHs	Naphthalene-d_8	**549099**	1174953	587477-2349906
P57-ROX-102822	PAHs	Acenaphthene-d_{10}	**355448**	777314	388657-1554628

Sample ID	Parameter	Analyte	IS Area Recovery	12/24 Hour Standard	IS Criteria
ROST4PZC-ROX-102822	PAHs	Acenaphthene-d_{10}	**379471**	777314	388657-1554628
ROST4PZC-ROX-102822	PAHs	Perylene-d_{12}	**723781**	336431	168216-672862
P74-ROX-102822	PAHs	Acenaphthene-d_{10}	**377216**	777314	388657-1554628
P57-ROX-102822 RERA	PAHs	Acenaphthene-d_{10}	**520424**	1168914	584457-2337828
P57-ROX-102822 RERA	PAHs	Phenanthrene-d_{10}	**916434**	2118779	1059390-4237558
ROST4PZE-ROX-102822-EB RERA	PAHs	Phenanthrene-d_{10}	**985839**	2118779	1059390-4237558
ROST4PZE-ROX-102822-EB RERA	PAHs	Chrysene-d_{12}	**756096**	1799340	899670-3598680
ROST4PZE-ROX-102822-EB RERA	PAHs	Perylene-d_{12}	**600683**	1674999	837500-3349998

Analytes in sample P57-ROX-102822 – RERA associated with internal standard recoveries outside evaluation criteria are qualified in Sections 3.0 and 4.0 of this data review due to holding time criteria and method blank contamination, respectively. Equipment blanks 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?

Yes

Field ID	Field Duplicate ID
ROST4PZE-ROX-102822	ROST4PZE-ROX-102822-DUP
P74-ROX-102822	P74-ROX-102822-DUP

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
ROST4PZE-ROX-102822	ROST4PZE-ROX-102822-DUP	PAHs	1-Methylnaphthalene	**51**	**J/J**
ROST4PZE-ROX-102822	ROST4PZE-ROX-102822-DUP	PAHs	2-Methylnaphthalene	**53**	**J/J**
P74-ROX-102822	P74-ROX-102822-DUP	VOCs	Benzene	**27**	**J/J**

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 acenaphthalene, acenaphthylene, fluoranthene, and fluorene in sample P74-ROX-102822 due to the nature of the sample matrix. These PAHs were non-detect at a dilution factor of 2X, with a raised reporting limit of 0.38 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 (CCV) for hexachlorocyclopentadiene, quinoline, fluorene, and benzo[g,h,i]perylene and initial calibration verification (ICV) for carbon disulfide were outside evaluation criteria, biased low. The CCV for acetone was outside evaluation criteria, biased high. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW22-ROX-102822	VOCs	Carbon Disulfide	**UJ**
ROST4PZC-ROX-102822	VOCs	Carbon Disulfide	**UJ**
MW2-ROX-102822	VOCs	Carbon Disulfide	**UJ**
ROST4PZE-ROX-102822	VOCs	Carbon Disulfide	**UJ**
ROST4PZE-ROX-102822-DUP	VOCs	Carbon Disulfide	**UJ**
P74-ROX-102822-DUP	VOCs	Carbon Disulfide	**UJ**
P57-ROX-102822	VOCs	Acetone	**J**
MW22-ROX-102822	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST4PZC-ROX-102822	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW2-ROX-102822	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW26-ROX-102822	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST4PZE-ROX-102822	SVOCs	Hexachlorocyclopentadiene	**UJ**
ROST4PZE-ROX-102822-DUP	SVOCs	Hexachlorocyclopentadiene	**UJ**
P57-ROX-102822	SVOCs	Hexachlorocyclopentadiene	**UJ**
P74-ROX-102822	SVOCs	Hexachlorocyclopentadiene	**UJ**
P74-ROX-102822-DUP	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW22-ROX-102822	SVOCs	Quinoline	**UJ**
ROST4PZC-ROX-102822	SVOCs	Quinoline	**UJ**
MW2-ROX-102822	SVOCs	Quinoline	**UJ**
MW26-ROX-102822	SVOCs	Quinoline	**UJ**
ROST4PZE-ROX-102822	SVOCs	Quinoline	**UJ**
ROST4PZE-ROX-102822-DUP	SVOCs	Quinoline	**UJ**
P57-ROX-102822	SVOCs	Quinoline	**UJ**
P74-ROX-102822	SVOCs	Quinoline	**UJ**
P74-ROX-102822-DUP	SVOCs	Quinoline	**UJ**
MW22-ROX-102822	PAHs	Fluorene	**UJ**
MW26-ROX-102822	PAHs	Fluorene	**UJ**
P74-ROX-102822 DUP	PAHs	Fluorene	**UJ**
P57-ROX-102822	PAHs	Fluorene	**UJ**
MW22-ROX-102822	PAHs	Benzo[g,h,i]perylene	**UJ**

Sample ID	Parameter	Analyte	Qualification
ROST4PZC-ROX-102822	PAHs	Benzo[g,h,i]perylene	**UJ**
MW2-ROX-102822	PAHs	Benzo[g,h,i]perylene	**UJ**
ROST4PZE-ROX-102822	PAHs	Benzo[g,h,i]perylene	**UJ**
ROST4PZE-ROX-102822-DUP	PAHs	Benzo[g,h,i]perylene	**UJ**
MW26-ROX-102822	PAHs	Benzo[g,h,i]perylene	**UJ**
P74-ROX-102822	PAHs	Benzo[g,h,i]perylene	**UJ**
P74-ROX-102822 DUP	PAHs	Benzo[g,h,i]perylene	**UJ**

Additionally, certain PAHs in sample P74-ROX-102822 were qualified as estimated non-detect due to sample dilution and historical detections.

Sample ID	Parameter	Analyte	Qualification
P74-ROX-102822	PAHs	Fluoranthene	**UJ**
P74-ROX-102822	PAHs	Acenaphthalene	**UJ**
P74-ROX-102822	PAHs	Acenaphthylene	**UJ**
P74-ROX-102822	PAHs	Fluorene	**UJ**

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ANALYTICAL REPORT

PREPARED FOR

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Generated 12/7/2022 11:53:30 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-228051-1

Reviewed 12/20/202
A.V.

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

See page two for job notes and contact information.

my EOL

Eurofins Pensacola

Job Notes

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Job ID: 400-228051-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-228051-1

Receipt
The samples were received on 10/29/2022 8:23 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 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-102822-8260-A (400-228051-1), MW22-ROX-102822 (400-228051-3), ROST4PZC-ROX-102822 (400-228051-4), MW2-ROX-102822 (400-228051-5), MW26-ROX-102822 (400-228051-6), TB-ROX-102822-8260-B (400-228051-7), ROST4PZE-ROX-102822-EB (400-228051-9), ROST4PZE-ROX-102822 (400-228051-10), ROST4PZE-ROX-102822-DUP (400-228051-11), P57-ROX-102822-EB (400-228051-12), P57-ROX-102822 (400-228051-13), P74-ROX-102822 (400-228051-14), P74-ROX-102822-DUP (400-228051-15). 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 laboratory control sample (LCS) for analytical batch 400-600212 recovered outside control limits for the following analytes: Acetone and Chloromethane. 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/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-598868 and analytical batch 400-599074 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 400-599088 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene 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: Surrogate recovery for the following sample was outside control limits: ROST4PZE-ROX-102822 (400-228051-10). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8270D: The samples were re-extracted due to the confirmation of Bis(2-ethylhexyl) Phthalate was detected above the method detection limit (MDL 6.0ug/L) for the following sample(s): 400-228051-H-12-A, 400-228051-G-13-A, and 400-228051-G-15-A. Samples were re-prepared and/or re-analyzed outside holding time, and both sets of 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: MW26-ROX-102822 (400-228051-6), ROST4PZE-ROX-102822-EB (400-228051-9), P57-ROX-102822-EB (400-228051-12) and (MB 400-598868/1-A). These results have been reported and qualified.

Method 8270D_LL: The method blank for preparation batch 400-598868 and analytical batch 400-599109 contained 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 following samples were diluted due to the nature of the sample matrix: ROST4PZC-ROX-102822 (400-228051-4), MW2-ROX-102822 (400-228051-5), ROST4PZE-ROX-102822 (400-228051-10), ROST4PZE-ROX-102822-DUP (400-228051-11), P57-ROX-102822 (400-228051-13) and P74-ROX-102822 (400-228051-14). Elevated reporting limits (RLs) are provided.

Method 8270D_LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside

Job ID: 400-228051-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: P74-ROX-102822 (400-228051-14). These results have been reported and qualified.

Method 8270D LL: The method blank for preparation batch 400-599854 and analytical batch 400-603041 contained Benzo[a]anthracene, Benzo[a]pyrene and Benzo[b]fluoranthene 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 400-602887 and analytical batch 400-603239 contained Fluoranther and 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: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: P57-ROX-102822 (400-228051-13).

Method 8270D LL: The following samples were re-prepared outside of preparation holding time due to client requested verificati of sample results: ROST4PZE-ROX-102822-EB (400-228051-9) and P57-ROX-102822 (400-228051-13). Both sets of data are reported.

Method 8270D LL: Due to sample matrix effect on the internal standard (ISTD), a dilution was required for the following sample: ROST4PZE-ROX-102822-EB (400-228051-9).

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 laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-599301 and analytical batch 400-599348 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: Surrogate recovery for the following samples were outside control limits: ROST4PZE-ROX-102822 (400-228051-10) and ROST4PZE-ROX-102822-DUP (400-228051-11). Evidence of matrix interference is present; 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.

Sample Summary

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

Job ID: 400-228051-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-228051-1	TB-ROX-102822-8260-A	Water	10/28/22 12:00	10/29/22 08:23
400-228051-2	TB-ROX-102822-8011-A	Water	10/28/22 12:00	10/29/22 08:23
400-228051-3	MW22-ROX-102822	Water	10/28/22 09:35	10/29/22 08:23
400-228051-4	ROST4PZC-ROX-102822	Water	10/28/22 10:35	10/29/22 08:23
400-228051-5	MW2-ROX-102822	Water	10/28/22 11:40	10/29/22 08:23
400-228051-6	MW26-ROX-102822	Water	10/28/22 12:40	10/29/22 08:23
400-228051-7	TB-ROX-102822-8260-B	Water	10/28/22 12:00	10/29/22 08:23
400-228051-8	TB-ROX-102822-8011-B	Water	10/28/22 12:00	10/29/22 08:23
400-228051-9	ROST4PZE-ROX-102822-EB	Water	10/28/22 09:20	10/29/22 08:23
400-228051-10	ROST4PZE-ROX-102822	Water	10/28/22 10:10	10/29/22 08:23
400-228051-11	ROST4PZE-ROX-102822-DUP	Water	10/28/22 10:10	10/29/22 08:23
400-228051-12	P57-ROX-102822-EB	Water	10/28/22 11:55	10/29/22 08:23
400-228051-13	P57-ROX-102822	Water	10/28/22 12:25	10/29/22 08:23
400-228051-14	P74-ROX-102822	Water	10/28/22 13:25	10/29/22 08:23
400-228051-15	P74-ROX-102822-DUP	Water	10/28/22 13:25	10/29/22 08:23

Detection Summary

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

Job ID: 400-228051-1

Client Sample ID: TB-ROX-102822-8260-A — Lab Sample ID: 400-228051-1

No Detections.

Client Sample ID: TB-ROX-102822-8011-A — Lab Sample ID: 400-228051-2

No Detections.

Client Sample ID: MW22-ROX-102822 — Lab Sample ID: 400-228051-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	5.6		1.0	0.13	ug/L	1		8260B	Total/NA
2-Butanone (MEK)	3.9	J	25	2.6	ug/L	1		8260B	Total/NA
Ethylbenzene	90		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropylbenzene	20		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	270		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	46		5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	4.3		1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	37		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	10		5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	2.9		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	2.3		1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	4.5		1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	9.9		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	200		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	49		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	280		10	1.6	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.088	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.13	J	0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.10	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.13	J	0.19	0.094	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.10	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.10	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	7.2		0.19	0.069	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	8.2		0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.080	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.070	J	0.19	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: ROST4PZC-ROX-102822 — Lab Sample ID: 400-228051-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2.5		1.0	0.13	ug/L	1		8260B	Total/NA
2-Butanone (MEK)	4.1	J	25	2.6	ug/L	1		8260B	Total/NA
Ethylbenzene	2.2		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropylbenzene	5.0		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	23		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	48		5.0	3.0	ug/L	1		8260B	Total/NA
N-Propylbenzene	8.6		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	1.5	J	5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	0.79	J	1.0	0.71	ug/L	1		8260B	Total/NA
Toluene	3.0		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	2.5		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	25		10	1.6	ug/L	1		8260B	Total/NA
Acenaphthylene	0.33	J	0.93	0.21	ug/L	5		8270D LL	Total/NA
Anthracene	0.47		0.19	0.030	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: 400-228051-1

Client Sample ID: ROST4PZC-ROX-102822 (Continued)

Lab Sample ID: 400-228051-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.086	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.065	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Fluorene	1.3		0.93	0.51	ug/L	5		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.066	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	27		0.19	0.069	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	8.4		0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	2.9		0.19	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	0.12	J	0.19	0.037	ug/L	1		8270D LL	Total/NA
Dibenzofuran	0.64	J	9.3	0.16	ug/L	1		8270D	Total/NA

Client Sample ID: MW2-ROX-102822

Lab Sample ID: 400-228051-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.4		1.0	0.13	ug/L	1		8260B	Total/NA
2-Butanone (MEK)	21	J	25	2.6	ug/L	1		8260B	Total/NA
Ethylbenzene	90		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropylbenzene	47		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	40		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	22		5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	6.0		1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	76		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	3.7	J	5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	5.0		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	5.4		1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.66	J	1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	3.9		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	18		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	26		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	44		10	1.6	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.10	J B U	0.19	0.044	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[k]fluoranthene	0.16	J	0.19	0.096	ug/L	1		8270D LL	Total/NA
Chrysene	0.081	J	0.19	0.071	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.085	J	0.19	0.048	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.087	J	0.19	0.041	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	9.6		0.96	0.35	ug/L	5		8270D LL	Total/NA
2-Methylnaphthalene	17		0.96	0.29	ug/L	5		8270D LL	Total/NA
Phenanthrene	0.076	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.083	J	0.19	0.038	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW26-ROX-102822

Lab Sample ID: 400-228051-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.077	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.11	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.059	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.048	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.066	J	0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.044	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.046	J	0.19	0.038	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: 400-228051-1

Client Sample ID: TB-ROX-102822-8260-B

Lab Sample ID: 400-228051-7

No Detections.

Client Sample ID: TB-ROX-102822-8011-B

Lab Sample ID: 400-228051-8

No Detections.

Client Sample ID: ROST4PZE-ROX-102822-EB

Lab Sample ID: 400-228051-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.074	J B	0.18	0.042	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.11	J	0.18	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.11	J	0.18	0.031	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.13	J	0.18	0.092	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.054	J	0.18	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	0.058	J	0.18	0.037	ug/L	1		8270D LL	Total/NA

Client Sample ID: ROST4PZE-ROX-102822

Lab Sample ID: 400-228051-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	14		1.0	0.13	ug/L	1		8260B	Total/NA
2-Butanone (MEK)	76		25	2.6	ug/L	1		8260B	Total/NA
Ethylbenzene	90		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropylbenzene	4.5		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	210		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	110		5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	2.0		1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	6.7		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	26		5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	1.5		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	0.77	J	1.0	0.70	ug/L	1		8260B	Total/NA
Toluene	8.9		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	130		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	13		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	240		10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	3.0		0.94	0.15	ug/L	5		8270D LL	Total/NA
Acenaphthylene	0.56	J	0.94	0.21	ug/L	5		8270D LL	Total/NA
Benzo[a]anthracene	0.40	J B	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.098	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Chrysene	0.10	J	0.19	0.069	ug/L	1		8270D LL	Total/NA
Fluorene	2.1		0.94	0.51	ug/L	5		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.044	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	38		0.19	0.069	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	33		0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	4.4		0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.29		0.19	0.037	ug/L	1		8270D LL	Total/NA
Dibenzofuran	1.1	J	9.4	0.16	ug/L	1		8270D	Total/NA
Indene	1.7	J	9.4	0.94	ug/L	1		8270D	Total/NA

Client Sample ID: ROST4PZE-ROX-102822-DUP

Lab Sample ID: 400-228051-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	14		1.0	0.13	ug/L	1		8260B	Total/NA
2-Butanone (MEK)	80		25	2.6	ug/L	1		8260B	Total/NA
Ethylbenzene	98		1.0	0.50	ug/L	1		8260B	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: 400-228051-1

Client Sample ID: ROST4PZE-ROX-102822-DUP (Continued)

Lab Sample ID: 400-228051-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropylbenzene	4.6		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	220		5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	120		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	7.0		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	27		5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	1.4		1.0	0.71	ug/L	1		8260B	Total/NA
Toluene	9.3		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	130		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	13		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	240		10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	3.0		0.93	0.15	ug/L	5		8270D LL	Total/NA
Acenaphthylene	0.48	J	0.93	0.21	ug/L	5		8270D LL	Total/NA
Benzo[a]anthracene	~~0.13~~	J B U	0.19	0.043	ug/L	1		8270D LL	Total/NA
Chrysene	0.090	J	0.19	0.069	ug/L	1		8270D LL	Total/NA
Fluorene	2.0		0.93	0.51	ug/L	5		8270D LL	Total/NA
1-Methylnaphthalene	64	J	0.93	0.34	ug/L	5		8270D LL	Total/NA
2-Methylnaphthalene	57	J	0.93	0.28	ug/L	5		8270D LL	Total/NA
Phenanthrene	4.7		0.19	0.033	ug/L	1		8270D LL	Total/NA
Pyrene	0.35		0.19	0.037	ug/L	1		8270D LL	Total/NA
Dibenzofuran	1.0	J	9.3	0.16	ug/L	1		8270D	Total/NA
Indene	2.1	J	9.3	0.93	ug/L	1		8270D	Total/NA

Client Sample ID: P57-ROX-102822-EB

Lab Sample ID: 400-228051-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.061	J B	0.19	0.043	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.058	J	0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.038	J	0.19	0.033	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	6.0	J	9.3	4.6	ug/L	1		8270D	Total/NA

Client Sample ID: P57-ROX-102822

Lab Sample ID: 400-228051-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	20	J *+ J	25	10	ug/L	1		8260B	Total/NA
Benzene	54		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	1.4		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropylbenzene	31		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	1.4	J	5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	12		5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	3.6		1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	35		1.0	0.69	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	0.76	J	1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	5.8		1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	7.8		1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	4.3		1.0	0.41	ug/L	1		8260B	Total/NA
Xylenes, Total	1.8	J	10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	0.33	J	0.93	0.15	ug/L	5		8270D LL	Total/NA
Acenaphthene	0.35	J H J	0.38	0.060	ug/L	2		8270D LL	Total/NA
Benzo[a]anthracene	~~0.20~~	B U	~~0.19~~ 0.2	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.23		0.19	0.039	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.25		0.19	0.032	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: P57-ROX-102822 (Continued)

Lab Sample ID: 400-228051-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[k]fluoranthene	0.26		0.19	0.093	ug/L	1		8270D LL	Total/NA
Chrysene	0.21		0.19	0.069	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.14	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Fluorene	0.80	H	0.38	0.21	ug/L	2		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	0.14	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	22		0.93	0.35	ug/L	5		8270D LL	Total/NA
2-Methylnaphthalene	29		0.93	0.28	ug/L	5		8270D LL	Total/NA
Phenanthrene	0.55		0.19	0.034	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.28	J H	0.38	0.068	ug/L	2		8270D LL	Total/NA
Pyrene	0.20		0.19	0.037	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene - RERA	0.13	J H B	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene - RERA	0.11	J H	0.19	0.094	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene - RERA	25	H	0.19	0.069	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene - RERA	27	H	0.19	0.056	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	20		9.3	4.7	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate - RERA	5.4	J H	9.4	4.7	ug/L	1		8270D	Total/NA

Client Sample ID: P74-ROX-102822

Lab Sample ID: 400-228051-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	29		1.0	0.13	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.77	J	1.0	0.22	ug/L	1		8260B	Total/NA
Toluene	0.50	J	1.0	0.41	ug/L	1		8260B	Total/NA
Anthracene	0.030	J	0.19	0.030	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	0.089	J B	0.19	0.043	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.14	J	0.19	0.040	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.11	J	0.19	0.032	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.15	J	0.19	0.094	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.048	J	0.19	0.047	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.052	J	0.19	0.034	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: P74-ROX-102822-DUP

Lab Sample ID: 400-228051-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	22		1.0	0.13	ug/L	1		8260B	Total/NA
Chloromethane	1.0		1.0	0.32	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.91	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.089	J B	0.19	0.043	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	6.4	J	9.4	4.7	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-ROX-102822-8260-A
Date Collected: 10/28/22 12:00
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 14:22	1
Acrolein	ND		20	3.3	ug/L			11/10/22 14:22	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 14:22	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 14:22	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 14:22	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 14:22	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 14:22	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 14:22	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 14:22	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 14:22	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 14:22	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 14:22	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 14:22	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 14:22	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 14:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 14:22	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 14:22	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 14:22	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 14:22	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 14:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 14:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 14:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 14:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 14:22	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 14:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 14:22	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 14:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 14:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 14:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 14:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 14:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 14:22	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 14:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 14:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 14:22	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 14:22	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 14:22	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 14:22	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 14:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 14:22	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 14:22	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 14:22	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 14:22	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 14:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 14:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 14:22	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 14:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 14:22	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 14:22	1

Client Sample ID: TB-ROX-102822-8260-A
Date Collected: 10/28/22 12:00
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-1
Matrix: Water

Method: SW846 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			11/10/22 14:22	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 14:22	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 14:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 14:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 14:22	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 14:22	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 14:22	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 14:22	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 14:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 14:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 14:22	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 14:22	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 14:22	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 14:22	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 14:22	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 14:22	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 14:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 14:22	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 14:22	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 14:22	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*103*		*72 - 119*		*11/10/22 14:22*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*11/10/22 14:22*	*1*
Toluene-d8 (Surr)	*93*		*64 - 132*		*11/10/22 14:22*	*1*

Client Sample Results

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

Job ID: 400-228051-1

Client Sample ID: TB-ROX-102822-8011-A
Date Collected: 10/28/22 12:00
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-2
Matrix: Water

Method: EPA 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		11/04/22 14:48	11/05/22 09:19	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/04/22 14:48	11/05/22 09:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*51 - 149*	*11/04/22 14:48*	*11/05/22 09:19*	*1*

Client Sample ID: MW22-ROX-102822
Date Collected: 10/28/22 09:35
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 15:11	1
Acrolein	ND		20	3.3	ug/L			11/10/22 15:11	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 15:11	1
Benzene	**5.6**		1.0	0.13	ug/L			11/10/22 15:11	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 15:11	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 15:11	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 15:11	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 15:11	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 15:11	1
2-Butanone (MEK)	**3.9**	J	25	2.6	ug/L			11/10/22 15:11	1
Carbon disulfide	ND	UJ	1.0	0.50	ug/L			11/10/22 15:11	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 15:11	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 15:11	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 15:11	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 15:11	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 15:11	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 15:11	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 15:11	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 15:11	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 15:11	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 15:11	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 15:11	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 15:11	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 15:11	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 15:11	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 15:11	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 15:11	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 15:11	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 15:11	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 15:11	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 15:11	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 15:11	1
Ethylbenzene	**90**		1.0	0.50	ug/L			11/10/22 15:11	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 15:11	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 15:11	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 15:11	1
Isopropylbenzene	**20**		1.0	0.53	ug/L			11/10/22 15:11	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 15:11	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 15:11	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 15:11	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 15:11	1
m-Xylene & p-Xylene	**270**		5.0	0.63	ug/L			11/10/22 15:11	1
Naphthalene	**46**		5.0	3.0	ug/L			11/10/22 15:11	1
n-Butylbenzene	**4.3**		1.0	0.76	ug/L			11/10/22 15:11	1
N-Propylbenzene	**37**		1.0	0.69	ug/L			11/10/22 15:11	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 15:11	1
o-Xylene	**10**		5.0	0.60	ug/L			11/10/22 15:11	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 15:11	1
p-Isopropyltoluene	**2.9**		1.0	0.71	ug/L			11/10/22 15:11	1

Client Sample ID: MW22-ROX-102822
Date Collected: 10/28/22 09:35
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.3		1.0	0.70	ug/L			11/10/22 15:11	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 15:11	1
tert-Butylbenzene	4.5		1.0	0.63	ug/L			11/10/22 15:11	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 15:11	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 15:11	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 15:11	1
Toluene	9.9		1.0	0.41	ug/L			11/10/22 15:11	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 15:11	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 15:11	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 15:11	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 15:11	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 15:11	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 15:11	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 15:11	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 15:11	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 15:11	1
1,2,4-Trimethylbenzene	200		1.0	0.82	ug/L			11/10/22 15:11	1
1,3,5-Trimethylbenzene	49		1.0	0.56	ug/L			11/10/22 15:11	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 15:11	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 15:11	1
Xylenes, Total	280		10	1.6	ug/L			11/10/22 15:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/10/22 15:11*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/10/22 15:11*	*1*
Toluene-d8 (Surr)	*93*		*64 - 132*		*11/10/22 15:11*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 22:46	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/02/22 10:47	11/03/22 22:46	1
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/03/22 22:46	1
Benzo[a]anthracene	~~0.088~~ J B UJ		0.19	0.043	ug/L		11/02/22 10:47	11/03/22 22:46	1
Benzo[a]pyrene	0.13 J		0.19	0.039	ug/L		11/02/22 10:47	11/03/22 22:46	1
Benzo[b]fluoranthene	0.10 J		0.19	0.032	ug/L		11/02/22 10:47	11/03/22 22:46	1
Benzo[g,h,i]perylene	ND	UJ	0.19	0.12	ug/L		11/02/22 10:47	11/03/22 22:46	1
Benzo[k]fluoranthene	0.13 J		0.19	0.094	ug/L		11/02/22 10:47	11/03/22 22:46	1
Chrysene	ND		0.19	0.069	ug/L		11/02/22 10:47	11/03/22 22:46	1
Dibenz(a,h)anthracene	0.10 J		0.19	0.047	ug/L		11/02/22 10:47	11/03/22 22:46	1
Fluoranthene	ND		0.19	0.064	ug/L		11/02/22 10:47	11/03/22 22:46	1
Fluorene	ND	UJ	0.19	0.10	ug/L		11/02/22 10:47	11/03/22 22:46	1
Indeno[1,2,3-cd]pyrene	0.10 J		0.19	0.040	ug/L		11/02/22 10:47	11/03/22 22:46	1
1-Methylnaphthalene	7.2		0.19	0.069	ug/L		11/02/22 10:47	11/03/22 22:46	1
2-Methylnaphthalene	8.2		0.19	0.056	ug/L		11/02/22 10:47	11/03/22 22:46	1
Phenanthrene	0.080 J		0.19	0.034	ug/L		11/02/22 10:47	11/03/22 22:46	1
Pyrene	0.070 J		0.19	0.038	ug/L		11/02/22 10:47	11/03/22 22:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*93*		*15 - 122*	*11/02/22 10:47*	*11/03/22 22:46*	*1*
Nitrobenzene-d5	*90*		*19 - 130*	*11/02/22 10:47*	*11/03/22 22:46*	*1*

Client Sample ID: MW22-ROX-102822
Date Collected: 10/28/22 09:35
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*100*		*33 - 138*	*11/02/22 10:47*	*11/03/22 22:46*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 18:37	1
Benzenethiol	ND	UJ	9.4	1.6	ug/L		11/02/22 10:47	11/03/22 18:37	1
Benzoic acid	ND		28	6.9	ug/L		11/02/22 10:47	11/03/22 18:37	1
Benzyl alcohol	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 18:37	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 18:37	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 18:37	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 18:37	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		11/02/22 10:47	11/03/22 18:37	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		11/02/22 10:47	11/03/22 18:37	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		11/02/22 10:47	11/03/22 18:37	1
4-Chloroaniline	ND		9.4	3.2	ug/L		11/02/22 10:47	11/03/22 18:37	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		11/02/22 10:47	11/03/22 18:37	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 18:37	1
2-Chlorophenol	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 18:37	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 18:37	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 18:37	1
Dibenzofuran	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 18:37	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		11/02/22 10:47	11/03/22 18:37	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		11/02/22 10:47	11/03/22 18:37	1
Diethyl phthalate	ND		9.4	0.23	ug/L		11/02/22 10:47	11/03/22 18:37	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 18:37	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 18:37	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 18:37	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		11/02/22 10:47	11/03/22 18:37	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 18:37	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 18:37	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 18:37	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 18:37	1
1,4-Dioxane	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 18:37	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 18:37	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 18:37	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/02/22 10:47	11/03/22 18:37	1
Hexachloroethane	ND		9.4	3.9	ug/L		11/02/22 10:47	11/03/22 18:37	1
Indene	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 18:37	1
Isophorone	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 18:37	1
2-Methylphenol	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 18:37	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		11/02/22 10:47	11/03/22 18:37	1
2-Nitroaniline	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 18:37	1
3-Nitroaniline	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 18:37	1
4-Nitroaniline	ND		9.4	1.4	ug/L		11/02/22 10:47	11/03/22 18:37	1
Nitrobenzene	ND		9.4	0.12	ug/L		11/02/22 10:47	11/03/22 18:37	1
2-Nitrophenol	ND		9.4	4.9	ug/L		11/02/22 10:47	11/03/22 18:37	1
4-Nitrophenol	ND		9.4	2.0	ug/L		11/02/22 10:47	11/03/22 18:37	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 18:37	1

Client Sample ID: MW22-ROX-102822
Date Collected: 10/28/22 09:35
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-3
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 18:37	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		11/02/22 10:47	11/03/22 18:37	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 18:37	1
Phenol	ND		9.4	2.4	ug/L		11/02/22 10:47	11/03/22 18:37	1
Pyridine	ND		9.4	3.0	ug/L		11/02/22 10:47	11/03/22 18:37	1
Quinoline	ND	UJ	9.4	4.2	ug/L		11/02/22 10:47	11/03/22 18:37	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		11/02/22 10:47	11/03/22 18:37	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 18:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*11/02/22 10:47*	*11/03/22 18:37*	*1*
2-Fluorophenol	*36*		*13 - 113*	*11/02/22 10:47*	*11/03/22 18:37*	*1*
Nitrobenzene-d5	*87*		*36 - 126*	*11/02/22 10:47*	*11/03/22 18:37*	*1*
Phenol-d5	*73*		*17 - 127*	*11/02/22 10:47*	*11/03/22 18:37*	*1*
Terphenyl-d14	*106*		*44 - 149*	*11/02/22 10:47*	*11/03/22 18:37*	*1*
2,4,6-Tribromophenol	*121*		*26 - 150*	*11/02/22 10:47*	*11/03/22 18:37*	*1*

Method: EPA 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	0.018	ug/L		11/04/22 14:48	11/05/22 09:39	1
1,2-Dibromoethane	ND		0.022	0.016	ug/L		11/04/22 14:48	11/05/22 09:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*81*		*51 - 149*	*11/04/22 14:48*	*11/05/22 09:39*	*1*

Client Sample ID: ROST4PZC-ROX-102822
Date Collected: 10/28/22 10:35
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 15:35	1
Acrolein	ND		20	3.3	ug/L			11/10/22 15:35	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 15:35	1
Benzene	**2.5**		1.0	0.13	ug/L			11/10/22 15:35	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 15:35	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 15:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 15:35	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 15:35	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 15:35	1
2-Butanone (MEK)	**4.1**	J	25	2.6	ug/L			11/10/22 15:35	1
Carbon disulfide	ND	uJ	1.0	0.50	ug/L			11/10/22 15:35	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 15:35	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 15:35	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 15:35	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 15:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 15:35	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 15:35	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 15:35	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 15:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 15:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 15:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 15:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 15:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 15:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 15:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 15:35	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 15:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 15:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 15:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 15:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 15:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 15:35	1
Ethylbenzene	**2.2**		1.0	0.50	ug/L			11/10/22 15:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 15:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 15:35	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 15:35	1
Isopropylbenzene	**5.0**		1.0	0.53	ug/L			11/10/22 15:35	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 15:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 15:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 15:35	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 15:35	1
m-Xylene & p-Xylene	**23**		5.0	0.63	ug/L			11/10/22 15:35	1
Naphthalene	**48**		5.0	3.0	ug/L			11/10/22 15:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 15:35	1
N-Propylbenzene	**8.6**		1.0	0.69	ug/L			11/10/22 15:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 15:35	1
o-Xylene	**1.5**	J	5.0	0.60	ug/L			11/10/22 15:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 15:35	1
p-Isopropyltoluene	**0.79**	J	1.0	0.71	ug/L			11/10/22 15:35	1

Client Sample ID: ROST4PZC-ROX-102822
Date Collected: 10/28/22 10:35
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-4
Matrix: Water

Method: SW846 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			11/10/22 15:35	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 15:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 15:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 15:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 15:35	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 15:35	1
Toluene	**3.0**		1.0	0.41	ug/L			11/10/22 15:35	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 15:35	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 15:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 15:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 15:35	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 15:35	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 15:35	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 15:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 15:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 15:35	1
1,2,4-Trimethylbenzene	**11**		1.0	0.82	ug/L			11/10/22 15:35	1
1,3,5-Trimethylbenzene	**2.5**		1.0	0.56	ug/L			11/10/22 15:35	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 15:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 15:35	1
Xylenes, Total	**25**		10	1.6	ug/L			11/10/22 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/10/22 15:35*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/10/22 15:35*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*11/10/22 15:35*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.93	0.15	ug/L		11/02/22 10:47	11/04/22 16:41	5
Acenaphthylene	**0.33**	J	0.93	0.21	ug/L		11/02/22 10:47	11/04/22 16:41	5
Anthracene	**0.47**		0.19	0.030	ug/L		11/02/22 10:47	11/03/22 23:03	1
Benzo[a]anthracene	~~0.086~~	J B U	0.19	0.043	ug/L		11/02/22 10:47	11/03/22 23:03	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/02/22 10:47	11/03/22 23:03	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/02/22 10:47	11/03/22 23:03	1
Benzo[g,h,i]perylene	ND	UJ	0.19	0.12	ug/L		11/02/22 10:47	11/03/22 23:03	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		11/02/22 10:47	11/03/22 23:03	1
Chrysene	ND		0.19	0.069	ug/L		11/02/22 10:47	11/03/22 23:03	1
Dibenz(a,h)anthracene	**0.065**	J	0.19	0.047	ug/L		11/02/22 10:47	11/03/22 23:03	1
Fluoranthene	ND		0.93	0.32	ug/L		11/02/22 10:47	11/04/22 16:41	5
Fluorene	**1.3**		0.93	0.51	ug/L		11/02/22 10:47	11/04/22 16:41	5
Indeno[1,2,3-cd]pyrene	**0.066**	J	0.19	0.040	ug/L		11/02/22 10:47	11/03/22 23:03	1
1-Methylnaphthalene	**27**		0.19	0.069	ug/L		11/02/22 10:47	11/03/22 23:03	1
2-Methylnaphthalene	**8.4**		0.19	0.056	ug/L		11/02/22 10:47	11/03/22 23:03	1
Phenanthrene	**2.9**		0.19	0.033	ug/L		11/02/22 10:47	11/03/22 23:03	1
Pyrene	**0.12**	J	0.19	0.037	ug/L		11/02/22 10:47	11/03/22 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*99*		*15 - 122*	*11/02/22 10:47*	*11/04/22 16:41*	*5*
Nitrobenzene-d5	*101*		*19 - 130*	*11/02/22 10:47*	*11/03/22 23:03*	*1*

Client Sample ID: ROST4PZC-ROX-102822

Date Collected: 10/28/22 10:35
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-4

Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*114*		*33 - 138*	*11/02/22 10:47*	*11/03/22 23:03*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 18:58	1
Benzenethiol	ND	*- UJ	9.3	1.6	ug/L		11/02/22 10:47	11/03/22 18:58	1
Benzoic acid	ND		28	6.8	ug/L		11/02/22 10:47	11/03/22 18:58	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 18:58	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 18:58	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 18:58	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 18:58	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.7	ug/L		11/02/22 10:47	11/03/22 18:58	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/02/22 10:47	11/03/22 18:58	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/02/22 10:47	11/03/22 18:58	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 18:58	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/02/22 10:47	11/03/22 18:58	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 18:58	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 18:58	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 18:58	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 18:58	1
Dibenzofuran	**0.64**	**J**	9.3	0.16	ug/L		11/02/22 10:47	11/03/22 18:58	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 18:58	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/02/22 10:47	11/03/22 18:58	1
Diethyl phthalate	ND		9.3	0.22	ug/L		11/02/22 10:47	11/03/22 18:58	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 18:58	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 18:58	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 18:58	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/02/22 10:47	11/03/22 18:58	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 18:58	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 18:58	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 18:58	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 18:58	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 18:58	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 18:58	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 18:58	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/02/22 10:47	11/03/22 18:58	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/02/22 10:47	11/03/22 18:58	1
Indene	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 18:58	1
Isophorone	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 18:58	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 18:58	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/02/22 10:47	11/03/22 18:58	1
2-Nitroaniline	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 18:58	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 18:58	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/02/22 10:47	11/03/22 18:58	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/02/22 10:47	11/03/22 18:58	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/02/22 10:47	11/03/22 18:58	1
4-Nitrophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 18:58	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 18:58	1

Client Sample ID: ROST4PZC-ROX-102822
Date Collected: 10/28/22 10:35
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-4
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 18:58	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/02/22 10:47	11/03/22 18:58	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 18:58	1
Phenol	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 18:58	1
Pyridine	ND		9.3	3.0	ug/L		11/02/22 10:47	11/03/22 18:58	1
Quinoline	ND	us	9.3	4.2	ug/L		11/02/22 10:47	11/03/22 18:58	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/02/22 10:47	11/03/22 18:58	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 18:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*11/02/22 10:47*	*11/03/22 18:58*	*1*
2-Fluorophenol	*44*		*13 - 113*	*11/02/22 10:47*	*11/03/22 18:58*	*1*
Nitrobenzene-d5	*89*		*36 - 126*	*11/02/22 10:47*	*11/03/22 18:58*	*1*
Phenol-d5	*81*		*17 - 127*	*11/02/22 10:47*	*11/03/22 18:58*	*1*
Terphenyl-d14	*116*		*44 - 149*	*11/02/22 10:47*	*11/03/22 18:58*	*1*
2,4,6-Tribromophenol	*121*		*26 - 150*	*11/02/22 10:47*	*11/03/22 18:58*	*1*

Method: EPA 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		11/04/22 14:48	11/05/22 10:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/04/22 14:48	11/05/22 10:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*79*		*51 - 149*	*11/04/22 14:48*	*11/05/22 10:00*	*1*

Client Sample Results

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

Job ID: 400-228051-1

Client Sample ID: MW2-ROX-102822
Date Collected: 10/28/22 11:40
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 16:00	1
Acrolein	ND		20	3.3	ug/L			11/10/22 16:00	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 16:00	1
Benzene	**1.4**		1.0	0.13	ug/L			11/10/22 16:00	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 16:00	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 16:00	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 16:00	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 16:00	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 16:00	1
2-Butanone (MEK)	**21**	J	25	2.6	ug/L			11/10/22 16:00	1
Carbon disulfide	ND	UJ	1.0	0.50	ug/L			11/10/22 16:00	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 16:00	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 16:00	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 16:00	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 16:00	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 16:00	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 16:00	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 16:00	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 16:00	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 16:00	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 16:00	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 16:00	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 16:00	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 16:00	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 16:00	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 16:00	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 16:00	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 16:00	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 16:00	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 16:00	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 16:00	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 16:00	1
Ethylbenzene	**90**		1.0	0.50	ug/L			11/10/22 16:00	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 16:00	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 16:00	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 16:00	1
Isopropylbenzene	**47**		1.0	0.53	ug/L			11/10/22 16:00	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 16:00	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 16:00	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 16:00	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 16:00	1
m-Xylene & p-Xylene	**40**		5.0	0.63	ug/L			11/10/22 16:00	1
Naphthalene	**22**		5.0	3.0	ug/L			11/10/22 16:00	1
n-Butylbenzene	**6.0**		1.0	0.76	ug/L			11/10/22 16:00	1
N-Propylbenzene	**76**		1.0	0.69	ug/L			11/10/22 16:00	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 16:00	1
o-Xylene	**3.7**	J	5.0	0.60	ug/L			11/10/22 16:00	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 16:00	1
p-Isopropyltoluene	**5.0**		1.0	0.71	ug/L			11/10/22 16:00	1

Client Sample ID: MW2-ROX-102822
Date Collected: 10/28/22 11:40
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	5.4		1.0	0.70	ug/L			11/10/22 16:00	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 16:00	1
tert-Butylbenzene	0.66	J	1.0	0.63	ug/L			11/10/22 16:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 16:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 16:00	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 16:00	1
Toluene	3.9		1.0	0.41	ug/L			11/10/22 16:00	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 16:00	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 16:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 16:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 16:00	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 16:00	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 16:00	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 16:00	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 16:00	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 16:00	1
1,2,4-Trimethylbenzene	18		1.0	0.82	ug/L			11/10/22 16:00	1
1,3,5-Trimethylbenzene	26		1.0	0.56	ug/L			11/10/22 16:00	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 16:00	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 16:00	1
Xylenes, Total	44		10	1.6	ug/L			11/10/22 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*11/10/22 16:00*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*11/10/22 16:00*	*1*
Toluene-d8 (Surr)	*93*		*64 - 132*		*11/10/22 16:00*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.96	0.15	ug/L		11/02/22 10:47	11/04/22 16:58	5
Acenaphthylene	ND		0.96	0.22	ug/L		11/02/22 10:47	11/04/22 16:58	5
Anthracene	ND		0.19	0.031	ug/L		11/02/22 10:47	11/03/22 23:20	1
Benzo[a]anthracene	~~0.10~~	J B U	0.19	0.044	ug/L		11/02/22 10:47	11/03/22 23:20	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		11/02/22 10:47	11/03/22 23:20	1
Benzo[b]fluoranthene	0.14	J	0.19	0.033	ug/L		11/02/22 10:47	11/03/22 23:20	1
Benzo[g,h,i]perylene	ND	U5	0.19	0.12	ug/L		11/02/22 10:47	11/03/22 23:20	1
Benzo[k]fluoranthene	0.16	J	0.19	0.096	ug/L		11/02/22 10:47	11/03/22 23:20	1
Chrysene	0.081	J	0.19	0.071	ug/L		11/02/22 10:47	11/03/22 23:20	1
Dibenz(a,h)anthracene	0.085	J	0.19	0.048	ug/L		11/02/22 10:47	11/03/22 23:20	1
Fluoranthene	ND		0.96	0.33	ug/L		11/02/22 10:47	11/04/22 16:58	5
Fluorene	ND		0.96	0.53	ug/L		11/02/22 10:47	11/04/22 16:58	5
Indeno[1,2,3-cd]pyrene	0.087	J	0.19	0.041	ug/L		11/02/22 10:47	11/03/22 23:20	1
1-Methylnaphthalene	9.6		0.96	0.35	ug/L		11/02/22 10:47	11/04/22 16:58	5
2-Methylnaphthalene	17		0.96	0.29	ug/L		11/02/22 10:47	11/04/22 16:58	5
Phenanthrene	0.076	J	0.19	0.034	ug/L		11/02/22 10:47	11/03/22 23:20	1
Pyrene	0.083	J	0.19	0.038	ug/L		11/02/22 10:47	11/03/22 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*103*		*15 - 122*	*11/02/22 10:47*	*11/04/22 16:58*	*5*
Nitrobenzene-d5	*103*		*19 - 130*	*11/02/22 10:47*	*11/04/22 16:58*	*5*

Client Sample ID: MW2-ROX-102822

Date Collected: 10/28/22 11:40
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	*82*		*33 - 138*	*11/02/22 10:47*	*11/03/22 23:20*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 19:19	1
Benzenethiol	ND	*- uj	9.6	1.6	ug/L		11/02/22 10:47	11/03/22 19:19	1
Benzoic acid	ND		29	7.0	ug/L		11/02/22 10:47	11/03/22 19:19	1
Benzyl alcohol	ND		9.6	1.9	ug/L		11/02/22 10:47	11/03/22 19:19	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		11/02/22 10:47	11/03/22 19:19	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		11/02/22 10:47	11/03/22 19:19	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		11/02/22 10:47	11/03/22 19:19	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		11/02/22 10:47	11/03/22 19:19	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		11/02/22 10:47	11/03/22 19:19	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		11/02/22 10:47	11/03/22 19:19	1
4-Chloroaniline	ND		9.6	3.3	ug/L		11/02/22 10:47	11/03/22 19:19	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		11/02/22 10:47	11/03/22 19:19	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		11/02/22 10:47	11/03/22 19:19	1
2-Chlorophenol	ND		9.6	2.1	ug/L		11/02/22 10:47	11/03/22 19:19	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		11/02/22 10:47	11/03/22 19:19	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		11/02/22 10:47	11/03/22 19:19	1
Dibenzofuran	ND		9.6	0.16	ug/L		11/02/22 10:47	11/03/22 19:19	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		11/02/22 10:47	11/03/22 19:19	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		11/02/22 10:47	11/03/22 19:19	1
Diethyl phthalate	ND		9.6	0.23	ug/L		11/02/22 10:47	11/03/22 19:19	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		11/02/22 10:47	11/03/22 19:19	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		11/02/22 10:47	11/03/22 19:19	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		11/02/22 10:47	11/03/22 19:19	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		11/02/22 10:47	11/03/22 19:19	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		11/02/22 10:47	11/03/22 19:19	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		11/02/22 10:47	11/03/22 19:19	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		11/02/22 10:47	11/03/22 19:19	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		11/02/22 10:47	11/03/22 19:19	1
1,4-Dioxane	ND		9.6	0.96	ug/L		11/02/22 10:47	11/03/22 19:19	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		11/02/22 10:47	11/03/22 19:19	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		11/02/22 10:47	11/03/22 19:19	1
Hexachlorocyclopentadiene	ND	uj	19	2.5	ug/L		11/02/22 10:47	11/03/22 19:19	1
Hexachloroethane	ND		9.6	4.0	ug/L		11/02/22 10:47	11/03/22 19:19	1
Indene	ND		9.6	0.96	ug/L		11/02/22 10:47	11/03/22 19:19	1
Isophorone	ND		9.6	0.13	ug/L		11/02/22 10:47	11/03/22 19:19	1
2-Methylphenol	ND		9.6	1.7	ug/L		11/02/22 10:47	11/03/22 19:19	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		11/02/22 10:47	11/03/22 19:19	1
2-Nitroaniline	ND		9.6	2.1	ug/L		11/02/22 10:47	11/03/22 19:19	1
3-Nitroaniline	ND		9.6	1.7	ug/L		11/02/22 10:47	11/03/22 19:19	1
4-Nitroaniline	ND		9.6	1.4	ug/L		11/02/22 10:47	11/03/22 19:19	1
Nitrobenzene	ND		9.6	0.12	ug/L		11/02/22 10:47	11/03/22 19:19	1
2-Nitrophenol	ND		9.6	5.0	ug/L		11/02/22 10:47	11/03/22 19:19	1
4-Nitrophenol	ND		9.6	2.0	ug/L		11/02/22 10:47	11/03/22 19:19	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		11/02/22 10:47	11/03/22 19:19	1

Client Sample ID: MW2-ROX-102822
Date Collected: 10/28/22 11:40
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-5
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 19:19	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		11/02/22 10:47	11/03/22 19:19	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 19:19	1
Phenol	ND		9.6	2.5	ug/L		11/02/22 10:47	11/03/22 19:19	1
Pyridine	ND		9.6	3.1	ug/L		11/02/22 10:47	11/03/22 19:19	1
Quinoline	ND	UJ	9.6	4.3	ug/L		11/02/22 10:47	11/03/22 19:19	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		11/02/22 10:47	11/03/22 19:19	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		11/02/22 10:47	11/03/22 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*46 - 124*	*11/02/22 10:47*	*11/03/22 19:19*	*1*
2-Fluorophenol	*41*		*13 - 113*	*11/02/22 10:47*	*11/03/22 19:19*	*1*
Nitrobenzene-d5	*87*		*36 - 126*	*11/02/22 10:47*	*11/03/22 19:19*	*1*
Phenol-d5	*70*		*17 - 127*	*11/02/22 10:47*	*11/03/22 19:19*	*1*
Terphenyl-d14	*74*		*44 - 149*	*11/02/22 10:47*	*11/03/22 19:19*	*1*
2,4,6-Tribromophenol	*108*		*26 - 150*	*11/02/22 10:47*	*11/03/22 19:19*	*1*

Method: EPA 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		11/04/22 14:48	11/05/22 10:20	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/04/22 14:48	11/05/22 10:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*51 - 149*	*11/04/22 14:48*	*11/05/22 10:20*	*1*

Client Sample ID: MW26-ROX-102822
Date Collected: 10/28/22 12:40
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/11/22 13:28	1
Acrolein	ND		20	3.3	ug/L			11/11/22 13:28	1
Acrylonitrile	ND		10	2.8	ug/L			11/11/22 13:28	1
Benzene	ND		1.0	0.13	ug/L			11/11/22 13:28	1
Bromobenzene	ND		1.0	0.54	ug/L			11/11/22 13:28	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/11/22 13:28	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/11/22 13:28	1
Bromoform	ND		5.0	0.25	ug/L			11/11/22 13:28	1
Bromomethane	ND		1.0	0.98	ug/L			11/11/22 13:28	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/11/22 13:28	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/11/22 13:28	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/11/22 13:28	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/11/22 13:28	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/11/22 13:28	1
Chloroethane	ND		1.0	0.76	ug/L			11/11/22 13:28	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/11/22 13:28	1
Chloroform	ND		1.0	1.0	ug/L			11/11/22 13:28	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/11/22 13:28	1
Chloromethane	ND	*+	1.0	0.32	ug/L			11/11/22 13:28	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/11/22 13:28	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/11/22 13:28	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/11/22 13:28	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/11/22 13:28	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/11/22 13:28	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/11/22 13:28	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/11/22 13:28	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/11/22 13:28	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/11/22 13:28	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 13:28	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 13:28	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 13:28	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/11/22 13:28	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/11/22 13:28	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/11/22 13:28	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/11/22 13:28	1
2-Hexanone	ND		25	1.4	ug/L			11/11/22 13:28	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/11/22 13:28	1
Methylene bromide	ND		5.0	0.22	ug/L			11/11/22 13:28	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/11/22 13:28	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/11/22 13:28	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/11/22 13:28	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/11/22 13:28	1
Naphthalene	ND		5.0	3.0	ug/L			11/11/22 13:28	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/11/22 13:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/11/22 13:28	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/11/22 13:28	1
o-Xylene	ND		5.0	0.60	ug/L			11/11/22 13:28	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/11/22 13:28	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/11/22 13:28	1

Client Sample ID: MW26-ROX-102822
Date Collected: 10/28/22 12:40
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-6
Matrix: Water

Method: SW846 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			11/11/22 13:28	1
Styrene	ND		1.0	1.0	ug/L			11/11/22 13:28	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/11/22 13:28	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/11/22 13:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/11/22 13:28	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/11/22 13:28	1
Toluene	ND		1.0	0.41	ug/L			11/11/22 13:28	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/11/22 13:28	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/11/22 13:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/11/22 13:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/11/22 13:28	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/11/22 13:28	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/11/22 13:28	1
Trichloroethene	ND		1.0	0.15	ug/L			11/11/22 13:28	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/11/22 13:28	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/11/22 13:28	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/11/22 13:28	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/11/22 13:28	1
Vinyl acetate	ND		25	0.93	ug/L			11/11/22 13:28	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/11/22 13:28	1
Xylenes, Total	ND		10	1.6	ug/L			11/11/22 13:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/11/22 13:28*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*11/11/22 13:28*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/11/22 13:28*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 23:37	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/02/22 10:47	11/03/22 23:37	1
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/03/22 23:37	1
Benzo[a]anthracene	~~0.077~~	J B	0.19	0.043	ug/L		11/02/22 10:47	11/03/22 23:37	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		11/02/22 10:47	11/03/22 23:37	1
Benzo[b]fluoranthene	**0.11**	J	0.19	0.032	ug/L		11/02/22 10:47	11/03/22 23:37	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/02/22 10:47	11/03/22 23:37	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		11/02/22 10:47	11/03/22 23:37	1
Chrysene	ND		0.19	0.070	ug/L		11/02/22 10:47	11/03/22 23:37	1
Dibenz(a,h)anthracene	**0.059**	J	0.19	0.047	ug/L		11/02/22 10:47	11/03/22 23:37	1
Fluoranthene	ND		0.19	0.064	ug/L		11/02/22 10:47	11/03/22 23:37	1
Fluorene	ND		0.19	0.10	ug/L		11/02/22 10:47	11/03/22 23:37	1
Indeno[1,2,3-cd]pyrene	**0.048**	J	0.19	0.040	ug/L		11/02/22 10:47	11/03/22 23:37	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		11/02/22 10:47	11/03/22 23:37	1
2-Methylnaphthalene	**0.066**	J	0.19	0.056	ug/L		11/02/22 10:47	11/03/22 23:37	1
Phenanthrene	**0.044**	J	0.19	0.034	ug/L		11/02/22 10:47	11/03/22 23:37	1
Pyrene	**0.046**	J	0.19	0.038	ug/L		11/02/22 10:47	11/03/22 23:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*130*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/03/22 23:37*	*1*
Nitrobenzene-d5	*96*		*19 - 130*	*11/02/22 10:47*	*11/03/22 23:37*	*1*

Client Sample ID: MW26-ROX-102822

Date Collected: 10/28/22 12:40
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-6

Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*111*		*33 - 138*	*11/02/22 10:47*	*11/03/22 23:37*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 19:40	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		11/02/22 10:47	11/03/22 19:40	1
Benzoic acid	ND		28	6.9	ug/L		11/02/22 10:47	11/03/22 19:40	1
Benzyl alcohol	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 19:40	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 19:40	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 19:40	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 19:40	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		11/02/22 10:47	11/03/22 19:40	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		11/02/22 10:47	11/03/22 19:40	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		11/02/22 10:47	11/03/22 19:40	1
4-Chloroaniline	ND		9.4	3.2	ug/L		11/02/22 10:47	11/03/22 19:40	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		11/02/22 10:47	11/03/22 19:40	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 19:40	1
2-Chlorophenol	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 19:40	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 19:40	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 19:40	1
Dibenzofuran	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 19:40	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		11/02/22 10:47	11/03/22 19:40	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		11/02/22 10:47	11/03/22 19:40	1
Diethyl phthalate	ND		9.4	0.23	ug/L		11/02/22 10:47	11/03/22 19:40	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 19:40	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 19:40	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 19:40	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		11/02/22 10:47	11/03/22 19:40	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 19:40	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 19:40	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 19:40	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 19:40	1
1,4-Dioxane	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 19:40	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 19:40	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 19:40	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/02/22 10:47	11/03/22 19:40	1
Hexachloroethane	ND		9.4	4.0	ug/L		11/02/22 10:47	11/03/22 19:40	1
Indene	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 19:40	1
Isophorone	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 19:40	1
2-Methylphenol	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 19:40	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		11/02/22 10:47	11/03/22 19:40	1
2-Nitroaniline	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 19:40	1
3-Nitroaniline	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 19:40	1
4-Nitroaniline	ND		9.4	1.4	ug/L		11/02/22 10:47	11/03/22 19:40	1
Nitrobenzene	ND		9.4	0.12	ug/L		11/02/22 10:47	11/03/22 19:40	1
2-Nitrophenol	ND		9.4	4.9	ug/L		11/02/22 10:47	11/03/22 19:40	1
4-Nitrophenol	ND		9.4	2.0	ug/L		11/02/22 10:47	11/03/22 19:40	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 19:40	1

Client Sample ID: MW26-ROX-102822
Date Collected: 10/28/22 12:40
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-6
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 19:40	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		11/02/22 10:47	11/03/22 19:40	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 19:40	1
Phenol	ND		9.4	2.4	ug/L		11/02/22 10:47	11/03/22 19:40	1
Pyridine	ND		9.4	3.0	ug/L		11/02/22 10:47	11/03/22 19:40	1
Quinoline	ND	U5	9.4	4.2	ug/L		11/02/22 10:47	11/03/22 19:40	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		11/02/22 10:47	11/03/22 19:40	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 19:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*80*		*46 - 124*	*11/02/22 10:47*	*11/03/22 19:40*	*1*
2-Fluorophenol	*14*		*13 - 113*	*11/02/22 10:47*	*11/03/22 19:40*	*1*
Nitrobenzene-d5	*89*		*36 - 126*	*11/02/22 10:47*	*11/03/22 19:40*	*1*
Phenol-d5	*42*		*17 - 127*	*11/02/22 10:47*	*11/03/22 19:40*	*1*
Terphenyl-d14	*111*		*44 - 149*	*11/02/22 10:47*	*11/03/22 19:40*	*1*
2,4,6-Tribromophenol	*87*		*26 - 150*	*11/02/22 10:47*	*11/03/22 19:40*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 11:39	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 11:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*82*		*51 - 149*	*11/09/22 08:27*	*11/09/22 11:39*	*1*

Client Sample ID: TB-ROX-102822-8260-B
Date Collected: 10/28/22 12:00
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 14:46	1
Acrolein	ND		20	3.3	ug/L			11/10/22 14:46	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 14:46	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 14:46	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 14:46	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 14:46	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 14:46	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 14:46	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 14:46	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 14:46	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 14:46	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 14:46	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 14:46	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 14:46	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 14:46	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 14:46	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 14:46	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 14:46	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 14:46	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 14:46	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 14:46	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 14:46	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 14:46	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 14:46	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 14:46	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 14:46	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 14:46	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 14:46	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 14:46	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 14:46	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 14:46	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 14:46	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 14:46	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 14:46	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 14:46	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 14:46	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 14:46	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 14:46	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 14:46	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 14:46	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 14:46	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 14:46	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 14:46	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 14:46	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 14:46	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 14:46	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 14:46	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 14:46	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 14:46	1

Client Sample ID: TB-ROX-102822-8260-B
Date Collected: 10/28/22 12:00
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-7
Matrix: Water

Method: SW846 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			11/10/22 14:46	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 14:46	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 14:46	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 14:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 14:46	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 14:46	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 14:46	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 14:46	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 14:46	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 14:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 14:46	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 14:46	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 14:46	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 14:46	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 14:46	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 14:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 14:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 14:46	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 14:46	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 14:46	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 14:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/10/22 14:46*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*11/10/22 14:46*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*11/10/22 14:46*	*1*

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

Job ID: 400-228051-1

Client Sample ID: TB-ROX-102822-8011-B
Date Collected: 10/28/22 12:00
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-8
Matrix: Water

Method: EPA 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		11/09/22 08:27	11/09/22 11:59	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 11:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*51 - 149*	*11/09/22 08:27*	*11/09/22 11:59*	*1*

Client Sample ID: ROST4PZE-ROX-102822-EB

Date Collected: 10/28/22 09:20
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-9

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 13:37	1
Acrolein	ND		20	3.3	ug/L			11/10/22 13:37	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 13:37	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 13:37	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 13:37	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 13:37	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 13:37	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 13:37	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 13:37	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 13:37	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 13:37	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 13:37	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 13:37	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 13:37	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 13:37	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 13:37	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 13:37	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 13:37	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 13:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 13:37	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 13:37	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 13:37	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 13:37	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 13:37	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 13:37	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 13:37	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 13:37	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 13:37	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 13:37	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 13:37	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 13:37	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 13:37	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 13:37	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 13:37	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 13:37	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 13:37	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 13:37	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 13:37	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 13:37	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 13:37	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 13:37	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 13:37	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 13:37	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 13:37	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 13:37	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 13:37	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 13:37	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 13:37	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 13:37	1

Client Sample ID: ROST4PZE-ROX-102822-EB

Date Collected: 10/28/22 09:20
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-9
Matrix: Water

Method: SW846 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			11/10/22 13:37	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 13:37	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 13:37	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 13:37	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 13:37	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 13:37	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 13:37	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 13:37	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 13:37	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 13:37	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 13:37	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 13:37	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 13:37	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 13:37	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 13:37	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 13:37	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 13:37	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 13:37	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 13:37	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 13:37	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 13:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/10/22 13:37*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*11/10/22 13:37*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*11/10/22 13:37*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.030	ug/L		11/02/22 10:47	11/03/22 23:55	1
Acenaphthylene	ND		0.18	0.042	ug/L		11/02/22 10:47	11/03/22 23:55	1
Anthracene	ND		0.18	0.030	ug/L		11/02/22 10:47	11/03/22 23:55	1
Anthracene	ND	H	0.37	0.059	ug/L		11/30/22 14:01	12/02/22 14:48	2
Benzo[a]anthracene	**0.074**	J B	0.18	0.042	ug/L		11/02/22 10:47	11/03/22 23:55	1
Benzo[a]anthracene	ND	H	0.37	0.085	ug/L		11/30/22 14:01	12/02/22 14:48	2
Benzo[a]pyrene	**0.11**	J	0.18	0.039	ug/L		11/02/22 10:47	11/03/22 23:55	1
Benzo[a]pyrene	ND	H	0.37	0.077	ug/L		11/30/22 14:01	12/02/22 14:48	2
Benzo[b]fluoranthene	**0.11**	J	0.18	0.031	ug/L		11/02/22 10:47	11/03/22 23:55	1
Benzo[b]fluoranthene	ND	H	0.37	0.063	ug/L		11/30/22 14:01	12/02/22 14:48	2
Benzo[g,h,i]perylene	ND		0.18	0.12	ug/L		11/02/22 10:47	11/03/22 23:55	1
Benzo[g,h,i]perylene	ND	H	0.37	0.24	ug/L		11/30/22 14:01	12/02/22 14:48	2
Benzo[k]fluoranthene	**0.13**	J	0.18	0.092	ug/L		11/02/22 10:47	11/03/22 23:55	1
Benzo[k]fluoranthene	ND	H	0.37	0.18	ug/L		11/30/22 14:01	12/02/22 14:48	2
Chrysene	ND		0.18	0.068	ug/L		11/02/22 10:47	11/03/22 23:55	1
Chrysene	ND	H	0.37	0.14	ug/L		11/30/22 14:01	12/02/22 14:48	2
Dibenz(a,h)anthracene	ND		0.18	0.046	ug/L		11/02/22 10:47	11/03/22 23:55	1
Dibenz(a,h)anthracene	ND	H	0.37	0.092	ug/L		11/30/22 14:01	12/02/22 14:48	2
Fluoranthene	ND		0.18	0.063	ug/L		11/02/22 10:47	11/03/22 23:55	1
Fluoranthene	ND	H	0.37	0.13	ug/L		11/30/22 14:01	12/02/22 14:48	2
Fluorene	ND		0.18	0.10	ug/L		11/02/22 10:47	11/03/22 23:55	1

Client Sample ID: ROST4PZE-ROX-102822-EB

Date Collected: 10/28/22 09:20
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-9
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	ND		0.18	0.040	ug/L		11/02/22 10:47	11/03/22 23:55	1
Indeno[1,2,3-cd]pyrene	ND	H	0.37	0.079	ug/L		11/30/22 14:01	12/02/22 14:48	2
1-Methylnaphthalene	ND		0.18	0.068	ug/L		11/02/22 10:47	11/03/22 23:55	1
2-Methylnaphthalene	ND		0.18	0.055	ug/L		11/02/22 10:47	11/03/22 23:55	1
Phenanthrene	0.054	J	0.18	0.033	ug/L		11/02/22 10:47	11/03/22 23:55	1
Phenanthrene	ND	H	0.37	0.066	ug/L		11/30/22 14:01	12/02/22 14:48	2
Pyrene	0.058	J	0.18	0.037	ug/L		11/02/22 10:47	11/03/22 23:55	1
Pyrene	ND	H	0.37	0.074	ug/L		11/30/22 14:01	12/02/22 14:48	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*127*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/03/22 23:55*	*1*
Nitrobenzene-d5	*96*		*19 - 130*	*11/02/22 10:47*	*11/03/22 23:55*	*1*
Terphenyl-d14	*120*		*33 - 138*	*11/02/22 10:47*	*11/03/22 23:55*	*1*
Terphenyl-d14	*115*		*33 - 138*	*11/30/22 14:01*	*12/02/22 14:48*	*2*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	H	0.18	0.030	ug/L		11/30/22 14:01	12/01/22 18:29	1
Acenaphthylene	ND	H	0.18	0.042	ug/L		11/30/22 14:01	12/01/22 18:29	1
Fluorene	ND	H	0.18	0.10	ug/L		11/30/22 14:01	12/01/22 18:29	1
1-Methylnaphthalene	ND	H	0.18	0.068	ug/L		11/30/22 14:01	12/01/22 18:29	1
2-Methylnaphthalene	ND	H	0.18	0.055	ug/L		11/30/22 14:01	12/01/22 18:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*118*		*15 - 122*	*11/30/22 14:01*	*12/01/22 18:29*	*1*
Nitrobenzene-d5	*67*		*19 - 130*	*11/30/22 14:01*	*12/01/22 18:29*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		11/02/22 10:47	11/03/22 20:01	1
Benzenethiol	ND	*-	9.2	1.6	ug/L		11/02/22 10:47	11/03/22 20:01	1
Benzoic acid	ND		28	6.7	ug/L		11/02/22 10:47	11/03/22 20:01	1
Benzyl alcohol	ND		9.2	1.8	ug/L		11/02/22 10:47	11/03/22 20:01	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		11/02/22 10:47	11/03/22 20:01	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		11/02/22 10:47	11/03/22 20:01	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		11/02/22 10:47	11/03/22 20:01	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		11/02/22 10:47	11/03/22 20:01	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		11/02/22 10:47	11/03/22 20:01	1
Butyl benzyl phthalate	ND		9.2	0.18	ug/L		11/02/22 10:47	11/03/22 20:01	1
4-Chloroaniline	ND		9.2	3.1	ug/L		11/02/22 10:47	11/03/22 20:01	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		11/02/22 10:47	11/03/22 20:01	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		11/02/22 10:47	11/03/22 20:01	1
2-Chlorophenol	ND		9.2	2.0	ug/L		11/02/22 10:47	11/03/22 20:01	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		11/02/22 10:47	11/03/22 20:01	1
Dibenz[a,h]acridine	ND		9.2	0.92	ug/L		11/02/22 10:47	11/03/22 20:01	1
Dibenzofuran	ND		9.2	0.16	ug/L		11/02/22 10:47	11/03/22 20:01	1
3,3'-Dichlorobenzidine	ND		9.2	2.4	ug/L		11/02/22 10:47	11/03/22 20:01	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		11/02/22 10:47	11/03/22 20:01	1
Diethyl phthalate	ND		9.2	0.22	ug/L		11/02/22 10:47	11/03/22 20:01	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		11/02/22 10:47	11/03/22 20:01	1

Client Sample ID: ROST4PZE-ROX-102822-EB
Date Collected: 10/28/22 09:20
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-9
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.2	0.16	ug/L		11/02/22 10:47	11/03/22 20:01	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		11/02/22 10:47	11/03/22 20:01	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		11/02/22 10:47	11/03/22 20:01	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		11/02/22 10:47	11/03/22 20:01	1
2,4-Dinitrotoluene	ND		9.2	1.8	ug/L		11/02/22 10:47	11/03/22 20:01	1
2,6-Dinitrotoluene	ND		9.2	1.8	ug/L		11/02/22 10:47	11/03/22 20:01	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		11/02/22 10:47	11/03/22 20:01	1
1,4-Dioxane	ND		9.2	0.92	ug/L		11/02/22 10:47	11/03/22 20:01	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		11/02/22 10:47	11/03/22 20:01	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		11/02/22 10:47	11/03/22 20:01	1
Hexachlorocyclopentadiene	ND		18	2.4	ug/L		11/02/22 10:47	11/03/22 20:01	1
Hexachloroethane	ND		9.2	3.9	ug/L		11/02/22 10:47	11/03/22 20:01	1
Indene	ND		9.2	0.92	ug/L		11/02/22 10:47	11/03/22 20:01	1
Isophorone	ND		9.2	0.13	ug/L		11/02/22 10:47	11/03/22 20:01	1
2-Methylphenol	ND		9.2	1.7	ug/L		11/02/22 10:47	11/03/22 20:01	1
3 & 4 Methylphenol	ND		18	0.36	ug/L		11/02/22 10:47	11/03/22 20:01	1
2-Nitroaniline	ND		9.2	2.0	ug/L		11/02/22 10:47	11/03/22 20:01	1
3-Nitroaniline	ND		9.2	1.7	ug/L		11/02/22 10:47	11/03/22 20:01	1
4-Nitroaniline	ND		9.2	1.4	ug/L		11/02/22 10:47	11/03/22 20:01	1
Nitrobenzene	ND		9.2	0.12	ug/L		11/02/22 10:47	11/03/22 20:01	1
2-Nitrophenol	ND		9.2	4.8	ug/L		11/02/22 10:47	11/03/22 20:01	1
4-Nitrophenol	ND		9.2	1.9	ug/L		11/02/22 10:47	11/03/22 20:01	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		11/02/22 10:47	11/03/22 20:01	1
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		11/02/22 10:47	11/03/22 20:01	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		11/02/22 10:47	11/03/22 20:01	1
Pentachlorophenol	ND		18	1.3	ug/L		11/02/22 10:47	11/03/22 20:01	1
Phenol	ND		9.2	2.4	ug/L		11/02/22 10:47	11/03/22 20:01	1
Pyridine	ND		9.2	3.0	ug/L		11/02/22 10:47	11/03/22 20:01	1
Quinoline	ND		9.2	4.2	ug/L		11/02/22 10:47	11/03/22 20:01	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		11/02/22 10:47	11/03/22 20:01	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		11/02/22 10:47	11/03/22 20:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*46 - 124*	*11/02/22 10:47*	*11/03/22 20:01*	*1*
2-Fluorophenol	*22*		*13 - 113*	*11/02/22 10:47*	*11/03/22 20:01*	*1*
Nitrobenzene-d5	*98*		*36 - 126*	*11/02/22 10:47*	*11/03/22 20:01*	*1*
Phenol-d5	*70*		*17 - 127*	*11/02/22 10:47*	*11/03/22 20:01*	*1*
Terphenyl-d14	*126*		*44 - 149*	*11/02/22 10:47*	*11/03/22 20:01*	*1*
2,4,6-Tribromophenol	*109*		*26 - 150*	*11/02/22 10:47*	*11/03/22 20:01*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 12:19	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 12:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*11/09/22 08:27*	*11/09/22 12:19*	*1*

Client Sample ID: ROST4PZE-ROX-102822
Date Collected: 10/28/22 10:10
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-10
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 16:22	1
Acrolein	ND		20	3.3	ug/L			11/10/22 16:22	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 16:22	1
Benzene	**14**		1.0	0.13	ug/L			11/10/22 16:22	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 16:22	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 16:22	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 16:22	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 16:22	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 16:22	1
2-Butanone (MEK)	**76**		25	2.6	ug/L			11/10/22 16:22	1
Carbon disulfide	ND	U5	1.0	0.50	ug/L			11/10/22 16:22	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 16:22	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 16:22	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 16:22	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 16:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 16:22	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 16:22	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 16:22	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 16:22	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 16:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 16:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 16:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 16:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 16:22	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 16:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 16:22	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 16:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 16:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 16:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 16:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 16:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 16:22	1
Ethylbenzene	**90**		1.0	0.50	ug/L			11/10/22 16:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 16:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 16:22	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 16:22	1
Isopropylbenzene	**4.5**		1.0	0.53	ug/L			11/10/22 16:22	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 16:22	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 16:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 16:22	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 16:22	1
m-Xylene & p-Xylene	**210**		5.0	0.63	ug/L			11/10/22 16:22	1
Naphthalene	**110**		5.0	3.0	ug/L			11/10/22 16:22	1
n-Butylbenzene	**2.0**		1.0	0.76	ug/L			11/10/22 16:22	1
N-Propylbenzene	**6.7**		1.0	0.69	ug/L			11/10/22 16:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 16:22	1
o-Xylene	**26**		5.0	0.60	ug/L			11/10/22 16:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 16:22	1
p-Isopropyltoluene	**1.5**		1.0	0.71	ug/L			11/10/22 16:22	1

Client Sample ID: ROST4PZE-ROX-102822

Date Collected: 10/28/22 10:10
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-10

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	0.77	J	1.0	0.70	ug/L			11/10/22 16:22	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 16:22	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 16:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 16:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 16:22	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 16:22	1
Toluene	8.9		1.0	0.41	ug/L			11/10/22 16:22	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 16:22	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 16:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 16:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 16:22	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 16:22	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 16:22	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 16:22	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 16:22	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 16:22	1
1,2,4-Trimethylbenzene	130		1.0	0.82	ug/L			11/10/22 16:22	1
1,3,5-Trimethylbenzene	13		1.0	0.56	ug/L			11/10/22 16:22	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 16:22	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 16:22	1
Xylenes, Total	240		10	1.6	ug/L			11/10/22 16:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*11/10/22 16:22*	*1*
Dibromofluoromethane	*105*		*75 - 126*		*11/10/22 16:22*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*11/10/22 16:22*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	3.0		0.94	0.15	ug/L		11/02/22 10:47	11/04/22 17:16	5
Acenaphthylene	0.56	J	0.94	0.21	ug/L		11/02/22 10:47	11/04/22 17:16	5
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/04/22 00:12	1
Benzo[a]anthracene	~~0.10~~	J B	0.19	0.043	ug/L		11/02/22 10:47	11/04/22 00:12	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/02/22 10:47	11/04/22 00:12	1
Benzo[b]fluoranthene	~~0.098~~	J	0.19	0.032	ug/L		11/02/22 10:47	11/04/22 00:12	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/02/22 10:47	11/04/22 00:12	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		11/02/22 10:47	11/04/22 00:12	1
Chrysene	0.10	J	0.19	0.069	ug/L		11/02/22 10:47	11/04/22 00:12	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		11/02/22 10:47	11/04/22 00:12	1
Fluoranthene	ND		0.94	0.32	ug/L		11/02/22 10:47	11/04/22 17:16	5
Fluorene	2.1		0.94	0.51	ug/L		11/02/22 10:47	11/04/22 17:16	5
Indeno[1,2,3-cd]pyrene	0.044	J	0.19	0.040	ug/L		11/02/22 10:47	11/04/22 00:12	1
1-Methylnaphthalene	38		0.19	0.069	ug/L		11/02/22 10:47	11/04/22 00:12	1
2-Methylnaphthalene	33		0.19	0.056	ug/L		11/02/22 10:47	11/04/22 00:12	1
Phenanthrene	4.4		0.19	0.034	ug/L		11/02/22 10:47	11/04/22 00:12	1
Pyrene	0.29		0.19	0.037	ug/L		11/02/22 10:47	11/04/22 00:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*98*		*15 - 122*	*11/02/22 10:47*	*11/04/22 17:16*	*5*
Nitrobenzene-d5	*93*		*19 - 130*	*11/02/22 10:47*	*11/04/22 00:12*	*1*

Client Sample ID: ROST4PZE-ROX-102822

Date Collected: 10/28/22 10:10
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-10
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	94		33 - 138	11/02/22 10:47	11/04/22 00:12	1

Method: SW846 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		11/02/22 10:47	11/03/22 20:22	1
Benzenethiol	ND	UJ	9.4	1.6	ug/L		11/02/22 10:47	11/03/22 20:22	1
Benzoic acid	ND	UJ	28	6.8	ug/L		11/02/22 10:47	11/03/22 20:22	1
Benzyl alcohol	ND	UJ	9.4	1.9	ug/L		11/02/22 10:47	11/03/22 20:22	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 20:22	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 20:22	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 20:22	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		11/02/22 10:47	11/03/22 20:22	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		11/02/22 10:47	11/03/22 20:22	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		11/02/22 10:47	11/03/22 20:22	1
4-Chloroaniline	ND		9.4	3.2	ug/L		11/02/22 10:47	11/03/22 20:22	1
4-Chloro-3-methylphenol	ND	UJ	9.4	3.6	ug/L		11/02/22 10:47	11/03/22 20:22	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 20:22	1
2-Chlorophenol	ND	UJ	9.4	2.1	ug/L		11/02/22 10:47	11/03/22 20:22	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 20:22	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 20:22	1
Dibenzofuran	1.1	J	9.4	0.16	ug/L		11/02/22 10:47	11/03/22 20:22	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		11/02/22 10:47	11/03/22 20:22	1
2,4-Dichlorophenol	ND	UJ	9.4	2.8	ug/L		11/02/22 10:47	11/03/22 20:22	1
Diethyl phthalate	ND		9.4	0.22	ug/L		11/02/22 10:47	11/03/22 20:22	1
2,4-Dimethylphenol	ND	UJ	9.4	3.3	ug/L		11/02/22 10:47	11/03/22 20:22	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 20:22	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 20:22	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.4	1.5	ug/L		11/02/22 10:47	11/03/22 20:22	1
2,4-Dinitrophenol	ND	UJ	28	3.2	ug/L		11/02/22 10:47	11/03/22 20:22	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 20:22	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 20:22	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 20:22	1
1,4-Dioxane	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 20:22	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 20:22	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 20:22	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/02/22 10:47	11/03/22 20:22	1
Hexachloroethane	ND		9.4	3.9	ug/L		11/02/22 10:47	11/03/22 20:22	1
Indene	1.7	J	9.4	0.94	ug/L		11/02/22 10:47	11/03/22 20:22	1
Isophorone	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 20:22	1
2-Methylphenol	ND	UJ	9.4	1.7	ug/L		11/02/22 10:47	11/03/22 20:22	1
3 & 4 Methylphenol	ND	UJ	19	0.37	ug/L		11/02/22 10:47	11/03/22 20:22	1
2-Nitroaniline	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 20:22	1
3-Nitroaniline	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 20:22	1
4-Nitroaniline	ND		9.4	1.4	ug/L		11/02/22 10:47	11/03/22 20:22	1
Nitrobenzene	ND		9.4	0.12	ug/L		11/02/22 10:47	11/03/22 20:22	1
2-Nitrophenol	ND	UJ	9.4	4.9	ug/L		11/02/22 10:47	11/03/22 20:22	1
4-Nitrophenol	ND	UJ	9.4	2.0	ug/L		11/02/22 10:47	11/03/22 20:22	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 20:22	1

Client Sample Results

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

Job ID: 400-228051-1

Client Sample ID: ROST4PZE-ROX-102822
Date Collected: 10/28/22 10:10
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-10
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 20:22	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		11/02/22 10:47	11/03/22 20:22	1
Pentachlorophenol	ND	UJ	19	1.3	ug/L		11/02/22 10:47	11/03/22 20:22	1
Phenol	ND	UJ	9.4	2.4	ug/L		11/02/22 10:47	11/03/22 20:22	1
Pyridine	ND		9.4	3.0	ug/L		11/02/22 10:47	11/03/22 20:22	1
Quinoline	ND	UJ	9.4	4.2	ug/L		11/02/22 10:47	11/03/22 20:22	1
2,4,5-Trichlorophenol	ND	UJ	9.4	3.5	ug/L		11/02/22 10:47	11/03/22 20:22	1
2,4,6-Trichlorophenol	ND	UJ	9.4	3.3	ug/L		11/02/22 10:47	11/03/22 20:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*46 - 124*	*11/02/22 10:47*	*11/03/22 20:22*	*1*
2-Fluorophenol	*4*	*S1-*	*13 - 113*	*11/02/22 10:47*	*11/03/22 20:22*	*1*
Nitrobenzene-d5	*86*		*36 - 126*	*11/02/22 10:47*	*11/03/22 20:22*	*1*
Phenol-d5	*12*	*S1-*	*17 - 127*	*11/02/22 10:47*	*11/03/22 20:22*	*1*
Terphenyl-d14	*124*		*44 - 149*	*11/02/22 10:47*	*11/03/22 20:22*	*1*
2,4,6-Tribromophenol	*66*		*26 - 150*	*11/02/22 10:47*	*11/03/22 20:22*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 12:40	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 12:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*4642*	*S1+*	*51 - 149*	*11/09/22 08:27*	*11/09/22 12:40*	*1*

Client Sample ID: ROST4PZE-ROX-102822-DUP
Date Collected: 10/28/22 10:10
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-11
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 16:46	1
Acrolein	ND		20	3.3	ug/L			11/10/22 16:46	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 16:46	1
Benzene	**14**		1.0	0.13	ug/L			11/10/22 16:46	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 16:46	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 16:46	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 16:46	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 16:46	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 16:46	1
2-Butanone (MEK)	**80**		25	2.6	ug/L			11/10/22 16:46	1
Carbon disulfide	ND	UJ	1.0	0.50	ug/L			11/10/22 16:46	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 16:46	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 16:46	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 16:46	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 16:46	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 16:46	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 16:46	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 16:46	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 16:46	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 16:46	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 16:46	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 16:46	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 16:46	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 16:46	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 16:46	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 16:46	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 16:46	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 16:46	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 16:46	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 16:46	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 16:46	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 16:46	1
Ethylbenzene	**98**		1.0	0.50	ug/L			11/10/22 16:46	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 16:46	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 16:46	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 16:46	1
Isopropylbenzene	**4.6**		1.0	0.53	ug/L			11/10/22 16:46	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 16:46	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 16:46	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 16:46	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 16:46	1
m-Xylene & p-Xylene	**220**		5.0	0.63	ug/L			11/10/22 16:46	1
Naphthalene	**120**		5.0	3.0	ug/L			11/10/22 16:46	1
n-Butylbenzene	**1.7**		1.0	0.76	ug/L			11/10/22 16:46	1
N-Propylbenzene	**7.0**		1.0	0.69	ug/L			11/10/22 16:46	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 16:46	1
o-Xylene	**27**		5.0	0.60	ug/L			11/10/22 16:46	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 16:46	1
p-Isopropyltoluene	**1.4**		1.0	0.71	ug/L			11/10/22 16:46	1

Client Sample ID: ROST4PZE-ROX-102822-DUP

Date Collected: 10/28/22 10:10
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-11

Matrix: Water

Method: SW846 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			11/10/22 16:46	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 16:46	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 16:46	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 16:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 16:46	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 16:46	1
Toluene	**9.3**		1.0	0.41	ug/L			11/10/22 16:46	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 16:46	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 16:46	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 16:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 16:46	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 16:46	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 16:46	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 16:46	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 16:46	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 16:46	1
1,2,4-Trimethylbenzene	**130**		1.0	0.82	ug/L			11/10/22 16:46	1
1,3,5-Trimethylbenzene	**13**		1.0	0.56	ug/L			11/10/22 16:46	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 16:46	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 16:46	1
Xylenes, Total	**240**		10	1.6	ug/L			11/10/22 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*11/10/22 16:46*	*1*
Dibromofluoromethane	*107*		*75 - 126*		*11/10/22 16:46*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*11/10/22 16:46*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**3.0**		0.93	0.15	ug/L		11/02/22 10:47	11/04/22 17:33	5
Acenaphthylene	**0.48**	J	0.93	0.21	ug/L		11/02/22 10:47	11/04/22 17:33	5
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/04/22 00:29	1
Benzo[a]anthracene	~~0.13~~	J B U	0.19	0.043	ug/L		11/02/22 10:47	11/04/22 00:29	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/02/22 10:47	11/04/22 00:29	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/02/22 10:47	11/04/22 00:29	1
Benzo[g,h,i]perylene	ND	UJ	0.19	0.12	ug/L		11/02/22 10:47	11/04/22 00:29	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		11/02/22 10:47	11/04/22 00:29	1
Chrysene	**0.090**	J	0.19	0.069	ug/L		11/02/22 10:47	11/04/22 00:29	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		11/02/22 10:47	11/04/22 00:29	1
Fluoranthene	ND		0.93	0.32	ug/L		11/02/22 10:47	11/04/22 17:33	5
Fluorene	**2.0**		0.93	0.51	ug/L		11/02/22 10:47	11/04/22 17:33	5
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		11/02/22 10:47	11/04/22 00:29	1
1-Methylnaphthalene	**64**	J	0.93	0.34	ug/L		11/02/22 10:47	11/04/22 17:33	5
2-Methylnaphthalene	**57**	J	0.93	0.28	ug/L		11/02/22 10:47	11/04/22 17:33	5
Phenanthrene	**4.7**		0.19	0.033	ug/L		11/02/22 10:47	11/04/22 00:29	1
Pyrene	**0.35**		0.19	0.037	ug/L		11/02/22 10:47	11/04/22 00:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*98*		*15 - 122*	*11/02/22 10:47*	*11/04/22 17:33*	*5*
Nitrobenzene-d5	*90*		*19 - 130*	*11/02/22 10:47*	*11/04/22 17:33*	*5*

Client Sample ID: ROST4PZE-ROX-102822-DUP
Date Collected: 10/28/22 10:10
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-11
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	107		33 - 138	11/02/22 10:47	11/04/22 00:29	1

Method: SW846 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		11/02/22 10:47	11/03/22 20:43	1
Benzenethiol	ND	*- UJ	9.3	1.6	ug/L		11/02/22 10:47	11/03/22 20:43	1
Benzoic acid	ND		28	6.8	ug/L		11/02/22 10:47	11/03/22 20:43	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 20:43	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 20:43	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 20:43	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 20:43	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.7	ug/L		11/02/22 10:47	11/03/22 20:43	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/02/22 10:47	11/03/22 20:43	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/02/22 10:47	11/03/22 20:43	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 20:43	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/02/22 10:47	11/03/22 20:43	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 20:43	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 20:43	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 20:43	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 20:43	1
Dibenzofuran	**1.0**	J	9.3	0.16	ug/L		11/02/22 10:47	11/03/22 20:43	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 20:43	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/02/22 10:47	11/03/22 20:43	1
Diethyl phthalate	ND		9.3	0.22	ug/L		11/02/22 10:47	11/03/22 20:43	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 20:43	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 20:43	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 20:43	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/02/22 10:47	11/03/22 20:43	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 20:43	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 20:43	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 20:43	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 20:43	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 20:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 20:43	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 20:43	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/02/22 10:47	11/03/22 20:43	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/02/22 10:47	11/03/22 20:43	1
Indene	**2.1**	J	9.3	0.93	ug/L		11/02/22 10:47	11/03/22 20:43	1
Isophorone	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 20:43	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 20:43	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/02/22 10:47	11/03/22 20:43	1
2-Nitroaniline	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 20:43	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 20:43	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/02/22 10:47	11/03/22 20:43	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/02/22 10:47	11/03/22 20:43	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/02/22 10:47	11/03/22 20:43	1
4-Nitrophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 20:43	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 20:43	1

Client Sample ID: ROST4PZE-ROX-102822-DUP
Date Collected: 10/28/22 10:10
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-11
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 20:43	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/02/22 10:47	11/03/22 20:43	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 20:43	1
Phenol	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 20:43	1
Pyridine	ND		9.3	3.0	ug/L		11/02/22 10:47	11/03/22 20:43	1
Quinoline	ND	UJ	9.3	4.2	ug/L		11/02/22 10:47	11/03/22 20:43	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/02/22 10:47	11/03/22 20:43	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 20:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*79*		*46 - 124*	*11/02/22 10:47*	*11/03/22 20:43*	*1*
2-Fluorophenol	*59*		*13 - 113*	*11/02/22 10:47*	*11/03/22 20:43*	*1*
Nitrobenzene-d5	*88*		*36 - 126*	*11/02/22 10:47*	*11/03/22 20:43*	*1*
Phenol-d5	*83*		*17 - 127*	*11/02/22 10:47*	*11/03/22 20:43*	*1*
Terphenyl-d14	*112*		*44 - 149*	*11/02/22 10:47*	*11/03/22 20:43*	*1*
2,4,6-Tribromophenol	*121*		*26 - 150*	*11/02/22 10:47*	*11/03/22 20:43*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 13:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 13:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*4338*	*S1+*	*51 - 149*	*11/09/22 08:27*	*11/09/22 13:00*	*1*

Client Sample ID: P57-ROX-102822-EB
Date Collected: 10/28/22 11:55
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-12
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 14:00	1
Acrolein	ND		20	3.3	ug/L			11/10/22 14:00	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 14:00	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 14:00	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 14:00	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 14:00	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 14:00	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 14:00	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 14:00	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 14:00	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 14:00	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 14:00	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 14:00	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 14:00	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 14:00	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 14:00	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 14:00	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 14:00	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 14:00	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 14:00	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 14:00	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 14:00	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 14:00	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 14:00	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 14:00	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 14:00	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 14:00	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 14:00	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 14:00	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 14:00	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 14:00	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 14:00	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 14:00	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 14:00	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 14:00	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 14:00	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 14:00	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 14:00	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 14:00	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 14:00	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 14:00	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 14:00	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 14:00	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 14:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 14:00	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 14:00	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 14:00	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 14:00	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 14:00	1

Client Sample ID: P57-ROX-102822-EB

Date Collected: 10/28/22 11:55
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-12

Matrix: Water

Method: SW846 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			11/10/22 14:00	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 14:00	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 14:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 14:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 14:00	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 14:00	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 14:00	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 14:00	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 14:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 14:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 14:00	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 14:00	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 14:00	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 14:00	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 14:00	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 14:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 14:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 14:00	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 14:00	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 14:00	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 14:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/10/22 14:00*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*11/10/22 14:00*	*1*
Toluene-d8 (Surr)	*93*		*64 - 132*		*11/10/22 14:00*	*1*

Method: SW846 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		11/02/22 10:47	11/04/22 00:46	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/02/22 10:47	11/04/22 00:46	1
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/04/22 00:46	1
Benzo[a]anthracene	**0.061**	**J B**	0.19	0.043	ug/L		11/02/22 10:47	11/04/22 00:46	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/02/22 10:47	11/04/22 00:46	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/02/22 10:47	11/04/22 00:46	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/02/22 10:47	11/04/22 00:46	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		11/02/22 10:47	11/04/22 00:46	1
Chrysene	ND		0.19	0.069	ug/L		11/02/22 10:47	11/04/22 00:46	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		11/02/22 10:47	11/04/22 00:46	1
Fluoranthene	ND		0.19	0.063	ug/L		11/02/22 10:47	11/04/22 00:46	1
Fluorene	ND		0.19	0.10	ug/L		11/02/22 10:47	11/04/22 00:46	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		11/02/22 10:47	11/04/22 00:46	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		11/02/22 10:47	11/04/22 00:46	1
2-Methylnaphthalene	**0.058**	**J**	0.19	0.056	ug/L		11/02/22 10:47	11/04/22 00:46	1
Phenanthrene	**0.038**	**J**	0.19	0.033	ug/L		11/02/22 10:47	11/04/22 00:46	1
Pyrene	ND		0.19	0.037	ug/L		11/02/22 10:47	11/04/22 00:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*125*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/04/22 00:46*	*1*
Nitrobenzene-d5	*92*		*19 - 130*	*11/02/22 10:47*	*11/04/22 00:46*	*1*

Client Sample ID: P57-ROX-102822-EB
Date Collected: 10/28/22 11:55
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-12
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*117*		*33 - 138*	*11/02/22 10:47*	*11/04/22 00:46*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 21:04	1
Benzenethiol	ND	*-	9.3	1.6	ug/L		11/02/22 10:47	11/03/22 21:04	1
Benzoic acid	ND		28	6.8	ug/L		11/02/22 10:47	11/03/22 21:04	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 21:04	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 21:04	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 21:04	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 21:04	1
Bis(2-ethylhexyl) phthalate	**6.0**	**J**	9.3	4.6	ug/L		11/02/22 10:47	11/03/22 21:04	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/02/22 10:47	11/03/22 21:04	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/02/22 10:47	11/03/22 21:04	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 21:04	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/02/22 10:47	11/03/22 21:04	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 21:04	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 21:04	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 21:04	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 21:04	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 21:04	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 21:04	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/02/22 10:47	11/03/22 21:04	1
Diethyl phthalate	ND		9.3	0.22	ug/L		11/02/22 10:47	11/03/22 21:04	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 21:04	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 21:04	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 21:04	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/02/22 10:47	11/03/22 21:04	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 21:04	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 21:04	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 21:04	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 21:04	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 21:04	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 21:04	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 21:04	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		11/02/22 10:47	11/03/22 21:04	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/02/22 10:47	11/03/22 21:04	1
Indene	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 21:04	1
Isophorone	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 21:04	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 21:04	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/02/22 10:47	11/03/22 21:04	1
2-Nitroaniline	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 21:04	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 21:04	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/02/22 10:47	11/03/22 21:04	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/02/22 10:47	11/03/22 21:04	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/02/22 10:47	11/03/22 21:04	1
4-Nitrophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 21:04	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 21:04	1

Client Sample ID: P57-ROX-102822-EB
Date Collected: 10/28/22 11:55
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-12
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 21:04	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/02/22 10:47	11/03/22 21:04	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 21:04	1
Phenol	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 21:04	1
Pyridine	ND		9.3	3.0	ug/L		11/02/22 10:47	11/03/22 21:04	1
Quinoline	ND		9.3	4.2	ug/L		11/02/22 10:47	11/03/22 21:04	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/02/22 10:47	11/03/22 21:04	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 21:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*11/02/22 10:47*	*11/03/22 21:04*	*1*
2-Fluorophenol	*23*		*13 - 113*	*11/02/22 10:47*	*11/03/22 21:04*	*1*
Nitrobenzene-d5	*94*		*36 - 126*	*11/02/22 10:47*	*11/03/22 21:04*	*1*
Phenol-d5	*69*		*17 - 127*	*11/02/22 10:47*	*11/03/22 21:04*	*1*
Terphenyl-d14	*124*		*44 - 149*	*11/02/22 10:47*	*11/03/22 21:04*	*1*
2,4,6-Tribromophenol	*108*		*26 - 150*	*11/02/22 10:47*	*11/03/22 21:04*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H	9.3	4.6	ug/L		11/09/22 09:13	11/10/22 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*11/09/22 09:13*	*11/10/22 22:15*	*1*
Nitrobenzene-d5	*95*		*36 - 126*	*11/09/22 09:13*	*11/10/22 22:15*	*1*
Terphenyl-d14	*129*		*44 - 149*	*11/09/22 09:13*	*11/10/22 22:15*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 13:21	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 13:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*78*		*51 - 149*	*11/09/22 08:27*	*11/09/22 13:21*	*1*

Client Sample Results

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

Job ID: 400-228051-1

Client Sample ID: P57-ROX-102822
Date Collected: 10/28/22 12:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-13
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**20**	J *+	25	10	ug/L			11/11/22 13:53	1
Acrolein	ND		20	3.3	ug/L			11/11/22 13:53	1
Acrylonitrile	ND		10	2.8	ug/L			11/11/22 13:53	1
Benzene	**54**		1.0	0.13	ug/L			11/11/22 13:53	1
Bromobenzene	ND		1.0	0.54	ug/L			11/11/22 13:53	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/11/22 13:53	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/11/22 13:53	1
Bromoform	ND		5.0	0.25	ug/L			11/11/22 13:53	1
Bromomethane	ND		1.0	0.98	ug/L			11/11/22 13:53	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/11/22 13:53	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/11/22 13:53	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/11/22 13:53	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/11/22 13:53	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/11/22 13:53	1
Chloroethane	ND		1.0	0.76	ug/L			11/11/22 13:53	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/11/22 13:53	1
Chloroform	ND		1.0	1.0	ug/L			11/11/22 13:53	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/11/22 13:53	1
Chloromethane	ND	*+	1.0	0.32	ug/L			11/11/22 13:53	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/11/22 13:53	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/11/22 13:53	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/11/22 13:53	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/11/22 13:53	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/11/22 13:53	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/11/22 13:53	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/11/22 13:53	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/11/22 13:53	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/11/22 13:53	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 13:53	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 13:53	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 13:53	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/11/22 13:53	1
Ethylbenzene	**1.4**		1.0	0.50	ug/L			11/11/22 13:53	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/11/22 13:53	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/11/22 13:53	1
2-Hexanone	ND		25	1.4	ug/L			11/11/22 13:53	1
Isopropylbenzene	**31**		1.0	0.53	ug/L			11/11/22 13:53	1
Methylene bromide	ND		5.0	0.22	ug/L			11/11/22 13:53	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/11/22 13:53	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/11/22 13:53	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/11/22 13:53	1
m-Xylene & p-Xylene	**1.4**	J	5.0	0.63	ug/L			11/11/22 13:53	1
Naphthalene	**12**		5.0	3.0	ug/L			11/11/22 13:53	1
n-Butylbenzene	**3.6**		1.0	0.76	ug/L			11/11/22 13:53	1
N-Propylbenzene	**35**		1.0	0.69	ug/L			11/11/22 13:53	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/11/22 13:53	1
o-Xylene	ND		5.0	0.60	ug/L			11/11/22 13:53	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/11/22 13:53	1
p-Isopropyltoluene	**0.76**	J	1.0	0.71	ug/L			11/11/22 13:53	1

Client Sample ID: P57-ROX-102822
Date Collected: 10/28/22 12:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-13
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	5.8		1.0	0.70	ug/L			11/11/22 13:53	1
Styrene	ND		1.0	1.0	ug/L			11/11/22 13:53	1
tert-Butylbenzene	7.8		1.0	0.63	ug/L			11/11/22 13:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/11/22 13:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/11/22 13:53	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/11/22 13:53	1
Toluene	4.3		1.0	0.41	ug/L			11/11/22 13:53	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/11/22 13:53	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/11/22 13:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/11/22 13:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/11/22 13:53	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/11/22 13:53	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/11/22 13:53	1
Trichloroethene	ND		1.0	0.15	ug/L			11/11/22 13:53	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/11/22 13:53	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/11/22 13:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/11/22 13:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/11/22 13:53	1
Vinyl acetate	ND		25	0.93	ug/L			11/11/22 13:53	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/11/22 13:53	1
Xylenes, Total	1.8	J	10	1.6	ug/L			11/11/22 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/11/22 13:53*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*11/11/22 13:53*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/11/22 13:53*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.33	J	0.93	0.15	ug/L		11/02/22 10:47	11/04/22 17:50	5
Acenaphthene	0.35	J H J	0.38	0.060	ug/L		11/09/22 09:13	12/02/22 13:57	2
Acenaphthylene	ND		0.93	0.21	ug/L		11/02/22 10:47	11/04/22 17:50	5
Acenaphthylene	ND	H UJ	0.38	0.084	ug/L		11/09/22 09:13	12/02/22 13:57	2
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/04/22 01:04	1
Anthracene	ND	H UJ	0.38	0.060	ug/L		11/09/22 09:13	12/02/22 13:57	2
Benzo[a]anthracene	~~0.20~~	~~B~~ U	~~0.19~~ 0.2	0.043	ug/L		11/02/22 10:47	11/04/22 01:04	1
Benzo[a]pyrene	0.23		0.19	0.039	ug/L		11/02/22 10:47	11/04/22 01:04	1
Benzo[b]fluoranthene	0.25		0.19	0.032	ug/L		11/02/22 10:47	11/04/22 01:04	1
Benzo[g,h,i]perylene	ND		0.93	0.61	ug/L		11/02/22 10:47	11/04/22 17:50	5
Benzo[k]fluoranthene	0.26		0.19	0.093	ug/L		11/02/22 10:47	11/04/22 01:04	1
Chrysene	0.21		0.19	0.069	ug/L		11/02/22 10:47	11/04/22 01:04	1
Dibenz(a,h)anthracene	0.14	J	0.19	0.047	ug/L		11/02/22 10:47	11/04/22 01:04	1
Fluoranthene	ND		0.93	0.32	ug/L		11/02/22 10:47	11/04/22 17:50	5
Fluoranthene	ND	H UJ	0.38	0.13	ug/L		11/09/22 09:13	12/02/22 13:57	2
Fluorene	ND	UJ	0.93	0.51	ug/L		11/02/22 10:47	11/04/22 17:50	5
Fluorene	0.80	H J	0.38	0.21	ug/L		11/09/22 09:13	12/02/22 13:57	2
Indeno[1,2,3-cd]pyrene	0.14	J	0.19	0.040	ug/L		11/02/22 10:47	11/04/22 01:04	1
1-Methylnaphthalene	22		0.93	0.35	ug/L		11/02/22 10:47	11/04/22 17:50	5
2-Methylnaphthalene	29		0.93	0.28	ug/L		11/02/22 10:47	11/04/22 17:50	5
Phenanthrene	0.55		0.19	0.034	ug/L		11/02/22 10:47	11/04/22 01:04	1

Client Sample ID: P57-ROX-102822
Date Collected: 10/28/22 12:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-13
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenanthrene	0.28	J H	0.38	0.068	ug/L		11/09/22 09:13	12/02/22 13:57	2
Pyrene	0.20		0.19	0.037	ug/L		11/02/22 10:47	11/04/22 01:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*97*		*15 - 122*	*11/02/22 10:47*	*11/04/22 17:50*	*5*
2-Fluorobiphenyl	*88*		*15 - 122*	*11/09/22 09:13*	*12/02/22 13:57*	*2*
Nitrobenzene-d5	*89*		*19 - 130*	*11/02/22 10:47*	*11/04/22 17:50*	*5*
Terphenyl-d14	*102*		*33 - 138*	*11/02/22 10:47*	*11/04/22 01:04*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND	H	0.19	0.043	ug/L		11/09/22 09:13	12/01/22 15:38	1
Benzo[a]pyrene	ND	H	0.19	0.039	ug/L		11/09/22 09:13	12/01/22 15:38	1
Benzo[b]fluoranthene	~~0.13~~	J H B	0.19	0.032	ug/L		11/09/22 09:13	12/01/22 15:38	1
Benzo[g,h,i]perylene	ND	H	0.19	0.12	ug/L		11/09/22 09:13	12/01/22 15:38	1
Benzo[k]fluoranthene	0.11	J H	0.19	0.094	ug/L		11/09/22 09:13	12/01/22 15:38	1
Chrysene	ND	H	0.19	0.069	ug/L		11/09/22 09:13	12/01/22 15:38	1
Dibenz(a,h)anthracene	ND	H	0.19	0.047	ug/L		11/09/22 09:13	12/01/22 15:38	1
Indeno[1,2,3-cd]pyrene	ND	H	0.19	0.040	ug/L		11/09/22 09:13	12/01/22 15:38	1
1-Methylnaphthalene	25	H	0.19	0.069	ug/L		11/09/22 09:13	12/01/22 15:38	1
2-Methylnaphthalene	27	H	0.19	0.056	ug/L		11/09/22 09:13	12/01/22 15:38	1
Pyrene	ND	H	0.19	0.038	ug/L		11/09/22 09:13	12/01/22 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*62*		*19 - 130*	*11/09/22 09:13*	*12/01/22 15:38*	*1*
Terphenyl-d14	*49*		*33 - 138*	*11/09/22 09:13*	*12/01/22 15:38*	*1*

Method: SW846 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		11/02/22 10:47	11/03/22 21:25	1
Benzenethiol	ND	*-	9.3	1.6	ug/L		11/02/22 10:47	11/03/22 21:25	1
Benzoic acid	ND		28	6.8	ug/L		11/02/22 10:47	11/03/22 21:25	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 21:25	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 21:25	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 21:25	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/02/22 10:47	11/03/22 21:25	1
Bis(2-ethylhexyl) phthalate	20		9.3	4.7	ug/L		11/02/22 10:47	11/03/22 21:25	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/02/22 10:47	11/03/22 21:25	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/02/22 10:47	11/03/22 21:25	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/02/22 10:47	11/03/22 21:25	1
4-Chloro-3-methylphenol	ND		9.3	3.6	ug/L		11/02/22 10:47	11/03/22 21:25	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 21:25	1
2-Chlorophenol	ND		9.3	2.1	ug/L		11/02/22 10:47	11/03/22 21:25	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/02/22 10:47	11/03/22 21:25	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 21:25	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 21:25	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 21:25	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/02/22 10:47	11/03/22 21:25	1
Diethyl phthalate	ND		9.3	0.22	ug/L		11/02/22 10:47	11/03/22 21:25	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 21:25	1

Client Sample ID: P57-ROX-102822
Date Collected: 10/28/22 12:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-13
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 21:25	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/02/22 10:47	11/03/22 21:25	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/02/22 10:47	11/03/22 21:25	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 21:25	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 21:25	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/02/22 10:47	11/03/22 21:25	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 21:25	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 21:25	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 21:25	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/02/22 10:47	11/03/22 21:25	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/02/22 10:47	11/03/22 21:25	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/02/22 10:47	11/03/22 21:25	1
Indene	ND		9.3	0.93	ug/L		11/02/22 10:47	11/03/22 21:25	1
Isophorone	ND		9.3	0.13	ug/L		11/02/22 10:47	11/03/22 21:25	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 21:25	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/02/22 10:47	11/03/22 21:25	1
2-Nitroaniline	ND		9.3	2.1	ug/L		11/02/22 10:47	11/03/22 21:25	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/02/22 10:47	11/03/22 21:25	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/02/22 10:47	11/03/22 21:25	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/02/22 10:47	11/03/22 21:25	1
2-Nitrophenol	ND		9.3	4.9	ug/L		11/02/22 10:47	11/03/22 21:25	1
4-Nitrophenol	ND		9.3	2.0	ug/L		11/02/22 10:47	11/03/22 21:25	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 21:25	1
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		11/02/22 10:47	11/03/22 21:25	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/02/22 10:47	11/03/22 21:25	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 21:25	1
Phenol	ND		9.3	2.4	ug/L		11/02/22 10:47	11/03/22 21:25	1
Pyridine	ND		9.3	3.0	ug/L		11/02/22 10:47	11/03/22 21:25	1
Quinoline	ND	UJ	9.3	4.2	ug/L		11/02/22 10:47	11/03/22 21:25	1
2,4,5-Trichlorophenol	ND		9.3	3.5	ug/L		11/02/22 10:47	11/03/22 21:25	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		11/02/22 10:47	11/03/22 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*46 - 124*	*11/02/22 10:47*	*11/03/22 21:25*	*1*
2-Fluorophenol	*29*		*13 - 113*	*11/02/22 10:47*	*11/03/22 21:25*	*1*
Nitrobenzene-d5	*92*		*36 - 126*	*11/02/22 10:47*	*11/03/22 21:25*	*1*
Phenol-d5	*69*		*17 - 127*	*11/02/22 10:47*	*11/03/22 21:25*	*1*
Terphenyl-d14	*113*		*44 - 149*	*11/02/22 10:47*	*11/03/22 21:25*	*1*
2,4,6-Tribromophenol	*125*		*26 - 150*	*11/02/22 10:47*	*11/03/22 21:25*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	5.4	J H J	9.4	4.7	ug/L		11/09/22 09:13	11/11/22 16:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*11/09/22 09:13*	*11/11/22 16:41*	*1*
Nitrobenzene-d5	*88*		*36 - 126*	*11/09/22 09:13*	*11/11/22 16:41*	*1*
Terphenyl-d14	*87*		*44 - 149*	*11/09/22 09:13*	*11/11/22 16:41*	*1*

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

Job ID: 400-228051-1

Client Sample ID: P57-ROX-102822
Date Collected: 10/28/22 12:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-13
Matrix: Water

Method: EPA 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		11/09/22 08:27	11/09/22 13:41	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 13:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*88*		*51 - 149*	*11/09/22 08:27*	*11/09/22 13:41*	*1*

Client Sample ID: P74-ROX-102822
Date Collected: 10/28/22 13:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-14
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/11/22 14:18	1
Acrolein	ND		20	3.3	ug/L			11/11/22 14:18	1
Acrylonitrile	ND		10	2.8	ug/L			11/11/22 14:18	1
Benzene	**29**	J	1.0	0.13	ug/L			11/11/22 14:18	1
Bromobenzene	ND		1.0	0.54	ug/L			11/11/22 14:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/11/22 14:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/11/22 14:18	1
Bromoform	ND		5.0	0.25	ug/L			11/11/22 14:18	1
Bromomethane	ND		1.0	0.98	ug/L			11/11/22 14:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/11/22 14:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/11/22 14:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/11/22 14:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/11/22 14:18	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/11/22 14:18	1
Chloroethane	ND		1.0	0.76	ug/L			11/11/22 14:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/11/22 14:18	1
Chloroform	ND		1.0	1.0	ug/L			11/11/22 14:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/11/22 14:18	1
Chloromethane	ND	*+	1.0	0.32	ug/L			11/11/22 14:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/11/22 14:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/11/22 14:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/11/22 14:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/11/22 14:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/11/22 14:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/11/22 14:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/11/22 14:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/11/22 14:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/11/22 14:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 14:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 14:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 14:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/11/22 14:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/11/22 14:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/11/22 14:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/11/22 14:18	1
2-Hexanone	ND		25	1.4	ug/L			11/11/22 14:18	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/11/22 14:18	1
Methylene bromide	ND		5.0	0.22	ug/L			11/11/22 14:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/11/22 14:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/11/22 14:18	1
Methyl tert-butyl ether	**0.77**	J	1.0	0.22	ug/L			11/11/22 14:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/11/22 14:18	1
Naphthalene	ND		5.0	3.0	ug/L			11/11/22 14:18	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/11/22 14:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/11/22 14:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/11/22 14:18	1
o-Xylene	ND		5.0	0.60	ug/L			11/11/22 14:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/11/22 14:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/11/22 14:18	1

Client Sample ID: P74-ROX-102822
Date Collected: 10/28/22 13:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-14
Matrix: Water

Method: SW846 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			11/11/22 14:18	1
Styrene	ND		1.0	1.0	ug/L			11/11/22 14:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/11/22 14:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/11/22 14:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/11/22 14:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/11/22 14:18	1
Toluene	0.50	J	1.0	0.41	ug/L			11/11/22 14:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/11/22 14:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/11/22 14:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/11/22 14:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/11/22 14:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/11/22 14:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/11/22 14:18	1
Trichloroethene	ND		1.0	0.15	ug/L			11/11/22 14:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/11/22 14:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/11/22 14:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/11/22 14:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/11/22 14:18	1
Vinyl acetate	ND		25	0.93	ug/L			11/11/22 14:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/11/22 14:18	1
Xylenes, Total	ND		10	1.6	ug/L			11/11/22 14:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/11/22 14:18*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*11/11/22 14:18*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/11/22 14:18*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND	UJ	0.38	0.060	ug/L		11/02/22 10:47	11/04/22 18:07	2
Acenaphthylene	ND	UJ	0.38	0.085	ug/L		11/02/22 10:47	11/04/22 18:07	2
Anthracene	0.030	J	0.19	0.030	ug/L		11/02/22 10:47	11/04/22 01:21	1
Benzo[a]anthracene	0.089	J B U	0.19	0.043	ug/L		11/02/22 10:47	11/04/22 01:21	1
Benzo[a]pyrene	0.14	J	0.19	0.040	ug/L		11/02/22 10:47	11/04/22 01:21	1
Benzo[b]fluoranthene	0.11	J	0.19	0.032	ug/L		11/02/22 10:47	11/04/22 01:21	1
Benzo[g,h,i]perylene	ND	UJ	0.19	0.12	ug/L		11/02/22 10:47	11/04/22 01:21	1
Benzo[k]fluoranthene	0.15	J	0.19	0.094	ug/L		11/02/22 10:47	11/04/22 01:21	1
Chrysene	ND		0.19	0.070	ug/L		11/02/22 10:47	11/04/22 01:21	1
Dibenz(a,h)anthracene	0.048	J	0.19	0.047	ug/L		11/02/22 10:47	11/04/22 01:21	1
Fluoranthene	ND	UJ	0.38	0.13	ug/L		11/02/22 10:47	11/04/22 18:07	2
Fluorene	ND	UJ	0.38	0.21	ug/L		11/02/22 10:47	11/04/22 18:07	2
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		11/02/22 10:47	11/04/22 01:21	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		11/02/22 10:47	11/04/22 01:21	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		11/02/22 10:47	11/04/22 01:21	1
Phenanthrene	0.052	J	0.19	0.034	ug/L		11/02/22 10:47	11/04/22 01:21	1
Pyrene	0.055	J	0.19	0.038	ug/L		11/02/22 10:47	11/04/22 01:21	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*154*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/04/22 18:07*	*2*
Nitrobenzene-d5	*102*		*19 - 130*	*11/02/22 10:47*	*11/04/22 01:21*	*1*

Client Sample ID: P74-ROX-102822
Date Collected: 10/28/22 13:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-14
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	103		33 - 138	11/02/22 10:47	11/04/22 01:21	1

Method: SW846 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		11/02/22 10:47	11/03/22 21:46	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		11/02/22 10:47	11/03/22 21:46	1
Benzoic acid	ND		28	6.9	ug/L		11/02/22 10:47	11/03/22 21:46	1
Benzyl alcohol	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 21:46	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 21:46	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 21:46	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 21:46	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		11/02/22 10:47	11/03/22 21:46	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		11/02/22 10:47	11/03/22 21:46	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		11/02/22 10:47	11/03/22 21:46	1
4-Chloroaniline	ND		9.4	3.2	ug/L		11/02/22 10:47	11/03/22 21:46	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		11/02/22 10:47	11/03/22 21:46	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 21:46	1
2-Chlorophenol	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 21:46	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 21:46	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 21:46	1
Dibenzofuran	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 21:46	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 21:46	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		11/02/22 10:47	11/03/22 21:46	1
Diethyl phthalate	ND		9.4	0.23	ug/L		11/02/22 10:47	11/03/22 21:46	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 21:46	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 21:46	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 21:46	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		11/02/22 10:47	11/03/22 21:46	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 21:46	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 21:46	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 21:46	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 21:46	1
1,4-Dioxane	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 21:46	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 21:46	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 21:46	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		11/02/22 10:47	11/03/22 21:46	1
Hexachloroethane	ND		9.4	4.0	ug/L		11/02/22 10:47	11/03/22 21:46	1
Indene	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 21:46	1
Isophorone	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 21:46	1
2-Methylphenol	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 21:46	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		11/02/22 10:47	11/03/22 21:46	1
2-Nitroaniline	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 21:46	1
3-Nitroaniline	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 21:46	1
4-Nitroaniline	ND		9.4	1.4	ug/L		11/02/22 10:47	11/03/22 21:46	1
Nitrobenzene	ND		9.4	0.12	ug/L		11/02/22 10:47	11/03/22 21:46	1
2-Nitrophenol	ND		9.4	4.9	ug/L		11/02/22 10:47	11/03/22 21:46	1
4-Nitrophenol	ND		9.4	2.0	ug/L		11/02/22 10:47	11/03/22 21:46	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 21:46	1

Client Sample ID: P74-ROX-102822
Date Collected: 10/28/22 13:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-14
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 21:46	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		11/02/22 10:47	11/03/22 21:46	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 21:46	1
Phenol	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 21:46	1
Pyridine	ND		9.4	3.0	ug/L		11/02/22 10:47	11/03/22 21:46	1
Quinoline	ND	UJ	9.4	4.2	ug/L		11/02/22 10:47	11/03/22 21:46	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		11/02/22 10:47	11/03/22 21:46	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 21:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*11/02/22 10:47*	*11/03/22 21:46*	*1*
2-Fluorophenol	*41*		*13 - 113*	*11/02/22 10:47*	*11/03/22 21:46*	*1*
Nitrobenzene-d5	*93*		*36 - 126*	*11/02/22 10:47*	*11/03/22 21:46*	*1*
Phenol-d5	*80*		*17 - 127*	*11/02/22 10:47*	*11/03/22 21:46*	*1*
Terphenyl-d14	*120*		*44 - 149*	*11/02/22 10:47*	*11/03/22 21:46*	*1*
2,4,6-Tribromophenol	*123*		*26 - 150*	*11/02/22 10:47*	*11/03/22 21:46*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 14:22	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 14:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*86*		*51 - 149*	*11/09/22 08:27*	*11/09/22 14:22*	*1*

Client Sample Results

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

Job ID: 400-228051-1

Client Sample ID: P74-ROX-102822-DUP
Date Collected: 10/28/22 13:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-15
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 17:35	1
Acrolein	ND		20	3.3	ug/L			11/10/22 17:35	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 17:35	1
Benzene	**22**	J	1.0	0.13	ug/L			11/10/22 17:35	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 17:35	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 17:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 17:35	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 17:35	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 17:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 17:35	1
Carbon disulfide	ND	UJ	1.0	0.50	ug/L			11/10/22 17:35	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 17:35	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 17:35	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 17:35	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 17:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 17:35	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 17:35	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 17:35	1
Chloromethane	**1.0**		1.0	0.32	ug/L			11/10/22 17:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 17:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 17:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 17:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 17:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 17:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 17:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 17:35	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 17:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 17:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 17:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 17:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 17:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 17:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 17:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 17:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 17:35	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 17:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 17:35	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 17:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 17:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 17:35	1
Methyl tert-butyl ether	**0.91**	J	1.0	0.22	ug/L			11/10/22 17:35	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 17:35	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 17:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 17:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 17:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 17:35	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 17:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 17:35	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 17:35	1

Client Sample ID: P74-ROX-102822-DUP
Date Collected: 10/28/22 13:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-15
Matrix: Water

Method: SW846 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			11/10/22 17:35	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 17:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 17:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 17:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 17:35	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 17:35	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 17:35	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 17:35	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 17:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 17:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 17:35	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 17:35	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 17:35	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 17:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 17:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 17:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 17:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 17:35	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 17:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 17:35	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/10/22 17:35*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*11/10/22 17:35*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*11/10/22 17:35*	*1*

Method: SW846 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		11/02/22 10:47	11/04/22 01:38	1
Acenaphthylene	ND		0.19	0.043	ug/L		11/02/22 10:47	11/04/22 01:38	1
Anthracene	ND		0.19	0.030	ug/L		11/02/22 10:47	11/04/22 01:38	1
Benzo[a]anthracene	~~0.069~~ J B U		0.19	0.043	ug/L		11/02/22 10:47	11/04/22 01:38	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		11/02/22 10:47	11/04/22 01:38	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/02/22 10:47	11/04/22 01:38	1
Benzo[g,h,i]perylene	ND UJ		0.19	0.12	ug/L		11/02/22 10:47	11/04/22 01:38	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		11/02/22 10:47	11/04/22 01:38	1
Chrysene	ND		0.19	0.070	ug/L		11/02/22 10:47	11/04/22 01:38	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		11/02/22 10:47	11/04/22 01:38	1
Fluoranthene	ND		0.19	0.064	ug/L		11/02/22 10:47	11/04/22 01:38	1
Fluorene	ND UJ		0.19	0.10	ug/L		11/02/22 10:47	11/04/22 01:38	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		11/02/22 10:47	11/04/22 01:38	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		11/02/22 10:47	11/04/22 01:38	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		11/02/22 10:47	11/04/22 01:38	1
Phenanthrene	ND		0.19	0.034	ug/L		11/02/22 10:47	11/04/22 01:38	1
Pyrene	ND		0.19	0.038	ug/L		11/02/22 10:47	11/04/22 01:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*119*		*15 - 122*	*11/02/22 10:47*	*11/04/22 01:38*	*1*
Nitrobenzene-d5	*87*		*19 - 130*	*11/02/22 10:47*	*11/04/22 01:38*	*1*

Client Sample ID: P74-ROX-102822-DUP
Date Collected: 10/28/22 13:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-15
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	95		33 - 138	11/02/22 10:47	11/04/22 01:38	1

Method: SW846 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		11/02/22 10:47	11/03/22 22:07	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		11/02/22 10:47	11/03/22 22:07	1
Benzoic acid	ND		28	6.9	ug/L		11/02/22 10:47	11/03/22 22:07	1
Benzyl alcohol	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 22:07	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 22:07	1
Bis(2-chloroethyl)ether	ND		9.4	2.6	ug/L		11/02/22 10:47	11/03/22 22:07	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		11/02/22 10:47	11/03/22 22:07	1
Bis(2-ethylhexyl) phthalate	**6.4**	**J**	9.4	4.7	ug/L		11/02/22 10:47	11/03/22 22:07	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		11/02/22 10:47	11/03/22 22:07	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		11/02/22 10:47	11/03/22 22:07	1
4-Chloroaniline	ND		9.4	3.2	ug/L		11/02/22 10:47	11/03/22 22:07	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		11/02/22 10:47	11/03/22 22:07	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 22:07	1
2-Chlorophenol	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 22:07	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		11/02/22 10:47	11/03/22 22:07	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 22:07	1
Dibenzofuran	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 22:07	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 22:07	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		11/02/22 10:47	11/03/22 22:07	1
Diethyl phthalate	ND		9.4	0.23	ug/L		11/02/22 10:47	11/03/22 22:07	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 22:07	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 22:07	1
Di-n-butyl phthalate	ND		9.4	2.6	ug/L		11/02/22 10:47	11/03/22 22:07	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		11/02/22 10:47	11/03/22 22:07	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/02/22 10:47	11/03/22 22:07	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 22:07	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		11/02/22 10:47	11/03/22 22:07	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 22:07	1
1,4-Dioxane	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 22:07	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 22:07	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		11/02/22 10:47	11/03/22 22:07	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		11/02/22 10:47	11/03/22 22:07	1
Hexachloroethane	ND		9.4	4.0	ug/L		11/02/22 10:47	11/03/22 22:07	1
Indene	ND		9.4	0.94	ug/L		11/02/22 10:47	11/03/22 22:07	1
Isophorone	ND		9.4	0.13	ug/L		11/02/22 10:47	11/03/22 22:07	1
2-Methylphenol	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 22:07	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		11/02/22 10:47	11/03/22 22:07	1
2-Nitroaniline	ND		9.4	2.1	ug/L		11/02/22 10:47	11/03/22 22:07	1
3-Nitroaniline	ND		9.4	1.7	ug/L		11/02/22 10:47	11/03/22 22:07	1
4-Nitroaniline	ND		9.4	1.4	ug/L		11/02/22 10:47	11/03/22 22:07	1
Nitrobenzene	ND		9.4	0.12	ug/L		11/02/22 10:47	11/03/22 22:07	1
2-Nitrophenol	ND		9.4	4.9	ug/L		11/02/22 10:47	11/03/22 22:07	1
4-Nitrophenol	ND		9.4	2.0	ug/L		11/02/22 10:47	11/03/22 22:07	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 22:07	1

Client Sample ID: P74-ROX-102822-DUP
Date Collected: 10/28/22 13:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-15
Matrix: Water

Method: SW846 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		11/02/22 10:47	11/03/22 22:07	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		11/02/22 10:47	11/03/22 22:07	1
Pentachlorophenol	ND		19	1.3	ug/L		11/02/22 10:47	11/03/22 22:07	1
Phenol	ND		9.4	2.5	ug/L		11/02/22 10:47	11/03/22 22:07	1
Pyridine	ND		9.4	3.0	ug/L		11/02/22 10:47	11/03/22 22:07	1
Quinoline	ND	UJ	9.4	4.3	ug/L		11/02/22 10:47	11/03/22 22:07	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		11/02/22 10:47	11/03/22 22:07	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		11/02/22 10:47	11/03/22 22:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*46 - 124*	*11/02/22 10:47*	*11/03/22 22:07*	*1*
2-Fluorophenol	*27*		*13 - 113*	*11/02/22 10:47*	*11/03/22 22:07*	*1*
Nitrobenzene-d5	*96*		*36 - 126*	*11/02/22 10:47*	*11/03/22 22:07*	*1*
Phenol-d5	*71*		*17 - 127*	*11/02/22 10:47*	*11/03/22 22:07*	*1*
Terphenyl-d14	*117*		*44 - 149*	*11/02/22 10:47*	*11/03/22 22:07*	*1*
2,4,6-Tribromophenol	*122*		*26 - 150*	*11/02/22 10:47*	*11/03/22 22:07*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H UJ	9.5	4.7	ug/L		11/09/22 09:13	11/11/22 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*46 - 124*	*11/09/22 09:13*	*11/11/22 17:02*	*1*
Nitrobenzene-d5	*95*		*36 - 126*	*11/09/22 09:13*	*11/11/22 17:02*	*1*
Terphenyl-d14	*93*		*44 - 149*	*11/09/22 09:13*	*11/11/22 17:02*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 14:43	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*51 - 149*	*11/09/22 08:27*	*11/09/22 14:43*	*1*

Definitions/Glossary

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

Job ID: 400-228051-1

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.
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, 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.
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.
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: 400-228051-1

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)
400-228051-1	TB-ROX-102822-8260-A	103	97	93
400-228051-3	MW22-ROX-102822	100	100	93
400-228051-4	ROST4PZC-ROX-102822	100	101	90
400-228051-5	MW2-ROX-102822	104	103	93
400-228051-6	MW26-ROX-102822	100	103	98
400-228051-7	TB-ROX-102822-8260-B	100	98	91
400-228051-9	ROST4PZE-ROX-102822-EB	101	98	94
400-228051-10	ROST4PZE-ROX-102822	99	105	91
400-228051-11	ROST4PZE-ROX-102822-DUP	102	107	91
400-228051-12	P57-ROX-102822-EB	101	96	93
400-228051-13	P57-ROX-102822	97	99	101
400-228051-14	P74-ROX-102822	101	99	99
400-228051-15	P74-ROX-102822-DUP	101	99	90
LCS 400-599996/1002	Lab Control Sample	99	96	96
LCS 400-600212/1002	Lab Control Sample	89	97	96
MB 400-599996/4	Method Blank	102	96	94
MB 400-600212/4	Method Blank	98	100	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)
400-228051-3	MW22-ROX-102822	78	36	87	73	106	121
400-228051-4	ROST4PZC-ROX-102822	81	44	89	81	116	121
400-228051-5	MW2-ROX-102822	76	41	87	70	74	108
400-228051-6	MW26-ROX-102822	80	14	89	42	111	87
400-228051-9	ROST4PZE-ROX-102822-EB	87	22	98	70	126	109
400-228051-10	ROST4PZE-ROX-102822	77	4 S1-	86	12 S1-	124	66
400-228051-11	ROST4PZE-ROX-102822-DUP	79	59	88	83	112	121
400-228051-12	P57-ROX-102822-EB	83	23	94	69	124	108
400-228051-12 - RERA	P57-ROX-102822-EB	84		95		129	
400-228051-13	P57-ROX-102822	81	29	92	69	113	125
400-228051-13 - RERA	P57-ROX-102822	75		88		87	
400-228051-14	P74-ROX-102822	83	41	93	80	120	123
400-228051-15	P74-ROX-102822-DUP	85	27	96	71	117	122
400-228051-15 - RERA	P74-ROX-102822-DUP	83		95		93	
LCS 400-598868/2-A	Lab Control Sample	91	43	87	68	101	123
LCS 400-598868/3-A	Lab Control Sample	96	34	84	62	109	78
LCS 400-599854/2-A	Lab Control Sample	84		97		107	
LCSD 400-598868/4-A	Lab Control Sample Dup	98	52	86	75	109	68
LCSD 400-599854/3-A	Lab Control Sample Dup	83		97		109	
MB 400-598868/1-A	Method Blank	95	15	83	51	108	87
MB 400-599854/1-A	Method Blank	82		93		128	

Surrogate Summary

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

Job ID: 400-228051-1

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)
400-228051-3	MW22-ROX-102822	93	90	100
400-228051-4	ROST4PZC-ROX-102822		101	114
400-228051-4	ROST4PZC-ROX-102822	99		
400-228051-5	MW2-ROX-102822			82
400-228051-5	MW2-ROX-102822	103	103	
400-228051-6	MW26-ROX-102822	130 S1+	96	111
400-228051-9	ROST4PZE-ROX-102822-EB	127 S1+	96	120
400-228051-9 - RERA	ROST4PZE-ROX-102822-EB	118	67	
400-228051-9	ROST4PZE-ROX-102822-EB			115
400-228051-10	ROST4PZE-ROX-102822		93	94
400-228051-10	ROST4PZE-ROX-102822	98		
400-228051-11	ROST4PZE-ROX-102822-DUP			107
400-228051-11	ROST4PZE-ROX-102822-DUP	98	90	
400-228051-12	P57-ROX-102822-EB	125 S1+	92	117
400-228051-13	P57-ROX-102822			102
400-228051-13	P57-ROX-102822	97	89	
400-228051-13 - RERA	P57-ROX-102822		62	49
400-228051-13	P57-ROX-102822	88		
400-228051-14	P74-ROX-102822		102	103
400-228051-14	P74-ROX-102822	154 S1+		
400-228051-15	P74-ROX-102822-DUP	119	87	95
LCS 400-598868/2-A	Lab Control Sample	98	83	106
LCS 400-599854/2-A	Lab Control Sample	97	76	96
LCS 400-602887/2-A	Lab Control Sample	94	76	95
LCSD 400-599854/3-A	Lab Control Sample Dup	93	78	95
LCSD 400-602887/3-A	Lab Control Sample Dup	105	83	108
MB 400-598868/1-A	Method Blank	128 S1+	93	118
MB 400-599854/1-A	Method Blank	76	62	88
MB 400-602887/1-A	Method Blank	77	61	89

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)
400-228051-6	MW26-ROX-102822	82
400-228051-8	TB-ROX-102822-8011-B	95

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-228051-1
Project/Site: ROXANA QUARTERLY GW

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB1 (51-149)
400-228051-9	ROST4PZE-ROX-102822-EB	86
400-228051-10	ROST4PZE-ROX-102822	4642 S1+
400-228051-11	ROST4PZE-ROX-102822-DUP	4338 S1+
400-228051-12	P57-ROX-102822-EB	78
400-228051-13	P57-ROX-102822	88
400-228051-14	P74-ROX-102822	86
400-228051-15	P74-ROX-102822-DUP	97
LCS 400-599829/2-A	Lab Control Sample	98
LCSD 400-599829/3-A	Lab Control Sample Dup	101
MB 400-599829/1-A	Method Blank	89

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)
Lab Sample ID	Client Sample ID	BFB2 (51-149)
400-228051-2	TB-ROX-102822-8011-A	98
400-228051-3	MW22-ROX-102822	81
400-228051-4	ROST4PZC-ROX-102822	79
400-228051-5	MW2-ROX-102822	94
LCS 400-599301/2-A	Lab Control Sample	79
LCSD 400-599301/3-A	Lab Control Sample Dup	89
MB 400-599301/1-A	Method Blank	65 p

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-228051-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET 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: 400-228051-1

Client Sample ID: TB-ROX-102822-8260-A

Lab Sample ID: 400-228051-1

Date Collected: 10/28/22 12:00
Date Received: 10/29/22 08:23

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	599996	11/10/22 14:22	WPD	EET PEN

Client Sample ID: TB-ROX-102822-8011-A

Lab Sample ID: 400-228051-2

Date Collected: 10/28/22 12:00
Date Received: 10/29/22 08:23

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			34.7 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/05/22 09:19	JAW	EET PEN

Client Sample ID: MW22-ROX-102822

Lab Sample ID: 400-228051-3

Date Collected: 10/28/22 09:35
Date Received: 10/29/22 08:23

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	599996	11/10/22 15:11	WPD	EET PEN
Total/NA	Prep	3520C			266.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 18:37	S1B	EET PEN
Total/NA	Prep	3520C			266.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 22:46	PP1	EET PEN
Total/NA	Prep	8011			32.3 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/05/22 09:39	JAW	EET PEN

Client Sample ID: ROST4PZC-ROX-102822

Lab Sample ID: 400-228051-4

Date Collected: 10/28/22 10:35
Date Received: 10/29/22 08:23

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	599996	11/10/22 15:35	WPD	EET PEN
Total/NA	Prep	3520C			268.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 18:58	S1B	EET PEN
Total/NA	Prep	3520C			268.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 23:03	PP1	EET PEN
Total/NA	Prep	3520C			268.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599295	11/04/22 16:41	PP1	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/05/22 10:00	JAW	EET PEN

Client Sample ID: MW2-ROX-102822

Lab Sample ID: 400-228051-5

Date Collected: 10/28/22 11:40
Date Received: 10/29/22 08:23

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	599996	11/10/22 16:00	WPD	EET PEN

Lab Chronicle

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

Job ID: 400-228051-1

Client Sample ID: MW2-ROX-102822

Lab Sample ID: 400-228051-5

Date Collected: 10/28/22 11:40
Date Received: 10/29/22 08:23

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 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 19:19	S1B	EET PEN
Total/NA	Prep	3520C			261 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 23:20	PP1	EET PEN
Total/NA	Prep	3520C			261 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599295	11/04/22 16:58	PP1	EET PEN
Total/NA	Prep	8011			34.9 mL	35 mL	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/05/22 10:20	JAW	EET PEN

Client Sample ID: MW26-ROX-102822

Lab Sample ID: 400-228051-6

Date Collected: 10/28/22 12:40
Date Received: 10/29/22 08:23

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	600212	11/11/22 13:28	AGW	EET PEN
Total/NA	Prep	3520C			265.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 19:40	S1B	EET PEN
Total/NA	Prep	3520C			265.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 23:37	PP1	EET PEN
Total/NA	Prep	8011			35.2 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 11:39	DS	EET PEN

Client Sample ID: TB-ROX-102822-8260-B

Lab Sample ID: 400-228051-7

Date Collected: 10/28/22 12:00
Date Received: 10/29/22 08:23

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	599996	11/10/22 14:46	WPD	EET PEN

Client Sample ID: TB-ROX-102822-8011-B

Lab Sample ID: 400-228051-8

Date Collected: 10/28/22 12:00
Date Received: 10/29/22 08:23

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			35.7 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 11:59	DS	EET PEN

Client Sample ID: ROST4PZE-ROX-102822-EB

Lab Sample ID: 400-228051-9

Date Collected: 10/28/22 09:20
Date Received: 10/29/22 08:23

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	599996	11/10/22 13:37	WPD	EET PEN
Total/NA	Prep	3520C			271 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 20:01	S1B	EET PEN

Client Sample ID: ROST4PZE-ROX-102822-EB

Lab Sample ID: 400-228051-9

Date Collected: 10/28/22 09:20
Matrix: Water
Date Received: 10/29/22 08:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			271 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 23:55	PP1	EET PEN
Total/NA	Prep	3520C	RERA		271 mL	1 mL	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL	RERA	1	0.4 mL	0.4 mL	603041	12/01/22 18:29	PP1	EET PEN
Total/NA	Prep	3520C			271 mL	1 mL	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		2	0.4 mL	0.4 mL	603239	12/02/22 14:48	KJA	EET PEN
Total/NA	Prep	8011			35 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 12:19	DS	EET PEN

Client Sample ID: ROST4PZE-ROX-102822

Lab Sample ID: 400-228051-10

Date Collected: 10/28/22 10:10
Matrix: Water
Date Received: 10/29/22 08:23

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	599996	11/10/22 16:22	WPD	EET PEN
Total/NA	Prep	3520C			267 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 20:22	S1B	EET PEN
Total/NA	Prep	3520C			267 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 00:12	PP1	EET PEN
Total/NA	Prep	3520C			267 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599295	11/04/22 17:16	PP1	EET PEN
Total/NA	Prep	8011			34.7 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 12:40	DS	EET PEN

Client Sample ID: ROST4PZE-ROX-102822-DUP

Lab Sample ID: 400-228051-11

Date Collected: 10/28/22 10:10
Matrix: Water
Date Received: 10/29/22 08:23

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	599996	11/10/22 16:46	WPD	EET PEN
Total/NA	Prep	3520C			268.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 20:43	S1B	EET PEN
Total/NA	Prep	3520C			268.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 00:29	PP1	EET PEN
Total/NA	Prep	3520C			268.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599295	11/04/22 17:33	PP1	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 13:00	DS	EET PEN

Client Sample ID: P57-ROX-102822-EB

Lab Sample ID: 400-228051-12

Date Collected: 10/28/22 11:55
Matrix: Water
Date Received: 10/29/22 08:23

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	599996	11/10/22 14:00	WPD	EET PEN

Client Sample ID: P57-ROX-102822-EB

Lab Sample ID: 400-228051-12

Date Collected: 10/28/22 11:55
Matrix: Water
Date Received: 10/29/22 08:23

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			269 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 21:04	S1B	EET PEN
Total/NA	Prep	3520C	RERA		269 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D	RERA	1	0.4 mL	0.4 mL	600049	11/10/22 22:15	S1B	EET PEN
Total/NA	Prep	3520C			269 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 00:46	PP1	EET PEN
Total/NA	Prep	8011			34.9 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 13:21	DS	EET PEN

Client Sample ID: P57-ROX-102822

Lab Sample ID: 400-228051-13

Date Collected: 10/28/22 12:25
Matrix: Water
Date Received: 10/29/22 08:23

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	600212	11/11/22 13:53	AGW	EET PEN
Total/NA	Prep	3520C			267.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 21:25	S1B	EET PEN
Total/NA	Prep	3520C	RERA		266.4 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D	RERA	1	0.4 mL	0.4 mL	600291	11/11/22 16:41	S1B	EET PEN
Total/NA	Prep	3520C			267.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 01:04	PP1	EET PEN
Total/NA	Prep	3520C			267.4 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599295	11/04/22 17:50	PP1	EET PEN
Total/NA	Prep	3520C	RERA		266.4 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D LL	RERA	1	0.4 mL	0.4 mL	603041	12/01/22 15:38	PP1	EET PEN
Total/NA	Prep	3520C			266.4 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D LL		2	0.4 mL	0.4 mL	603239	12/02/22 13:57	KJA	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 13:41	DS	EET PEN

Client Sample ID: P74-ROX-102822

Lab Sample ID: 400-228051-14

Date Collected: 10/28/22 13:25
Matrix: Water
Date Received: 10/29/22 08:23

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	600212	11/11/22 14:18	AGW	EET PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 21:46	S1B	EET PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 01:21	PP1	EET PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		2	0.4 mL	0.4 mL	599295	11/04/22 18:07	PP1	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 14:22	DS	EET PEN

Client Sample ID: P74-ROX-102822-DUP

Date Collected: 10/28/22 13:25
Date Received: 10/29/22 08:23

Lab Sample ID: 400-228051-15
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	599996	11/10/22 17:35	WPD	EET PEN
Total/NA	Prep	3520C			264.6 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599088	11/03/22 22:07	S1B	EET PEN
Total/NA	Prep	3520C	RERA		264.4 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D	RERA	1	0.4 mL	0.4 mL	600291	11/11/22 17:02	S1B	EET PEN
Total/NA	Prep	3520C			264.6 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/04/22 01:38	PP1	EET PEN
Total/NA	Prep	8011			35.7 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 14:43	DS	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-598868/1-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 16:50	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	599109	11/03/22 20:45	PP1	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-599301/1-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	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 19:05	JAW	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-599829/1-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	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 10:37	DS	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-599854/1-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:13	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	603041	12/01/22 14:46	PP1	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-599996/4
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	599996	11/10/22 08:36	WPD	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-600212/4
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	600212	11/11/22 10:31	AGW	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-602887/1-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	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	603239	12/02/22 14:31	KJA	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-598868/2-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:58	VC1	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	599109	11/03/22 21:02	PP1	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-598868/3-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:13	VC1	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-599301/2-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	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 19:25	JAW	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-599829/2-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	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 10:58	DS	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-599854/2-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	3520C			250 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:33	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	603041	12/01/22 15:03	PP1	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-599996/1002

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	599996	11/10/22 07:44	WPD	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-600212/1002

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	600212	11/11/22 09:23	AGW	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-602887/2-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	3520C			250 mL	1 mL	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	603041	12/01/22 17:38	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-598868/4-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	598868	11/02/22 10:47	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599074	11/03/22 17:35	VC1	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-599301/3-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	599301	11/04/22 14:48	JAW	EET PEN
Total/NA	Analysis	8011		1			599348	11/04/22 19:46	JAW	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-599829/3-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	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 11:18	DS	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-599854/3-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:54	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	603041	12/01/22 15:21	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-602887/3-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	602887	11/30/22 14:01	BKL	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	603041	12/01/22 17:55	PP1	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 599996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-1	TB-ROX-102822-8260-A	Total/NA	Water	8260B	
400-228051-3	MW22-ROX-102822	Total/NA	Water	8260B	
400-228051-4	ROST4PZC-ROX-102822	Total/NA	Water	8260B	
400-228051-5	MW2-ROX-102822	Total/NA	Water	8260B	
400-228051-7	TB-ROX-102822-8260-B	Total/NA	Water	8260B	
400-228051-9	ROST4PZE-ROX-102822-EB	Total/NA	Water	8260B	
400-228051-10	ROST4PZE-ROX-102822	Total/NA	Water	8260B	
400-228051-11	ROST4PZE-ROX-102822-DUP	Total/NA	Water	8260B	
400-228051-12	P57-ROX-102822-EB	Total/NA	Water	8260B	
400-228051-15	P74-ROX-102822-DUP	Total/NA	Water	8260B	
MB 400-599996/4	Method Blank	Total/NA	Water	8260B	
LCS 400-599996/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 600212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-6	MW26-ROX-102822	Total/NA	Water	8260B	
400-228051-13	P57-ROX-102822	Total/NA	Water	8260B	
400-228051-14	P74-ROX-102822	Total/NA	Water	8260B	
MB 400-600212/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600212/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 598868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-3	MW22-ROX-102822	Total/NA	Water	3520C	
400-228051-4	ROST4PZC-ROX-102822	Total/NA	Water	3520C	
400-228051-5	MW2-ROX-102822	Total/NA	Water	3520C	
400-228051-6	MW26-ROX-102822	Total/NA	Water	3520C	
400-228051-9	ROST4PZE-ROX-102822-EB	Total/NA	Water	3520C	
400-228051-10	ROST4PZE-ROX-102822	Total/NA	Water	3520C	
400-228051-11	ROST4PZE-ROX-102822-DUP	Total/NA	Water	3520C	
400-228051-12	P57-ROX-102822-EB	Total/NA	Water	3520C	
400-228051-13	P57-ROX-102822	Total/NA	Water	3520C	
400-228051-14	P74-ROX-102822	Total/NA	Water	3520C	
400-228051-15	P74-ROX-102822-DUP	Total/NA	Water	3520C	
MB 400-598868/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-598868/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-598868/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 599074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-598868/1-A	Method Blank	Total/NA	Water	8270D	598868
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	8270D	598868
LCS 400-598868/3-A	Lab Control Sample	Total/NA	Water	8270D	598868
LCSD 400-598868/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	598868

Analysis Batch: 599088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-3	MW22-ROX-102822	Total/NA	Water	8270D	598868

GC/MS Semi VOA (Continued)

Analysis Batch: 599088 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-4	ROST4PZC-ROX-102822	Total/NA	Water	8270D	598868
400-228051-5	MW2-ROX-102822	Total/NA	Water	8270D	598868
400-228051-6	MW26-ROX-102822	Total/NA	Water	8270D	598868
400-228051-9	ROST4PZE-ROX-102822-EB	Total/NA	Water	8270D	598868
400-228051-10	ROST4PZE-ROX-102822	Total/NA	Water	8270D	598868
400-228051-11	ROST4PZE-ROX-102822-DUP	Total/NA	Water	8270D	598868
400-228051-12	P57-ROX-102822-EB	Total/NA	Water	8270D	598868
400-228051-13	P57-ROX-102822	Total/NA	Water	8270D	598868
400-228051-14	P74-ROX-102822	Total/NA	Water	8270D	598868
400-228051-15	P74-ROX-102822-DUP	Total/NA	Water	8270D	598868

Analysis Batch: 599109

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-3	MW22-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-4	ROST4PZC-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-5	MW2-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-6	MW26-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-9	ROST4PZE-ROX-102822-EB	Total/NA	Water	8270D LL	598868
400-228051-10	ROST4PZE-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-11	ROST4PZE-ROX-102822-DUP	Total/NA	Water	8270D LL	598868
400-228051-12	P57-ROX-102822-EB	Total/NA	Water	8270D LL	598868
400-228051-13	P57-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-14	P74-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-15	P74-ROX-102822-DUP	Total/NA	Water	8270D LL	598868
MB 400-598868/1-A	Method Blank	Total/NA	Water	8270D LL	598868
LCS 400-598868/2-A	Lab Control Sample	Total/NA	Water	8270D LL	598868

Analysis Batch: 599295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-4	ROST4PZC-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-5	MW2-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-10	ROST4PZE-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-11	ROST4PZE-ROX-102822-DUP	Total/NA	Water	8270D LL	598868
400-228051-13	P57-ROX-102822	Total/NA	Water	8270D LL	598868
400-228051-14	P74-ROX-102822	Total/NA	Water	8270D LL	598868

Prep Batch: 599854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-12 - RERA	P57-ROX-102822-EB	Total/NA	Water	3520C	
400-228051-13	P57-ROX-102822	Total/NA	Water	3520C	
400-228051-13 - RERA	P57-ROX-102822	Total/NA	Water	3520C	
400-228051-15 - RERA	P74-ROX-102822-DUP	Total/NA	Water	3520C	
MB 400-599854/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-599854/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-599854/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 600049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-12 - RERA	P57-ROX-102822-EB	Total/NA	Water	8270D	599854
MB 400-599854/1-A	Method Blank	Total/NA	Water	8270D	599854
LCS 400-599854/2-A	Lab Control Sample	Total/NA	Water	8270D	599854

GC/MS Semi VOA (Continued)

Analysis Batch: 600049 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-599854/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	599854

Analysis Batch: 600291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-13 - RERA	P57-ROX-102822	Total/NA	Water	8270D	599854
400-228051-15 - RERA	P74-ROX-102822-DUP	Total/NA	Water	8270D	599854

Prep Batch: 602887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-9	ROST4PZE-ROX-102822-EB	Total/NA	Water	3520C	
400-228051-9 - RERA	ROST4PZE-ROX-102822-EB	Total/NA	Water	3520C	
MB 400-602887/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-602887/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-602887/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 603041

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-9 - RERA	ROST4PZE-ROX-102822-EB	Total/NA	Water	8270D LL	602887
400-228051-13 - RERA	P57-ROX-102822	Total/NA	Water	8270D LL	599854
MB 400-599854/1-A	Method Blank	Total/NA	Water	8270D LL	599854
LCS 400-599854/2-A	Lab Control Sample	Total/NA	Water	8270D LL	599854
LCS 400-602887/2-A	Lab Control Sample	Total/NA	Water	8270D LL	602887
LCSD 400-599854/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	599854
LCSD 400-602887/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	602887

Analysis Batch: 603239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-9	ROST4PZE-ROX-102822-EB	Total/NA	Water	8270D LL	602887
400-228051-13	P57-ROX-102822	Total/NA	Water	8270D LL	599854
MB 400-602887/1-A	Method Blank	Total/NA	Water	8270D LL	602887

GC Semi VOA

Prep Batch: 599301

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-2	TB-ROX-102822-8011-A	Total/NA	Water	8011	
400-228051-3	MW22-ROX-102822	Total/NA	Water	8011	
400-228051-4	ROST4PZC-ROX-102822	Total/NA	Water	8011	
400-228051-5	MW2-ROX-102822	Total/NA	Water	8011	
MB 400-599301/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-599301/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-599301/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 599348

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-2	TB-ROX-102822-8011-A	Total/NA	Water	8011	599301
400-228051-3	MW22-ROX-102822	Total/NA	Water	8011	599301
400-228051-4	ROST4PZC-ROX-102822	Total/NA	Water	8011	599301
400-228051-5	MW2-ROX-102822	Total/NA	Water	8011	599301
MB 400-599301/1-A	Method Blank	Total/NA	Water	8011	599301
LCS 400-599301/2-A	Lab Control Sample	Total/NA	Water	8011	599301

GC Semi VOA (Continued)

Analysis Batch: 599348 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-599301/3-A	Lab Control Sample Dup	Total/NA	Water	8011	599301

Prep Batch: 599829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-6	MW26-ROX-102822	Total/NA	Water	8011	
400-228051-8	TB-ROX-102822-8011-B	Total/NA	Water	8011	
400-228051-9	ROST4PZE-ROX-102822-EB	Total/NA	Water	8011	
400-228051-10	ROST4PZE-ROX-102822	Total/NA	Water	8011	
400-228051-11	ROST4PZE-ROX-102822-DUP	Total/NA	Water	8011	
400-228051-12	P57-ROX-102822-EB	Total/NA	Water	8011	
400-228051-13	P57-ROX-102822	Total/NA	Water	8011	
400-228051-14	P74-ROX-102822	Total/NA	Water	8011	
400-228051-15	P74-ROX-102822-DUP	Total/NA	Water	8011	
MB 400-599829/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-599829/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-599829/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 599835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228051-6	MW26-ROX-102822	Total/NA	Water	8011	599829
400-228051-8	TB-ROX-102822-8011-B	Total/NA	Water	8011	599829
400-228051-9	ROST4PZE-ROX-102822-EB	Total/NA	Water	8011	599829
400-228051-10	ROST4PZE-ROX-102822	Total/NA	Water	8011	599829
400-228051-11	ROST4PZE-ROX-102822-DUP	Total/NA	Water	8011	599829
400-228051-12	P57-ROX-102822-EB	Total/NA	Water	8011	599829
400-228051-13	P57-ROX-102822	Total/NA	Water	8011	599829
400-228051-14	P74-ROX-102822	Total/NA	Water	8011	599829
400-228051-15	P74-ROX-102822-DUP	Total/NA	Water	8011	599829
MB 400-599829/1-A	Method Blank	Total/NA	Water	8011	599829
LCS 400-599829/2-A	Lab Control Sample	Total/NA	Water	8011	599829
LCSD 400-599829/3-A	Lab Control Sample Dup	Total/NA	Water	8011	599829

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

Lab Sample ID: MB 400-599996/4
Matrix: Water
Analysis Batch: 599996

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			11/10/22 08:36	1
Acrolein	ND		20	3.3	ug/L			11/10/22 08:36	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 08:36	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 08:36	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 08:36	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 08:36	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 08:36	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 08:36	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 08:36	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 08:36	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 08:36	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 08:36	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 08:36	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 08:36	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 08:36	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 08:36	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 08:36	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 08:36	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 08:36	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 08:36	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 08:36	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 08:36	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 08:36	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 08:36	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 08:36	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 08:36	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 08:36	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 08:36	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 08:36	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 08:36	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 08:36	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 08:36	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 08:36	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 08:36	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 08:36	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 08:36	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 08:36	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 08:36	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 08:36	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 08:36	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 08:36	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 08:36	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 08:36	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 08:36	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 08:36	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 08:36	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 08:36	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 08:36	1

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

Lab Sample ID: MB 400-599996/4
Matrix: Water
Analysis Batch: 599996

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			11/10/22 08:36	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/10/22 08:36	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 08:36	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 08:36	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 08:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 08:36	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 08:36	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 08:36	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 08:36	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 08:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 08:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 08:36	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 08:36	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 08:36	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 08:36	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 08:36	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 08:36	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 08:36	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 08:36	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 08:36	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 08:36	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 08:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*11/10/22 08:36*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*11/10/22 08:36*	*1*
Toluene-d8 (Surr)	*94*		*64 - 132*		*11/10/22 08:36*	*1*

Lab Sample ID: LCS 400-599996/1002
Matrix: Water
Analysis Batch: 599996

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	220		ug/L		110	43 - 160
Acrolein	500	549		ug/L		110	38 - 160
Acrylonitrile	500	499		ug/L		100	64 - 142
Benzene	50.0	44.3		ug/L		89	70 - 130
Bromobenzene	50.0	44.6		ug/L		89	70 - 132
Bromochloromethane	50.0	46.5		ug/L		93	70 - 130
Bromodichloromethane	50.0	45.6		ug/L		91	67 - 133
Bromoform	50.0	42.7		ug/L		85	57 - 140
Bromomethane	50.0	52.7		ug/L		105	10 - 160
2-Butanone (MEK)	200	190		ug/L		95	61 - 145
Carbon disulfide	50.0	36.3		ug/L		73	61 - 137
Carbon tetrachloride	50.0	44.8		ug/L		90	61 - 137
Chlorobenzene	50.0	43.9		ug/L		88	70 - 130
Dibromochloromethane	50.0	43.0		ug/L		86	67 - 135
Chloroethane	50.0	46.3		ug/L		93	55 - 141

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

Lab Sample ID: LCS 400-599996/1002
Matrix: Water
Analysis Batch: 599996

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	57.2		ug/L		114	10 - 160
Chloroform	50.0	44.5		ug/L		89	69 - 130
1-Chlorohexane	50.0	49.6		ug/L		99	69 - 130
Chloromethane	50.0	65.5		ug/L		131	58 - 137
cis-1,2-Dichloroethene	50.0	48.5		ug/L		97	68 - 130
cis-1,3-Dichloropropene	50.0	47.8		ug/L		96	69 - 132
1,2-Dichlorobenzene	50.0	43.7		ug/L		87	67 - 130
1,3-Dichlorobenzene	50.0	44.9		ug/L		90	70 - 130
1,4-Dichlorobenzene	50.0	44.0		ug/L		88	70 - 130
Dichlorodifluoromethane	50.0	48.5		ug/L		97	41 - 146
1,1-Dichloroethane	50.0	48.9		ug/L		98	70 - 130
1,2-Dichloroethane	50.0	44.2		ug/L		88	69 - 130
1,1-Dichloroethene	50.0	41.7		ug/L		83	63 - 134
1,2-Dichloropropane	50.0	48.9		ug/L		98	70 - 130
1,3-Dichloropropane	50.0	41.6		ug/L		83	70 - 130
2,2-Dichloropropane	50.0	48.8		ug/L		98	52 - 135
1,1-Dichloropropene	50.0	45.0		ug/L		90	70 - 130
Ethylbenzene	50.0	43.5		ug/L		87	70 - 130
Ethyl methacrylate	50.0	40.1		ug/L		80	68 - 130
Hexachlorobutadiene	50.0	51.0		ug/L		102	53 - 140
2-Hexanone	200	177		ug/L		88	65 - 137
Isopropylbenzene	50.0	44.7		ug/L		89	70 - 130
Methylene bromide	50.0	44.4		ug/L		89	70 - 130
Methylene Chloride	50.0	43.7		ug/L		87	66 - 135
4-Methyl-2-pentanone (MIBK)	200	195		ug/L		97	69 - 138
Methyl tert-butyl ether	50.0	44.4		ug/L		89	66 - 130
m-Xylene & p-Xylene	50.0	43.8		ug/L		88	70 - 130
Naphthalene	50.0	49.0		ug/L		98	47 - 149
n-Butylbenzene	50.0	47.2		ug/L		94	67 - 130
N-Propylbenzene	50.0	46.8		ug/L		94	70 - 130
o-Chlorotoluene	50.0	44.6		ug/L		89	70 - 130
o-Xylene	50.0	44.0		ug/L		88	70 - 130
p-Chlorotoluene	50.0	44.6		ug/L		89	70 - 130
p-Isopropyltoluene	50.0	46.7		ug/L		93	65 - 130
sec-Butylbenzene	50.0	45.9		ug/L		92	66 - 130
Styrene	50.0	44.3		ug/L		89	70 - 130
tert-Butylbenzene	50.0	44.1		ug/L		88	64 - 139
1,1,1,2-Tetrachloroethane	50.0	43.9		ug/L		88	67 - 131
1,1,2,2-Tetrachloroethane	50.0	41.6		ug/L		83	70 - 131
Tetrachloroethene	50.0	41.9		ug/L		84	65 - 130
Toluene	50.0	43.6		ug/L		87	70 - 130
trans-1,2-Dichloroethene	50.0	43.4		ug/L		87	70 - 130
trans-1,3-Dichloropropene	50.0	42.8		ug/L		86	63 - 130
1,2,3-Trichlorobenzene	50.0	48.5		ug/L		97	60 - 138
1,2,4-Trichlorobenzene	50.0	48.5		ug/L		97	60 - 140
1,1,1-Trichloroethane	50.0	45.0		ug/L		90	68 - 130
1,1,2-Trichloroethane	50.0	41.3		ug/L		83	70 - 130
Trichloroethene	50.0	46.0		ug/L		92	70 - 130
Trichlorofluoromethane	50.0	55.8		ug/L		112	65 - 138

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

Lab Sample ID: LCS 400-599996/1002
Matrix: Water
Analysis Batch: 599996

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	41.2		ug/L		82	70 - 130
1,2,4-Trimethylbenzene	50.0	45.8		ug/L		92	70 - 130
1,3,5-Trimethylbenzene	50.0	46.3		ug/L		93	69 - 130
Vinyl acetate	100	93.8		ug/L		94	26 - 160
Vinyl chloride	50.0	52.6		ug/L		105	59 - 136
Xylenes, Total	100	87.9		ug/L		88	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*99*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

Lab Sample ID: MB 400-600212/4
Matrix: Water
Analysis Batch: 600212

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			11/11/22 10:31	1
Acrolein	ND		20	3.3	ug/L			11/11/22 10:31	1
Acrylonitrile	ND		10	2.8	ug/L			11/11/22 10:31	1
Benzene	ND		1.0	0.13	ug/L			11/11/22 10:31	1
Bromobenzene	ND		1.0	0.54	ug/L			11/11/22 10:31	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/11/22 10:31	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/11/22 10:31	1
Bromoform	ND		5.0	0.25	ug/L			11/11/22 10:31	1
Bromomethane	ND		1.0	0.98	ug/L			11/11/22 10:31	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/11/22 10:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/11/22 10:31	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/11/22 10:31	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/11/22 10:31	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/11/22 10:31	1
Chloroethane	ND		1.0	0.76	ug/L			11/11/22 10:31	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/11/22 10:31	1
Chloroform	ND		1.0	1.0	ug/L			11/11/22 10:31	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/11/22 10:31	1
Chloromethane	ND		1.0	0.32	ug/L			11/11/22 10:31	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/11/22 10:31	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/11/22 10:31	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/11/22 10:31	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/11/22 10:31	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/11/22 10:31	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/11/22 10:31	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/11/22 10:31	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/11/22 10:31	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/11/22 10:31	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 10:31	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 10:31	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/11/22 10:31	1

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

Lab Sample ID: MB 400-600212/4
Matrix: Water
Analysis Batch: 600212

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			11/11/22 10:31	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/11/22 10:31	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/11/22 10:31	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/11/22 10:31	1
2-Hexanone	ND		25	1.4	ug/L			11/11/22 10:31	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/11/22 10:31	1
Methylene bromide	ND		5.0	0.22	ug/L			11/11/22 10:31	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/11/22 10:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/11/22 10:31	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/11/22 10:31	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/11/22 10:31	1
Naphthalene	ND		5.0	3.0	ug/L			11/11/22 10:31	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/11/22 10:31	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/11/22 10:31	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/11/22 10:31	1
o-Xylene	ND		5.0	0.60	ug/L			11/11/22 10:31	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/11/22 10:31	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/11/22 10:31	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/11/22 10:31	1
Styrene	ND		1.0	1.0	ug/L			11/11/22 10:31	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/11/22 10:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/11/22 10:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/11/22 10:31	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/11/22 10:31	1
Toluene	ND		1.0	0.41	ug/L			11/11/22 10:31	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/11/22 10:31	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/11/22 10:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/11/22 10:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/11/22 10:31	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/11/22 10:31	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/11/22 10:31	1
Trichloroethene	ND		1.0	0.15	ug/L			11/11/22 10:31	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/11/22 10:31	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/11/22 10:31	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/11/22 10:31	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/11/22 10:31	1
Vinyl acetate	ND		25	0.93	ug/L			11/11/22 10:31	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/11/22 10:31	1
Xylenes, Total	ND		10	1.6	ug/L			11/11/22 10:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/11/22 10:31*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/11/22 10:31*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*11/11/22 10:31*	*1*

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

Lab Sample ID: LCS 400-600212/1002
Matrix: Water
Analysis Batch: 600212

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	390	*+	ug/L		195	43 - 160
Acrolein	500	641		ug/L		128	38 - 160
Acrylonitrile	500	563		ug/L		113	64 - 142
Benzene	50.0	53.0		ug/L		106	70 - 130
Bromobenzene	50.0	49.1		ug/L		98	70 - 132
Bromochloromethane	50.0	50.3		ug/L		101	70 - 130
Bromodichloromethane	50.0	53.9		ug/L		108	67 - 133
Bromoform	50.0	51.8		ug/L		104	57 - 140
Bromomethane	50.0	54.8		ug/L		110	10 - 160
2-Butanone (MEK)	200	291		ug/L		145	61 - 145
Carbon disulfide	50.0	51.0		ug/L		102	61 - 137
Carbon tetrachloride	50.0	50.6		ug/L		101	61 - 137
Chlorobenzene	50.0	55.2		ug/L		110	70 - 130
Dibromochloromethane	50.0	54.7		ug/L		109	67 - 135
Chloroethane	50.0	54.1		ug/L		108	55 - 141
2-Chloroethyl vinyl ether	50.0	54.4		ug/L		109	10 - 160
Chloroform	50.0	51.6		ug/L		103	69 - 130
1-Chlorohexane	50.0	53.8		ug/L		108	69 - 130
Chloromethane	50.0	70.2	*+	ug/L		140	58 - 137
cis-1,2-Dichloroethene	50.0	49.4		ug/L		99	68 - 130
cis-1,3-Dichloropropene	50.0	48.6		ug/L		97	69 - 132
1,2-Dichlorobenzene	50.0	57.1		ug/L		114	67 - 130
1,3-Dichlorobenzene	50.0	54.9		ug/L		110	70 - 130
1,4-Dichlorobenzene	50.0	56.3		ug/L		113	70 - 130
Dichlorodifluoromethane	50.0	72.3		ug/L		145	41 - 146
1,1-Dichloroethane	50.0	52.3		ug/L		105	70 - 130
1,2-Dichloroethane	50.0	51.5		ug/L		103	69 - 130
1,1-Dichloroethene	50.0	49.0		ug/L		98	63 - 134
1,2-Dichloropropane	50.0	56.0		ug/L		112	70 - 130
1,3-Dichloropropane	50.0	54.2		ug/L		108	70 - 130
2,2-Dichloropropane	50.0	45.4		ug/L		91	52 - 135
1,1-Dichloropropene	50.0	49.1		ug/L		98	70 - 130
Ethylbenzene	50.0	50.4		ug/L		101	70 - 130
Ethyl methacrylate	50.0	43.3		ug/L		87	68 - 130
Hexachlorobutadiene	50.0	60.3		ug/L		121	53 - 140
2-Hexanone	200	262		ug/L		131	65 - 137
Isopropylbenzene	50.0	48.8		ug/L		98	70 - 130
Methylene bromide	50.0	54.1		ug/L		108	70 - 130
Methylene Chloride	50.0	53.6		ug/L		107	66 - 135
4-Methyl-2-pentanone (MIBK)	200	231		ug/L		115	69 - 138
Methyl tert-butyl ether	50.0	43.9		ug/L		88	66 - 130
m-Xylene & p-Xylene	50.0	48.9		ug/L		98	70 - 130
Naphthalene	50.0	34.4		ug/L		69	47 - 149
n-Butylbenzene	50.0	59.5		ug/L		119	67 - 130
N-Propylbenzene	50.0	49.3		ug/L		99	70 - 130
o-Chlorotoluene	50.0	52.0		ug/L		104	70 - 130
o-Xylene	50.0	49.5		ug/L		99	70 - 130
p-Chlorotoluene	50.0	53.9		ug/L		108	70 - 130

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

Lab Sample ID: LCS 400-600212/1002
Matrix: Water
Analysis Batch: 600212

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	51.8		ug/L		104	65 - 130
sec-Butylbenzene	50.0	51.6		ug/L		103	66 - 130
Styrene	50.0	50.8		ug/L		102	70 - 130
tert-Butylbenzene	50.0	49.3		ug/L		99	64 - 139
1,1,1,2-Tetrachloroethane	50.0	55.3		ug/L		111	67 - 131
1,1,2,2-Tetrachloroethane	50.0	57.0		ug/L		114	70 - 131
Tetrachloroethene	50.0	52.3		ug/L		105	65 - 130
Toluene	50.0	51.3		ug/L		103	70 - 130
trans-1,2-Dichloroethene	50.0	49.5		ug/L		99	70 - 130
trans-1,3-Dichloropropene	50.0	47.4		ug/L		95	63 - 130
1,2,3-Trichlorobenzene	50.0	42.1		ug/L		84	60 - 138
1,2,4-Trichlorobenzene	50.0	40.5		ug/L		81	60 - 140
1,1,1-Trichloroethane	50.0	50.1		ug/L		100	68 - 130
1,1,2-Trichloroethane	50.0	56.1		ug/L		112	70 - 130
Trichloroethene	50.0	52.7		ug/L		105	70 - 130
Trichlorofluoromethane	50.0	55.6		ug/L		111	65 - 138
1,2,3-Trichloropropane	50.0	56.1		ug/L		112	70 - 130
1,2,4-Trimethylbenzene	50.0	52.0		ug/L		104	70 - 130
1,3,5-Trimethylbenzene	50.0	49.9		ug/L		100	69 - 130
Vinyl acetate	100	102		ug/L		102	26 - 160
Vinyl chloride	50.0	57.2		ug/L		114	59 - 136
Xylenes, Total	100	98.4		ug/L		98	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*97*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzenethiol	ND		10	1.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzoic acid	ND		30	7.3	ug/L		11/02/22 10:47	11/03/22 16:50	1
Benzyl alcohol	ND		10	2.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/02/22 10:47	11/03/22 16:50	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/02/22 10:47	11/03/22 16:50	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Chloroaniline	ND		10	3.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Chlorophenol	ND		10	2.2	ug/L		11/02/22 10:47	11/03/22 16:50	1

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dibenzofuran	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Diethyl phthalate	ND		10	0.24	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/02/22 10:47	11/03/22 16:50	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
1,4-Dioxane	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
Hexachloroethane	ND		10	4.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
Indene	ND		10	1.0	ug/L		11/02/22 10:47	11/03/22 16:50	1
Isophorone	ND		10	0.14	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Methylphenol	ND		10	1.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Nitroaniline	ND		10	2.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
3-Nitroaniline	ND		10	1.8	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Nitroaniline	ND		10	1.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
Nitrobenzene	ND		10	0.13	ug/L		11/02/22 10:47	11/03/22 16:50	1
2-Nitrophenol	ND		10	5.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
4-Nitrophenol	ND		10	2.1	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		11/02/22 10:47	11/03/22 16:50	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/02/22 10:47	11/03/22 16:50	1
Pentachlorophenol	ND		20	1.4	ug/L		11/02/22 10:47	11/03/22 16:50	1
Phenol	ND		10	2.6	ug/L		11/02/22 10:47	11/03/22 16:50	1
Pyridine	ND		10	3.2	ug/L		11/02/22 10:47	11/03/22 16:50	1
Quinoline	ND		10	4.5	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		11/02/22 10:47	11/03/22 16:50	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		11/02/22 10:47	11/03/22 16:50	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*95*		*46 - 124*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
2-Fluorophenol	*15*		*13 - 113*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Nitrobenzene-d5	*83*		*36 - 126*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Phenol-d5	*51*		*17 - 127*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
Terphenyl-d14	*108*		*44 - 149*	*11/02/22 10:47*	*11/03/22 16:50*	*1*
2,4,6-Tribromophenol	*87*		*26 - 150*	*11/02/22 10:47*	*11/03/22 16:50*	*1*

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

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	119		ug/L		99	21 - 120
Benzoic acid	513	388		ug/L		76	10 - 144
Benzyl alcohol	120	106		ug/L		88	28 - 120
Bis(2-chloroethoxy)methane	120	91.3		ug/L		76	47 - 120
Bis(2-chloroethyl)ether	120	74.2		ug/L		62	44 - 120
bis (2-chloroisopropyl) ether	120	76.9		ug/L		64	33 - 121
Bis(2-ethylhexyl) phthalate	120	116		ug/L		97	52 - 147
4-Bromophenyl phenyl ether	120	130		ug/L		109	54 - 122
Butyl benzyl phthalate	120	116		ug/L		96	54 - 133
4-Chloroaniline	120	85.6		ug/L		71	26 - 120
4-Chloro-3-methylphenol	120	120		ug/L		100	48 - 131
2-Chloronaphthalene	120	114		ug/L		95	52 - 121
2-Chlorophenol	120	81.6		ug/L		68	40 - 120
4-Chlorophenyl phenyl ether	120	129		ug/L		107	56 - 125
Dibenz[a,h]acridine	120	127		ug/L		106	31 - 150
Dibenzofuran	120	121		ug/L		101	56 - 122
3,3'-Dichlorobenzidine	160	201		ug/L		126	36 - 132
2,4-Dichlorophenol	120	108		ug/L		90	49 - 120
Diethyl phthalate	120	123		ug/L		103	50 - 137
2,4-Dimethylphenol	120	105		ug/L		87	48 - 120
Dimethyl phthalate	120	121		ug/L		101	57 - 124
Di-n-butyl phthalate	120	118		ug/L		98	58 - 126
4,6-Dinitro-ortho-cresol	240	272		ug/L		113	23 - 148
2,4-Dinitrophenol	240	261		ug/L		109	10 - 150
2,4-Dinitrotoluene	120	129		ug/L		108	54 - 142
2,6-Dinitrotoluene	120	118		ug/L		98	55 - 130
Di-n-octyl phthalate	120	118		ug/L		98	57 - 138
1,4-Dioxane	120	62.5		ug/L		52	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	90.6		ug/L		76	45 - 124
Hexachlorobenzene	120	141		ug/L		117	52 - 129
Hexachlorocyclopentadiene	120	92.2		ug/L		77	10 - 134
Hexachloroethane	120	101		ug/L		85	20 - 120
Indene	120	96.6		ug/L		81	49 - 120
Isophorone	120	93.7		ug/L		78	48 - 120
2-Methylphenol	120	98.0		ug/L		82	46 - 124
3 & 4 Methylphenol	120	98.0		ug/L		82	45 - 120
2-Nitroaniline	120	98.4		ug/L		82	51 - 145
3-Nitroaniline	120	92.2		ug/L		77	37 - 127
4-Nitroaniline	120	121		ug/L		101	36 - 137
Nitrobenzene	120	92.5		ug/L		77	45 - 120
2-Nitrophenol	120	97.7		ug/L		81	40 - 124
4-Nitrophenol	240	273		ug/L		114	23 - 146
N-Nitrosodimethylamine	120	72.2		ug/L		60	29 - 137
N-Nitrosodi-n-propylamine	120	101		ug/L		84	45 - 120
N-Nitrosodiphenylamine	119	113		ug/L		95	54 - 120
Pentachlorophenol	240	258		ug/L		107	31 - 130
Phenol	120	79.6		ug/L		66	11 - 120
Pyridine	240	138		ug/L		57	16 - 120

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

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Quinoline	120	113		ug/L		94	49 - 130
2,4,5-Trichlorophenol	120	117		ug/L		97	51 - 136
2,4,6-Trichlorophenol	120	115		ug/L		96	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*91*		*46 - 124*
2-Fluorophenol	*43*		*13 - 113*
Nitrobenzene-d5	*87*		*36 - 126*
Phenol-d5	*68*		*17 - 127*
Terphenyl-d14	*101*		*44 - 149*
2,4,6-Tribromophenol	*123*		*26 - 150*

Lab Sample ID: LCS 400-598868/3-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	7.34	J *-	ug/L		6	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*96*		*46 - 124*
2-Fluorophenol	*34*		*13 - 113*
Nitrobenzene-d5	*84*		*36 - 126*
Phenol-d5	*62*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*78*		*26 - 150*

Lab Sample ID: LCSD 400-598868/4-A
Matrix: Water
Analysis Batch: 599074

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	8.10	J *-	ug/L		7	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*46 - 124*
2-Fluorophenol	*52*		*13 - 113*
Nitrobenzene-d5	*86*		*36 - 126*
Phenol-d5	*75*		*17 - 127*
Terphenyl-d14	*109*		*44 - 149*
2,4,6-Tribromophenol	*68*		*26 - 150*

Lab Sample ID: MB 400-599854/1-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/09/22 09:13	11/10/22 21:13	1

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		46 - 124	11/09/22 09:13	11/10/22 21:13	1
Nitrobenzene-d5	93		36 - 126	11/09/22 09:13	11/10/22 21:13	1
Terphenyl-d14	128		44 - 149	11/09/22 09:13	11/10/22 21:13	1

Lab Sample ID: LCS 400-599854/2-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599854

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-ethylhexyl) phthalate	120	141		ug/L		117	52 - 147

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	84		46 - 124
Nitrobenzene-d5	97		36 - 126
Terphenyl-d14	107		44 - 149

Lab Sample ID: LCSD 400-599854/3-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599854

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate	120	146		ug/L		121	52 - 147	3	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	83		46 - 124
Nitrobenzene-d5	97		36 - 126
Terphenyl-d14	109		44 - 149

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/02/22 10:47	11/03/22 20:45	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/02/22 10:47	11/03/22 20:45	1
Anthracene	ND		0.20	0.032	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[a]anthracene	0.0679	J	0.20	0.046	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/02/22 10:47	11/03/22 20:45	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/02/22 10:47	11/03/22 20:45	1
Chrysene	ND		0.20	0.074	ug/L		11/02/22 10:47	11/03/22 20:45	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/02/22 10:47	11/03/22 20:45	1
Fluoranthene	ND		0.20	0.068	ug/L		11/02/22 10:47	11/03/22 20:45	1
Fluorene	ND		0.20	0.11	ug/L		11/02/22 10:47	11/03/22 20:45	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/02/22 10:47	11/03/22 20:45	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/02/22 10:47	11/03/22 20:45	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/02/22 10:47	11/03/22 20:45	1
Phenanthrene	ND		0.20	0.036	ug/L		11/02/22 10:47	11/03/22 20:45	1

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

Lab Sample ID: MB 400-598868/1-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 598868

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pyrene	ND		0.20	0.040	ug/L		11/02/22 10:47	11/03/22 20:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*128*	*S1+*	*15 - 122*	*11/02/22 10:47*	*11/03/22 20:45*	*1*
Nitrobenzene-d5	*93*		*19 - 130*	*11/02/22 10:47*	*11/03/22 20:45*	*1*
Terphenyl-d14	*118*		*33 - 138*	*11/02/22 10:47*	*11/03/22 20:45*	*1*

Lab Sample ID: LCS 400-598868/2-A
Matrix: Water
Analysis Batch: 599109

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 598868

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	124		ug/L		103	41 - 120
Acenaphthylene	120	121		ug/L		100	44 - 120
Anthracene	120	128		ug/L		107	49 - 120
Benzo[a]anthracene	120	135		ug/L		112	61 - 135
Benzo[a]pyrene	120	122		ug/L		102	52 - 120
Benzo[b]fluoranthene	120	124		ug/L		104	53 - 134
Benzo[g,h,i]perylene	120	92.5		ug/L		77	47 - 133
Benzo[k]fluoranthene	120	123		ug/L		102	57 - 134
Chrysene	120	128		ug/L		107	55 - 122
Dibenz(a,h)anthracene	120	107		ug/L		89	48 - 146
Fluoranthene	120	146		ug/L		122	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	109		ug/L		91	43 - 142
1-Methylnaphthalene	120	93.9		ug/L		78	41 - 120
2-Methylnaphthalene	120	99.9		ug/L		83	32 - 124
Phenanthrene	120	111		ug/L		92	48 - 120
Pyrene	120	111		ug/L		93	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*98*		*15 - 122*
Nitrobenzene-d5	*83*		*19 - 130*
Terphenyl-d14	*106*		*33 - 138*

Lab Sample ID: MB 400-599854/1-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/09/22 09:13	12/01/22 14:46	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/09/22 09:13	12/01/22 14:46	1
Anthracene	ND		0.20	0.032	ug/L		11/09/22 09:13	12/01/22 14:46	1
Benzo[a]anthracene	0.0781	J	0.20	0.046	ug/L		11/09/22 09:13	12/01/22 14:46	1
Benzo[a]pyrene	0.0919	J	0.20	0.042	ug/L		11/09/22 09:13	12/01/22 14:46	1
Benzo[b]fluoranthene	0.141	J	0.20	0.034	ug/L		11/09/22 09:13	12/01/22 14:46	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/09/22 09:13	12/01/22 14:46	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/09/22 09:13	12/01/22 14:46	1

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

Lab Sample ID: MB 400-599854/1-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	ND		0.20	0.074	ug/L		11/09/22 09:13	12/01/22 14:46	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/09/22 09:13	12/01/22 14:46	1
Fluoranthene	ND		0.20	0.068	ug/L		11/09/22 09:13	12/01/22 14:46	1
Fluorene	ND		0.20	0.11	ug/L		11/09/22 09:13	12/01/22 14:46	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/09/22 09:13	12/01/22 14:46	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/09/22 09:13	12/01/22 14:46	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/09/22 09:13	12/01/22 14:46	1
Phenanthrene	ND		0.20	0.036	ug/L		11/09/22 09:13	12/01/22 14:46	1
Pyrene	ND		0.20	0.040	ug/L		11/09/22 09:13	12/01/22 14:46	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*15 - 122*	*11/09/22 09:13*	*12/01/22 14:46*	*1*
Nitrobenzene-d5	*62*		*19 - 130*	*11/09/22 09:13*	*12/01/22 14:46*	*1*
Terphenyl-d14	*88*		*33 - 138*	*11/09/22 09:13*	*12/01/22 14:46*	*1*

Lab Sample ID: LCS 400-599854/2-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599854

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	112		ug/L		94	41 - 120
Acenaphthylene	120	115		ug/L		96	44 - 120
Anthracene	120	116		ug/L		97	49 - 120
Benzo[a]anthracene	120	110		ug/L		92	61 - 135
Benzo[a]pyrene	120	100		ug/L		84	52 - 120
Benzo[b]fluoranthene	120	96.9		ug/L		81	53 - 134
Benzo[g,h,i]perylene	120	99.2		ug/L		83	47 - 133
Benzo[k]fluoranthene	120	104		ug/L		87	57 - 134
Chrysene	120	110		ug/L		92	55 - 122
Dibenz(a,h)anthracene	120	94.6		ug/L		79	48 - 146
Fluoranthene	120	116		ug/L		97	54 - 128
Fluorene	120	114		ug/L		95	45 - 125
Indeno[1,2,3-cd]pyrene	120	98.9		ug/L		82	43 - 142
1-Methylnaphthalene	120	118		ug/L		99	41 - 120
2-Methylnaphthalene	120	114		ug/L		95	32 - 124
Phenanthrene	120	109		ug/L		90	48 - 120
Pyrene	120	107		ug/L		89	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*97*		*15 - 122*
Nitrobenzene-d5	*76*		*19 - 130*
Terphenyl-d14	*96*		*33 - 138*

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

Lab Sample ID: LCSD 400-599854/3-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599854

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	117		ug/L		98	41 - 120	4	56
Acenaphthylene	120	120		ug/L		100	44 - 120	4	56
Anthracene	120	125		ug/L		104	49 - 120	7	51
Benzo[a]anthracene	120	117		ug/L		97	61 - 135	6	49
Benzo[a]pyrene	120	107		ug/L		89	52 - 120	6	50
Benzo[b]fluoranthene	120	97.8		ug/L		81	53 - 134	1	54
Benzo[g,h,i]perylene	120	102		ug/L		85	47 - 133	3	50
Benzo[k]fluoranthene	120	115		ug/L		96	57 - 134	10	52
Chrysene	120	116		ug/L		97	55 - 122	5	50
Dibenz(a,h)anthracene	120	98.8		ug/L		82	48 - 146	4	50
Fluoranthene	120	122		ug/L		102	54 - 128	6	52
Fluorene	120	120		ug/L		100	45 - 125	5	56
Indeno[1,2,3-cd]pyrene	120	105		ug/L		87	43 - 142	6	51
1-Methylnaphthalene	120	124		ug/L		103	41 - 120	5	55
2-Methylnaphthalene	120	124		ug/L		104	32 - 124	8	57
Phenanthrene	120	116		ug/L		97	48 - 120	7	56
Pyrene	120	113		ug/L		94	48 - 132	6	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*93*		*15 - 122*
Nitrobenzene-d5	*78*		*19 - 130*
Terphenyl-d14	*95*		*33 - 138*

Lab Sample ID: MB 400-602887/1-A
Matrix: Water
Analysis Batch: 603239

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602887

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/30/22 14:01	12/02/22 14:31	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/30/22 14:01	12/02/22 14:31	1
Anthracene	ND		0.20	0.032	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/30/22 14:01	12/02/22 14:31	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/30/22 14:01	12/02/22 14:31	1
Chrysene	ND		0.20	0.074	ug/L		11/30/22 14:01	12/02/22 14:31	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/30/22 14:01	12/02/22 14:31	1
Fluoranthene	0.113	J	0.20	0.068	ug/L		11/30/22 14:01	12/02/22 14:31	1
Fluorene	ND		0.20	0.11	ug/L		11/30/22 14:01	12/02/22 14:31	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/30/22 14:01	12/02/22 14:31	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/30/22 14:01	12/02/22 14:31	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/30/22 14:01	12/02/22 14:31	1
Phenanthrene	ND		0.20	0.036	ug/L		11/30/22 14:01	12/02/22 14:31	1
Pyrene	0.0611	J	0.20	0.040	ug/L		11/30/22 14:01	12/02/22 14:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*77*		*15 - 122*	*11/30/22 14:01*	*12/02/22 14:31*	*1*

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

Lab Sample ID: MB 400-602887/1-A
Matrix: Water
Analysis Batch: 603239

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 602887

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	61		19 - 130	11/30/22 14:01	12/02/22 14:31	1
Terphenyl-d14	89		33 - 138	11/30/22 14:01	12/02/22 14:31	1

Lab Sample ID: LCS 400-602887/2-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 602887

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	118		ug/L		98	41 - 120
Acenaphthylene	120	119		ug/L		99	44 - 120
Anthracene	120	124		ug/L		103	49 - 120
Benzo[a]anthracene	120	117		ug/L		98	61 - 135
Benzo[a]pyrene	120	104		ug/L		87	52 - 120
Benzo[b]fluoranthene	120	99.3		ug/L		83	53 - 134
Benzo[g,h,i]perylene	120	94.3		ug/L		79	47 - 133
Benzo[k]fluoranthene	120	114		ug/L		95	57 - 134
Chrysene	120	116		ug/L		97	55 - 122
Dibenz(a,h)anthracene	120	88.3		ug/L		74	48 - 146
Fluoranthene	120	121		ug/L		101	54 - 128
Fluorene	120	121		ug/L		101	45 - 125
Indeno[1,2,3-cd]pyrene	120	95.1		ug/L		79	43 - 142
1-Methylnaphthalene	120	122		ug/L		102	41 - 120
2-Methylnaphthalene	120	123		ug/L		102	32 - 124
Phenanthrene	120	113		ug/L		94	48 - 120
Pyrene	120	114		ug/L		95	48 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	94		15 - 122
Nitrobenzene-d5	76		19 - 130
Terphenyl-d14	95		33 - 138

Lab Sample ID: LCSD 400-602887/3-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 602887

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	131		ug/L		109	41 - 120	10	56
Acenaphthylene	120	133		ug/L		111	44 - 120	11	56
Anthracene	120	138		ug/L		115	49 - 120	10	51
Benzo[a]anthracene	120	131		ug/L		109	61 - 135	11	49
Benzo[a]pyrene	120	117		ug/L		97	52 - 120	12	50
Benzo[b]fluoranthene	120	113		ug/L		94	53 - 134	13	54
Benzo[g,h,i]perylene	120	103		ug/L		86	47 - 133	9	50
Benzo[k]fluoranthene	120	129		ug/L		107	57 - 134	12	52
Chrysene	120	129		ug/L		108	55 - 122	11	50
Dibenz(a,h)anthracene	120	97.9		ug/L		82	48 - 146	10	50
Fluoranthene	120	132		ug/L		110	54 - 128	9	52
Fluorene	120	133		ug/L		111	45 - 125	9	56

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

Lab Sample ID: LCSD 400-602887/3-A
Matrix: Water
Analysis Batch: 603041

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 602887

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Indeno[1,2,3-cd]pyrene	120	105		ug/L		88	43 - 142	10	51
1-Methylnaphthalene	120	139		ug/L		116	41 - 120	13	55
2-Methylnaphthalene	120	139		ug/L		116	32 - 124	12	57
Phenanthrene	120	127		ug/L		106	48 - 120	12	56
Pyrene	120	129		ug/L		108	48 - 132	13	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*105*		*15 - 122*
Nitrobenzene-d5	*83*		*19 - 130*
Terphenyl-d14	*108*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-599301/1-A
Matrix: Water
Analysis Batch: 599348

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599301

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		11/04/22 14:48	11/04/22 19:05	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/04/22 14:48	11/04/22 19:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*65*	*p*	*51 - 149*	*11/04/22 14:48*	*11/04/22 19:05*	*1*

Lab Sample ID: LCS 400-599301/2-A
Matrix: Water
Analysis Batch: 599348

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599301

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.154	p *+	ug/L		153	60 - 140
1,2-Dibromoethane	0.101	0.114		ug/L		113	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*79*		*51 - 149*

Lab Sample ID: LCSD 400-599301/3-A
Matrix: Water
Analysis Batch: 599348

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599301

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.166	*+	ug/L		165	60 - 140	8	30
1,2-Dibromoethane	0.101	0.121		ug/L		120	60 - 140	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*51 - 149*

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-599829/1-A
Matrix: Water
Analysis Batch: 599835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599829

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		11/09/22 08:27	11/09/22 10:37	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 10:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*51 - 149*	*11/09/22 08:27*	*11/09/22 10:37*	*1*

Lab Sample ID: LCS 400-599829/2-A
Matrix: Water
Analysis Batch: 599835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.132		ug/L		131	60 - 140
1,2-Dibromoethane	0.101	0.114		ug/L		113	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*51 - 149*

Lab Sample ID: LCSD 400-599829/3-A
Matrix: Water
Analysis Batch: 599835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599829

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.138		ug/L		138	60 - 140	5	30
1,2-Dibromoethane	0.101	0.117		ug/L		116	60 - 140	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*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: 10/28/2022
PO #	**GSAP Project ID**	PAGE: 1 of 2
60674381 – 3.4.2	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, Mary Massa, Brett Howell

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 – 3.4.2

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions | PHONE NO.: 314-802-1207 | E-MAIL: melissa.remiger@aecom.com | AECOM Other ID:

SAMPLER NAME(S) (Print): M. Massa, S. Beadle

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

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-102822-8260-A	10/28/2022	0000	Water	2					2	X			
	TB-ROX-102822-8011-A	10/28/2022	0000	Water	2					2		X		
	MW22-ROX-102822	10/28/2022	0935	Water	6			2		8	X	X	X	X
	ROST4PZC-ROX-102822	10/28/2022	1035	Water	6			2		8	X	X	X	X
	MW2-ROX-102822	10/28/2022	1140	Water	6			2		8	X	X	X	X
	MW26-ROX-102822	10/28/2022	1240	Water	6			2		8	X	X	X	X

400-228051 COC

Lam Beadle 10/28/22

Relinquished by: (Signature) MARY MASSA	Received by: (Signature) FEDEX: 9495 6601 2912, 9495 6601 2901	Date: 10/28/2022	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 10/29/22	Time: 0823

Version: 130ct22

CUSTODY SEALS: 1748506, 1748507, 1748508, 1748509

0.0, 0.0 C IR 9

12/7/2022

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

LOG CODE:

Print Bill To Contact Name:	PlaNet Site or Project ID	☐ CHECK IF NO INCIDENT # APPLIES
Melissa Remiger	25278	DATE: 10/28/2022
PO #	**GSAP Project ID**	PAGE: 2 of 2
60674381 – 3.4.2	USPC/00114/R/02	

SAMPLING COMPANY: AECOM

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell

TELEPHONE: 314-429-0100 | FAX: 314-429-0462 | Bill To Contact E-MAIL: melissa.remiger@aecom.com

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AECOM Project / Task Number: Roxana Quarterly GW 60674381 – 3.4.2

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions | PHONE NO.: 314-802-1207 | E-MAIL: melissa.remiger@aecom.com | AECOM Other ID:

SAMPLER NAME(S) (Print): T. Jones, 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

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☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

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-102822-8260-B	10/28/2022	0000	Water	2					2	X			
	TB-ROX-102822-8011-B	10/28/2022	0000	Water	2					2		X		
	ROST4PZE-ROX-102822-EB	10/28/2022	0920	Water	6			2		8	X	X	X	X
	ROST4PZE-ROX-102822	10/28/2022	1010	Water	6			2		8	X	X	X	X
	ROST4PZE-ROX-102822-DUP	10/28/2022	1010	Water	6			2		8	X	X	X	X
	P57-ROX-102822-EB	10/28/2022	1155	Water	6			2		8	X	X	X	X
	P57-ROX-102822	10/28/2022	1225	Water	6			2		8	X	X	X	X
	P74-ROX-102822	10/28/2022	1325	Water	6			2		8	X	X	X	X
	P74-ROX-102822-DUP	10/28/2022	1325	Water	6			2		8	X	X	X	X

Relinquished by: (Signature) *Joe Mayer*	Received by: (Signature) FEDEX: See page 1	Date: 10/28/2022	Time: 1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 10/29/22	Time: 0823

CUSTODY SEALS: See page 1

Version: 13Oct22

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12/7/2022

O.O, D.V.C 1829

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-228051-1

Login Number: 228051
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: 400-228051-1
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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-228140-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/20/2022

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

Sample Identification	Sample Identification
TB-ROX-103122-8260-A	TB-ROX-103122-8011
MW4-ROX-103122-EB	MW4-ROX-103122
MW25-ROX-103122	MW8-ROX-103122
MW7-ROX-103122	MW7-ROX-103122-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 benzo[a]anthracene was detected in equipment blank MW4-ROX-103122-EB, and benzo[a]anthracene and indeno[1,2,3-cd] were detected in the method blank. LCS/LCSD recoveries for benzenethiol and several VOCs were outside evaluation criteria. The PAH surrogate recovery for 2-fluorobiphenyl in sample MW7-ROX-103122, and the SVOC surrogate recovery for 2-fluorophenol in sample MW8-ROX-103122, were outside evaluation criteria. VOCs in field duplicate pair MW7-ROX-103122/MW7-ROX-103122-DUP and in sample MW8-ROX-103122 were diluted to bring target analytes into calibration range of the instrument. The continuing calibration verification (CCV) for hexachlorocyclopentadiene was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (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
MW4-ROX-103122-EB	PAHs	Benzo[a]anthracene	0.092 µg/L
MB 400-599497/1-A	PAHs	Benzo[a]anthracene	0.061 µg/L
MB 400-599497/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0714 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 400-600140/1002	VOCs	Hexachlorobutadiene	**147**	NA	53-140
LCS 400-600140/1002	VOCs	n-Butylbenzene	**147**	NA	67-130
LCS 400-600140/1002	VOCs	1,2,4-Trichlorobenzene	**143**	NA	60-140
LCS/LCSD 400-599497/4-A/5-A	SVOCs	Benzenethiol	**5/6**	10	10-120/30

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-103122	SVOCs	Benzenethiol	**UJ**
MW25-ROX-103122	SVOCs	Benzenethiol	**UJ**
MW8-ROX-103122	SVOCs	Benzenethiol	**UJ**
MW7-ROX-103122	SVOCs	Benzenethiol	**UJ**
MW7-ROX-103122-DUP	SVOCs	Benzenethiol	**UJ**

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW8-ROX-103122	SVOCs	2-Fluorophenol	**11**	13-113
MW7-ROX-103122	PAHs	2-Fluorobiphenyl	**135**	15-122

Qualifications due to surrogate recoveries were not required if only one of three

base/neutral and/or 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-103122	MW7-ROX-103122-DUP

Were field duplicates within evaluation criteria?

Yes

11.0 Sample Dilutions

For samples that were diluted and non-detect, 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 (CCV) for hexachlorocyclopentadiene was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-103122	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW25-ROX-103122	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW8-ROX-103122	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW7-ROX-103122	SVOCs	Hexachlorocyclopentadiene	**UJ**
MW7-ROX-103122-DUP	SVOCs	Hexachlorocyclopentadiene	**UJ**

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis Missouri 63102

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-228140-1

Reviewed 12/20/2022
A.V.

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL32514

my EOL

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Case Narrative

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

Job ID: 400-228140-1

Job ID: 400-228140-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-228140-1

Receipt
The samples were received on 11/1/2022 9:09 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 time was 4.3°C

GC/MS VOA
Method 8260B: The laboratory control sample (LCS) for analytical batch 400-600140 recovered outside control limits for the following analytes: 1,2,4-Trichlorobenzene, Hexachlorobutadiene and n-Butylbenzene. 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 some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-103122-8260-A (400-228140-1), MW4-ROX-103122-EB (400-228140-3), MW4-ROX-103122 (400-228140-4), MW25-ROX-103122 (400-228140-5), MW8-ROX-103122 (400-228140-6), MW7-ROX-103122 (400-228140-7) and MW7-ROX-103122-DUP (400-228140-8). 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 following samples were diluted to bring the concentration of target analytes within the calibration range: MW8-ROX-103122 (400-228140-6), MW7-ROX-103122 (400-228140-7) and MW7-ROX-103122-DUP (400-228140-8). 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/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-599497 and analytical batch 400-599728 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 400-599728 recovered outside acceptance criteria, low biased, for 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: 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: MW8-ROX-103122 (400-228140-6). These results have been reported and qualified.

Method 8270D_LL: The method blank for preparation batch 400-599497 and analytical batch 400-600170 contained Indeno[1,2,3-cd]pyrene 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 continuing calibration verification (CCV) associated with batch 400-600170 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: MW7-ROX-103122 (400-228140-7). 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

Job ID: 400-228140-1 (Continued)

Laboratory: Eurofins Pensacola (Continued)

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

Sample Summary

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

Job ID: 400-228140-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-228140-1	TB-ROX-103122-8260-A	Water	10/31/22 12:00	11/01/22 09:09
400-228140-2	TB-ROX-103122-8011	Water	10/31/22 12:00	11/01/22 09:09
400-228140-3	MW4-ROX-103122-EB	Water	10/31/22 08:50	11/01/22 09:09
400-228140-4	MW4-ROX-103122	Water	10/31/22 09:40	11/01/22 09:09
400-228140-5	MW25-ROX-103122	Water	10/31/22 10:40	11/01/22 09:09
400-228140-6	MW8-ROX-103122	Water	10/31/22 12:40	11/01/22 09:09
400-228140-7	MW7-ROX-103122	Water	10/31/22 13:30	11/01/22 09:09
400-228140-8	MW7-ROX-103122-DUP	Water	10/31/22 13:30	11/01/22 09:09

Detection Summary

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

Job ID: 400-228140-1

Client Sample ID: TB-ROX-103122-8260-A — Lab Sample ID: 400-228140-1

No Detections.

Client Sample ID: TB-ROX-103122-8011 — Lab Sample ID: 400-228140-2

No Detections.

Client Sample ID: MW4-ROX-103122-EB — Lab Sample ID: 400-228140-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.092	J B	0.19	0.043	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW4-ROX-103122 — Lab Sample ID: 400-228140-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	0.84	J	1.0	0.32	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.36	J	1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: MW25-ROX-103122 — Lab Sample ID: 400-228140-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	20		1.0	0.13	ug/L	1		8260B	Total/NA
Carbon disulfide	0.69	J	1.0	0.50	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.78	J	1.0	0.22	ug/L	1		8260B	Total/NA

Client Sample ID: MW8-ROX-103122 — Lab Sample ID: 400-228140-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	310		250	130	ug/L	250		8260B	Total/NA
m-Xylene & p-Xylene	740	J	1300	160	ug/L	250		8260B	Total/NA
o-Xylene	260	J	1300	150	ug/L	250		8260B	Total/NA
Toluene	900		250	100	ug/L	250		8260B	Total/NA
Xylenes, Total	990	J	2500	400	ug/L	250		8260B	Total/NA
Benzene - DL	280000		2000	260	ug/L	2000		8260B	Total/NA
Fluoranthene	0.097	J	0.19	0.063	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	14		0.19	0.069	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	6.1		0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenol	260		9.3	2.4	ug/L	1		8270D	Total/NA

Client Sample ID: MW7-ROX-103122 — Lab Sample ID: 400-228140-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	300	J	500	110	ug/L	500		8260B	Total/NA
Toluene	820		500	210	ug/L	500		8260B	Total/NA
Benzene - DL	680000		5000	650	ug/L	5000		8260B	Total/NA
1-Methylnaphthalene	0.98		0.18	0.068	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	1.7		0.18	0.055	ug/L	1		8270D LL	Total/NA
Benzoic acid	26	J	28	6.7	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	1.4	J	18	0.36	ug/L	1		8270D	Total/NA
Phenol	120		9.2	2.4	ug/L	1		8270D	Total/NA

Client Sample ID: MW7-ROX-103122-DUP — Lab Sample ID: 400-228140-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	360	J	500	210	ug/L	500		8260B	Total/NA
Benzene - DL	760000		5000	650	ug/L	5000		8260B	Total/NA
1-Methylnaphthalene	1.0		0.18	0.068	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: 400-228140-1

Client Sample ID: MW7-ROX-103122-DUP (Continued)

Lab Sample ID: 400-228140-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	1.7		0.18	0.055	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.12	J	0.18	0.033	ug/L	1		8270D LL	Total/NA
Diethyl phthalate	0.82	J	9.2	0.22	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	1.3	J	18	0.36	ug/L	1		8270D	Total/NA
Phenol	110		9.2	2.4	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-ROX-103122-8260-A

Date Collected: 10/31/22 12:00
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-1

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 20:08	1
Acrolein	ND		20	3.3	ug/L			11/10/22 20:08	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 20:08	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 20:08	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 20:08	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 20:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 20:08	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 20:08	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 20:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 20:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 20:08	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 20:08	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 20:08	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 20:08	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 20:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 20:08	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 20:08	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 20:08	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 20:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 20:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 20:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 20:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 20:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 20:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 20:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 20:08	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 20:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 20:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 20:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 20:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 20:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 20:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 20:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 20:08	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/10/22 20:08	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 20:08	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 20:08	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 20:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 20:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 20:08	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 20:08	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 20:08	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 20:08	1
n-Butylbenzene	ND	*+	1.0	0.76	ug/L			11/10/22 20:08	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 20:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 20:08	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 20:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 20:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 20:08	1

Client Sample ID: TB-ROX-103122-8260-A
Date Collected: 10/31/22 12:00
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-1
Matrix: Water

Method: SW846 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			11/10/22 20:08	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 20:08	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 20:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 20:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 20:08	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 20:08	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 20:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 20:08	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 20:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 20:08	1
1,2,4-Trichlorobenzene	ND	*+	1.0	0.82	ug/L			11/10/22 20:08	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 20:08	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 20:08	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 20:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 20:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 20:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 20:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 20:08	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 20:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 20:08	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 20:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*11/10/22 20:08*	*1*
Dibromofluoromethane	*89*		*75 - 126*		*11/10/22 20:08*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/10/22 20:08*	*1*

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

Job ID: 400-228140-1

Client Sample ID: TB-ROX-103122-8011
Date Collected: 10/31/22 12:00
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-2
Matrix: Water

Method: EPA 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		11/09/22 08:27	11/09/22 15:24	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 15:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*51 - 149*	*11/09/22 08:27*	*11/09/22 15:24*	*1*

Client Sample ID: MW4-ROX-103122-EB

Date Collected: 10/31/22 08:50
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 20:33	1
Acrolein	ND		20	3.3	ug/L			11/10/22 20:33	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 20:33	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 20:33	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 20:33	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 20:33	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 20:33	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 20:33	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 20:33	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 20:33	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 20:33	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 20:33	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 20:33	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 20:33	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 20:33	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 20:33	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 20:33	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 20:33	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 20:33	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 20:33	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 20:33	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 20:33	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 20:33	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 20:33	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 20:33	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 20:33	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 20:33	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 20:33	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 20:33	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 20:33	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 20:33	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 20:33	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 20:33	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 20:33	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/10/22 20:33	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 20:33	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 20:33	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 20:33	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 20:33	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 20:33	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 20:33	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 20:33	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 20:33	1
n-Butylbenzene	ND	*+	1.0	0.76	ug/L			11/10/22 20:33	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 20:33	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 20:33	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 20:33	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 20:33	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 20:33	1

Client Sample ID: MW4-ROX-103122-EB

Date Collected: 10/31/22 08:50
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-3

Matrix: Water

Method: SW846 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			11/10/22 20:33	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 20:33	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 20:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 20:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 20:33	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 20:33	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 20:33	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 20:33	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 20:33	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 20:33	1
1,2,4-Trichlorobenzene	ND	*+	1.0	0.82	ug/L			11/10/22 20:33	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 20:33	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 20:33	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 20:33	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 20:33	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 20:33	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 20:33	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 20:33	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 20:33	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 20:33	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*11/10/22 20:33*	*1*
Dibromofluoromethane	*91*		*75 - 126*		*11/10/22 20:33*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/10/22 20:33*	*1*

Method: SW846 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		11/07/22 08:55	11/11/22 19:48	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/07/22 08:55	11/11/22 19:48	1
Anthracene	ND		0.19	0.030	ug/L		11/07/22 08:55	11/11/22 19:48	1
Benzo[a]anthracene	0.092	J B	0.19	0.043	ug/L		11/07/22 08:55	11/11/22 19:48	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/07/22 08:55	11/11/22 19:48	1
Benzo[b]fluoranthene	ND		0.19	0.031	ug/L		11/07/22 08:55	11/11/22 19:48	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/07/22 08:55	11/11/22 19:48	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		11/07/22 08:55	11/11/22 19:48	1
Chrysene	ND		0.19	0.069	ug/L		11/07/22 08:55	11/11/22 19:48	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		11/07/22 08:55	11/11/22 19:48	1
Fluoranthene	ND		0.19	0.063	ug/L		11/07/22 08:55	11/11/22 19:48	1
Fluorene	ND		0.19	0.10	ug/L		11/07/22 08:55	11/11/22 19:48	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		11/07/22 08:55	11/11/22 19:48	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		11/07/22 08:55	11/11/22 19:48	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		11/07/22 08:55	11/11/22 19:48	1
Phenanthrene	ND		0.19	0.033	ug/L		11/07/22 08:55	11/11/22 19:48	1
Pyrene	ND		0.19	0.037	ug/L		11/07/22 08:55	11/11/22 19:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*86*		*15 - 122*	*11/07/22 08:55*	*11/11/22 19:48*	*1*
Nitrobenzene-d5	*81*		*19 - 130*	*11/07/22 08:55*	*11/11/22 19:48*	*1*

Client Sample ID: MW4-ROX-103122-EB

Date Collected: 10/31/22 08:50
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	115		33 - 138	11/07/22 08:55	11/11/22 19:48	1

Method: SW846 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		11/07/22 08:55	11/08/22 19:34	1
Benzenethiol	ND	*-	9.3	1.6	ug/L		11/07/22 08:55	11/08/22 19:34	1
Benzoic acid	ND		28	6.8	ug/L		11/07/22 08:55	11/08/22 19:34	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 19:34	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/07/22 08:55	11/08/22 19:34	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/07/22 08:55	11/08/22 19:34	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/07/22 08:55	11/08/22 19:34	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.6	ug/L		11/07/22 08:55	11/08/22 19:34	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/07/22 08:55	11/08/22 19:34	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/07/22 08:55	11/08/22 19:34	1
4-Chloroaniline	ND		9.3	3.1	ug/L		11/07/22 08:55	11/08/22 19:34	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/07/22 08:55	11/08/22 19:34	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/07/22 08:55	11/08/22 19:34	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 19:34	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 19:34	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 19:34	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 19:34	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/07/22 08:55	11/08/22 19:34	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/07/22 08:55	11/08/22 19:34	1
Diethyl phthalate	ND		9.3	0.22	ug/L		11/07/22 08:55	11/08/22 19:34	1
2,4-Dimethylphenol	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 19:34	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 19:34	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/07/22 08:55	11/08/22 19:34	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/07/22 08:55	11/08/22 19:34	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		11/07/22 08:55	11/08/22 19:34	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/07/22 08:55	11/08/22 19:34	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/07/22 08:55	11/08/22 19:34	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 19:34	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 19:34	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 19:34	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 19:34	1
Hexachlorocyclopentadiene	ND		19	2.4	ug/L		11/07/22 08:55	11/08/22 19:34	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/07/22 08:55	11/08/22 19:34	1
Indene	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 19:34	1
Isophorone	ND		9.3	0.13	ug/L		11/07/22 08:55	11/08/22 19:34	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/07/22 08:55	11/08/22 19:34	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/07/22 08:55	11/08/22 19:34	1
2-Nitroaniline	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 19:34	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/07/22 08:55	11/08/22 19:34	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/07/22 08:55	11/08/22 19:34	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/07/22 08:55	11/08/22 19:34	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/07/22 08:55	11/08/22 19:34	1
4-Nitrophenol	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 19:34	1
N-Nitrosodimethylamine	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 19:34	1

Client Sample ID: MW4-ROX-103122-EB

Date Collected: 10/31/22 08:50
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-3
Matrix: Water

Method: SW846 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		11/07/22 08:55	11/08/22 19:34	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/07/22 08:55	11/08/22 19:34	1
Pentachlorophenol	ND		19	1.3	ug/L		11/07/22 08:55	11/08/22 19:34	1
Phenol	ND		9.3	2.4	ug/L		11/07/22 08:55	11/08/22 19:34	1
Pyridine	ND		9.3	3.0	ug/L		11/07/22 08:55	11/08/22 19:34	1
Quinoline	ND		9.3	4.2	ug/L		11/07/22 08:55	11/08/22 19:34	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/07/22 08:55	11/08/22 19:34	1
2,4,6-Trichlorophenol	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 19:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*11/07/22 08:55*	*11/08/22 19:34*	*1*
2-Fluorophenol	*30*		*13 - 113*	*11/07/22 08:55*	*11/08/22 19:34*	*1*
Nitrobenzene-d5	*86*		*36 - 126*	*11/07/22 08:55*	*11/08/22 19:34*	*1*
Phenol-d5	*68*		*17 - 127*	*11/07/22 08:55*	*11/08/22 19:34*	*1*
Terphenyl-d14	*117*		*44 - 149*	*11/07/22 08:55*	*11/08/22 19:34*	*1*
2,4,6-Tribromophenol	*110*		*26 - 150*	*11/07/22 08:55*	*11/08/22 19:34*	*1*

Method: EPA 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	0.016	ug/L		11/09/22 08:27	11/09/22 15:44	1
1,2-Dibromoethane	ND		0.019	0.015	ug/L		11/09/22 08:27	11/09/22 15:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*85*		*51 - 149*	*11/09/22 08:27*	*11/09/22 15:44*	*1*

Client Sample ID: MW4-ROX-103122

Date Collected: 10/31/22 09:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 20:58	1
Acrolein	ND		20	3.3	ug/L			11/10/22 20:58	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 20:58	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 20:58	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 20:58	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 20:58	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 20:58	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 20:58	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 20:58	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 20:58	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 20:58	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 20:58	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 20:58	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 20:58	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 20:58	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 20:58	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 20:58	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 20:58	1
Chloromethane	0.84	J	1.0	0.32	ug/L			11/10/22 20:58	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 20:58	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 20:58	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 20:58	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 20:58	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 20:58	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 20:58	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 20:58	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 20:58	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 20:58	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 20:58	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 20:58	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 20:58	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 20:58	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 20:58	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 20:58	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/10/22 20:58	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 20:58	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 20:58	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 20:58	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 20:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 20:58	1
Methyl tert-butyl ether	0.36	J	1.0	0.22	ug/L			11/10/22 20:58	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 20:58	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 20:58	1
n-Butylbenzene	ND	*+	1.0	0.76	ug/L			11/10/22 20:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 20:58	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 20:58	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 20:58	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 20:58	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 20:58	1

Client Sample ID: MW4-ROX-103122

Date Collected: 10/31/22 09:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-4

Matrix: Water

Method: SW846 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			11/10/22 20:58	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 20:58	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 20:58	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 20:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 20:58	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 20:58	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 20:58	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 20:58	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 20:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 20:58	1
1,2,4-Trichlorobenzene	ND	*+	1.0	0.82	ug/L			11/10/22 20:58	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 20:58	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 20:58	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 20:58	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 20:58	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 20:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 20:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 20:58	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 20:58	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 20:58	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 20:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*94*		*72 - 119*		*11/10/22 20:58*	*1*
Dibromofluoromethane	*87*		*75 - 126*		*11/10/22 20:58*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/10/22 20:58*	*1*

Method: SW846 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		11/07/22 08:55	11/11/22 20:05	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/07/22 08:55	11/11/22 20:05	1
Anthracene	ND		0.19	0.030	ug/L		11/07/22 08:55	11/11/22 20:05	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		11/07/22 08:55	11/11/22 20:05	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		11/07/22 08:55	11/11/22 20:05	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/07/22 08:55	11/11/22 20:05	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/07/22 08:55	11/11/22 20:05	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		11/07/22 08:55	11/11/22 20:05	1
Chrysene	ND		0.19	0.070	ug/L		11/07/22 08:55	11/11/22 20:05	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		11/07/22 08:55	11/11/22 20:05	1
Fluoranthene	ND		0.19	0.064	ug/L		11/07/22 08:55	11/11/22 20:05	1
Fluorene	ND		0.19	0.10	ug/L		11/07/22 08:55	11/11/22 20:05	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		11/07/22 08:55	11/11/22 20:05	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		11/07/22 08:55	11/11/22 20:05	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		11/07/22 08:55	11/11/22 20:05	1
Phenanthrene	ND		0.19	0.034	ug/L		11/07/22 08:55	11/11/22 20:05	1
Pyrene	ND		0.19	0.038	ug/L		11/07/22 08:55	11/11/22 20:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*83*		*15 - 122*	*11/07/22 08:55*	*11/11/22 20:05*	*1*
Nitrobenzene-d5	*77*		*19 - 130*	*11/07/22 08:55*	*11/11/22 20:05*	*1*

Client Sample ID: MW4-ROX-103122

Date Collected: 10/31/22 09:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*72*		*33 - 138*	*11/07/22 08:55*	*11/11/22 20:05*	*1*

Method: SW846 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		11/07/22 08:55	11/08/22 19:55	1
Benzenethiol	ND	*- UJ	9.4	1.6	ug/L		11/07/22 08:55	11/08/22 19:55	1
Benzoic acid	ND		28	6.9	ug/L		11/07/22 08:55	11/08/22 19:55	1
Benzyl alcohol	ND		9.4	1.9	ug/L		11/07/22 08:55	11/08/22 19:55	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		11/07/22 08:55	11/08/22 19:55	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		11/07/22 08:55	11/08/22 19:55	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		11/07/22 08:55	11/08/22 19:55	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		11/07/22 08:55	11/08/22 19:55	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		11/07/22 08:55	11/08/22 19:55	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		11/07/22 08:55	11/08/22 19:55	1
4-Chloroaniline	ND		9.4	3.2	ug/L		11/07/22 08:55	11/08/22 19:55	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		11/07/22 08:55	11/08/22 19:55	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		11/07/22 08:55	11/08/22 19:55	1
2-Chlorophenol	ND		9.4	2.1	ug/L		11/07/22 08:55	11/08/22 19:55	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		11/07/22 08:55	11/08/22 19:55	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		11/07/22 08:55	11/08/22 19:55	1
Dibenzofuran	ND		9.4	0.16	ug/L		11/07/22 08:55	11/08/22 19:55	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		11/07/22 08:55	11/08/22 19:55	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		11/07/22 08:55	11/08/22 19:55	1
Diethyl phthalate	ND		9.4	0.23	ug/L		11/07/22 08:55	11/08/22 19:55	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		11/07/22 08:55	11/08/22 19:55	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		11/07/22 08:55	11/08/22 19:55	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		11/07/22 08:55	11/08/22 19:55	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		11/07/22 08:55	11/08/22 19:55	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/07/22 08:55	11/08/22 19:55	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		11/07/22 08:55	11/08/22 19:55	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		11/07/22 08:55	11/08/22 19:55	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		11/07/22 08:55	11/08/22 19:55	1
1,4-Dioxane	ND		9.4	0.94	ug/L		11/07/22 08:55	11/08/22 19:55	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		11/07/22 08:55	11/08/22 19:55	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		11/07/22 08:55	11/08/22 19:55	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/07/22 08:55	11/08/22 19:55	1
Hexachloroethane	ND		9.4	4.0	ug/L		11/07/22 08:55	11/08/22 19:55	1
Indene	ND		9.4	0.94	ug/L		11/07/22 08:55	11/08/22 19:55	1
Isophorone	ND		9.4	0.13	ug/L		11/07/22 08:55	11/08/22 19:55	1
2-Methylphenol	ND		9.4	1.7	ug/L		11/07/22 08:55	11/08/22 19:55	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		11/07/22 08:55	11/08/22 19:55	1
2-Nitroaniline	ND		9.4	2.1	ug/L		11/07/22 08:55	11/08/22 19:55	1
3-Nitroaniline	ND		9.4	1.7	ug/L		11/07/22 08:55	11/08/22 19:55	1
4-Nitroaniline	ND		9.4	1.4	ug/L		11/07/22 08:55	11/08/22 19:55	1
Nitrobenzene	ND		9.4	0.12	ug/L		11/07/22 08:55	11/08/22 19:55	1
2-Nitrophenol	ND		9.4	4.9	ug/L		11/07/22 08:55	11/08/22 19:55	1
4-Nitrophenol	ND		9.4	2.0	ug/L		11/07/22 08:55	11/08/22 19:55	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		11/07/22 08:55	11/08/22 19:55	1

Client Sample ID: MW4-ROX-103122
Date Collected: 10/31/22 09:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-4
Matrix: Water

Method: SW846 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		11/07/22 08:55	11/08/22 19:55	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		11/07/22 08:55	11/08/22 19:55	1
Pentachlorophenol	ND		19	1.3	ug/L		11/07/22 08:55	11/08/22 19:55	1
Phenol	ND		9.4	2.4	ug/L		11/07/22 08:55	11/08/22 19:55	1
Pyridine	ND		9.4	3.0	ug/L		11/07/22 08:55	11/08/22 19:55	1
Quinoline	ND		9.4	4.2	ug/L		11/07/22 08:55	11/08/22 19:55	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		11/07/22 08:55	11/08/22 19:55	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		11/07/22 08:55	11/08/22 19:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*11/07/22 08:55*	*11/08/22 19:55*	*1*
2-Fluorophenol	*35*		*13 - 113*	*11/07/22 08:55*	*11/08/22 19:55*	*1*
Nitrobenzene-d5	*85*		*36 - 126*	*11/07/22 08:55*	*11/08/22 19:55*	*1*
Phenol-d5	*64*		*17 - 127*	*11/07/22 08:55*	*11/08/22 19:55*	*1*
Terphenyl-d14	*81*		*44 - 149*	*11/07/22 08:55*	*11/08/22 19:55*	*1*
2,4,6-Tribromophenol	*102*		*26 - 150*	*11/07/22 08:55*	*11/08/22 19:55*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 16:05	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 16:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*51 - 149*	*11/09/22 08:27*	*11/09/22 16:05*	*1*

Client Sample ID: MW25-ROX-103122
Date Collected: 10/31/22 10:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/10/22 21:23	1
Acrolein	ND		20	3.3	ug/L			11/10/22 21:23	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 21:23	1
Benzene	**20**		1.0	0.13	ug/L			11/10/22 21:23	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 21:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 21:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 21:23	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 21:23	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 21:23	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 21:23	1
Carbon disulfide	**0.69**	J	1.0	0.50	ug/L			11/10/22 21:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 21:23	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 21:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 21:23	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 21:23	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 21:23	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 21:23	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 21:23	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 21:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 21:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 21:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 21:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 21:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 21:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 21:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 21:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 21:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 21:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 21:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 21:23	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 21:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 21:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 21:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 21:23	1
Hexachlorobutadiene	ND	*+	5.0	0.90	ug/L			11/10/22 21:23	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 21:23	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 21:23	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 21:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 21:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 21:23	1
Methyl tert-butyl ether	**0.78**	J	1.0	0.22	ug/L			11/10/22 21:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 21:23	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 21:23	1
n-Butylbenzene	ND	*+	1.0	0.76	ug/L			11/10/22 21:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 21:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 21:23	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 21:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 21:23	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/10/22 21:23	1

Client Sample ID: MW25-ROX-103122

Date Collected: 10/31/22 10:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-5

Matrix: Water

Method: SW846 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			11/10/22 21:23	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 21:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 21:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 21:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 21:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 21:23	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 21:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 21:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 21:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 21:23	1
1,2,4-Trichlorobenzene	ND	*+	1.0	0.82	ug/L			11/10/22 21:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 21:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 21:23	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 21:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 21:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 21:23	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 21:23	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 21:23	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 21:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 21:23	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 21:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/10/22 21:23*	*1*
Dibromofluoromethane	*87*		*75 - 126*		*11/10/22 21:23*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/10/22 21:23*	*1*

Method: SW846 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		11/07/22 08:55	11/11/22 20:23	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/07/22 08:55	11/11/22 20:23	1
Anthracene	ND		0.19	0.030	ug/L		11/07/22 08:55	11/11/22 20:23	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		11/07/22 08:55	11/11/22 20:23	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/07/22 08:55	11/11/22 20:23	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/07/22 08:55	11/11/22 20:23	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/07/22 08:55	11/11/22 20:23	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		11/07/22 08:55	11/11/22 20:23	1
Chrysene	ND		0.19	0.069	ug/L		11/07/22 08:55	11/11/22 20:23	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		11/07/22 08:55	11/11/22 20:23	1
Fluoranthene	ND		0.19	0.063	ug/L		11/07/22 08:55	11/11/22 20:23	1
Fluorene	ND		0.19	0.10	ug/L		11/07/22 08:55	11/11/22 20:23	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		11/07/22 08:55	11/11/22 20:23	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		11/07/22 08:55	11/11/22 20:23	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		11/07/22 08:55	11/11/22 20:23	1
Phenanthrene	ND		0.19	0.033	ug/L		11/07/22 08:55	11/11/22 20:23	1
Pyrene	ND		0.19	0.037	ug/L		11/07/22 08:55	11/11/22 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*69*		*15 - 122*	*11/07/22 08:55*	*11/11/22 20:23*	*1*
Nitrobenzene-d5	*59*		*19 - 130*	*11/07/22 08:55*	*11/11/22 20:23*	*1*

Client Sample ID: MW25-ROX-103122
Date Collected: 10/31/22 10:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	70		33 - 138	11/07/22 08:55	11/11/22 20:23	1

Method: SW846 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		11/07/22 08:55	11/08/22 20:15	1
Benzenethiol	ND	*- UJ	9.3	1.6	ug/L		11/07/22 08:55	11/08/22 20:15	1
Benzoic acid	ND		28	6.8	ug/L		11/07/22 08:55	11/08/22 20:15	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 20:15	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/07/22 08:55	11/08/22 20:15	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/07/22 08:55	11/08/22 20:15	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/07/22 08:55	11/08/22 20:15	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.6	ug/L		11/07/22 08:55	11/08/22 20:15	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/07/22 08:55	11/08/22 20:15	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/07/22 08:55	11/08/22 20:15	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 20:15	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/07/22 08:55	11/08/22 20:15	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/07/22 08:55	11/08/22 20:15	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 20:15	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 20:15	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 20:15	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 20:15	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/07/22 08:55	11/08/22 20:15	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/07/22 08:55	11/08/22 20:15	1
Diethyl phthalate	ND		9.3	0.22	ug/L		11/07/22 08:55	11/08/22 20:15	1
2,4-Dimethylphenol	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 20:15	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 20:15	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/07/22 08:55	11/08/22 20:15	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/07/22 08:55	11/08/22 20:15	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/07/22 08:55	11/08/22 20:15	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/07/22 08:55	11/08/22 20:15	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/07/22 08:55	11/08/22 20:15	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 20:15	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 20:15	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 20:15	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 20:15	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/07/22 08:55	11/08/22 20:15	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/07/22 08:55	11/08/22 20:15	1
Indene	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 20:15	1
Isophorone	ND		9.3	0.13	ug/L		11/07/22 08:55	11/08/22 20:15	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/07/22 08:55	11/08/22 20:15	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/07/22 08:55	11/08/22 20:15	1
2-Nitroaniline	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 20:15	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/07/22 08:55	11/08/22 20:15	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/07/22 08:55	11/08/22 20:15	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/07/22 08:55	11/08/22 20:15	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/07/22 08:55	11/08/22 20:15	1
4-Nitrophenol	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 20:15	1
N-Nitrosodimethylamine	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 20:15	1

Client Sample ID: MW25-ROX-103122

Date Collected: 10/31/22 10:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-5

Matrix: Water

Method: SW846 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		11/07/22 08:55	11/08/22 20:15	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/07/22 08:55	11/08/22 20:15	1
Pentachlorophenol	ND		19	1.3	ug/L		11/07/22 08:55	11/08/22 20:15	1
Phenol	ND		9.3	2.4	ug/L		11/07/22 08:55	11/08/22 20:15	1
Pyridine	ND		9.3	3.0	ug/L		11/07/22 08:55	11/08/22 20:15	1
Quinoline	ND		9.3	4.2	ug/L		11/07/22 08:55	11/08/22 20:15	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/07/22 08:55	11/08/22 20:15	1
2,4,6-Trichlorophenol	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 20:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*59*		*46 - 124*	*11/07/22 08:55*	*11/08/22 20:15*	*1*
2-Fluorophenol	*29*		*13 - 113*	*11/07/22 08:55*	*11/08/22 20:15*	*1*
Nitrobenzene-d5	*67*		*36 - 126*	*11/07/22 08:55*	*11/08/22 20:15*	*1*
Phenol-d5	*55*		*17 - 127*	*11/07/22 08:55*	*11/08/22 20:15*	*1*
Terphenyl-d14	*81*		*44 - 149*	*11/07/22 08:55*	*11/08/22 20:15*	*1*
2,4,6-Tribromophenol	*98*		*26 - 150*	*11/07/22 08:55*	*11/08/22 20:15*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 16:25	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 16:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*105*		*51 - 149*	*11/09/22 08:27*	*11/09/22 16:25*	*1*

Client Sample ID: MW8-ROX-103122

Date Collected: 10/31/22 12:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-6

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		6300	2500	ug/L			11/11/22 01:36	250
Acrolein	ND		5000	830	ug/L			11/11/22 01:36	250
Acrylonitrile	ND		2500	700	ug/L			11/11/22 01:36	250
Bromobenzene	ND		250	140	ug/L			11/11/22 01:36	250
Bromochloromethane	ND		250	53	ug/L			11/11/22 01:36	250
Bromodichloromethane	ND		250	130	ug/L			11/11/22 01:36	250
Bromoform	ND		1300	63	ug/L			11/11/22 01:36	250
Bromomethane	ND		250	250	ug/L			11/11/22 01:36	250
2-Butanone (MEK)	ND		6300	650	ug/L			11/11/22 01:36	250
Carbon disulfide	ND		250	130	ug/L			11/11/22 01:36	250
Carbon tetrachloride	ND		250	48	ug/L			11/11/22 01:36	250
Chlorobenzene	ND		250	38	ug/L			11/11/22 01:36	250
Dibromochloromethane	ND		250	60	ug/L			11/11/22 01:36	250
Chloroethane	ND		250	190	ug/L			11/11/22 01:36	250
2-Chloroethyl vinyl ether	ND		1300	500	ug/L			11/11/22 01:36	250
Chloroform	ND		250	250	ug/L			11/11/22 01:36	250
1-Chlorohexane	ND		250	80	ug/L			11/11/22 01:36	250
Chloromethane	ND		250	80	ug/L			11/11/22 01:36	250
cis-1,2-Dichloroethene	ND		250	50	ug/L			11/11/22 01:36	250
cis-1,3-Dichloropropene	ND		1300	130	ug/L			11/11/22 01:36	250
1,2-Dichlorobenzene	ND		250	130	ug/L			11/11/22 01:36	250
1,3-Dichlorobenzene	ND		250	140	ug/L			11/11/22 01:36	250
1,4-Dichlorobenzene	ND		250	160	ug/L			11/11/22 01:36	250
Dichlorodifluoromethane	ND		250	210	ug/L			11/11/22 01:36	250
1,1-Dichloroethane	ND		250	130	ug/L			11/11/22 01:36	250
1,2-Dichloroethane	ND		250	48	ug/L			11/11/22 01:36	250
1,1-Dichloroethene	ND		250	130	ug/L			11/11/22 01:36	250
1,2-Dichloropropane	ND		250	130	ug/L			11/11/22 01:36	250
1,3-Dichloropropane	ND		250	130	ug/L			11/11/22 01:36	250
2,2-Dichloropropane	ND		250	130	ug/L			11/11/22 01:36	250
1,1-Dichloropropene	ND		250	130	ug/L			11/11/22 01:36	250
Ethylbenzene	**310**		250	130	ug/L			11/11/22 01:36	250
Ethyl methacrylate	ND		250	150	ug/L			11/11/22 01:36	250
Hexachlorobutadiene	ND	*+	1300	230	ug/L			11/11/22 01:36	250
2-Hexanone	ND		6300	350	ug/L			11/11/22 01:36	250
Isopropylbenzene	ND		250	130	ug/L			11/11/22 01:36	250
Methylene bromide	ND		1300	55	ug/L			11/11/22 01:36	250
Methylene Chloride	ND		1300	750	ug/L			11/11/22 01:36	250
4-Methyl-2-pentanone (MIBK)	ND		6300	450	ug/L			11/11/22 01:36	250
Methyl tert-butyl ether	ND		250	55	ug/L			11/11/22 01:36	250
m-Xylene & p-Xylene	**740**	J	1300	160	ug/L			11/11/22 01:36	250
Naphthalene	ND		1300	750	ug/L			11/11/22 01:36	250
n-Butylbenzene	ND	*+	250	190	ug/L			11/11/22 01:36	250
N-Propylbenzene	ND		250	170	ug/L			11/11/22 01:36	250
o-Chlorotoluene	ND		250	140	ug/L			11/11/22 01:36	250
o-Xylene	**260**	J	1300	150	ug/L			11/11/22 01:36	250
p-Chlorotoluene	ND		250	140	ug/L			11/11/22 01:36	250
p-Isopropyltoluene	ND		250	180	ug/L			11/11/22 01:36	250
sec-Butylbenzene	ND		250	180	ug/L			11/11/22 01:36	250

Client Sample ID: MW8-ROX-103122

Date Collected: 10/31/22 12:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		250	250	ug/L			11/11/22 01:36	250
tert-Butylbenzene	ND		250	160	ug/L			11/11/22 01:36	250
1,1,1,2-Tetrachloroethane	ND		250	40	ug/L			11/11/22 01:36	250
1,1,2,2-Tetrachloroethane	ND		250	130	ug/L			11/11/22 01:36	250
Tetrachloroethene	ND		250	230	ug/L			11/11/22 01:36	250
Toluene	900		250	100	ug/L			11/11/22 01:36	250
trans-1,2-Dichloroethene	ND		250	130	ug/L			11/11/22 01:36	250
trans-1,3-Dichloropropene	ND		1300	50	ug/L			11/11/22 01:36	250
1,2,3-Trichlorobenzene	ND		250	230	ug/L			11/11/22 01:36	250
1,2,4-Trichlorobenzene	ND	*+	250	210	ug/L			11/11/22 01:36	250
1,1,1-Trichloroethane	ND		250	45	ug/L			11/11/22 01:36	250
1,1,2-Trichloroethane	ND		1300	53	ug/L			11/11/22 01:36	250
Trichloroethene	ND		250	38	ug/L			11/11/22 01:36	250
Trichlorofluoromethane	ND		250	130	ug/L			11/11/22 01:36	250
1,2,3-Trichloropropane	ND		1300	210	ug/L			11/11/22 01:36	250
1,2,4-Trimethylbenzene	ND		250	210	ug/L			11/11/22 01:36	250
1,3,5-Trimethylbenzene	ND		250	140	ug/L			11/11/22 01:36	250
Vinyl acetate	ND		6300	230	ug/L			11/11/22 01:36	250
Vinyl chloride	ND		250	130	ug/L			11/11/22 01:36	250
Xylenes, Total	990	J	2500	400	ug/L			11/11/22 01:36	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/11/22 01:36*	*250*
Dibromofluoromethane	*90*		*75 - 126*		*11/11/22 01:36*	*250*
Toluene-d8 (Surr)	*106*		*64 - 132*		*11/11/22 01:36*	*250*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	280000		2000	260	ug/L			11/11/22 20:34	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*90*		*72 - 119*		*11/11/22 20:34*	*2000*
Dibromofluoromethane	*91*		*75 - 126*		*11/11/22 20:34*	*2000*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/11/22 20:34*	*2000*

Method: SW846 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		11/07/22 08:55	11/11/22 20:40	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/07/22 08:55	11/11/22 20:40	1
Anthracene	ND		0.19	0.030	ug/L		11/07/22 08:55	11/11/22 20:40	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		11/07/22 08:55	11/11/22 20:40	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/07/22 08:55	11/11/22 20:40	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/07/22 08:55	11/11/22 20:40	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/07/22 08:55	11/11/22 20:40	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		11/07/22 08:55	11/11/22 20:40	1
Chrysene	ND		0.19	0.069	ug/L		11/07/22 08:55	11/11/22 20:40	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		11/07/22 08:55	11/11/22 20:40	1
Fluoranthene	0.097	J	0.19	0.063	ug/L		11/07/22 08:55	11/11/22 20:40	1
Fluorene	ND		0.19	0.10	ug/L		11/07/22 08:55	11/11/22 20:40	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		11/07/22 08:55	11/11/22 20:40	1

Client Sample ID: MW8-ROX-103122

Date Collected: 10/31/22 12:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-6

Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	14		0.19	0.069	ug/L		11/07/22 08:55	11/11/22 20:40	1
2-Methylnaphthalene	6.1		0.19	0.056	ug/L		11/07/22 08:55	11/11/22 20:40	1
Phenanthrene	ND		0.19	0.033	ug/L		11/07/22 08:55	11/11/22 20:40	1
Pyrene	ND		0.19	0.037	ug/L		11/07/22 08:55	11/11/22 20:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*87*		*15 - 122*	*11/07/22 08:55*	*11/11/22 20:40*	*1*
Nitrobenzene-d5	*77*		*19 - 130*	*11/07/22 08:55*	*11/11/22 20:40*	*1*
Terphenyl-d14	*92*		*33 - 138*	*11/07/22 08:55*	*11/11/22 20:40*	*1*

Method: SW846 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		11/07/22 08:55	11/08/22 20:36	1
Benzenethiol	ND	*- UJ	9.3	1.6	ug/L		11/07/22 08:55	11/08/22 20:36	1
Benzoic acid	ND		28	6.8	ug/L		11/07/22 08:55	11/08/22 20:36	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 20:36	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/07/22 08:55	11/08/22 20:36	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/07/22 08:55	11/08/22 20:36	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/07/22 08:55	11/08/22 20:36	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.6	ug/L		11/07/22 08:55	11/08/22 20:36	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/07/22 08:55	11/08/22 20:36	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/07/22 08:55	11/08/22 20:36	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 20:36	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/07/22 08:55	11/08/22 20:36	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/07/22 08:55	11/08/22 20:36	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 20:36	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 20:36	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 20:36	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 20:36	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/07/22 08:55	11/08/22 20:36	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/07/22 08:55	11/08/22 20:36	1
Diethyl phthalate	ND		9.3	0.22	ug/L		11/07/22 08:55	11/08/22 20:36	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		11/07/22 08:55	11/08/22 20:36	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 20:36	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/07/22 08:55	11/08/22 20:36	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/07/22 08:55	11/08/22 20:36	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/07/22 08:55	11/08/22 20:36	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/07/22 08:55	11/08/22 20:36	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/07/22 08:55	11/08/22 20:36	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 20:36	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 20:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 20:36	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 20:36	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/07/22 08:55	11/08/22 20:36	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/07/22 08:55	11/08/22 20:36	1
Indene	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 20:36	1
Isophorone	ND		9.3	0.13	ug/L		11/07/22 08:55	11/08/22 20:36	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/07/22 08:55	11/08/22 20:36	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/07/22 08:55	11/08/22 20:36	1

Client Sample ID: MW8-ROX-103122

Date Collected: 10/31/22 12:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-6

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 20:36	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/07/22 08:55	11/08/22 20:36	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/07/22 08:55	11/08/22 20:36	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/07/22 08:55	11/08/22 20:36	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/07/22 08:55	11/08/22 20:36	1
4-Nitrophenol	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 20:36	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		11/07/22 08:55	11/08/22 20:36	1
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		11/07/22 08:55	11/08/22 20:36	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/07/22 08:55	11/08/22 20:36	1
Pentachlorophenol	ND		19	1.3	ug/L		11/07/22 08:55	11/08/22 20:36	1
Phenol	**260**		9.3	2.4	ug/L		11/07/22 08:55	11/08/22 20:36	1
Pyridine	ND		9.3	3.0	ug/L		11/07/22 08:55	11/08/22 20:36	1
Quinoline	ND		9.3	4.2	ug/L		11/07/22 08:55	11/08/22 20:36	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/07/22 08:55	11/08/22 20:36	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		11/07/22 08:55	11/08/22 20:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*71*		*46 - 124*	*11/07/22 08:55*	*11/08/22 20:36*	*1*
2-Fluorophenol	*11*	*S1-*	*13 - 113*	*11/07/22 08:55*	*11/08/22 20:36*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*11/07/22 08:55*	*11/08/22 20:36*	*1*
Phenol-d5	*44*		*17 - 127*	*11/07/22 08:55*	*11/08/22 20:36*	*1*
Terphenyl-d14	*103*		*44 - 149*	*11/07/22 08:55*	*11/08/22 20:36*	*1*
2,4,6-Tribromophenol	*119*		*26 - 150*	*11/07/22 08:55*	*11/08/22 20:36*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 16:46	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*51 - 149*	*11/09/22 08:27*	*11/09/22 16:46*	*1*

Client Sample ID: MW7-ROX-103122

Date Collected: 10/31/22 13:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-7

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		13000	5000	ug/L			11/11/22 02:26	500
Acrolein	ND		10000	1700	ug/L			11/11/22 02:26	500
Acrylonitrile	ND		5000	1400	ug/L			11/11/22 02:26	500
Bromobenzene	ND		500	270	ug/L			11/11/22 02:26	500
Bromochloromethane	ND		500	110	ug/L			11/11/22 02:26	500
Bromodichloromethane	ND		500	250	ug/L			11/11/22 02:26	500
Bromoform	ND		2500	130	ug/L			11/11/22 02:26	500
Bromomethane	ND		500	490	ug/L			11/11/22 02:26	500
2-Butanone (MEK)	ND		13000	1300	ug/L			11/11/22 02:26	500
Carbon disulfide	ND		500	250	ug/L			11/11/22 02:26	500
Carbon tetrachloride	ND		500	95	ug/L			11/11/22 02:26	500
Chlorobenzene	ND		500	75	ug/L			11/11/22 02:26	500
Dibromochloromethane	ND		500	120	ug/L			11/11/22 02:26	500
Chloroethane	ND		500	380	ug/L			11/11/22 02:26	500
2-Chloroethyl vinyl ether	ND		2500	1000	ug/L			11/11/22 02:26	500
Chloroform	ND		500	500	ug/L			11/11/22 02:26	500
1-Chlorohexane	ND		500	160	ug/L			11/11/22 02:26	500
Chloromethane	ND		500	160	ug/L			11/11/22 02:26	500
cis-1,2-Dichloroethene	ND		500	100	ug/L			11/11/22 02:26	500
cis-1,3-Dichloropropene	ND		2500	250	ug/L			11/11/22 02:26	500
1,2-Dichlorobenzene	ND		500	250	ug/L			11/11/22 02:26	500
1,3-Dichlorobenzene	ND		500	270	ug/L			11/11/22 02:26	500
1,4-Dichlorobenzene	ND		500	320	ug/L			11/11/22 02:26	500
Dichlorodifluoromethane	ND		500	430	ug/L			11/11/22 02:26	500
1,1-Dichloroethane	ND		500	250	ug/L			11/11/22 02:26	500
1,2-Dichloroethane	ND		500	95	ug/L			11/11/22 02:26	500
1,1-Dichloroethene	ND		500	250	ug/L			11/11/22 02:26	500
1,2-Dichloropropane	ND		500	250	ug/L			11/11/22 02:26	500
1,3-Dichloropropane	ND		500	250	ug/L			11/11/22 02:26	500
2,2-Dichloropropane	ND		500	250	ug/L			11/11/22 02:26	500
1,1-Dichloropropene	ND		500	250	ug/L			11/11/22 02:26	500
Ethylbenzene	ND		500	250	ug/L			11/11/22 02:26	500
Ethyl methacrylate	ND		500	300	ug/L			11/11/22 02:26	500
Hexachlorobutadiene	ND	*+	2500	450	ug/L			11/11/22 02:26	500
2-Hexanone	ND		13000	700	ug/L			11/11/22 02:26	500
Isopropylbenzene	ND		500	270	ug/L			11/11/22 02:26	500
Methylene bromide	ND		2500	110	ug/L			11/11/22 02:26	500
Methylene Chloride	ND		2500	1500	ug/L			11/11/22 02:26	500
4-Methyl-2-pentanone (MIBK)	ND		13000	900	ug/L			11/11/22 02:26	500
Methyl tert-butyl ether	300	J	500	110	ug/L			11/11/22 02:26	500
m-Xylene & p-Xylene	ND		2500	320	ug/L			11/11/22 02:26	500
Naphthalene	ND		2500	1500	ug/L			11/11/22 02:26	500
n-Butylbenzene	ND	*+	500	380	ug/L			11/11/22 02:26	500
N-Propylbenzene	ND		500	350	ug/L			11/11/22 02:26	500
o-Chlorotoluene	ND		500	290	ug/L			11/11/22 02:26	500
o-Xylene	ND		2500	300	ug/L			11/11/22 02:26	500
p-Chlorotoluene	ND		500	280	ug/L			11/11/22 02:26	500
p-Isopropyltoluene	ND		500	360	ug/L			11/11/22 02:26	500
sec-Butylbenzene	ND		500	350	ug/L			11/11/22 02:26	500

Client Sample ID: MW7-ROX-103122

Date Collected: 10/31/22 13:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-7
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		500	500	ug/L			11/11/22 02:26	500
tert-Butylbenzene	ND		500	320	ug/L			11/11/22 02:26	500
1,1,1,2-Tetrachloroethane	ND		500	80	ug/L			11/11/22 02:26	500
1,1,2,2-Tetrachloroethane	ND		500	250	ug/L			11/11/22 02:26	500
Tetrachloroethene	ND		500	450	ug/L			11/11/22 02:26	500
Toluene	820		500	210	ug/L			11/11/22 02:26	500
trans-1,2-Dichloroethene	ND		500	250	ug/L			11/11/22 02:26	500
trans-1,3-Dichloropropene	ND		2500	100	ug/L			11/11/22 02:26	500
1,2,3-Trichlorobenzene	ND		500	450	ug/L			11/11/22 02:26	500
1,2,4-Trichlorobenzene	ND	*+	500	410	ug/L			11/11/22 02:26	500
1,1,1-Trichloroethane	ND		500	90	ug/L			11/11/22 02:26	500
1,1,2-Trichloroethane	ND		2500	110	ug/L			11/11/22 02:26	500
Trichloroethene	ND		500	75	ug/L			11/11/22 02:26	500
Trichlorofluoromethane	ND		500	260	ug/L			11/11/22 02:26	500
1,2,3-Trichloropropane	ND		2500	420	ug/L			11/11/22 02:26	500
1,2,4-Trimethylbenzene	ND		500	410	ug/L			11/11/22 02:26	500
1,3,5-Trimethylbenzene	ND		500	280	ug/L			11/11/22 02:26	500
Vinyl acetate	ND		13000	470	ug/L			11/11/22 02:26	500
Vinyl chloride	ND		500	250	ug/L			11/11/22 02:26	500
Xylenes, Total	ND		5000	800	ug/L			11/11/22 02:26	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*11/11/22 02:26*	*500*
Dibromofluoromethane	*86*		*75 - 126*		*11/11/22 02:26*	*500*
Toluene-d8 (Surr)	*96*		*64 - 132*		*11/11/22 02:26*	*500*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	680000		5000	650	ug/L			11/11/22 20:59	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/11/22 20:59*	*5000*
Dibromofluoromethane	*91*		*75 - 126*		*11/11/22 20:59*	*5000*
Toluene-d8 (Surr)	*103*		*64 - 132*		*11/11/22 20:59*	*5000*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.030	ug/L		11/07/22 08:55	11/11/22 20:57	1
Acenaphthylene	ND		0.18	0.042	ug/L		11/07/22 08:55	11/11/22 20:57	1
Anthracene	ND		0.18	0.030	ug/L		11/07/22 08:55	11/11/22 20:57	1
Benzo[a]anthracene	ND		0.18	0.042	ug/L		11/07/22 08:55	11/11/22 20:57	1
Benzo[a]pyrene	ND		0.18	0.039	ug/L		11/07/22 08:55	11/11/22 20:57	1
Benzo[b]fluoranthene	ND		0.18	0.031	ug/L		11/07/22 08:55	11/11/22 20:57	1
Benzo[g,h,i]perylene	ND		0.18	0.12	ug/L		11/07/22 08:55	11/11/22 20:57	1
Benzo[k]fluoranthene	ND		0.18	0.092	ug/L		11/07/22 08:55	11/11/22 20:57	1
Chrysene	ND		0.18	0.068	ug/L		11/07/22 08:55	11/11/22 20:57	1
Dibenz(a,h)anthracene	ND		0.18	0.046	ug/L		11/07/22 08:55	11/11/22 20:57	1
Fluoranthene	ND		0.18	0.063	ug/L		11/07/22 08:55	11/11/22 20:57	1
Fluorene	ND		0.18	0.10	ug/L		11/07/22 08:55	11/11/22 20:57	1
Indeno[1,2,3-cd]pyrene	ND		0.18	0.040	ug/L		11/07/22 08:55	11/11/22 20:57	1

Client Sample ID: MW7-ROX-103122
Date Collected: 10/31/22 13:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-7
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.98		0.18	0.068	ug/L		11/07/22 08:55	11/11/22 20:57	1
2-Methylnaphthalene	1.7		0.18	0.055	ug/L		11/07/22 08:55	11/11/22 20:57	1
Phenanthrene	ND		0.18	0.033	ug/L		11/07/22 08:55	11/11/22 20:57	1
Pyrene	ND		0.18	0.037	ug/L		11/07/22 08:55	11/11/22 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*135*	*S1+*	*15 - 122*	*11/07/22 08:55*	*11/11/22 20:57*	*1*
Nitrobenzene-d5	*69*		*19 - 130*	*11/07/22 08:55*	*11/11/22 20:57*	*1*
Terphenyl-d14	*91*		*33 - 138*	*11/07/22 08:55*	*11/11/22 20:57*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		11/07/22 08:55	11/08/22 20:57	1
Benzenethiol	ND	*-	9.2	1.6	ug/L		11/07/22 08:55	11/08/22 20:57	1
Benzoic acid	**26**	**J**	28	6.7	ug/L		11/07/22 08:55	11/08/22 20:57	1
Benzyl alcohol	ND		9.2	1.8	ug/L		11/07/22 08:55	11/08/22 20:57	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		11/07/22 08:55	11/08/22 20:57	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		11/07/22 08:55	11/08/22 20:57	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		11/07/22 08:55	11/08/22 20:57	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		11/07/22 08:55	11/08/22 20:57	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		11/07/22 08:55	11/08/22 20:57	1
Butyl benzyl phthalate	ND		9.2	0.18	ug/L		11/07/22 08:55	11/08/22 20:57	1
4-Chloroaniline	ND		9.2	3.1	ug/L		11/07/22 08:55	11/08/22 20:57	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		11/07/22 08:55	11/08/22 20:57	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		11/07/22 08:55	11/08/22 20:57	1
2-Chlorophenol	ND		9.2	2.0	ug/L		11/07/22 08:55	11/08/22 20:57	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		11/07/22 08:55	11/08/22 20:57	1
Dibenz[a,h]acridine	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 20:57	1
Dibenzofuran	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 20:57	1
3,3'-Dichlorobenzidine	ND		9.2	2.4	ug/L		11/07/22 08:55	11/08/22 20:57	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		11/07/22 08:55	11/08/22 20:57	1
Diethyl phthalate	ND		9.2	0.22	ug/L		11/07/22 08:55	11/08/22 20:57	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		11/07/22 08:55	11/08/22 20:57	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 20:57	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		11/07/22 08:55	11/08/22 20:57	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		11/07/22 08:55	11/08/22 20:57	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		11/07/22 08:55	11/08/22 20:57	1
2,4-Dinitrotoluene	ND		9.2	1.8	ug/L		11/07/22 08:55	11/08/22 20:57	1
2,6-Dinitrotoluene	ND		9.2	1.8	ug/L		11/07/22 08:55	11/08/22 20:57	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 20:57	1
1,4-Dioxane	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 20:57	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 20:57	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 20:57	1
Hexachlorocyclopentadiene	ND		18	2.4	ug/L		11/07/22 08:55	11/08/22 20:57	1
Hexachloroethane	ND		9.2	3.9	ug/L		11/07/22 08:55	11/08/22 20:57	1
Indene	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 20:57	1
Isophorone	ND		9.2	0.13	ug/L		11/07/22 08:55	11/08/22 20:57	1
2-Methylphenol	ND		9.2	1.7	ug/L		11/07/22 08:55	11/08/22 20:57	1
3 & 4 Methylphenol	**1.4**	**J**	18	0.36	ug/L		11/07/22 08:55	11/08/22 20:57	1

Client Sample ID: MW7-ROX-103122

Date Collected: 10/31/22 13:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-7

Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.2	2.0	ug/L		11/07/22 08:55	11/08/22 20:57	1
3-Nitroaniline	ND		9.2	1.7	ug/L		11/07/22 08:55	11/08/22 20:57	1
4-Nitroaniline	ND		9.2	1.4	ug/L		11/07/22 08:55	11/08/22 20:57	1
Nitrobenzene	ND		9.2	0.12	ug/L		11/07/22 08:55	11/08/22 20:57	1
2-Nitrophenol	ND		9.2	4.8	ug/L		11/07/22 08:55	11/08/22 20:57	1
4-Nitrophenol	ND		9.2	1.9	ug/L		11/07/22 08:55	11/08/22 20:57	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		11/07/22 08:55	11/08/22 20:57	1
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		11/07/22 08:55	11/08/22 20:57	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		11/07/22 08:55	11/08/22 20:57	1
Pentachlorophenol	ND		18	1.3	ug/L		11/07/22 08:55	11/08/22 20:57	1
Phenol	120		9.2	2.4	ug/L		11/07/22 08:55	11/08/22 20:57	1
Pyridine	ND		9.2	3.0	ug/L		11/07/22 08:55	11/08/22 20:57	1
Quinoline	ND		9.2	4.2	ug/L		11/07/22 08:55	11/08/22 20:57	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		11/07/22 08:55	11/08/22 20:57	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		11/07/22 08:55	11/08/22 20:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*11/07/22 08:55*	*11/08/22 20:57*	*1*
2-Fluorophenol	*17*		*13 - 113*	*11/07/22 08:55*	*11/08/22 20:57*	*1*
Nitrobenzene-d5	*82*		*36 - 126*	*11/07/22 08:55*	*11/08/22 20:57*	*1*
Phenol-d5	*58*		*17 - 127*	*11/07/22 08:55*	*11/08/22 20:57*	*1*
Terphenyl-d14	*101*		*44 - 149*	*11/07/22 08:55*	*11/08/22 20:57*	*1*
2,4,6-Tribromophenol	*126*		*26 - 150*	*11/07/22 08:55*	*11/08/22 20:57*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 17:07	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 17:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*51 - 149*	*11/09/22 08:27*	*11/09/22 17:07*	*1*

Client Sample ID: MW7-ROX-103122-DUP

Date Collected: 10/31/22 13:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-8

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		13000	5000	ug/L			11/11/22 02:50	500
Acrolein	ND		10000	1700	ug/L			11/11/22 02:50	500
Acrylonitrile	ND		5000	1400	ug/L			11/11/22 02:50	500
Bromobenzene	ND		500	270	ug/L			11/11/22 02:50	500
Bromochloromethane	ND		500	110	ug/L			11/11/22 02:50	500
Bromodichloromethane	ND		500	250	ug/L			11/11/22 02:50	500
Bromoform	ND		2500	130	ug/L			11/11/22 02:50	500
Bromomethane	ND		500	490	ug/L			11/11/22 02:50	500
2-Butanone (MEK)	ND		13000	1300	ug/L			11/11/22 02:50	500
Carbon disulfide	ND		500	250	ug/L			11/11/22 02:50	500
Carbon tetrachloride	ND		500	95	ug/L			11/11/22 02:50	500
Chlorobenzene	ND		500	75	ug/L			11/11/22 02:50	500
Dibromochloromethane	ND		500	120	ug/L			11/11/22 02:50	500
Chloroethane	ND		500	380	ug/L			11/11/22 02:50	500
2-Chloroethyl vinyl ether	ND		2500	1000	ug/L			11/11/22 02:50	500
Chloroform	ND		500	500	ug/L			11/11/22 02:50	500
1-Chlorohexane	ND		500	160	ug/L			11/11/22 02:50	500
Chloromethane	ND		500	160	ug/L			11/11/22 02:50	500
cis-1,2-Dichloroethene	ND		500	100	ug/L			11/11/22 02:50	500
cis-1,3-Dichloropropene	ND		2500	250	ug/L			11/11/22 02:50	500
1,2-Dichlorobenzene	ND		500	250	ug/L			11/11/22 02:50	500
1,3-Dichlorobenzene	ND		500	270	ug/L			11/11/22 02:50	500
1,4-Dichlorobenzene	ND		500	320	ug/L			11/11/22 02:50	500
Dichlorodifluoromethane	ND		500	430	ug/L			11/11/22 02:50	500
1,1-Dichloroethane	ND		500	250	ug/L			11/11/22 02:50	500
1,2-Dichloroethane	ND		500	95	ug/L			11/11/22 02:50	500
1,1-Dichloroethene	ND		500	250	ug/L			11/11/22 02:50	500
1,2-Dichloropropane	ND		500	250	ug/L			11/11/22 02:50	500
1,3-Dichloropropane	ND		500	250	ug/L			11/11/22 02:50	500
2,2-Dichloropropane	ND		500	250	ug/L			11/11/22 02:50	500
1,1-Dichloropropene	ND		500	250	ug/L			11/11/22 02:50	500
Ethylbenzene	ND		500	250	ug/L			11/11/22 02:50	500
Ethyl methacrylate	ND		500	300	ug/L			11/11/22 02:50	500
Hexachlorobutadiene	ND	*+	2500	450	ug/L			11/11/22 02:50	500
2-Hexanone	ND		13000	700	ug/L			11/11/22 02:50	500
Isopropylbenzene	ND		500	270	ug/L			11/11/22 02:50	500
Methylene bromide	ND		2500	110	ug/L			11/11/22 02:50	500
Methylene Chloride	ND		2500	1500	ug/L			11/11/22 02:50	500
4-Methyl-2-pentanone (MIBK)	ND		13000	900	ug/L			11/11/22 02:50	500
Methyl tert-butyl ether	ND		500	110	ug/L			11/11/22 02:50	500
m-Xylene & p-Xylene	ND		2500	320	ug/L			11/11/22 02:50	500
Naphthalene	ND		2500	1500	ug/L			11/11/22 02:50	500
n-Butylbenzene	ND	*+	500	380	ug/L			11/11/22 02:50	500
N-Propylbenzene	ND		500	350	ug/L			11/11/22 02:50	500
o-Chlorotoluene	ND		500	290	ug/L			11/11/22 02:50	500
o-Xylene	ND		2500	300	ug/L			11/11/22 02:50	500
p-Chlorotoluene	ND		500	280	ug/L			11/11/22 02:50	500
p-Isopropyltoluene	ND		500	360	ug/L			11/11/22 02:50	500
sec-Butylbenzene	ND		500	350	ug/L			11/11/22 02:50	500

Client Sample ID: MW7-ROX-103122-DUP

Date Collected: 10/31/22 13:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-8

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		500	500	ug/L			11/11/22 02:50	500
tert-Butylbenzene	ND		500	320	ug/L			11/11/22 02:50	500
1,1,1,2-Tetrachloroethane	ND		500	80	ug/L			11/11/22 02:50	500
1,1,2,2-Tetrachloroethane	ND		500	250	ug/L			11/11/22 02:50	500
Tetrachloroethene	ND		500	450	ug/L			11/11/22 02:50	500
Toluene	360	J	500	210	ug/L			11/11/22 02:50	500
trans-1,2-Dichloroethene	ND		500	250	ug/L			11/11/22 02:50	500
trans-1,3-Dichloropropene	ND		2500	100	ug/L			11/11/22 02:50	500
1,2,3-Trichlorobenzene	ND		500	450	ug/L			11/11/22 02:50	500
1,2,4-Trichlorobenzene	ND	*+	500	410	ug/L			11/11/22 02:50	500
1,1,1-Trichloroethane	ND		500	90	ug/L			11/11/22 02:50	500
1,1,2-Trichloroethane	ND		2500	110	ug/L			11/11/22 02:50	500
Trichloroethene	ND		500	75	ug/L			11/11/22 02:50	500
Trichlorofluoromethane	ND		500	260	ug/L			11/11/22 02:50	500
1,2,3-Trichloropropane	ND		2500	420	ug/L			11/11/22 02:50	500
1,2,4-Trimethylbenzene	ND		500	410	ug/L			11/11/22 02:50	500
1,3,5-Trimethylbenzene	ND		500	280	ug/L			11/11/22 02:50	500
Vinyl acetate	ND		13000	470	ug/L			11/11/22 02:50	500
Vinyl chloride	ND		500	250	ug/L			11/11/22 02:50	500
Xylenes, Total	ND		5000	800	ug/L			11/11/22 02:50	500

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*95*		*72 - 119*		*11/11/22 02:50*	*500*
Dibromofluoromethane	*84*		*75 - 126*		*11/11/22 02:50*	*500*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/11/22 02:50*	*500*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	760000		5000	650	ug/L			11/11/22 21:24	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*92*		*72 - 119*		*11/11/22 21:24*	*5000*
Dibromofluoromethane	*92*		*75 - 126*		*11/11/22 21:24*	*5000*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/11/22 21:24*	*5000*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.030	ug/L		11/07/22 08:55	11/11/22 21:14	1
Acenaphthylene	ND		0.18	0.042	ug/L		11/07/22 08:55	11/11/22 21:14	1
Anthracene	ND		0.18	0.030	ug/L		11/07/22 08:55	11/11/22 21:14	1
Benzo[a]anthracene	ND		0.18	0.042	ug/L		11/07/22 08:55	11/11/22 21:14	1
Benzo[a]pyrene	ND		0.18	0.039	ug/L		11/07/22 08:55	11/11/22 21:14	1
Benzo[b]fluoranthene	ND		0.18	0.031	ug/L		11/07/22 08:55	11/11/22 21:14	1
Benzo[g,h,i]perylene	ND		0.18	0.12	ug/L		11/07/22 08:55	11/11/22 21:14	1
Benzo[k]fluoranthene	ND		0.18	0.092	ug/L		11/07/22 08:55	11/11/22 21:14	1
Chrysene	ND		0.18	0.068	ug/L		11/07/22 08:55	11/11/22 21:14	1
Dibenz(a,h)anthracene	ND		0.18	0.046	ug/L		11/07/22 08:55	11/11/22 21:14	1
Fluoranthene	ND		0.18	0.063	ug/L		11/07/22 08:55	11/11/22 21:14	1
Fluorene	ND		0.18	0.10	ug/L		11/07/22 08:55	11/11/22 21:14	1
Indeno[1,2,3-cd]pyrene	ND		0.18	0.040	ug/L		11/07/22 08:55	11/11/22 21:14	1

Client Sample ID: MW7-ROX-103122-DUP

Date Collected: 10/31/22 13:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-8
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	1.0		0.18	0.068	ug/L		11/07/22 08:55	11/11/22 21:14	1
2-Methylnaphthalene	1.7		0.18	0.055	ug/L		11/07/22 08:55	11/11/22 21:14	1
Phenanthrene	0.12	J	0.18	0.033	ug/L		11/07/22 08:55	11/11/22 21:14	1
Pyrene	ND		0.18	0.037	ug/L		11/07/22 08:55	11/11/22 21:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*76*		*15 - 122*	*11/07/22 08:55*	*11/11/22 21:14*	*1*
Nitrobenzene-d5	*68*		*19 - 130*	*11/07/22 08:55*	*11/11/22 21:14*	*1*
Terphenyl-d14	*55*		*33 - 138*	*11/07/22 08:55*	*11/11/22 21:14*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		11/07/22 08:55	11/08/22 21:18	1
Benzenethiol	ND	*- UJ	9.2	1.6	ug/L		11/07/22 08:55	11/08/22 21:18	1
Benzoic acid	ND		28	6.7	ug/L		11/07/22 08:55	11/08/22 21:18	1
Benzyl alcohol	ND		9.2	1.8	ug/L		11/07/22 08:55	11/08/22 21:18	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		11/07/22 08:55	11/08/22 21:18	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		11/07/22 08:55	11/08/22 21:18	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		11/07/22 08:55	11/08/22 21:18	1
Bis(2-ethylhexyl) phthalate	ND		9.2	4.6	ug/L		11/07/22 08:55	11/08/22 21:18	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		11/07/22 08:55	11/08/22 21:18	1
Butyl benzyl phthalate	ND		9.2	0.18	ug/L		11/07/22 08:55	11/08/22 21:18	1
4-Chloroaniline	ND		9.2	3.1	ug/L		11/07/22 08:55	11/08/22 21:18	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		11/07/22 08:55	11/08/22 21:18	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		11/07/22 08:55	11/08/22 21:18	1
2-Chlorophenol	ND		9.2	2.0	ug/L		11/07/22 08:55	11/08/22 21:18	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		11/07/22 08:55	11/08/22 21:18	1
Dibenz[a,h]acridine	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 21:18	1
Dibenzofuran	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 21:18	1
3,3'-Dichlorobenzidine	ND		9.2	2.4	ug/L		11/07/22 08:55	11/08/22 21:18	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		11/07/22 08:55	11/08/22 21:18	1
Diethyl phthalate	**0.82**	**J**	9.2	0.22	ug/L		11/07/22 08:55	11/08/22 21:18	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		11/07/22 08:55	11/08/22 21:18	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 21:18	1
Di-n-butyl phthalate	ND		9.2	2.5	ug/L		11/07/22 08:55	11/08/22 21:18	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		11/07/22 08:55	11/08/22 21:18	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		11/07/22 08:55	11/08/22 21:18	1
2,4-Dinitrotoluene	ND		9.2	1.8	ug/L		11/07/22 08:55	11/08/22 21:18	1
2,6-Dinitrotoluene	ND		9.2	1.8	ug/L		11/07/22 08:55	11/08/22 21:18	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 21:18	1
1,4-Dioxane	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 21:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 21:18	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 21:18	1
Hexachlorocyclopentadiene	ND	UJ	18	2.4	ug/L		11/07/22 08:55	11/08/22 21:18	1
Hexachloroethane	ND		9.2	3.9	ug/L		11/07/22 08:55	11/08/22 21:18	1
Indene	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 21:18	1
Isophorone	ND		9.2	0.13	ug/L		11/07/22 08:55	11/08/22 21:18	1
2-Methylphenol	ND		9.2	1.7	ug/L		11/07/22 08:55	11/08/22 21:18	1
3 & 4 Methylphenol	**1.3**	**J**	18	0.36	ug/L		11/07/22 08:55	11/08/22 21:18	1

Client Sample ID: MW7-ROX-103122-DUP
Date Collected: 10/31/22 13:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-8
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.2	2.0	ug/L		11/07/22 08:55	11/08/22 21:18	1
3-Nitroaniline	ND		9.2	1.7	ug/L		11/07/22 08:55	11/08/22 21:18	1
4-Nitroaniline	ND		9.2	1.4	ug/L		11/07/22 08:55	11/08/22 21:18	1
Nitrobenzene	ND		9.2	0.12	ug/L		11/07/22 08:55	11/08/22 21:18	1
2-Nitrophenol	ND		9.2	4.8	ug/L		11/07/22 08:55	11/08/22 21:18	1
4-Nitrophenol	ND		9.2	1.9	ug/L		11/07/22 08:55	11/08/22 21:18	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		11/07/22 08:55	11/08/22 21:18	1
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		11/07/22 08:55	11/08/22 21:18	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		11/07/22 08:55	11/08/22 21:18	1
Pentachlorophenol	ND		18	1.3	ug/L		11/07/22 08:55	11/08/22 21:18	1
Phenol	110		9.2	2.4	ug/L		11/07/22 08:55	11/08/22 21:18	1
Pyridine	ND		9.2	3.0	ug/L		11/07/22 08:55	11/08/22 21:18	1
Quinoline	ND		9.2	4.2	ug/L		11/07/22 08:55	11/08/22 21:18	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		11/07/22 08:55	11/08/22 21:18	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		11/07/22 08:55	11/08/22 21:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*64*		*46 - 124*	*11/07/22 08:55*	*11/08/22 21:18*	*1*
2-Fluorophenol	*24*		*13 - 113*	*11/07/22 08:55*	*11/08/22 21:18*	*1*
Nitrobenzene-d5	*76*		*36 - 126*	*11/07/22 08:55*	*11/08/22 21:18*	*1*
Phenol-d5	*55*		*17 - 127*	*11/07/22 08:55*	*11/08/22 21:18*	*1*
Terphenyl-d14	*59*		*44 - 149*	*11/07/22 08:55*	*11/08/22 21:18*	*1*
2,4,6-Tribromophenol	*107*		*26 - 150*	*11/07/22 08:55*	*11/08/22 21:18*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 17:27	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 17:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*51 - 149*	*11/09/22 08:27*	*11/09/22 17:27*	*1*

Definitions/Glossary

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

Job ID: 400-228140-1

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.
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, low biased.
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: 400-228140-1

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)
400-228140-1	TB-ROX-103122-8260-A	92	89	102
400-228140-3	MW4-ROX-103122-EB	95	91	100
400-228140-4	MW4-ROX-103122	94	87	98
400-228140-5	MW25-ROX-103122	97	87	102
400-228140-6	MW8-ROX-103122	93	90	106
400-228140-6 - DL	MW8-ROX-103122	90	91	100
400-228140-7	MW7-ROX-103122	96	86	96
400-228140-7 - DL	MW7-ROX-103122	93	91	103
400-228140-8	MW7-ROX-103122-DUP	95	84	101
400-228140-8 - DL	MW7-ROX-103122-DUP	92	92	98
LCS 400-600140/1002	Lab Control Sample	92	87	98
LCS 400-600232/1002	Lab Control Sample	89	87	96
MB 400-600140/4	Method Blank	96	86	102
MB 400-600232/4	Method Blank	93	89	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)
400-228140-3	MW4-ROX-103122-EB	75	30	86	68	117	110
400-228140-4	MW4-ROX-103122	75	35	85	64	81	102
400-228140-5	MW25-ROX-103122	59	29	67	55	81	98
400-228140-6	MW8-ROX-103122	71	11 S1-	81	44	103	119
400-228140-7	MW7-ROX-103122	72	17	82	58	101	126
400-228140-8	MW7-ROX-103122-DUP	64	24	76	55	59	107
LCS 400-599497/2-A	Lab Control Sample	72	45	71	72	89	110
LCS 400-599497/4-A	Lab Control Sample	64	47	74	69	95	70
LCSD 400-599497/3-A	Lab Control Sample Dup	76	33	76	74	96	116
LCSD 400-599497/5-A	Lab Control Sample Dup	70	46	79	73	104	81
MB 400-599497/1-A	Method Blank	75	27	86	66	113	94

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: 400-228140-1

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)
400-228140-3	MW4-ROX-103122-EB	86	81	115
400-228140-4	MW4-ROX-103122	83	77	72
400-228140-5	MW25-ROX-103122	69	59	70
400-228140-6	MW8-ROX-103122	87	77	92
400-228140-7	MW7-ROX-103122	135 S1+	69	91
400-228140-8	MW7-ROX-103122-DUP	76	68	55
LCS 400-599497/2-A	Lab Control Sample	86	79	84
LCSD 400-599497/3-A	Lab Control Sample Dup	92	82	93
MB 400-599497/1-A	Method Blank	81	77	112

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)
400-228140-2	TB-ROX-103122-8011	90
400-228140-3	MW4-ROX-103122-EB	85
400-228140-4	MW4-ROX-103122	105
400-228140-5	MW25-ROX-103122	105
400-228140-6	MW8-ROX-103122	99
400-228140-7	MW7-ROX-103122	101
400-228140-8	MW7-ROX-103122-DUP	96
LCS 400-599829/2-A	Lab Control Sample	98
LCSD 400-599829/3-A	Lab Control Sample Dup	101
MB 400-599829/1-A	Method Blank	89

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-228140-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET 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: 400-228140-1

Client Sample ID: TB-ROX-103122-8260-A

Lab Sample ID: 400-228140-1

Date Collected: 10/31/22 12:00
Date Received: 11/01/22 09:09

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	600140	11/10/22 20:08	JE	EET PEN

Client Sample ID: TB-ROX-103122-8011

Lab Sample ID: 400-228140-2

Date Collected: 10/31/22 12:00
Date Received: 11/01/22 09:09

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	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 15:24	DS	EET PEN

Client Sample ID: MW4-ROX-103122-EB

Lab Sample ID: 400-228140-3

Date Collected: 10/31/22 08:50
Date Received: 11/01/22 09:09

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	600140	11/10/22 20:33	JE	EET PEN
Total/NA	Prep	3520C			270 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 19:34	S1B	EET PEN
Total/NA	Prep	3520C			270 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 19:48	PP1	EET PEN
Total/NA	Prep	8011			36.1 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 15:44	DS	EET PEN

Client Sample ID: MW4-ROX-103122

Lab Sample ID: 400-228140-4

Date Collected: 10/31/22 09:40
Date Received: 11/01/22 09:09

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	600140	11/10/22 20:58	JE	EET PEN
Total/NA	Prep	3520C			265.4 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 19:55	S1B	EET PEN
Total/NA	Prep	3520C			265.4 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 20:05	PP1	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 16:05	DS	EET PEN

Client Sample ID: MW25-ROX-103122

Lab Sample ID: 400-228140-5

Date Collected: 10/31/22 10:40
Date Received: 11/01/22 09:09

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	600140	11/10/22 21:23	JE	EET PEN
Total/NA	Prep	3520C			269.6 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 20:15	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-228140-1

Client Sample ID: MW25-ROX-103122

Lab Sample ID: 400-228140-5

Date Collected: 10/31/22 10:40
Matrix: Water
Date Received: 11/01/22 09:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			269.6 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 20:23	PP1	EET PEN
Total/NA	Prep	8011			35.1 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 16:25	DS	EET PEN

Client Sample ID: MW8-ROX-103122

Lab Sample ID: 400-228140-6

Date Collected: 10/31/22 12:40
Matrix: Water
Date Received: 11/01/22 09:09

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		250	5 mL	5 mL	600140	11/11/22 01:36	JE	EET PEN
Total/NA	Analysis	8260B	DL	2000	5 mL	5 mL	600232	11/11/22 20:34	AGW	EET PEN
Total/NA	Prep	3520C			269.2 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 20:36	S1B	EET PEN
Total/NA	Prep	3520C			269.2 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 20:40	PP1	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 16:46	DS	EET PEN

Client Sample ID: MW7-ROX-103122

Lab Sample ID: 400-228140-7

Date Collected: 10/31/22 13:30
Matrix: Water
Date Received: 11/01/22 09:09

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	600140	11/11/22 02:26	JE	EET PEN
Total/NA	Analysis	8260B	DL	5000	5 mL	5 mL	600232	11/11/22 20:59	AGW	EET PEN
Total/NA	Prep	3520C			271 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 20:57	S1B	EET PEN
Total/NA	Prep	3520C			271 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 20:57	PP1	EET PEN
Total/NA	Prep	8011			34.2 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 17:07	DS	EET PEN

Client Sample ID: MW7-ROX-103122-DUP

Lab Sample ID: 400-228140-8

Date Collected: 10/31/22 13:30
Matrix: Water
Date Received: 11/01/22 09:09

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	600140	11/11/22 02:50	JE	EET PEN
Total/NA	Analysis	8260B	DL	5000	5 mL	5 mL	600232	11/11/22 21:24	AGW	EET PEN
Total/NA	Prep	3520C			271 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 21:18	S1B	EET PEN
Total/NA	Prep	3520C			271 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 21:14	PP1	EET PEN

Client Sample ID: MW7-ROX-103122-DUP

Date Collected: 10/31/22 13:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228140-8
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	8011			34.6 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 17:27	DS	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-599497/1-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 15:24	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600170	11/10/22 17:57	PP1	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-599829/1-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	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 10:37	DS	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-600140/4
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	600140	11/10/22 17:12	JE	EET PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-600232/4
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	600232	11/11/22 11:17	AGW	EET PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-599497/2-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:26	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	600349	11/11/22 17:13	PP1	EET PEN

Lab Chronicle

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

Job ID: 400-228140-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-599497/4-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 15:44	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-599829/2-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	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 10:58	DS	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-600140/1002
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	600140	11/10/22 16:03	JE	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-600232/1002
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	600232	11/11/22 10:09	AGW	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-599497/3-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:47	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	600349	11/11/22 17:30	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-599497/5-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:05	S1B	EET PEN

Lab Chronicle

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

Job ID: 400-228140-1

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-599829/3-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	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 11:18	DS	EET PEN

Laboratory References:

EET 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: 400-228140-1

GC/MS VOA

Analysis Batch: 600140

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228140-1	TB-ROX-103122-8260-A	Total/NA	Water	8260B	
400-228140-3	MW4-ROX-103122-EB	Total/NA	Water	8260B	
400-228140-4	MW4-ROX-103122	Total/NA	Water	8260B	
400-228140-5	MW25-ROX-103122	Total/NA	Water	8260B	
400-228140-6	MW8-ROX-103122	Total/NA	Water	8260B	
400-228140-7	MW7-ROX-103122	Total/NA	Water	8260B	
400-228140-8	MW7-ROX-103122-DUP	Total/NA	Water	8260B	
MB 400-600140/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600140/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 600232

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228140-6 - DL	MW8-ROX-103122	Total/NA	Water	8260B	
400-228140-7 - DL	MW7-ROX-103122	Total/NA	Water	8260B	
400-228140-8 - DL	MW7-ROX-103122-DUP	Total/NA	Water	8260B	
MB 400-600232/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600232/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 599497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228140-3	MW4-ROX-103122-EB	Total/NA	Water	3520C	
400-228140-4	MW4-ROX-103122	Total/NA	Water	3520C	
400-228140-5	MW25-ROX-103122	Total/NA	Water	3520C	
400-228140-6	MW8-ROX-103122	Total/NA	Water	3520C	
400-228140-7	MW7-ROX-103122	Total/NA	Water	3520C	
400-228140-8	MW7-ROX-103122-DUP	Total/NA	Water	3520C	
MB 400-599497/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-599497/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-599497/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 599728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228140-3	MW4-ROX-103122-EB	Total/NA	Water	8270D	599497
400-228140-4	MW4-ROX-103122	Total/NA	Water	8270D	599497
400-228140-5	MW25-ROX-103122	Total/NA	Water	8270D	599497
400-228140-6	MW8-ROX-103122	Total/NA	Water	8270D	599497
400-228140-7	MW7-ROX-103122	Total/NA	Water	8270D	599497
400-228140-8	MW7-ROX-103122-DUP	Total/NA	Water	8270D	599497
MB 400-599497/1-A	Method Blank	Total/NA	Water	8270D	599497
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	8270D	599497
LCS 400-599497/4-A	Lab Control Sample	Total/NA	Water	8270D	599497
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	599497
LCSD 400-599497/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	599497

Analysis Batch: 600170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-599497/1-A	Method Blank	Total/NA	Water	8270D LL	599497

QC Association Summary

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

Job ID: 400-228140-1

GC/MS Semi VOA

Analysis Batch: 600349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228140-3	MW4-ROX-103122-EB	Total/NA	Water	8270D LL	599497
400-228140-4	MW4-ROX-103122	Total/NA	Water	8270D LL	599497
400-228140-5	MW25-ROX-103122	Total/NA	Water	8270D LL	599497
400-228140-6	MW8-ROX-103122	Total/NA	Water	8270D LL	599497
400-228140-7	MW7-ROX-103122	Total/NA	Water	8270D LL	599497
400-228140-8	MW7-ROX-103122-DUP	Total/NA	Water	8270D LL	599497
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	8270D LL	599497
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	599497

GC Semi VOA

Prep Batch: 599829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228140-2	TB-ROX-103122-8011	Total/NA	Water	8011	
400-228140-3	MW4-ROX-103122-EB	Total/NA	Water	8011	
400-228140-4	MW4-ROX-103122	Total/NA	Water	8011	
400-228140-5	MW25-ROX-103122	Total/NA	Water	8011	
400-228140-6	MW8-ROX-103122	Total/NA	Water	8011	
400-228140-7	MW7-ROX-103122	Total/NA	Water	8011	
400-228140-8	MW7-ROX-103122-DUP	Total/NA	Water	8011	
MB 400-599829/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-599829/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-599829/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 599835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228140-2	TB-ROX-103122-8011	Total/NA	Water	8011	599829
400-228140-3	MW4-ROX-103122-EB	Total/NA	Water	8011	599829
400-228140-4	MW4-ROX-103122	Total/NA	Water	8011	599829
400-228140-5	MW25-ROX-103122	Total/NA	Water	8011	599829
400-228140-6	MW8-ROX-103122	Total/NA	Water	8011	599829
400-228140-7	MW7-ROX-103122	Total/NA	Water	8011	599829
400-228140-8	MW7-ROX-103122-DUP	Total/NA	Water	8011	599829
MB 400-599829/1-A	Method Blank	Total/NA	Water	8011	599829
LCS 400-599829/2-A	Lab Control Sample	Total/NA	Water	8011	599829
LCSD 400-599829/3-A	Lab Control Sample Dup	Total/NA	Water	8011	599829

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

Lab Sample ID: MB 400-600140/4
Matrix: Water
Analysis Batch: 600140

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			11/10/22 17:12	1
Acrolein	ND		20	3.3	ug/L			11/10/22 17:12	1
Acrylonitrile	ND		10	2.8	ug/L			11/10/22 17:12	1
Benzene	ND		1.0	0.13	ug/L			11/10/22 17:12	1
Bromobenzene	ND		1.0	0.54	ug/L			11/10/22 17:12	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/10/22 17:12	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/10/22 17:12	1
Bromoform	ND		5.0	0.25	ug/L			11/10/22 17:12	1
Bromomethane	ND		1.0	0.98	ug/L			11/10/22 17:12	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/10/22 17:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/10/22 17:12	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/10/22 17:12	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/10/22 17:12	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/10/22 17:12	1
Chloroethane	ND		1.0	0.76	ug/L			11/10/22 17:12	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/10/22 17:12	1
Chloroform	ND		1.0	1.0	ug/L			11/10/22 17:12	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/10/22 17:12	1
Chloromethane	ND		1.0	0.32	ug/L			11/10/22 17:12	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/10/22 17:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/10/22 17:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/10/22 17:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/10/22 17:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/10/22 17:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/10/22 17:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/10/22 17:12	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/10/22 17:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 17:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 17:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 17:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/10/22 17:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/10/22 17:12	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/10/22 17:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/10/22 17:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/10/22 17:12	1
2-Hexanone	ND		25	1.4	ug/L			11/10/22 17:12	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/10/22 17:12	1
Methylene bromide	ND		5.0	0.22	ug/L			11/10/22 17:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/10/22 17:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/10/22 17:12	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/10/22 17:12	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/10/22 17:12	1
Naphthalene	ND		5.0	3.0	ug/L			11/10/22 17:12	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/10/22 17:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/10/22 17:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/10/22 17:12	1
o-Xylene	ND		5.0	0.60	ug/L			11/10/22 17:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/10/22 17:12	1

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

Lab Sample ID: MB 400-600140/4
Matrix: Water
Analysis Batch: 600140

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			11/10/22 17:12	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/10/22 17:12	1
Styrene	ND		1.0	1.0	ug/L			11/10/22 17:12	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/10/22 17:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/10/22 17:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/10/22 17:12	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/10/22 17:12	1
Toluene	ND		1.0	0.41	ug/L			11/10/22 17:12	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/10/22 17:12	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/10/22 17:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/10/22 17:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/10/22 17:12	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/10/22 17:12	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/10/22 17:12	1
Trichloroethene	ND		1.0	0.15	ug/L			11/10/22 17:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/10/22 17:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/10/22 17:12	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/10/22 17:12	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/10/22 17:12	1
Vinyl acetate	ND		25	0.93	ug/L			11/10/22 17:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/10/22 17:12	1
Xylenes, Total	ND		10	1.6	ug/L			11/10/22 17:12	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*96*		*72 - 119*		*11/10/22 17:12*	*1*
Dibromofluoromethane	*86*		*75 - 126*		*11/10/22 17:12*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/10/22 17:12*	*1*

Lab Sample ID: LCS 400-600140/1002
Matrix: Water
Analysis Batch: 600140

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	253		ug/L		127	43 - 160
Acrolein	500	407		ug/L		81	38 - 160
Acrylonitrile	500	454		ug/L		91	64 - 142
Benzene	50.0	49.7		ug/L		99	70 - 130
Bromobenzene	50.0	53.6		ug/L		107	70 - 132
Bromochloromethane	50.0	43.2		ug/L		86	70 - 130
Bromodichloromethane	50.0	44.2		ug/L		88	67 - 133
Bromoform	50.0	48.7		ug/L		97	57 - 140
Bromomethane	50.0	46.3		ug/L		93	10 - 160
2-Butanone (MEK)	200	193		ug/L		96	61 - 145
Carbon disulfide	50.0	47.0		ug/L		94	61 - 137
Carbon tetrachloride	50.0	45.1		ug/L		90	61 - 137
Chlorobenzene	50.0	52.7		ug/L		105	70 - 130
Dibromochloromethane	50.0	45.9		ug/L		92	67 - 135
Chloroethane	50.0	46.5		ug/L		93	55 - 141

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

Lab Sample ID: LCS 400-600140/1002
Matrix: Water
Analysis Batch: 600140

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	36.6		ug/L		73	10 - 160
Chloroform	50.0	46.7		ug/L		93	69 - 130
1-Chlorohexane	50.0	57.2		ug/L		114	69 - 130
Chloromethane	50.0	53.7		ug/L		107	58 - 137
cis-1,2-Dichloroethene	50.0	46.2		ug/L		92	68 - 130
cis-1,3-Dichloropropene	50.0	44.6		ug/L		89	69 - 132
1,2-Dichlorobenzene	50.0	54.7		ug/L		109	67 - 130
1,3-Dichlorobenzene	50.0	56.8		ug/L		114	70 - 130
1,4-Dichlorobenzene	50.0	54.7		ug/L		109	70 - 130
Dichlorodifluoromethane	50.0	48.9		ug/L		98	41 - 146
1,1-Dichloroethane	50.0	47.2		ug/L		94	70 - 130
1,2-Dichloroethane	50.0	42.8		ug/L		86	69 - 130
1,1-Dichloroethene	50.0	42.3		ug/L		85	63 - 134
1,2-Dichloropropane	50.0	48.5		ug/L		97	70 - 130
1,3-Dichloropropane	50.0	45.8		ug/L		92	70 - 130
2,2-Dichloropropane	50.0	41.6		ug/L		83	52 - 135
1,1-Dichloropropene	50.0	49.0		ug/L		98	70 - 130
Ethylbenzene	50.0	54.8		ug/L		110	70 - 130
Ethyl methacrylate	50.0	41.5		ug/L		83	68 - 130
Hexachlorobutadiene	50.0	73.4	*+	ug/L		147	53 - 140
2-Hexanone	200	190		ug/L		95	65 - 137
Isopropylbenzene	50.0	54.0		ug/L		108	70 - 130
Methylene bromide	50.0	42.7		ug/L		85	70 - 130
Methylene Chloride	50.0	45.9		ug/L		92	66 - 135
4-Methyl-2-pentanone (MIBK)	200	165		ug/L		83	69 - 138
Methyl tert-butyl ether	50.0	39.7		ug/L		79	66 - 130
m-Xylene & p-Xylene	50.0	51.8		ug/L		104	70 - 130
Naphthalene	50.0	65.1		ug/L		130	47 - 149
n-Butylbenzene	50.0	73.4	*+	ug/L		147	67 - 130
N-Propylbenzene	50.0	56.2		ug/L		112	70 - 130
o-Chlorotoluene	50.0	54.3		ug/L		109	70 - 130
o-Xylene	50.0	50.0		ug/L		100	70 - 130
p-Chlorotoluene	50.0	51.6		ug/L		103	70 - 130
p-Isopropyltoluene	50.0	62.6		ug/L		125	65 - 130
sec-Butylbenzene	50.0	61.0		ug/L		122	66 - 130
Styrene	50.0	49.5		ug/L		99	70 - 130
tert-Butylbenzene	50.0	54.1		ug/L		108	64 - 139
1,1,1,2-Tetrachloroethane	50.0	47.7		ug/L		95	67 - 131
1,1,2,2-Tetrachloroethane	50.0	48.8		ug/L		98	70 - 131
Tetrachloroethene	50.0	58.4		ug/L		117	65 - 130
Toluene	50.0	52.9		ug/L		106	70 - 130
trans-1,2-Dichloroethene	50.0	48.4		ug/L		97	70 - 130
trans-1,3-Dichloropropene	50.0	44.2		ug/L		88	63 - 130
1,2,3-Trichlorobenzene	50.0	67.7		ug/L		135	60 - 138
1,2,4-Trichlorobenzene	50.0	71.3	*+	ug/L		143	60 - 140
1,1,1-Trichloroethane	50.0	46.2		ug/L		92	68 - 130
1,1,2-Trichloroethane	50.0	47.2		ug/L		94	70 - 130
Trichloroethene	50.0	48.4		ug/L		97	70 - 130
Trichlorofluoromethane	50.0	39.6		ug/L		79	65 - 138

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

Lab Sample ID: LCS 400-600140/1002
Matrix: Water
Analysis Batch: 600140

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	45.0		ug/L		90	70 - 130
1,2,4-Trimethylbenzene	50.0	59.3		ug/L		119	70 - 130
1,3,5-Trimethylbenzene	50.0	57.4		ug/L		115	69 - 130
Vinyl acetate	100	75.1		ug/L		75	26 - 160
Vinyl chloride	50.0	46.3		ug/L		93	59 - 136
Xylenes, Total	100	102		ug/L		102	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*92*		*72 - 119*
Dibromofluoromethane	*87*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

Lab Sample ID: MB 400-600232/4
Matrix: Water
Analysis Batch: 600232

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			11/11/22 11:17	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*93*		*72 - 119*		*11/11/22 11:17*	*1*
Dibromofluoromethane	*89*		*75 - 126*		*11/11/22 11:17*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/11/22 11:17*	*1*

Lab Sample ID: LCS 400-600232/1002
Matrix: Water
Analysis Batch: 600232

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	50.2		ug/L		100	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*87*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzenethiol	ND		10	1.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzoic acid	ND		30	7.3	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzyl alcohol	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 15:24	1

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 15:24	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/07/22 08:55	11/08/22 15:24	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chloroaniline	ND		10	3.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Chlorophenol	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dibenzofuran	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Diethyl phthalate	ND		10	0.24	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 15:24	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
1,4-Dioxane	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachloroethane	ND		10	4.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
Indene	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Isophorone	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Methylphenol	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Nitroaniline	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
3-Nitroaniline	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Nitroaniline	ND		10	1.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
Nitrobenzene	ND		10	0.13	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Nitrophenol	ND		10	5.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Nitrophenol	ND		10	2.1	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/07/22 08:55	11/08/22 15:24	1
Pentachlorophenol	ND		20	1.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
Phenol	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
Pyridine	ND		10	3.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
Quinoline	ND		10	4.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		46 - 124	11/07/22 08:55	11/08/22 15:24	1
2-Fluorophenol	27		13 - 113	11/07/22 08:55	11/08/22 15:24	1
Nitrobenzene-d5	86		36 - 126	11/07/22 08:55	11/08/22 15:24	1
Phenol-d5	66		17 - 127	11/07/22 08:55	11/08/22 15:24	1
Terphenyl-d14	113		44 - 149	11/07/22 08:55	11/08/22 15:24	1
2,4,6-Tribromophenol	94		26 - 150	11/07/22 08:55	11/08/22 15:24	1

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	104		ug/L		87	21 - 120
Benzoic acid	513	237		ug/L		46	10 - 144
Benzyl alcohol	120	98.3		ug/L		82	28 - 120
Bis(2-chloroethoxy)methane	120	76.5		ug/L		64	47 - 120
Bis(2-chloroethyl)ether	120	85.3		ug/L		71	44 - 120
bis (2-chloroisopropyl) ether	120	138		ug/L		115	33 - 121
Bis(2-ethylhexyl) phthalate	120	116		ug/L		97	52 - 147
4-Bromophenyl phenyl ether	120	114		ug/L		95	54 - 122
Butyl benzyl phthalate	120	103		ug/L		86	54 - 133
4-Chloroaniline	120	81.6		ug/L		68	26 - 120
4-Chloro-3-methylphenol	120	101		ug/L		84	48 - 131
2-Chloronaphthalene	120	93.6		ug/L		78	52 - 121
2-Chlorophenol	120	90.4		ug/L		75	40 - 120
4-Chlorophenyl phenyl ether	120	106		ug/L		88	56 - 125
Dibenz[a,h]acridine	120	106		ug/L		88	31 - 150
Dibenzofuran	120	98.2		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	170		ug/L		106	36 - 132
2,4-Dichlorophenol	120	89.0		ug/L		74	49 - 120
Diethyl phthalate	120	122		ug/L		102	50 - 137
2,4-Dimethylphenol	120	96.5		ug/L		80	48 - 120
Dimethyl phthalate	120	102		ug/L		85	57 - 124
Di-n-butyl phthalate	120	119		ug/L		100	58 - 126
4,6-Dinitro-ortho-cresol	240	317		ug/L		132	23 - 148
2,4-Dinitrophenol	240	300		ug/L		125	10 - 150
2,4-Dinitrotoluene	120	105		ug/L		87	54 - 142
2,6-Dinitrotoluene	120	91.0		ug/L		76	55 - 130
Di-n-octyl phthalate	120	120		ug/L		100	57 - 138
1,4-Dioxane	120	81.6		ug/L		68	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	108		ug/L		90	45 - 124
Hexachlorobenzene	120	134		ug/L		112	52 - 129
Hexachlorocyclopentadiene	120	72.7		ug/L		61	10 - 134
Hexachloroethane	120	108		ug/L		90	20 - 120
Indene	120	90.5		ug/L		75	49 - 120
Isophorone	120	85.2		ug/L		71	48 - 120
2-Methylphenol	120	117		ug/L		97	46 - 124
3 & 4 Methylphenol	120	109		ug/L		91	45 - 120

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

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitroaniline	120	110		ug/L		92	51 - 145
3-Nitroaniline	120	104		ug/L		87	37 - 127
4-Nitroaniline	120	118		ug/L		98	36 - 137
Nitrobenzene	120	81.6		ug/L		68	45 - 120
2-Nitrophenol	120	85.5		ug/L		71	40 - 124
4-Nitrophenol	240	303		ug/L		126	23 - 146
N-Nitrosodimethylamine	120	144		ug/L		120	29 - 137
N-Nitrosodi-n-propylamine	120	123		ug/L		102	45 - 120
N-Nitrosodiphenylamine	119	101		ug/L		85	54 - 120
Pentachlorophenol	240	239		ug/L		100	31 - 130
Phenol	120	100		ug/L		83	11 - 120
Pyridine	240	162		ug/L		68	16 - 120
Quinoline	120	82.1		ug/L		68	49 - 130
2,4,5-Trichlorophenol	120	107		ug/L		89	51 - 136
2,4,6-Trichlorophenol	120	104		ug/L		86	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*45*		*13 - 113*
Nitrobenzene-d5	*71*		*36 - 126*
Phenol-d5	*72*		*17 - 127*
Terphenyl-d14	*89*		*44 - 149*
2,4,6-Tribromophenol	*110*		*26 - 150*

Lab Sample ID: LCS 400-599497/4-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	5.96	J *-	ug/L		5	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*64*		*46 - 124*
2-Fluorophenol	*47*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	108		ug/L		90	21 - 120	3	30
Benzoic acid	513	253		ug/L		49	10 - 144	6	30
Benzyl alcohol	120	104		ug/L		86	28 - 120	5	30
Bis(2-chloroethoxy)methane	120	84.1		ug/L		70	47 - 120	9	30

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

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-chloroethyl)ether	120	87.9		ug/L		73	44 - 120	3	30
bis (2-chloroisopropyl) ether	120	140		ug/L		116	33 - 121	2	30
Bis(2-ethylhexyl) phthalate	120	125		ug/L		104	52 - 147	8	30
4-Bromophenyl phenyl ether	120	122		ug/L		102	54 - 122	7	30
Butyl benzyl phthalate	120	111		ug/L		93	54 - 133	8	30
4-Chloroaniline	120	88.4		ug/L		74	26 - 120	8	30
4-Chloro-3-methylphenol	120	107		ug/L		89	48 - 131	6	30
2-Chloronaphthalene	120	101		ug/L		84	52 - 121	7	30
2-Chlorophenol	120	87.3		ug/L		73	40 - 120	3	30
4-Chlorophenyl phenyl ether	120	114		ug/L		95	56 - 125	8	30
Dibenz[a,h]acridine	120	110		ug/L		92	31 - 150	4	30
Dibenzofuran	120	105		ug/L		88	56 - 122	7	30
3,3'-Dichlorobenzidine	160	182		ug/L		114	36 - 132	7	30
2,4-Dichlorophenol	120	97.9		ug/L		82	49 - 120	10	30
Diethyl phthalate	120	132		ug/L		110	50 - 137	8	30
2,4-Dimethylphenol	120	106		ug/L		88	48 - 120	9	30
Dimethyl phthalate	120	111		ug/L		92	57 - 124	8	30
Di-n-butyl phthalate	120	127		ug/L		106	58 - 126	7	30
4,6-Dinitro-ortho-cresol	240	344		ug/L		143	23 - 148	8	30
2,4-Dinitrophenol	240	311		ug/L		130	10 - 150	4	30
2,4-Dinitrotoluene	120	110		ug/L		92	54 - 142	5	30
2,6-Dinitrotoluene	120	96.0		ug/L		80	55 - 130	5	30
Di-n-octyl phthalate	120	131		ug/L		109	57 - 138	8	30
1,4-Dioxane	120	81.7		ug/L		68	31 - 120	0	30
1,2-Diphenylhydrazine (as Azobenzene)	120	116		ug/L		97	45 - 124	7	30
Hexachlorobenzene	120	145		ug/L		121	52 - 129	8	30
Hexachlorocyclopentadiene	120	81.6		ug/L		68	10 - 134	12	30
Hexachloroethane	120	112		ug/L		94	20 - 120	4	30
Indene	120	94.3		ug/L		79	49 - 120	4	30
Isophorone	120	92.8		ug/L		77	48 - 120	9	30
2-Methylphenol	120	123		ug/L		102	46 - 124	5	30
3 & 4 Methylphenol	120	115		ug/L		96	45 - 120	5	30
2-Nitroaniline	120	114		ug/L		95	51 - 145	4	30
3-Nitroaniline	120	109		ug/L		91	37 - 127	5	30
4-Nitroaniline	120	123		ug/L		102	36 - 137	4	30
Nitrobenzene	120	89.1		ug/L		74	45 - 120	9	30
2-Nitrophenol	120	95.9		ug/L		80	40 - 124	11	30
4-Nitrophenol	240	321		ug/L		134	23 - 146	6	30
N-Nitrosodimethylamine	120	156		ug/L		130	29 - 137	8	30
N-Nitrosodi-n-propylamine	120	125		ug/L		104	45 - 120	2	30
N-Nitrosodiphenylamine	119	110		ug/L		92	54 - 120	8	30
Pentachlorophenol	240	255		ug/L		106	31 - 130	6	30
Phenol	120	104		ug/L		87	11 - 120	4	30
Pyridine	240	153		ug/L		64	16 - 120	6	30
Quinoline	120	90.0		ug/L		75	49 - 130	9	30
2,4,5-Trichlorophenol	120	117		ug/L		98	51 - 136	9	30
2,4,6-Trichlorophenol	120	114		ug/L		95	50 - 127	10	30

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

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*46 - 124*
2-Fluorophenol	*33*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*116*		*26 - 150*

Lab Sample ID: LCSD 400-599497/5-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	6.61	J *-	ug/L		6	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*46 - 124*
2-Fluorophenol	*46*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*81*		*26 - 150*

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 600170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/07/22 08:55	11/10/22 17:57	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/07/22 08:55	11/10/22 17:57	1
Anthracene	ND		0.20	0.032	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[a]anthracene	0.0610	J	0.20	0.046	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/07/22 08:55	11/10/22 17:57	1
Chrysene	ND		0.20	0.074	ug/L		11/07/22 08:55	11/10/22 17:57	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/07/22 08:55	11/10/22 17:57	1
Fluoranthene	ND		0.20	0.068	ug/L		11/07/22 08:55	11/10/22 17:57	1
Fluorene	ND		0.20	0.11	ug/L		11/07/22 08:55	11/10/22 17:57	1
Indeno[1,2,3-cd]pyrene	0.0714	J	0.20	0.043	ug/L		11/07/22 08:55	11/10/22 17:57	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/07/22 08:55	11/10/22 17:57	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/07/22 08:55	11/10/22 17:57	1
Phenanthrene	ND		0.20	0.036	ug/L		11/07/22 08:55	11/10/22 17:57	1
Pyrene	ND		0.20	0.040	ug/L		11/07/22 08:55	11/10/22 17:57	1

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 600170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		15 - 122	11/07/22 08:55	11/10/22 17:57	1
Nitrobenzene-d5	77		19 - 130	11/07/22 08:55	11/10/22 17:57	1
Terphenyl-d14	112		33 - 138	11/07/22 08:55	11/10/22 17:57	1

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	105		ug/L		87	41 - 120
Acenaphthylene	120	111		ug/L		93	44 - 120
Anthracene	120	111		ug/L		92	49 - 120
Benzo[a]anthracene	120	112		ug/L		93	61 - 135
Benzo[a]pyrene	120	110		ug/L		91	52 - 120
Benzo[b]fluoranthene	120	115		ug/L		96	53 - 134
Benzo[g,h,i]perylene	120	112		ug/L		93	47 - 133
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134
Chrysene	120	102		ug/L		85	55 - 122
Dibenz(a,h)anthracene	120	114		ug/L		95	48 - 146
Fluoranthene	120	117		ug/L		98	54 - 128
Fluorene	120	109		ug/L		91	45 - 125
Indeno[1,2,3-cd]pyrene	120	118		ug/L		98	43 - 142
1-Methylnaphthalene	120	89.4		ug/L		74	41 - 120
2-Methylnaphthalene	120	98.8		ug/L		82	32 - 124
Phenanthrene	120	110		ug/L		91	48 - 120
Pyrene	120	110		ug/L		91	48 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	86		15 - 122
Nitrobenzene-d5	79		19 - 130
Terphenyl-d14	84		33 - 138

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	109		ug/L		91	41 - 120	4	56
Acenaphthylene	120	115		ug/L		96	44 - 120	3	56
Anthracene	120	112		ug/L		94	49 - 120	2	51
Benzo[a]anthracene	120	116		ug/L		96	61 - 135	3	49
Benzo[a]pyrene	120	110		ug/L		91	52 - 120	0	50
Benzo[b]fluoranthene	120	118		ug/L		99	53 - 134	3	54
Benzo[g,h,i]perylene	120	111		ug/L		92	47 - 133	1	50
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134	0	52
Chrysene	120	106		ug/L		88	55 - 122	3	50
Dibenz(a,h)anthracene	120	111		ug/L		93	48 - 146	2	50
Fluoranthene	120	114		ug/L		95	54 - 128	3	52

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

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluorene	120	110		ug/L		92	45 - 125	1	56
Indeno[1,2,3-cd]pyrene	120	117		ug/L		97	43 - 142	1	51
1-Methylnaphthalene	120	91.0		ug/L		76	41 - 120	2	55
2-Methylnaphthalene	120	101		ug/L		84	32 - 124	2	57
Phenanthrene	120	112		ug/L		94	48 - 120	2	56
Pyrene	120	119		ug/L		99	48 - 132	8	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*15 - 122*
Nitrobenzene-d5	*82*		*19 - 130*
Terphenyl-d14	*93*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-599829/1-A
Matrix: Water
Analysis Batch: 599835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599829

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		11/09/22 08:27	11/09/22 10:37	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 10:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*51 - 149*	*11/09/22 08:27*	*11/09/22 10:37*	*1*

Lab Sample ID: LCS 400-599829/2-A
Matrix: Water
Analysis Batch: 599835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.132		ug/L		131	60 - 140
1,2-Dibromoethane	0.101	0.114		ug/L		113	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*51 - 149*

Lab Sample ID: LCSD 400-599829/3-A
Matrix: Water
Analysis Batch: 599835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599829

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.138		ug/L		138	60 - 140	5	30
1,2-Dibromoethane	0.101	0.117		ug/L		116	60 - 140	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*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: 10/31/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.4.2	USPC/00114/R/02	

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS: Street and City	State	AECOM Project / Task Number:
AECOM		900 South Central Ave; ROXANA	IL	Roxana Quarterly GW 60674381 – 3.4.2

ADDRESS:	EDF DELIVERABLE TO (Name, Company, Office Location):	PHONE NO.:	E-MAIL:	AECOM Other ID:
100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA	Melissa Remiger - please see special instructions	314-802-1207	melissa.remiger@aecom.com	

PROJECT CONTACT (Hardcopy or PDF Report to):
Melissa Remiger, Mary Massa, Brett Howell

TELEPHONE:	FAX:	Bill To Contact E-MAIL:
314-429-0100	314-429-0462	melissa.remiger@aecom.com

SAMPLER NAME(S) (Print):
M. Massa, S. Beadle

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.fillmen@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

400-228140 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°
4.3° IR8

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-103122-8260-A	10/31/2022	0000	Water	2					2	X			
	TB-ROX-103122-8011	10/31/2022	0000	Water	2					2		X		
	MW4-ROX-103122-EB	10/31/2022	0850	Water	6			2		8	X	X	X	X
	MW4-ROX-103122	10/31/2022	0940	Water	6			2		8	X	X	X	X
	MW25-ROX-103122	10/31/2022	1040	Water	6			2		8	X	X	X	X
	MW8-ROX-103122	10/31/2022	1240	Water	6			2		8	X	X	X	X
	MW7-ROX-103122	10/31/2022	1330	Water	6			2		8	X	X	X	X
	MW7-ROX-103122-DUP	10/31/2022	1330	Water	6			2		8	X	X	X	X

Sam Beadle 10/31/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 9495 6601 2897	10/31/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
		11-1-22	9:09
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1748510, 1748511

11/15/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-228140-1

Login Number: 228140
List Number: 1
Creator: Perez, Trina M

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.	True	
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	4.3°C IR-8
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: 400-228140-1

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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Eurofins Pensacola

Job Notes

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. Eurofins Environment Testing Southeast LLC, Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization

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Authorized for release by
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Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-228141-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/20/2022

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

Sample Identification	Sample Identification
TB-ROX-103122-8260-B	MW20-ROX-103122
MW18-ROX-103122-EB	MW21-ROX-103122
MW18-ROX-103122	MW21-ROX-103122-DUP
MW19-ROX-103122	-

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 MS/MSD recoveries for 2-chloroethyl vinyl ether were outside evaluation criteria in sample MW18-ROX-103122. The CCV for acetone was outside evaluation criteria, biased high. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (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?

No

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

Yes

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?

Yes, although not requested, sample MW18-ROX-103122 was spiked and duplicated for Method 8260B VOCs.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW18-ROX-103122 MS/MSD	SVOCs	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.

Sample ID	Parameter	Analyte	Qualification
MW18-ROX-103122	SVOCs	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?

Yes

Field ID	Field Duplicate ID
MW21-ROX-103122	MW21-ROX-103122-DUP

Were field duplicates within evaluation criteria?

Yes

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 verification (CCV) for acetone was outside evaluation

criteria, biased high. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW21-ROX-103122-DUP	SVOCs	Acetone	J

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ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis Missouri 63102

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-228141-1

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL32514

myEOL

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Job ID: 400-228141-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-228141-1

Receipt
The samples were received on 11/1/2022 9:09 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 time was 4.3°C

GC/MS VOA
Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-600399 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 400-600399 because the recoveries were below the reporting limit due to the acidic nature of the parent sample.

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-103122-8260-B (400-228141-1), MW18-ROX-103122-EB (400-228141-2), MW18-ROX-103122 (400-228141-3), MW19-ROX-103122 (400-228141-4), MW20-ROX-103122 (400-228141-5), MW21-ROX-103122 (400-228141-6) and MW21-ROX-103122-DUP (400-228141-7). 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.

Sample Summary

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

Job ID: 400-228141-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-228141-1	TB-ROX-103122-8260-B	Water	10/31/22 12:00	11/01/22 09:09
400-228141-2	MW18-ROX-103122-EB	Water	10/31/22 08:35	11/01/22 09:09
400-228141-3	MW18-ROX-103122	Water	10/31/22 09:55	11/01/22 09:09
400-228141-4	MW19-ROX-103122	Water	10/31/22 11:00	11/01/22 09:09
400-228141-5	MW20-ROX-103122	Water	10/31/22 11:40	11/01/22 09:09
400-228141-6	MW21-ROX-103122	Water	10/31/22 12:30	11/01/22 09:09
400-228141-7	MW21-ROX-103122-DUP	Water	10/31/22 12:30	11/01/22 09:09

Detection Summary

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

Job ID: 400-228141-1

Client Sample ID: TB-ROX-103122-8260-B — Lab Sample ID: 400-228141-1

No Detections.

Client Sample ID: MW18-ROX-103122-EB — Lab Sample ID: 400-228141-2

No Detections.

Client Sample ID: MW18-ROX-103122 — Lab Sample ID: 400-228141-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.70	J	1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	13		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	2.2		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	20		5.0	0.63	ug/L	1		8260B	Total/NA
N-Propylbenzene	3.8		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	12		5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	1.1		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	0.77	J	1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.84	J	1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	2.5		1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	23		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	2.4		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	32		10	1.6	ug/L	1		8260B	Total/NA

Client Sample ID: MW19-ROX-103122 — Lab Sample ID: 400-228141-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.59	J	1.0	0.13	ug/L	1		8260B	Total/NA
Carbon disulfide	0.53	J	1.0	0.50	ug/L	1		8260B	Total/NA
Ethylbenzene	17		1.0	0.50	ug/L	1		8260B	Total/NA
Isopropy benzene	13		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	0.94	J	5.0	0.63	ug/L	1		8260B	Total/NA
Naphthalene	3.0	J	5.0	3.0	ug/L	1		8260B	Total/NA
n-Butylbenzene	1.4		1.0	0.76	ug/L	1		8260B	Total/NA
N-Propylbenzene	25		1.0	0.69	ug/L	1		8260B	Total/NA
o-Xylene	4.8	J	5.0	0.60	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	1.0		1.0	0.71	ug/L	1		8260B	Total/NA
sec-Butylbenzene	1.4		1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.94	J	1.0	0.63	ug/L	1		8260B	Total/NA
Toluene	0.61	J	1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethy benzene	53		1.0	0.82	ug/L	1		8260B	Total/NA
1,3,5-Trimethy benzene	8.2		1.0	0.56	ug/L	1		8260B	Total/NA
Xylenes, Total	5.8	J	10	1.6	ug/L	1		8260B	Total/NA

Client Sample ID: MW20-ROX-103122 — Lab Sample ID: 400-228141-5

No Detections.

Client Sample ID: MW21-ROX-103122 — Lab Sample ID: 400-228141-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.63	J	1.0	0.13	ug/L	1		8260B	Total/NA

Client Sample ID: MW21-ROX-103122-DUP — Lab Sample ID: 400-228141-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	19	J J	25	10	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

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Client Sample ID: MW21-ROX-103122-DUP (Continued)

Lab Sample ID: 400-228141-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.60	J	1.0	0.13	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-228141-1

Client Sample ID: TB-ROX-103122-8260-B
Date Collected: 10/31/22 12:00
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/12/22 19:57	1
Acrolein	ND		20	3.3	ug/L			11/12/22 19:57	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 19:57	1
Benzene	ND		1.0	0.13	ug/L			11/12/22 19:57	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 19:57	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 19:57	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 19:57	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 19:57	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 19:57	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 19:57	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 19:57	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 19:57	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 19:57	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 19:57	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 19:57	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 19:57	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 19:57	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 19:57	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 19:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 19:57	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 19:57	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 19:57	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 19:57	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 19:57	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 19:57	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 19:57	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 19:57	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 19:57	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 19:57	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 19:57	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 19:57	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 19:57	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 19:57	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 19:57	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 19:57	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 19:57	1
Isopropy benzene	ND		1.0	0.53	ug/L			11/12/22 19:57	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 19:57	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 19:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 19:57	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 19:57	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/12/22 19:57	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 19:57	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 19:57	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/12/22 19:57	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 19:57	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 19:57	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 19:57	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/12/22 19:57	1

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

Job ID: 400-228141-1

Client Sample ID: TB-ROX-103122-8260-B
Date Collected: 10/31/22 12:00
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-1
Matrix: Water

Method: SW846 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			11/12/22 19:57	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 19:57	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 19:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 19:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 19:57	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 19:57	1
Toluene	ND		1.0	0.41	ug/L			11/12/22 19:57	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 19:57	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 19:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 19:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 19:57	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 19:57	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 19:57	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 19:57	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 19:57	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 19:57	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			11/12/22 19:57	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			11/12/22 19:57	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 19:57	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 19:57	1
Xylenes, Total	ND		10	1.6	ug/L			11/12/22 19:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/12/22 19:57*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/12/22 19:57*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/12/22 19:57*	*1*

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

Job ID: 400-228141-1

Client Sample ID: MW18-ROX-103122-EB
Date Collected: 10/31/22 08:35
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-2
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/12/22 20:23	1
Acrolein	ND		20	3.3	ug/L			11/12/22 20:23	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 20:23	1
Benzene	ND		1.0	0.13	ug/L			11/12/22 20:23	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 20:23	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 20:23	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 20:23	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 20:23	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 20:23	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 20:23	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 20:23	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 20:23	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 20:23	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 20:23	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 20:23	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 20:23	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 20:23	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 20:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 20:23	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 20:23	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 20:23	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 20:23	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 20:23	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 20:23	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 20:23	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 20:23	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 20:23	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 20:23	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 20:23	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 20:23	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 20:23	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 20:23	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 20:23	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 20:23	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 20:23	1
Isopropy benzene	ND		1.0	0.53	ug/L			11/12/22 20:23	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 20:23	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 20:23	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 20:23	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 20:23	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/12/22 20:23	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 20:23	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 20:23	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/12/22 20:23	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 20:23	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 20:23	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 20:23	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/12/22 20:23	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/12/22 20:23	1

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

Job ID: 400-228141-1

Client Sample ID: MW18-ROX-103122-EB
Date Collected: 10/31/22 08:35
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-2
Matrix: Water

Method: SW846 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			11/12/22 20:23	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 20:23	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 20:23	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 20:23	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 20:23	1
Toluene	ND		1.0	0.41	ug/L			11/12/22 20:23	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 20:23	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 20:23	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 20:23	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 20:23	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 20:23	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 20:23	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 20:23	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 20:23	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 20:23	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			11/12/22 20:23	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			11/12/22 20:23	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 20:23	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 20:23	1
Xylenes, Total	ND		10	1.6	ug/L			11/12/22 20:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*11/12/22 20:23*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/12/22 20:23*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/12/22 20:23*	*1*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.32	ug/L			11/11/22 08:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*11/11/22 08:31*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*11/11/22 08:31*	*1*
Toluene-d8 (Surr)	*91*		*64 - 132*		*11/11/22 08:31*	*1*

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

Job ID: 400-228141-1

Client Sample ID: MW18-ROX-103122
Date Collected: 10/31/22 09:55
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/12/22 15:36	1
Acrolein	ND		20	3.3	ug/L			11/12/22 15:36	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 15:36	1
Benzene	**0.70**	**J**	1.0	0.13	ug/L			11/12/22 15:36	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 15:36	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 15:36	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 15:36	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 15:36	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 15:36	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 15:36	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 15:36	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 15:36	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 15:36	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 15:36	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 15:36	1
2-Chloroethyl vinyl ether	ND	F1 UJ	5.0	2.0	ug/L			11/12/22 15:36	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 15:36	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 15:36	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 15:36	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 15:36	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 15:36	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 15:36	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 15:36	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 15:36	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 15:36	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 15:36	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 15:36	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 15:36	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 15:36	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 15:36	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 15:36	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 15:36	1
Ethylbenzene	**13**		1.0	0.50	ug/L			11/12/22 15:36	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 15:36	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 15:36	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 15:36	1
Isopropylbenzene	**2.2**		1.0	0.53	ug/L			11/12/22 15:36	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 15:36	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 15:36	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 15:36	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 15:36	1
m-Xylene & p-Xylene	**20**		5.0	0.63	ug/L			11/12/22 15:36	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 15:36	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 15:36	1
N-Propylbenzene	**3.8**		1.0	0.69	ug/L			11/12/22 15:36	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 15:36	1
o-Xylene	**12**		5.0	0.60	ug/L			11/12/22 15:36	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 15:36	1
p-Isopropyltoluene	**1.1**		1.0	0.71	ug/L			11/12/22 15:36	1

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

Job ID: 400-228141-1

Client Sample ID: MW18-ROX-103122
Date Collected: 10/31/22 09:55
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**0.77**	**J**	1.0	0.70	ug/L			11/12/22 15:36	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 15:36	1
tert-Butylbenzene	**0.84**	**J**	1.0	0.63	ug/L			11/12/22 15:36	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 15:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 15:36	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 15:36	1
Toluene	**2.5**		1.0	0.41	ug/L			11/12/22 15:36	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 15:36	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 15:36	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 15:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 15:36	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 15:36	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 15:36	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 15:36	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 15:36	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 15:36	1
1,2,4-Trimethylbenzene	**23**		1.0	0.82	ug/L			11/12/22 15:36	1
1,3,5-Trimethylbenzene	**2.4**		1.0	0.56	ug/L			11/12/22 15:36	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 15:36	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 15:36	1
Xylenes, Total	**32**		10	1.6	ug/L			11/12/22 15:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/12/22 15:36*	*1*
Dibromofluoromethane	*95*		*75 - 126*		*11/12/22 15:36*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/12/22 15:36*	*1*

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

Job ID: 400-228141-1

Client Sample ID: MW19-ROX-103122
Date Collected: 10/31/22 11:00
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/12/22 20:50	1
Acrolein	ND		20	3.3	ug/L			11/12/22 20:50	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 20:50	1
Benzene	**0.59**	**J**	1.0	0.13	ug/L			11/12/22 20:50	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 20:50	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 20:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 20:50	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 20:50	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 20:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 20:50	1
Carbon disulfide	**0.53**	**J**	1.0	0.50	ug/L			11/12/22 20:50	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 20:50	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 20:50	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 20:50	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 20:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 20:50	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 20:50	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 20:50	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 20:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 20:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 20:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 20:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 20:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 20:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 20:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 20:50	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 20:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 20:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 20:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 20:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 20:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 20:50	1
Ethylbenzene	**17**		1.0	0.50	ug/L			11/12/22 20:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 20:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 20:50	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 20:50	1
Isopropylbenzene	**13**		1.0	0.53	ug/L			11/12/22 20:50	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 20:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 20:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 20:50	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 20:50	1
m-Xylene & p-Xylene	**0.94**	**J**	5.0	0.63	ug/L			11/12/22 20:50	1
Naphthalene	**3.0**	**J**	5.0	3.0	ug/L			11/12/22 20:50	1
n-Butylbenzene	**1.4**		1.0	0.76	ug/L			11/12/22 20:50	1
N-Propylbenzene	**25**		1.0	0.69	ug/L			11/12/22 20:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 20:50	1
o-Xylene	**4.8**	**J**	5.0	0.60	ug/L			11/12/22 20:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 20:50	1
p-Isopropyltoluene	**1.0**		1.0	0.71	ug/L			11/12/22 20:50	1

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

Job ID: 400-228141-1

Client Sample ID: MW19-ROX-103122
Date Collected: 10/31/22 11:00
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	**1.4**		1.0	0.70	ug/L			11/12/22 20:50	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 20:50	1
tert-Butylbenzene	**0.94**	**J**	1.0	0.63	ug/L			11/12/22 20:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 20:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 20:50	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 20:50	1
Toluene	**0.61**	**J**	1.0	0.41	ug/L			11/12/22 20:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 20:50	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 20:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 20:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 20:50	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 20:50	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 20:50	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 20:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 20:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 20:50	1
1,2,4-Trimethylbenzene	**53**		1.0	0.82	ug/L			11/12/22 20:50	1
1,3,5-Trimethylbenzene	**8.2**		1.0	0.56	ug/L			11/12/22 20:50	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 20:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 20:50	1
Xylenes, Total	**5.8**	**J**	10	1.6	ug/L			11/12/22 20:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*11/12/22 20:50*	*1*
Dibromofluoromethane	*96*		*75 - 126*		*11/12/22 20:50*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/12/22 20:50*	*1*

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

Job ID: 400-228141-1

Client Sample ID: MW20-ROX-103122
Date Collected: 10/31/22 11:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/12/22 21:16	1
Acrolein	ND		20	3.3	ug/L			11/12/22 21:16	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 21:16	1
Benzene	ND		1.0	0.13	ug/L			11/12/22 21:16	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 21:16	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 21:16	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 21:16	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 21:16	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 21:16	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 21:16	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 21:16	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 21:16	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 21:16	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 21:16	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 21:16	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 21:16	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 21:16	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 21:16	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 21:16	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 21:16	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 21:16	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 21:16	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 21:16	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 21:16	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 21:16	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 21:16	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 21:16	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 21:16	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 21:16	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 21:16	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 21:16	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 21:16	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 21:16	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 21:16	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 21:16	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 21:16	1
Isopropy benzene	ND		1.0	0.53	ug/L			11/12/22 21:16	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 21:16	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 21:16	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 21:16	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 21:16	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/12/22 21:16	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 21:16	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 21:16	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/12/22 21:16	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 21:16	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 21:16	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 21:16	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/12/22 21:16	1

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

Job ID: 400-228141-1

Client Sample ID: MW20-ROX-103122
Date Collected: 10/31/22 11:40
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-5
Matrix: Water

Method: SW846 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			11/12/22 21:16	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 21:16	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 21:16	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 21:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 21:16	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 21:16	1
Toluene	ND		1.0	0.41	ug/L			11/12/22 21:16	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 21:16	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 21:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 21:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 21:16	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 21:16	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 21:16	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 21:16	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 21:16	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 21:16	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			11/12/22 21:16	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			11/12/22 21:16	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 21:16	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 21:16	1
Xylenes, Total	ND		10	1.6	ug/L			11/12/22 21:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*11/12/22 21:16*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*11/12/22 21:16*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/12/22 21:16*	*1*

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

Job ID: 400-228141-1

Client Sample ID: MW21-ROX-103122
Date Collected: 10/31/22 12:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/12/22 21:42	1
Acrolein	ND		20	3.3	ug/L			11/12/22 21:42	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 21:42	1
Benzene	**0.63**	**J**	1.0	0.13	ug/L			11/12/22 21:42	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 21:42	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 21:42	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 21:42	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 21:42	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 21:42	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 21:42	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 21:42	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 21:42	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 21:42	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 21:42	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 21:42	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 21:42	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 21:42	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 21:42	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 21:42	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 21:42	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 21:42	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 21:42	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 21:42	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 21:42	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 21:42	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 21:42	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 21:42	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 21:42	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 21:42	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 21:42	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 21:42	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 21:42	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 21:42	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 21:42	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 21:42	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 21:42	1
Isopropy benzene	ND		1.0	0.53	ug/L			11/12/22 21:42	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 21:42	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 21:42	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 21:42	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 21:42	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/12/22 21:42	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 21:42	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 21:42	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/12/22 21:42	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 21:42	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 21:42	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 21:42	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/12/22 21:42	1

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

Job ID: 400-228141-1

Client Sample ID: MW21-ROX-103122
Date Collected: 10/31/22 12:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-6
Matrix: Water

Method: SW846 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			11/12/22 21:42	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 21:42	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 21:42	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 21:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 21:42	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 21:42	1
Toluene	ND		1.0	0.41	ug/L			11/12/22 21:42	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 21:42	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 21:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 21:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 21:42	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 21:42	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 21:42	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 21:42	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 21:42	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 21:42	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			11/12/22 21:42	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			11/12/22 21:42	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 21:42	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 21:42	1
Xylenes, Total	ND		10	1.6	ug/L			11/12/22 21:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/12/22 21:42*	*1*
Dibromofluoromethane	*99*		*75 - 126*		*11/12/22 21:42*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/12/22 21:42*	*1*

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

Job ID: 400-228141-1

Client Sample ID: MW21-ROX-103122-DUP

Date Collected: 10/31/22 12:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-7

Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**19**	**J** J	25	10	ug/L			11/12/22 22:08	1
Acrolein	ND		20	3.3	ug/L			11/12/22 22:08	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 22:08	1
Benzene	**0.60**	**J**	1.0	0.13	ug/L			11/12/22 22:08	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 22:08	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 22:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 22:08	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 22:08	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 22:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 22:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 22:08	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 22:08	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 22:08	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 22:08	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 22:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 22:08	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 22:08	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 22:08	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 22:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 22:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 22:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 22:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 22:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 22:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 22:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 22:08	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 22:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 22:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 22:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 22:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 22:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 22:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 22:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 22:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 22:08	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 22:08	1
Isopropy benzene	ND		1.0	0.53	ug/L			11/12/22 22:08	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 22:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 22:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 22:08	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 22:08	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/12/22 22:08	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 22:08	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 22:08	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/12/22 22:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 22:08	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 22:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 22:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/12/22 22:08	1

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

Job ID: 400-228141-1

Client Sample ID: MW21-ROX-103122-DUP
Date Collected: 10/31/22 12:30
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-7
Matrix: Water

Method: SW846 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			11/12/22 22:08	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 22:08	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 22:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 22:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 22:08	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 22:08	1
Toluene	ND		1.0	0.41	ug/L			11/12/22 22:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 22:08	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 22:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 22:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 22:08	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 22:08	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 22:08	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 22:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 22:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 22:08	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			11/12/22 22:08	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			11/12/22 22:08	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 22:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 22:08	1
Xylenes, Total	ND		10	1.6	ug/L			11/12/22 22:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/12/22 22:08*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*11/12/22 22:08*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/12/22 22:08*	*1*

Definitions/Glossary

Client: AECOM Technical Services Inc.
Job ID: 400-228141-1
Project/Site: ROXANA QUARTERLY GW

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.

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: 400-228141-1

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)
400-228141-1	TB-ROX-103122-8260-B	101	100	101
400-228141-2 - RA	MW18-ROX-103122-EB	102	98	91
400-228141-2	MW18-ROX-103122-EB	99	100	99
400-228141-3	MW18-ROX-103122	101	95	98
400-228141-3 MS	MW18-ROX-103122	105	94	97
400-228141-3 MSD	MW18-ROX-103122	106	92	99
400-228141-4	MW19-ROX-103122	102	96	98
400-228141-5	MW20-ROX-103122	102	98	99
400-228141-6	MW21-ROX-103122	101	99	99
400-228141-7	MW21-ROX-103122-DUP	100	98	100
LCS 400-600198/1002	Lab Control Sample	97	100	91
LCS 400-600399/1002	Lab Control Sample	104	94	97
MB 400-600198/4	Method Blank	101	100	90
MB 400-600399/4	Method Blank	104	97	100

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method Summary

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

Job ID: 400-228141-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET 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: 400-228141-1

Client Sample ID: TB-ROX-103122-8260-B
Lab Sample ID: 400-228141-1
Date Collected: 10/31/22 12:00
Matrix: Water
Date Received: 11/01/22 09:09

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	600399	11/12/22 19:57	BEP	EET PEN

Client Sample ID: MW18-ROX-103122-EB
Lab Sample ID: 400-228141-2
Date Collected: 10/31/22 08:35
Matrix: Water
Date Received: 11/01/22 09:09

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	600198	11/11/22 08:31	WPD	EET PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	600399	11/12/22 20:23	BEP	EET PEN

Client Sample ID: MW18-ROX-103122
Lab Sample ID: 400-228141-3
Date Collected: 10/31/22 09:55
Matrix: Water
Date Received: 11/01/22 09:09

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	600399	11/12/22 15:36	BEP	EET PEN

Client Sample ID: MW19-ROX-103122
Lab Sample ID: 400-228141-4
Date Collected: 10/31/22 11:00
Matrix: Water
Date Received: 11/01/22 09:09

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	600399	11/12/22 20:50	BEP	EET PEN

Client Sample ID: MW20-ROX-103122
Lab Sample ID: 400-228141-5
Date Collected: 10/31/22 11:40
Matrix: Water
Date Received: 11/01/22 09:09

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	600399	11/12/22 21:16	BEP	EET PEN

Client Sample ID: MW21-ROX-103122
Lab Sample ID: 400-228141-6
Date Collected: 10/31/22 12:30
Matrix: Water
Date Received: 11/01/22 09:09

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	600399	11/12/22 21:42	BEP	EET PEN

Client Sample ID: MW21-ROX-103122-DUP
Lab Sample ID: 400-228141-7
Date Collected: 10/31/22 12:30
Matrix: Water
Date Received: 11/01/22 09:09

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	600399	11/12/22 22:08	BEP	EET PEN

Lab Chronicle

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

Job ID: 400-228141-1

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-600198/4
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	600198	11/11/22 08:07	WPD	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-600399/4
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	600399	11/12/22 15:09	BEP	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-600198/1002
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	600198	11/11/22 07:13	WPD	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-600399/1002
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	600399	11/12/22 14:08	BEP	EET PEN

Client Sample ID: MW18-ROX-103122
Date Collected: 10/31/22 09:55
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-3 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	600399	11/12/22 16:28	BEP	EET PEN

Client Sample ID: MW18-ROX-103122
Date Collected: 10/31/22 09:55
Date Received: 11/01/22 09:09

Lab Sample ID: 400-228141-3 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	600399	11/12/22 16:54	BEP	EET PEN

Laboratory References:

EET PEN = Eurofins Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

GC/MS VOA

Analysis Batch: 600198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228141-2 - RA	MW18-ROX-103122-EB	Total/NA	Water	8260B	
MB 400-600198/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600198/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 600399

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228141-1	TB-ROX-103122-8260-B	Total/NA	Water	8260B	
400-228141-2	MW18-ROX-103122-EB	Total/NA	Water	8260B	
400-228141-3	MW18-ROX-103122	Total/NA	Water	8260B	
400-228141-4	MW19-ROX-103122	Total/NA	Water	8260B	
400-228141-5	MW20-ROX-103122	Total/NA	Water	8260B	
400-228141-6	MW21-ROX-103122	Total/NA	Water	8260B	
400-228141-7	MW21-ROX-103122-DUP	Total/NA	Water	8260B	
MB 400-600399/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600399/1002	Lab Control Sample	Total/NA	Water	8260B	
400-228141-3 MS	MW18-ROX-103122	Total/NA	Water	8260B	
400-228141-3 MSD	MW18-ROX-103122	Total/NA	Water	8260B	

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

Lab Sample ID: MB 400-600198/4
Matrix: Water
Analysis Batch: 600198

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		1.0	0.32	ug/L			11/11/22 08:07	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/11/22 08:07*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/11/22 08:07*	*1*
Toluene-d8 (Surr)	*90*		*64 - 132*		*11/11/22 08:07*	*1*

Lab Sample ID: LCS 400-600198/1002
Matrix: Water
Analysis Batch: 600198

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloromethane			50.0	68.5		ug/L		137	58 - 137		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*97*		*72 - 119*
Dibromofluoromethane	*100*		*75 - 126*
Toluene-d8 (Surr)	*91*		*64 - 132*

Lab Sample ID: MB 400-600399/4
Matrix: Water
Analysis Batch: 600399

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			11/12/22 15:09	1
Acrolein	ND		20	3.3	ug/L			11/12/22 15:09	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 15:09	1
Benzene	ND		1.0	0.13	ug/L			11/12/22 15:09	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 15:09	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 15:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 15:09	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 15:09	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 15:09	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 15:09	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 15:09	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 15:09	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 15:09	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 15:09	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 15:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 15:09	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 15:09	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 15:09	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 15:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 15:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 15:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 15:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 15:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 15:09	1

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

Lab Sample ID: MB 400-600399/4
Matrix: Water
Analysis Batch: 600399

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 15:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 15:09	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 15:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 15:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 15:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 15:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 15:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 15:09	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 15:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 15:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 15:09	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 15:09	1
Isopropy benzene	ND		1.0	0.53	ug/L			11/12/22 15:09	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 15:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 15:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 15:09	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 15:09	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/12/22 15:09	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 15:09	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 15:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/12/22 15:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 15:09	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 15:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 15:09	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/12/22 15:09	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/12/22 15:09	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 15:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 15:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 15:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 15:09	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 15:09	1
Toluene	ND		1.0	0.41	ug/L			11/12/22 15:09	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 15:09	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 15:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 15:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 15:09	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 15:09	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 15:09	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 15:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 15:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 15:09	1
1,2,4-Trimethy benzene	ND		1.0	0.82	ug/L			11/12/22 15:09	1
1,3,5-Trimethy benzene	ND		1.0	0.56	ug/L			11/12/22 15:09	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 15:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 15:09	1
Xylenes, Total	ND		10	1.6	ug/L			11/12/22 15:09	1

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

Lab Sample ID: MB 400-600399/4
Matrix: Water
Analysis Batch: 600399

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		72 - 119		11/12/22 15:09	1
Dibromofluoromethane	97		75 - 126		11/12/22 15:09	1
Toluene-d8 (Surr)	100		64 - 132		11/12/22 15:09	1

Lab Sample ID: LCS 400-600399/1002
Matrix: Water
Analysis Batch: 600399

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	307		ug/L		153	43 - 160
Acrolein	500	499		ug/L		100	38 - 160
Acrylonitrile	500	555		ug/L		111	64 - 142
Benzene	50.0	53.1		ug/L		106	70 - 130
Bromobenzene	50.0	56.0		ug/L		112	70 - 132
Bromochloromethane	50.0	50.8		ug/L		102	70 - 130
Bromodichloromethane	50.0	53.5		ug/L		107	67 - 133
Bromoform	50.0	51.1		ug/L		102	57 - 140
Bromomethane	50.0	42.2		ug/L		84	10 - 160
2-Butanone (MEK)	200	276		ug/L		138	61 - 145
Carbon disulfide	50.0	49.6		ug/L		99	61 - 137
Carbon tetrachloride	50.0	51.6		ug/L		103	61 - 137
Chlorobenzene	50.0	53.4		ug/L		107	70 - 130
Dibromochloromethane	50.0	53.6		ug/L		107	67 - 135
Chloroethane	50.0	43.1		ug/L		86	55 - 141
2-Chloroethyl vinyl ether	50.0	73.2		ug/L		146	10 - 160
Chloroform	50.0	51.3		ug/L		103	69 - 130
1-Chlorohexane	50.0	50.5		ug/L		101	69 - 130
Chloromethane	50.0	56.4		ug/L		113	58 - 137
cis-1,2-Dichloroethene	50.0	50.3		ug/L		101	68 - 130
cis-1,3-Dichloropropene	50.0	54.4		ug/L		109	69 - 132
1,2-Dichlorobenzene	50.0	55.0		ug/L		110	67 - 130
1,3-Dichlorobenzene	50.0	56.7		ug/L		113	70 - 130
1,4-Dichlorobenzene	50.0	55.1		ug/L		110	70 - 130
Dichlorodifluoromethane	50.0	59.5		ug/L		119	41 - 146
1,1-Dichloroethane	50.0	52.1		ug/L		104	70 - 130
1,2-Dichloroethane	50.0	50.2		ug/L		100	69 - 130
1,1-Dichloroethene	50.0	47.4		ug/L		95	63 - 134
1,2-Dichloropropane	50.0	52.7		ug/L		105	70 - 130
1,3-Dichloropropane	50.0	54.3		ug/L		109	70 - 130
2,2-Dichloropropane	50.0	50.1		ug/L		100	52 - 135
1,1-Dichloropropene	50.0	50.2		ug/L		100	70 - 130
Ethylbenzene	50.0	53.5		ug/L		107	70 - 130
Ethyl methacrylate	50.0	51.2		ug/L		102	68 - 130
Hexachlorobutadiene	50.0	64.3		ug/L		129	53 - 140
2-Hexanone	200	224		ug/L		112	65 - 137
Isopropy benzene	50.0	50.7		ug/L		101	70 - 130
Methylene bromide	50.0	50.6		ug/L		101	70 - 130
Methylene Chloride	50.0	54.5		ug/L		109	66 - 135

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

Lab Sample ID: LCS 400-600399/1002
Matrix: Water
Analysis Batch: 600399

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
4-Methyl-2-pentanone (MIBK)	200	210		ug/L		105	69 - 138
Methyl tert-butyl ether	50.0	51.2		ug/L		102	66 - 130
m-Xylene & p-Xylene	50.0	52.8		ug/L		106	70 - 130
Naphthalene	50.0	45.3		ug/L		91	47 - 149
n-Butylbenzene	50.0	56.1		ug/L		112	67 - 130
N-Propylbenzene	50.0	58.3		ug/L		117	70 - 130
o-Chlorotoluene	50.0	56.9		ug/L		114	70 - 130
o-Xylene	50.0	52.5		ug/L		105	70 - 130
p-Chlorotoluene	50.0	58.2		ug/L		116	70 - 130
p-Isopropyltoluene	50.0	56.6		ug/L		113	65 - 130
sec-Butylbenzene	50.0	55.3		ug/L		111	66 - 130
Styrene	50.0	52.4		ug/L		105	70 - 130
tert-Butylbenzene	50.0	54.4		ug/L		109	64 - 139
1,1,1,2-Tetrachloroethane	50.0	52.5		ug/L		105	67 - 131
1,1,2,2-Tetrachloroethane	50.0	58.7		ug/L		117	70 - 131
Tetrachloroethene	50.0	51.7		ug/L		103	65 - 130
Toluene	50.0	52.9		ug/L		106	70 - 130
trans-1,2-Dichloroethene	50.0	50.2		ug/L		100	70 - 130
trans-1,3-Dichloropropene	50.0	51.6		ug/L		103	63 - 130
1,2,3-Trichlorobenzene	50.0	52.9		ug/L		106	60 - 138
1,2,4-Trichlorobenzene	50.0	54.5		ug/L		109	60 - 140
1,1,1-Trichloroethane	50.0	50.6		ug/L		101	68 - 130
1,1,2-Trichloroethane	50.0	54.3		ug/L		109	70 - 130
Trichloroethene	50.0	51.1		ug/L		102	70 - 130
Trichlorofluoromethane	50.0	38.9		ug/L		78	65 - 138
1,2,3-Trichloropropane	50.0	59.1		ug/L		118	70 - 130
1,2,4-Trimethy benzene	50.0	56.6		ug/L		113	70 - 130
1,3,5-Trimethy benzene	50.0	56.9		ug/L		114	69 - 130
Vinyl acetate	100	91.6		ug/L		92	26 - 160
Vinyl chloride	50.0	49.3		ug/L		99	59 - 136
Xylenes, Total	100	105		ug/L		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*104*		*72 - 119*
Dibromofluoromethane	*94*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Lab Sample ID: 400-228141-3 MS
Matrix: Water
Analysis Batch: 600399

Client Sample ID: MW18-ROX-103122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	ND		200	188		ug/L		94	43 - 150
Acrolein	ND		500	540		ug/L		108	38 - 150
Acrylonitrile	ND		500	437		ug/L		87	62 - 149
Benzene	0.70	J	50.0	44.9		ug/L		88	56 - 142
Bromobenzene	ND		50.0	47.3		ug/L		95	59 - 136
Bromochloromethane	ND		50.0	42.1		ug/L		84	64 - 140

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

Lab Sample ID: 400-228141-3 MS
Matrix: Water
Analysis Batch: 600399

Client Sample ID: MW18-ROX-103122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Bromodichloromethane	ND		50.0	45.0		ug/L		90	59 - 143
Bromoform	ND		50.0	44.4		ug/L		89	50 - 140
Bromomethane	ND		50.0	36.7		ug/L		73	10 - 150
2-Butanone (MEK)	ND		200	180		ug/L		90	55 - 150
Carbon disulfide	ND		50.0	35.0		ug/L		70	48 - 150
Carbon tetrachloride	ND		50.0	41.7		ug/L		83	55 - 145
Chlorobenzene	ND		50.0	45.0		ug/L		90	64 - 130
Dibromochloromethane	ND		50.0	46.3		ug/L		93	56 - 143
Chloroethane	ND		50.0	45.2		ug/L		90	50 - 150
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150
Chloroform	ND		50.0	44.6		ug/L		89	60 - 141
1-Chlorohexane	ND		50.0	43.4		ug/L		87	56 - 136
Chloromethane	ND		50.0	58.4		ug/L		117	49 - 148
cis-1,2-Dichloroethene	ND		50.0	40.7		ug/L		81	59 - 143
cis-1,3-Dichloropropene	ND		50.0	46.2		ug/L		92	57 - 140
1,2-Dichlorobenzene	ND		50.0	45.1		ug/L		90	52 - 137
1,3-Dichlorobenzene	ND		50.0	46.4		ug/L		93	54 - 135
1,4-Dichlorobenzene	ND		50.0	45.6		ug/L		91	53 - 135
Dichlorodifluoromethane	ND		50.0	67.2		ug/L		134	16 - 150
1,1-Dichloroethane	ND		50.0	43.0		ug/L		86	61 - 144
1,2-Dichloroethane	ND		50.0	41.6		ug/L		83	60 - 141
1,1-Dichloroethene	ND		50.0	33.7		ug/L		67	54 - 147
1,2-Dichloropropane	ND		50.0	44.9		ug/L		90	66 - 137
1,3-Dichloropropane	ND		50.0	46.7		ug/L		93	66 - 133
2,2-Dichloropropane	ND		50.0	40.0		ug/L		80	42 - 144
1,1-Dichloropropene	ND		50.0	42.1		ug/L		84	65 - 136
Ethylbenzene	13		50.0	57.9		ug/L		90	58 - 131
Ethyl methacrylate	ND		50.0	46.2		ug/L		92	64 - 130
Hexachlorobutadiene	ND		50.0	49.1		ug/L		98	31 - 149
2-Hexanone	ND		200	167		ug/L		84	65 - 140
Isopropy benzene	2.2		50.0	46.5		ug/L		89	56 - 133
Methylene bromide	ND		50.0	42.9		ug/L		86	63 - 138
Methylene Chloride	ND		50.0	39.6		ug/L		79	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	176		ug/L		88	63 - 146
Methyl tert-butyl ether	ND		50.0	40.2		ug/L		80	59 - 137
m-Xylene & p-Xylene	20		50.0	63.4		ug/L		88	57 - 130
Naphthalene	ND		50.0	42.3		ug/L		85	25 - 150
n-Butylbenzene	ND		50.0	48.3		ug/L		97	41 - 142
N-Propylbenzene	3.8		50.0	52.9		ug/L		98	51 - 138
o-Chlorotoluene	ND		50.0	48.6		ug/L		97	53 - 134
o-Xylene	12		50.0	57.4		ug/L		90	61 - 130
p-Chlorotoluene	ND		50.0	48.2		ug/L		96	54 - 133
p-Isopropyltoluene	1.1		50.0	47.5		ug/L		93	48 - 139
sec-Butylbenzene	0.77	J	50.0	47.4		ug/L		93	50 - 138
Styrene	ND		50.0	44.8		ug/L		90	58 - 131
tert-Butylbenzene	0.84	J	50.0	47.6		ug/L		94	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	45.6		ug/L		91	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	49.5		ug/L		99	66 - 135
Tetrachloroethene	ND		50.0	43.1		ug/L		86	52 - 133

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

Lab Sample ID: 400-228141-3 MS
Matrix: Water
Analysis Batch: 600399

Client Sample ID: MW18-ROX-103122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Toluene	2.5		50.0	46.7		ug/L		88	65 - 130
trans-1,2-Dichloroethene	ND		50.0	39.9		ug/L		80	61 - 143
trans-1,3-Dichloropropene	ND		50.0	45.1		ug/L		90	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	43.2		ug/L		86	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	45.9		ug/L		92	39 - 148
1,1,1-Trichloroethane	ND		50.0	42.6		ug/L		85	57 - 142
1,1,2-Trichloroethane	ND		50.0	46.1		ug/L		92	66 - 131
Trichloroethene	ND		50.0	42.8		ug/L		86	64 - 136
Trichlorofluoromethane	ND		50.0	40.6		ug/L		81	54 - 150
1,2,3-Trichloropropane	ND		50.0	48.7		ug/L		97	65 - 133
1,2,4-Trimethy benzene	23		50.0	70.0		ug/L		93	50 - 139
1,3,5-Trimethy benzene	2.4		50.0	50.5		ug/L		96	52 - 135
Vinyl acetate	ND		100	101		ug/L		101	26 - 150
Vinyl chloride	ND		50.0	47.7		ug/L		95	46 - 150
Xylenes, Total	32		100	121		ug/L		89	59 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 119*
Dibromofluoromethane	*94*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Lab Sample ID: 400-228141-3 MSD
Matrix: Water
Analysis Batch: 600399

Client Sample ID: MW18-ROX-103122
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	187		ug/L		94	43 - 150	0	30
Acrolein	ND		500	532		ug/L		106	38 - 150	1	31
Acrylonitrile	ND		500	452		ug/L		90	62 - 149	3	30
Benzene	0.70	J	50.0	43.0		ug/L		85	56 - 142	4	30
Bromobenzene	ND		50.0	45.8		ug/L		92	59 - 136	3	30
Bromochloromethane	ND		50.0	41.5		ug/L		83	64 - 140	1	30
Bromodichloromethane	ND		50.0	45.0		ug/L		90	59 - 143	0	30
Bromoform	ND		50.0	45.0		ug/L		90	50 - 140	1	30
Bromomethane	ND		50.0	36.0		ug/L		72	10 - 150	2	50
2-Butanone (MEK)	ND		200	193		ug/L		96	55 - 150	7	30
Carbon disulfide	ND		50.0	33.9		ug/L		68	48 - 150	3	30
Carbon tetrachloride	ND		50.0	39.3		ug/L		79	55 - 145	6	30
Chlorobenzene	ND		50.0	42.8		ug/L		86	64 - 130	5	30
Dibromochloromethane	ND		50.0	46.2		ug/L		92	56 - 143	0	30
Chloroethane	ND		50.0	43.5		ug/L		87	50 - 150	4	30
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L		0	10 - 150	NC	50
Chloroform	ND		50.0	43.3		ug/L		87	60 - 141	3	30
1-Chlorohexane	ND		50.0	39.2		ug/L		78	56 - 136	10	30
Chloromethane	ND		50.0	55.6		ug/L		111	49 - 148	5	31
cis-1,2-Dichloroethene	ND		50.0	39.9		ug/L		80	59 - 143	2	30
cis-1,3-Dichloropropene	ND		50.0	45.1		ug/L		90	57 - 140	3	30
1,2-Dichlorobenzene	ND		50.0	44.1		ug/L		88	52 - 137	2	30

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

Lab Sample ID: 400-228141-3 MSD
Matrix: Water
Analysis Batch: 600399

Client Sample ID: MW18-ROX-103122
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,3-Dichlorobenzene	ND		50.0	44.7		ug/L		89	54 - 135	4	30
1,4-Dichlorobenzene	ND		50.0	43.9		ug/L		88	53 - 135	4	30
Dichlorodifluoromethane	ND		50.0	63.2		ug/L		126	16 - 150	6	31
1,1-Dichloroethane	ND		50.0	41.9		ug/L		84	61 - 144	3	30
1,2-Dichloroethane	ND		50.0	41.5		ug/L		83	60 - 141	0	30
1,1-Dichloroethene	ND		50.0	32.7		ug/L		65	54 - 147	3	30
1,2-Dichloropropane	ND		50.0	44.4		ug/L		89	66 - 137	1	30
1,3-Dichloropropane	ND		50.0	47.1		ug/L		94	66 - 133	1	30
2,2-Dichloropropane	ND		50.0	38.6		ug/L		77	42 - 144	3	31
1,1-Dichloropropene	ND		50.0	39.4		ug/L		79	65 - 136	7	30
Ethylbenzene	13		50.0	53.0		ug/L		80	58 - 131	9	30
Ethyl methacrylate	ND		50.0	47.0		ug/L		94	64 - 130	2	30
Hexachlorobutadiene	ND		50.0	46.4		ug/L		93	31 - 149	6	36
2-Hexanone	ND		200	174		ug/L		87	65 - 140	4	30
Isopropy benzene	2.2		50.0	42.9		ug/L		81	56 - 133	8	30
Methylene bromide	ND		50.0	43.3		ug/L		87	63 - 138	1	30
Methylene Chloride	ND		50.0	38.9		ug/L		78	60 - 146	2	32
4-Methyl-2-pentanone (MIBK)	ND		200	183		ug/L		92	63 - 146	4	30
Methyl tert-butyl ether	ND		50.0	41.8		ug/L		84	59 - 137	4	30
m-Xylene & p-Xylene	20		50.0	58.7		ug/L		78	57 - 130	8	30
Naphthalene	ND		50.0	46.7		ug/L		93	25 - 150	10	30
n-Butylbenzene	ND		50.0	43.6		ug/L		87	41 - 142	10	31
N-Propylbenzene	3.8		50.0	47.6		ug/L		87	51 - 138	11	30
o-Chlorotoluene	ND		50.0	44.6		ug/L		89	53 - 134	8	30
o-Xylene	12		50.0	54.0		ug/L		83	61 - 130	6	30
p-Chlorotoluene	ND		50.0	44.8		ug/L		90	54 - 133	7	30
p-Isopropyltoluene	1.1		50.0	43.6		ug/L		85	48 - 139	8	30
sec-Butylbenzene	0.77	J	50.0	43.4		ug/L		85	50 - 138	9	30
Styrene	ND		50.0	42.3		ug/L		85	58 - 131	6	30
tert-Butylbenzene	0.84	J	50.0	44.2		ug/L		87	54 - 146	7	30
1,1,1,2-Tetrachloroethane	ND		50.0	44.0		ug/L		88	59 - 137	3	30
1,1,2,2-Tetrachloroethane	ND		50.0	50.1		ug/L		100	66 - 135	1	30
Tetrachloroethene	ND		50.0	39.6		ug/L		79	52 - 133	9	30
Toluene	2.5		50.0	44.5		ug/L		84	65 - 130	5	30
trans-1,2-Dichloroethene	ND		50.0	38.3		ug/L		77	61 - 143	4	30
trans-1,3-Dichloropropene	ND		50.0	44.3		ug/L		89	53 - 133	2	30
1,2,3-Trichlorobenzene	ND		50.0	45.4		ug/L		91	43 - 145	5	30
1,2,4-Trichlorobenzene	ND		50.0	45.2		ug/L		90	39 - 148	2	30
1,1,1-Trichloroethane	ND		50.0	40.9		ug/L		82	57 - 142	4	30
1,1,2-Trichloroethane	ND		50.0	46.6		ug/L		93	66 - 131	1	30
Trichloroethene	ND		50.0	41.1		ug/L		82	64 - 136	4	30
Trichlorofluoromethane	ND		50.0	38.1		ug/L		76	54 - 150	6	30
1,2,3-Trichloropropane	ND		50.0	50.5		ug/L		101	65 - 133	4	30
1,2,4-Trimethy benzene	23		50.0	66.0		ug/L		85	50 - 139	6	30
1,3,5-Trimethy benzene	2.4		50.0	46.6		ug/L		88	52 - 135	8	30
Vinyl acetate	ND		100	106		ug/L		106	26 - 150	5	33
Vinyl chloride	ND		50.0	45.0		ug/L		90	46 - 150	6	30
Xylenes, Total	32		100	113		ug/L		81	59 - 130	7	30

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

Lab Sample ID: 400-228141-3 MSD
Matrix: Water
Analysis Batch: 600399

Client Sample ID: MW18-ROX-103122
Prep Type: Total/NA

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	106		72 - 119
Dibromofluoromethane	92		75 - 126
Toluene-d8 (Surr)	99		64 - 132

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: 10/31/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.4.2	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 – 3.4.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): T. Jones, J. Mayer
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

Please include "J" values on Reports.
Please provide sample receipt upon login.
Please send EQuiS EDDs to EDDSubmissions@aecomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

400-228141 COC

FIELD NOTES:

TEMPERATURE ON RECEIPT C°: 4.3° IR8

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
	TB-ROX-103122-8260-B	10/31/2022	0000	Water	2					2	X
	MW18-ROX-103122-EB	10/31/2022	0835	Water	3					3	X
	MW18-ROX-103122	10/31/2022	0955	Water	3					3	X
	MW19-ROX-103122	10/31/2022	1100	Water	3					3	X
	MW20-ROX-103122	10/31/2022	1140	Water	3					3	X
	MW21-ROX-103122	10/31/2022	1230	Water	3					3	X
	MW21-ROX-103122-DUP	10/31/2022	1230	Water	3					3	X

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Joe Mayer	FEDEX: 9495 6601 2897	10/31/2022	1600
Relinquished by: (Signature)	Received by: (Signature)	Date: 11-1-22	Time: 9:09
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1748510, 1748511

Page 35 of 38

11/15/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-228141-1

Login Number: 228141
List Number: 1
Creator: Perez, Trina M

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.	True	
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	4.3°C IR-8
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: 400-228141-1
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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Eurofins Pensacola

Job Notes

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. Eurofins Environment Testing Southeast LLC, Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization

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

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-228254-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/20/2022

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

Sample Identification	Sample Identification
TB-ROX-110122-8260-SS	TB-ROX-110122-8011-SS
P93C-ROX-110122	P93A-ROX-110122
P56-ROX-110122	T12-ROX-110122

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 sample P93A-ROX-110122 was re-extracted outside of the extraction time criteria. Benzo[a]anthracene and indeno[1,2,3-cd]pyrene were detected in the method blank. LCS/LCSD recoveries for acetone, 1,2-dibromo-3-chloropropane and benzenethiol were outside evaluation criteria. VOCs in sample T12-ROX-110122 were diluted to bring target analytes into calibration range of the instrument. The continuing calibration verification (CCV) for hexachlorocyclopentadiene was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (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, bis(2-ethylhexyl) phthalate in one sample was re-extracted one 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
P93A-ROX-110122 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	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
MB 400-599497/1-A	PAHs	Benzo[a]anthracene	0.061 µg/L
MB 400-599497/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0714 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
P93C-ROX-110122	PAHs	Benzo[a]anthracene	-	**U**
P93C-ROX-110122	PAHs	Indeno[1,2,3-cd]pyrene	-	**U**
P56-ROX-110122	PAHs	Benzo[a]anthracene	-	**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 400-600380/1002	VOCs	Acetone	**179**	NA	43-160
LCS/LCSD 400-600339/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**180/189**	5	60-140/30
LCS/LCSD 400-599497/4-A/5-A	SVOCs	Benzenethiol	**5/6**	10	10-120/30

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
P93C-ROX-110122	SVOCs	Benzenethiol	**UJ**
P93A-ROX-110122	SVOCs	Benzenethiol	**UJ**
P56-ROX-110122	SVOCs	Benzenethiol	**UJ**
T12-ROX-110122	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 (CCV) for hexachlorocyclopentadiene was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93C-ROX-110122	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93A-ROX-110122	SVOCs	Hexachlorocyclopentadiene	**UJ**
P56-ROX-110122	SVOCs	Hexachlorocyclopentadiene	**UJ**
T12-ROX-110122	SVOCs	Hexachlorocyclopentadiene	**UJ**

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ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis Missouri 63102
Generated 11/16/2022 1:56:10 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-228254-1

Reviewed 12/20/2022
A.V.

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL32514

my EOL

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Case Narrative

Job ID: 400-228254-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-228254-1

Receipt
The samples were received on 11/2/2022 8:59 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 time was 0.8°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-110122-8260-SS (400-228254-1), P93C-ROX-110122 (400-228254-3), P93A-ROX-110122 (400-228254-4), P56-ROX-110122 (400-228254-5) and T12-ROX-110122 (400-228254-6). 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: The following sample was diluted to bring the concentration of target analytes within the calibration range: T12-ROX-110122 (400-228254-6). 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/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-599497 and analytical batch 400-599728 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 400-599728 recovered outside acceptance criteria, low biased, for 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: The samples were re-extracted due to the confirmation of Bis(2-ethylhexyl) Phthalate was detected above the method detection limit (MDL 6.0ug/L) for the following sample(s): 400-227995-G-4-A, 400-227995-G-5-A, 400-228254-G-4-A, and 400-228456-G-3-A. Samples were re-prepared and/or re-analyzed outside holding time, and both sets of data have been reported.

Method 8270D_LL: The method blank for preparation batch 400-599497 and analytical batch 400-600170 contained Indeno[1,2,3-cd]pyrene 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 continuing calibration verification (CCV) associated with batch 400-600170 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 laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-600339 and analytical batch 400-600360 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.

Sample Summary

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

Job ID: 400-228254-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-228254-1	TB-ROX-110122-8260-SS	Water	11/01/22 12:00	11/02/22 08:59
400-228254-2	TB-ROX-110122-8011-SS	Water	11/01/22 12:00	11/02/22 08:59
400-228254-3	P93C-ROX-110122	Water	11/01/22 09:40	11/02/22 08:59
400-228254-4	P93A-ROX-110122	Water	11/01/22 10:40	11/02/22 08:59
400-228254-5	P56-ROX-110122	Water	11/01/22 12:05	11/02/22 08:59
400-228254-6	T12-ROX-110122	Water	11/01/22 13:15	11/02/22 08:59

Detection Summary

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

Job ID: 400-228254-1

Client Sample ID: TB-ROX-110122-8260-SS — Lab Sample ID: 400-228254-1

No Detections.

Client Sample ID: TB-ROX-110122-8011-SS — Lab Sample ID: 400-228254-2

No Detections.

Client Sample ID: P93C-ROX-110122 — Lab Sample ID: 400-228254-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.6		1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	~~0.12~~	J B U	0.20	0.047	ug/L	1		8270D LL	Total/NA
Benzo[a]pyrene	0.46		0.20	0.043	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.28		0.20	0.035	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.30		0.20	0.10	ug/L	1		8270D LL	Total/NA
Dibenz(a,h)anthracene	0.094	J	0.20	0.051	ug/L	1		8270D LL	Total/NA
Indeno[1,2,3-cd]pyrene	~~0.095~~	J B U	0.20	0.044	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.082	J	0.20	0.061	ug/L	1		8270D LL	Total/NA
Pyrene	0.064	J	0.20	0.041	ug/L	1		8270D LL	Total/NA

Client Sample ID: P93A-ROX-110122 — Lab Sample ID: 400-228254-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]pyrene	0.19	J	0.20	0.043	ug/L	1		8270D LL	Total/NA
Benzo[b]fluoranthene	0.16	J	0.20	0.035	ug/L	1		8270D LL	Total/NA
Benzo[k]fluoranthene	0.11	J	0.20	0.10	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.098	J	0.20	0.061	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	7.3	J	10	5.1	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate - RERA	5.5	J H J	10	5.1	ug/L	1		8270D	Total/NA

Client Sample ID: P56-ROX-110122 — Lab Sample ID: 400-228254-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.50	J	1.0	0.13	ug/L	1		8260B	Total/NA
Chloroform	1.5		1.0	1.0	ug/L	1		8260B	Total/NA
Isopropylbenzene	6.2		1.0	0.53	ug/L	1		8260B	Total/NA
m-Xylene & p-Xylene	1.8	J	5.0	0.63	ug/L	1		8260B	Total/NA
N-Propylbenzene	7.1		1.0	0.69	ug/L	1		8260B	Total/NA
sec-Butylbenzene	1.1		1.0	0.70	ug/L	1		8260B	Total/NA
Toluene	0.42	J	1.0	0.41	ug/L	1		8260B	Total/NA
Xylenes, Total	1.8	J	10	1.6	ug/L	1		8260B	Total/NA
Acenaphthene	0.46		0.20	0.033	ug/L	1		8270D LL	Total/NA
Acenaphthylene	0.14	J	0.20	0.046	ug/L	1		8270D LL	Total/NA
Benzo[a]anthracene	~~0.11~~	J B U	0.20	0.047	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.091	J	0.20	0.070	ug/L	1		8270D LL	Total/NA
Fluorene	0.30		0.20	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	3.8		0.20	0.076	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	2.0		0.20	0.061	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.42		0.20	0.037	ug/L	1		8270D LL	Total/NA
Pyrene	0.064	J	0.20	0.041	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	5.1	J	10	5.1	ug/L	1		8270D	Total/NA

Client Sample ID: T12-ROX-110122 — Lab Sample ID: 400-228254-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	11		5.0	2.5	ug/L	5		8260B	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: 400-228254-1

Client Sample ID: T12-ROX-110122 (Continued)

Lab Sample ID: 400-228254-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Isopropylbenzene	5.0		5.0	2.7	ug/L	5		8260B	Total/NA
m-Xylene & p-Xylene	59		25	3.2	ug/L	5		8260B	Total/NA
Naphthalene	20	J	25	15	ug/L	5		8260B	Total/NA
N-Propylbenzene	7.5		5.0	3.5	ug/L	5		8260B	Total/NA
o-Xylene	5.1	J	25	3.0	ug/L	5		8260B	Total/NA
Toluene	44		5.0	2.1	ug/L	5		8260B	Total/NA
1,2,4-Trimethylbenzene	5.9		5.0	4.1	ug/L	5		8260B	Total/NA
1,3,5-Trimethylbenzene	11		5.0	2.8	ug/L	5		8260B	Total/NA
Xylenes, Total	64		50	8.0	ug/L	5		8260B	Total/NA
Benzene - DL	2200		10	1.3	ug/L	10		8260B	Total/NA
Acenaphthene	0.27		0.20	0.032	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	13		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	0.19	J	0.20	0.036	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	5.5	J	10	5.0	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	2.9	J	10	2.7	ug/L	1		8270D	Total/NA
Phenol	120		10	2.6	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

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

Job ID: 400-228254-1

Client Sample ID: TB-ROX-110122-8260-SS
Date Collected: 11/01/22 12:00
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/12/22 16:53	1
Acrolein	ND		20	3.3	ug/L			11/12/22 16:53	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 16:53	1
Benzene	ND		1.0	0.13	ug/L			11/12/22 16:53	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 16:53	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 16:53	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 16:53	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 16:53	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 16:53	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 16:53	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 16:53	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 16:53	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 16:53	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 16:53	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 16:53	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 16:53	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 16:53	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 16:53	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 16:53	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 16:53	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 16:53	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 16:53	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 16:53	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 16:53	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 16:53	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 16:53	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 16:53	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 16:53	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 16:53	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 16:53	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 16:53	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 16:53	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 16:53	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 16:53	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 16:53	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 16:53	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/12/22 16:53	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 16:53	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 16:53	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 16:53	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 16:53	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/12/22 16:53	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 16:53	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 16:53	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/12/22 16:53	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 16:53	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 16:53	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 16:53	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/12/22 16:53	1

Client Sample ID: TB-ROX-110122-8260-SS
Date Collected: 11/01/22 12:00
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-1
Matrix: Water

Method: SW846 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			11/12/22 16:53	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 16:53	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 16:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 16:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 16:53	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 16:53	1
Toluene	ND		1.0	0.41	ug/L			11/12/22 16:53	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 16:53	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 16:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 16:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 16:53	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 16:53	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 16:53	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 16:53	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 16:53	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 16:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/12/22 16:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/12/22 16:53	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 16:53	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 16:53	1
Xylenes, Total	ND		10	1.6	ug/L			11/12/22 16:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/12/22 16:53*	*1*
Dibromofluoromethane	*104*		*75 - 126*		*11/12/22 16:53*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/12/22 16:53*	*1*

Client Sample ID: TB-ROX-110122-8011-SS
Date Collected: 11/01/22 12:00
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-2
Matrix: Water

Method: EPA 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		11/11/22 15:26	11/11/22 21:00	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/11/22 15:26	11/11/22 21:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*11/11/22 15:26*	*11/11/22 21:00*	*1*

Client Sample ID: P93C-ROX-110122
Date Collected: 11/01/22 09:40
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/12/22 17:43	1
Acrolein	ND		20	3.3	ug/L			11/12/22 17:43	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 17:43	1
Benzene	ND		1.0	0.13	ug/L			11/12/22 17:43	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 17:43	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 17:43	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 17:43	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 17:43	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 17:43	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 17:43	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 17:43	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 17:43	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 17:43	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 17:43	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 17:43	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 17:43	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 17:43	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 17:43	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 17:43	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 17:43	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 17:43	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 17:43	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 17:43	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 17:43	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 17:43	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 17:43	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 17:43	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 17:43	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 17:43	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 17:43	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 17:43	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 17:43	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 17:43	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 17:43	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 17:43	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 17:43	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/12/22 17:43	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 17:43	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 17:43	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 17:43	1
Methyl tert-butyl ether	1.6		1.0	0.22	ug/L			11/12/22 17:43	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/12/22 17:43	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 17:43	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 17:43	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/12/22 17:43	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 17:43	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 17:43	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 17:43	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/12/22 17:43	1

Client Sample ID: P93C-ROX-110122
Date Collected: 11/01/22 09:40
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-3
Matrix: Water

Method: SW846 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			11/12/22 17:43	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 17:43	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 17:43	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 17:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 17:43	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 17:43	1
Toluene	ND		1.0	0.41	ug/L			11/12/22 17:43	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 17:43	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 17:43	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 17:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 17:43	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 17:43	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 17:43	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 17:43	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 17:43	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 17:43	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/12/22 17:43	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/12/22 17:43	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 17:43	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 17:43	1
Xylenes, Total	ND		10	1.6	ug/L			11/12/22 17:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*11/12/22 17:43*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*11/12/22 17:43*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/12/22 17:43*	*1*

Method: SW846 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	0.033	ug/L		11/07/22 08:55	11/11/22 17:47	1
Acenaphthylene	ND		0.20	0.046	ug/L		11/07/22 08:55	11/11/22 17:47	1
Anthracene	ND		0.20	0.033	ug/L		11/07/22 08:55	11/11/22 17:47	1
Benzo[a]anthracene	~~0.12~~	J B U	0.20	0.047	ug/L		11/07/22 08:55	11/11/22 17:47	1
Benzo[a]pyrene	**0.46**		0.20	0.043	ug/L		11/07/22 08:55	11/11/22 17:47	1
Benzo[b]fluoranthene	**0.28**		0.20	0.035	ug/L		11/07/22 08:55	11/11/22 17:47	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/07/22 08:55	11/11/22 17:47	1
Benzo[k]fluoranthene	**0.30**		0.20	0.10	ug/L		11/07/22 08:55	11/11/22 17:47	1
Chrysene	ND		0.20	0.076	ug/L		11/07/22 08:55	11/11/22 17:47	1
Dibenz(a,h)anthracene	**0.094**	J	0.20	0.051	ug/L		11/07/22 08:55	11/11/22 17:47	1
Fluoranthene	ND		0.20	0.070	ug/L		11/07/22 08:55	11/11/22 17:47	1
Fluorene	ND		0.20	0.11	ug/L		11/07/22 08:55	11/11/22 17:47	1
Indeno[1,2,3-cd]pyrene	~~0.095~~	J B U	0.20	0.044	ug/L		11/07/22 08:55	11/11/22 17:47	1
1-Methylnaphthalene	ND		0.20	0.076	ug/L		11/07/22 08:55	11/11/22 17:47	1
2-Methylnaphthalene	**0.082**	J	0.20	0.061	ug/L		11/07/22 08:55	11/11/22 17:47	1
Phenanthrene	ND		0.20	0.037	ug/L		11/07/22 08:55	11/11/22 17:47	1
Pyrene	**0.064**	J	0.20	0.041	ug/L		11/07/22 08:55	11/11/22 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*15 - 122*	*11/07/22 08:55*	*11/11/22 17:47*	*1*
Nitrobenzene-d5	*72*		*19 - 130*	*11/07/22 08:55*	*11/11/22 17:47*	*1*

Client Sample ID: P93C-ROX-110122
Date Collected: 11/01/22 09:40
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	105		33 - 138	11/07/22 08:55	11/11/22 17:47	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.9	ug/L		11/07/22 08:55	11/08/22 17:08	1
Benzenethiol	ND	*- UJ	10	1.7	ug/L		11/07/22 08:55	11/08/22 17:08	1
Benzoic acid	ND		31	7.5	ug/L		11/07/22 08:55	11/08/22 17:08	1
Benzyl alcohol	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 17:08	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 17:08	1
Bis(2-chloroethyl)ether	ND		10	2.8	ug/L		11/07/22 08:55	11/08/22 17:08	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 17:08	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		11/07/22 08:55	11/08/22 17:08	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/07/22 08:55	11/08/22 17:08	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/07/22 08:55	11/08/22 17:08	1
4-Chloroaniline	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 17:08	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		11/07/22 08:55	11/08/22 17:08	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 17:08	1
2-Chlorophenol	ND		10	2.3	ug/L		11/07/22 08:55	11/08/22 17:08	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 17:08	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:08	1
Dibenzofuran	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:08	1
3,3'-Dichlorobenzidine	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 17:08	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		11/07/22 08:55	11/08/22 17:08	1
Diethyl phthalate	ND		10	0.25	ug/L		11/07/22 08:55	11/08/22 17:08	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		11/07/22 08:55	11/08/22 17:08	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:08	1
Di-n-butyl phthalate	ND		10	2.8	ug/L		11/07/22 08:55	11/08/22 17:08	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/07/22 08:55	11/08/22 17:08	1
2,4-Dinitrophenol	ND		31	3.5	ug/L		11/07/22 08:55	11/08/22 17:08	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 17:08	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 17:08	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:08	1
1,4-Dioxane	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:08	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:08	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:08	1
Hexachlorocyclopentadiene	ND	UJ	20	2.7	ug/L		11/07/22 08:55	11/08/22 17:08	1
Hexachloroethane	ND		10	4.3	ug/L		11/07/22 08:55	11/08/22 17:08	1
Indene	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:08	1
Isophorone	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 17:08	1
2-Methylphenol	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 17:08	1
3 & 4 Methylphenol	ND		20	0.40	ug/L		11/07/22 08:55	11/08/22 17:08	1
2-Nitroaniline	ND		10	2.3	ug/L		11/07/22 08:55	11/08/22 17:08	1
3-Nitroaniline	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 17:08	1
4-Nitroaniline	ND		10	1.5	ug/L		11/07/22 08:55	11/08/22 17:08	1
Nitrobenzene	ND		10	0.13	ug/L		11/07/22 08:55	11/08/22 17:08	1
2-Nitrophenol	ND		10	5.3	ug/L		11/07/22 08:55	11/08/22 17:08	1
4-Nitrophenol	ND		10	2.1	ug/L		11/07/22 08:55	11/08/22 17:08	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		11/07/22 08:55	11/08/22 17:08	1

Client Sample ID: P93C-ROX-110122
Date Collected: 11/01/22 09:40
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-3
Matrix: Water

Method: SW846 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		11/07/22 08:55	11/08/22 17:08	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/07/22 08:55	11/08/22 17:08	1
Pentachlorophenol	ND		20	1.4	ug/L		11/07/22 08:55	11/08/22 17:08	1
Phenol	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 17:08	1
Pyridine	ND		10	3.3	ug/L		11/07/22 08:55	11/08/22 17:08	1
Quinoline	ND		10	4.6	ug/L		11/07/22 08:55	11/08/22 17:08	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 17:08	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		11/07/22 08:55	11/08/22 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*11/07/22 08:55*	*11/08/22 17:08*	*1*
2-Fluorophenol	*27*		*13 - 113*	*11/07/22 08:55*	*11/08/22 17:08*	*1*
Nitrobenzene-d5	*81*		*36 - 126*	*11/07/22 08:55*	*11/08/22 17:08*	*1*
Phenol-d5	*64*		*17 - 127*	*11/07/22 08:55*	*11/08/22 17:08*	*1*
Terphenyl-d14	*105*		*44 - 149*	*11/07/22 08:55*	*11/08/22 17:08*	*1*
2,4,6-Tribromophenol	*102*		*26 - 150*	*11/07/22 08:55*	*11/08/22 17:08*	*1*

Method: EPA 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		11/11/22 15:26	11/11/22 21:20	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		11/11/22 15:26	11/11/22 21:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*127*		*51 - 149*	*11/11/22 15:26*	*11/11/22 21:20*	*1*

Client Sample ID: P93A-ROX-110122
Date Collected: 11/01/22 10:40
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/12/22 18:08	1
Acrolein	ND		20	3.3	ug/L			11/12/22 18:08	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 18:08	1
Benzene	ND		1.0	0.13	ug/L			11/12/22 18:08	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 18:08	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 18:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 18:08	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 18:08	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 18:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 18:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 18:08	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 18:08	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 18:08	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 18:08	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 18:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 18:08	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 18:08	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 18:08	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 18:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 18:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 18:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 18:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 18:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 18:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 18:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 18:08	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 18:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 18:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 18:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 18:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 18:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 18:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 18:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 18:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 18:08	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 18:08	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/12/22 18:08	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 18:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 18:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 18:08	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 18:08	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/12/22 18:08	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 18:08	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 18:08	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/12/22 18:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 18:08	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 18:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 18:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/12/22 18:08	1

Client Sample ID: P93A-ROX-110122
Date Collected: 11/01/22 10:40
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-4
Matrix: Water

Method: SW846 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			11/12/22 18:08	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 18:08	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 18:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 18:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 18:08	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 18:08	1
Toluene	ND		1.0	0.41	ug/L			11/12/22 18:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 18:08	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 18:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 18:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 18:08	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 18:08	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 18:08	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 18:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 18:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 18:08	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/12/22 18:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/12/22 18:08	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 18:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 18:08	1
Xylenes, Total	ND		10	1.6	ug/L			11/12/22 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/12/22 18:08*	*1*
Dibromofluoromethane	*103*		*75 - 126*		*11/12/22 18:08*	*1*
Toluene-d8 (Surr)	*98*		*64 - 132*		*11/12/22 18:08*	*1*

Method: SW846 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	0.033	ug/L		11/07/22 08:55	11/11/22 18:05	1
Acenaphthylene	ND		0.20	0.046	ug/L		11/07/22 08:55	11/11/22 18:05	1
Anthracene	ND		0.20	0.033	ug/L		11/07/22 08:55	11/11/22 18:05	1
Benzo[a]anthracene	ND		0.20	0.047	ug/L		11/07/22 08:55	11/11/22 18:05	1
Benzo[a]pyrene	**0.19**	**J**	0.20	0.043	ug/L		11/07/22 08:55	11/11/22 18:05	1
Benzo[b]fluoranthene	**0.16**	**J**	0.20	0.035	ug/L		11/07/22 08:55	11/11/22 18:05	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/07/22 08:55	11/11/22 18:05	1
Benzo[k]fluoranthene	**0.11**	**J**	0.20	0.10	ug/L		11/07/22 08:55	11/11/22 18:05	1
Chrysene	ND		0.20	0.075	ug/L		11/07/22 08:55	11/11/22 18:05	1
Dibenz(a,h)anthracene	ND		0.20	0.051	ug/L		11/07/22 08:55	11/11/22 18:05	1
Fluoranthene	ND		0.20	0.069	ug/L		11/07/22 08:55	11/11/22 18:05	1
Fluorene	ND		0.20	0.11	ug/L		11/07/22 08:55	11/11/22 18:05	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.044	ug/L		11/07/22 08:55	11/11/22 18:05	1
1-Methylnaphthalene	ND		0.20	0.075	ug/L		11/07/22 08:55	11/11/22 18:05	1
2-Methylnaphthalene	**0.098**	**J**	0.20	0.061	ug/L		11/07/22 08:55	11/11/22 18:05	1
Phenanthrene	ND		0.20	0.037	ug/L		11/07/22 08:55	11/11/22 18:05	1
Pyrene	ND		0.20	0.041	ug/L		11/07/22 08:55	11/11/22 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*15 - 122*	*11/07/22 08:55*	*11/11/22 18:05*	*1*
Nitrobenzene-d5	*75*		*19 - 130*	*11/07/22 08:55*	*11/11/22 18:05*	*1*

Client Sample ID: P93A-ROX-110122
Date Collected: 11/01/22 10:40
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	104		33 - 138	11/07/22 08:55	11/11/22 18:05	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.9	ug/L		11/07/22 08:55	11/08/22 17:29	1
Benzenethiol	ND	*- UJ	10	1.7	ug/L		11/07/22 08:55	11/08/22 17:29	1
Benzoic acid	ND		31	7.4	ug/L		11/07/22 08:55	11/08/22 17:29	1
Benzyl alcohol	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 17:29	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 17:29	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 17:29	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 17:29	1
Bis(2-ethylhexyl) phthalate	7.3	J	10	5.1	ug/L		11/07/22 08:55	11/08/22 17:29	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/07/22 08:55	11/08/22 17:29	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/07/22 08:55	11/08/22 17:29	1
4-Chloroaniline	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 17:29	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		11/07/22 08:55	11/08/22 17:29	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 17:29	1
2-Chlorophenol	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 17:29	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 17:29	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:29	1
Dibenzofuran	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:29	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 17:29	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		11/07/22 08:55	11/08/22 17:29	1
Diethyl phthalate	ND		10	0.24	ug/L		11/07/22 08:55	11/08/22 17:29	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		11/07/22 08:55	11/08/22 17:29	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:29	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 17:29	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/07/22 08:55	11/08/22 17:29	1
2,4-Dinitrophenol	ND		31	3.5	ug/L		11/07/22 08:55	11/08/22 17:29	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 17:29	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 17:29	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:29	1
1,4-Dioxane	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:29	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:29	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:29	1
Hexachlorocyclopentadiene	ND	UJ	20	2.6	ug/L		11/07/22 08:55	11/08/22 17:29	1
Hexachloroethane	ND		10	4.3	ug/L		11/07/22 08:55	11/08/22 17:29	1
Indene	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:29	1
Isophorone	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 17:29	1
2-Methylphenol	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 17:29	1
3 & 4 Methylphenol	ND		20	0.40	ug/L		11/07/22 08:55	11/08/22 17:29	1
2-Nitroaniline	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 17:29	1
3-Nitroaniline	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 17:29	1
4-Nitroaniline	ND		10	1.5	ug/L		11/07/22 08:55	11/08/22 17:29	1
Nitrobenzene	ND		10	0.13	ug/L		11/07/22 08:55	11/08/22 17:29	1
2-Nitrophenol	ND		10	5.3	ug/L		11/07/22 08:55	11/08/22 17:29	1
4-Nitrophenol	ND		10	2.1	ug/L		11/07/22 08:55	11/08/22 17:29	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		11/07/22 08:55	11/08/22 17:29	1

Client Sample ID: P93A-ROX-110122
Date Collected: 11/01/22 10:40
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-4
Matrix: Water

Method: SW846 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		11/07/22 08:55	11/08/22 17:29	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/07/22 08:55	11/08/22 17:29	1
Pentachlorophenol	ND		20	1.4	ug/L		11/07/22 08:55	11/08/22 17:29	1
Phenol	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 17:29	1
Pyridine	ND		10	3.3	ug/L		11/07/22 08:55	11/08/22 17:29	1
Quinoline	ND		10	4.6	ug/L		11/07/22 08:55	11/08/22 17:29	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 17:29	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		11/07/22 08:55	11/08/22 17:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*73*		*46 - 124*	*11/07/22 08:55*	*11/08/22 17:29*	*1*
2-Fluorophenol	*45*		*13 - 113*	*11/07/22 08:55*	*11/08/22 17:29*	*1*
Nitrobenzene-d5	*83*		*36 - 126*	*11/07/22 08:55*	*11/08/22 17:29*	*1*
Phenol-d5	*72*		*17 - 127*	*11/07/22 08:55*	*11/08/22 17:29*	*1*
Terphenyl-d14	*118*		*44 - 149*	*11/07/22 08:55*	*11/08/22 17:29*	*1*
2,4,6-Tribromophenol	*100*		*26 - 150*	*11/07/22 08:55*	*11/08/22 17:29*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	5.5	J H J	10	5.1	ug/L		11/09/22 09:13	11/11/22 18:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*84*		*46 - 124*	*11/09/22 09:13*	*11/11/22 18:05*	*1*
Nitrobenzene-d5	*96*		*36 - 126*	*11/09/22 09:13*	*11/11/22 18:05*	*1*
Terphenyl-d14	*92*		*44 - 149*	*11/09/22 09:13*	*11/11/22 18:05*	*1*

Method: EPA 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		11/11/22 15:26	11/11/22 21:41	1
1,2-Dibromoethane	ND		0.021	0.015	ug/L		11/11/22 15:26	11/11/22 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*113*		*51 - 149*	*11/11/22 15:26*	*11/11/22 21:41*	*1*

Client Sample ID: P56-ROX-110122
Date Collected: 11/01/22 12:05
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/12/22 18:34	1
Acrolein	ND		20	3.3	ug/L			11/12/22 18:34	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 18:34	1
Benzene	**0.50**	**J**	1.0	0.13	ug/L			11/12/22 18:34	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 18:34	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 18:34	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 18:34	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 18:34	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 18:34	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 18:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 18:34	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 18:34	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 18:34	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 18:34	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 18:34	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 18:34	1
Chloroform	**1.5**		1.0	1.0	ug/L			11/12/22 18:34	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 18:34	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 18:34	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 18:34	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 18:34	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 18:34	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 18:34	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 18:34	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 18:34	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 18:34	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 18:34	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 18:34	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 18:34	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 18:34	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 18:34	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 18:34	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 18:34	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 18:34	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 18:34	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 18:34	1
Isopropylbenzene	**6.2**		1.0	0.53	ug/L			11/12/22 18:34	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 18:34	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 18:34	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 18:34	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 18:34	1
m-Xylene & p-Xylene	**1.8**	**J**	5.0	0.63	ug/L			11/12/22 18:34	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 18:34	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 18:34	1
N-Propylbenzene	**7.1**		1.0	0.69	ug/L			11/12/22 18:34	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 18:34	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 18:34	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 18:34	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/12/22 18:34	1

Client Sample ID: P56-ROX-110122
Date Collected: 11/01/22 12:05
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-5
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	1.1		1.0	0.70	ug/L			11/12/22 18:34	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 18:34	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 18:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 18:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 18:34	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 18:34	1
Toluene	0.42	J	1.0	0.41	ug/L			11/12/22 18:34	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 18:34	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 18:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 18:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 18:34	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 18:34	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 18:34	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 18:34	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 18:34	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 18:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/12/22 18:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/12/22 18:34	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 18:34	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 18:34	1
Xylenes, Total	1.8	J	10	1.6	ug/L			11/12/22 18:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/12/22 18:34*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*11/12/22 18:34*	*1*
Toluene-d8 (Surr)	*102*		*64 - 132*		*11/12/22 18:34*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.46		0.20	0.033	ug/L		11/07/22 08:55	11/11/22 18:22	1
Acenaphthylene	0.14	J	0.20	0.046	ug/L		11/07/22 08:55	11/11/22 18:22	1
Anthracene	ND		0.20	0.033	ug/L		11/07/22 08:55	11/11/22 18:22	1
Benzo[a]anthracene	~~0.11~~	J B U	0.20	0.047	ug/L		11/07/22 08:55	11/11/22 18:22	1
Benzo[a]pyrene	ND		0.20	0.043	ug/L		11/07/22 08:55	11/11/22 18:22	1
Benzo[b]fluoranthene	ND		0.20	0.035	ug/L		11/07/22 08:55	11/11/22 18:22	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/07/22 08:55	11/11/22 18:22	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/07/22 08:55	11/11/22 18:22	1
Chrysene	ND		0.20	0.076	ug/L		11/07/22 08:55	11/11/22 18:22	1
Dibenz(a,h)anthracene	ND		0.20	0.051	ug/L		11/07/22 08:55	11/11/22 18:22	1
Fluoranthene	0.091	J	0.20	0.070	ug/L		11/07/22 08:55	11/11/22 18:22	1
Fluorene	0.30		0.20	0.11	ug/L		11/07/22 08:55	11/11/22 18:22	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.044	ug/L		11/07/22 08:55	11/11/22 18:22	1
1-Methylnaphthalene	3.8		0.20	0.076	ug/L		11/07/22 08:55	11/11/22 18:22	1
2-Methylnaphthalene	2.0		0.20	0.061	ug/L		11/07/22 08:55	11/11/22 18:22	1
Phenanthrene	0.42		0.20	0.037	ug/L		11/07/22 08:55	11/11/22 18:22	1
Pyrene	0.064	J	0.20	0.041	ug/L		11/07/22 08:55	11/11/22 18:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*89*		*15 - 122*	*11/07/22 08:55*	*11/11/22 18:22*	*1*
Nitrobenzene-d5	*80*		*19 - 130*	*11/07/22 08:55*	*11/11/22 18:22*	*1*

Client Sample ID: P56-ROX-110122
Date Collected: 11/01/22 12:05
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-5
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	98		33 - 138	11/07/22 08:55	11/11/22 18:22	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.9	ug/L		11/07/22 08:55	11/08/22 17:50	1
Benzenethiol	ND	*- UJ	10	1.7	ug/L		11/07/22 08:55	11/08/22 17:50	1
Benzoic acid	ND		31	7.5	ug/L		11/07/22 08:55	11/08/22 17:50	1
Benzyl alcohol	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 17:50	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 17:50	1
Bis(2-chloroethyl)ether	ND		10	2.8	ug/L		11/07/22 08:55	11/08/22 17:50	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 17:50	1
Bis(2-ethylhexyl) phthalate	**5.1**	J	10	5.1	ug/L		11/07/22 08:55	11/08/22 17:50	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/07/22 08:55	11/08/22 17:50	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/07/22 08:55	11/08/22 17:50	1
4-Chloroaniline	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 17:50	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		11/07/22 08:55	11/08/22 17:50	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 17:50	1
2-Chlorophenol	ND		10	2.3	ug/L		11/07/22 08:55	11/08/22 17:50	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 17:50	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:50	1
Dibenzofuran	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:50	1
3,3'-Dichlorobenzidine	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 17:50	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		11/07/22 08:55	11/08/22 17:50	1
Diethyl phthalate	ND		10	0.25	ug/L		11/07/22 08:55	11/08/22 17:50	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		11/07/22 08:55	11/08/22 17:50	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:50	1
Di-n-butyl phthalate	ND		10	2.8	ug/L		11/07/22 08:55	11/08/22 17:50	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/07/22 08:55	11/08/22 17:50	1
2,4-Dinitrophenol	ND		31	3.5	ug/L		11/07/22 08:55	11/08/22 17:50	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 17:50	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 17:50	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:50	1
1,4-Dioxane	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:50	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:50	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 17:50	1
Hexachlorocyclopentadiene	ND	UJ	20	2.7	ug/L		11/07/22 08:55	11/08/22 17:50	1
Hexachloroethane	ND		10	4.3	ug/L		11/07/22 08:55	11/08/22 17:50	1
Indene	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 17:50	1
Isophorone	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 17:50	1
2-Methylphenol	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 17:50	1
3 & 4 Methylphenol	ND		20	0.40	ug/L		11/07/22 08:55	11/08/22 17:50	1
2-Nitroaniline	ND		10	2.3	ug/L		11/07/22 08:55	11/08/22 17:50	1
3-Nitroaniline	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 17:50	1
4-Nitroaniline	ND		10	1.5	ug/L		11/07/22 08:55	11/08/22 17:50	1
Nitrobenzene	ND		10	0.13	ug/L		11/07/22 08:55	11/08/22 17:50	1
2-Nitrophenol	ND		10	5.3	ug/L		11/07/22 08:55	11/08/22 17:50	1
4-Nitrophenol	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 17:50	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		11/07/22 08:55	11/08/22 17:50	1

Client Sample ID: P56-ROX-110122
Date Collected: 11/01/22 12:05
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-5
Matrix: Water

Method: SW846 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		11/07/22 08:55	11/08/22 17:50	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/07/22 08:55	11/08/22 17:50	1
Pentachlorophenol	ND		20	1.4	ug/L		11/07/22 08:55	11/08/22 17:50	1
Phenol	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 17:50	1
Pyridine	ND		10	3.3	ug/L		11/07/22 08:55	11/08/22 17:50	1
Quinoline	ND		10	4.6	ug/L		11/07/22 08:55	11/08/22 17:50	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 17:50	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		11/07/22 08:55	11/08/22 17:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*11/07/22 08:55*	*11/08/22 17:50*	*1*
2-Fluorophenol	*44*		*13 - 113*	*11/07/22 08:55*	*11/08/22 17:50*	*1*
Nitrobenzene-d5	*90*		*36 - 126*	*11/07/22 08:55*	*11/08/22 17:50*	*1*
Phenol-d5	*79*		*17 - 127*	*11/07/22 08:55*	*11/08/22 17:50*	*1*
Terphenyl-d14	*114*		*44 - 149*	*11/07/22 08:55*	*11/08/22 17:50*	*1*
2,4,6-Tribromophenol	*121*		*26 - 150*	*11/07/22 08:55*	*11/08/22 17:50*	*1*

Method: EPA 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		11/11/22 15:26	11/11/22 22:01	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		11/11/22 15:26	11/11/22 22:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*108*		*51 - 149*	*11/11/22 15:26*	*11/11/22 22:01*	*1*

Client Sample ID: T12-ROX-110122
Date Collected: 11/01/22 13:15
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	130	50	ug/L			11/12/22 22:20	5
Acrolein	ND		100	17	ug/L			11/12/22 22:20	5
Acrylonitrile	ND		50	14	ug/L			11/12/22 22:20	5
Bromobenzene	ND		5.0	2.7	ug/L			11/12/22 22:20	5
Bromochloromethane	ND		5.0	1.1	ug/L			11/12/22 22:20	5
Bromodichloromethane	ND		5.0	2.5	ug/L			11/12/22 22:20	5
Bromoform	ND		25	1.3	ug/L			11/12/22 22:20	5
Bromomethane	ND		5.0	4.9	ug/L			11/12/22 22:20	5
2-Butanone (MEK)	ND		130	13	ug/L			11/12/22 22:20	5
Carbon disulfide	ND		5.0	2.5	ug/L			11/12/22 22:20	5
Carbon tetrachloride	ND		5.0	0.95	ug/L			11/12/22 22:20	5
Chlorobenzene	ND		5.0	0.75	ug/L			11/12/22 22:20	5
Dibromochloromethane	ND		5.0	1.2	ug/L			11/12/22 22:20	5
Chloroethane	ND		5.0	3.8	ug/L			11/12/22 22:20	5
2-Chloroethyl vinyl ether	ND		25	10	ug/L			11/12/22 22:20	5
Chloroform	ND		5.0	5.0	ug/L			11/12/22 22:20	5
1-Chlorohexane	ND		5.0	1.6	ug/L			11/12/22 22:20	5
Chloromethane	ND		5.0	1.6	ug/L			11/12/22 22:20	5
cis-1,2-Dichloroethene	ND		5.0	1.0	ug/L			11/12/22 22:20	5
cis-1,3-Dichloropropene	ND		25	2.5	ug/L			11/12/22 22:20	5
1,2-Dichlorobenzene	ND		5.0	2.5	ug/L			11/12/22 22:20	5
1,3-Dichlorobenzene	ND		5.0	2.7	ug/L			11/12/22 22:20	5
1,4-Dichlorobenzene	ND		5.0	3.2	ug/L			11/12/22 22:20	5
Dichlorodifluoromethane	ND		5.0	4.3	ug/L			11/12/22 22:20	5
1,1-Dichloroethane	ND		5.0	2.5	ug/L			11/12/22 22:20	5
1,2-Dichloroethane	ND		5.0	0.95	ug/L			11/12/22 22:20	5
1,1-Dichloroethene	ND		5.0	2.5	ug/L			11/12/22 22:20	5
1,2-Dichloropropane	ND		5.0	2.5	ug/L			11/12/22 22:20	5
1,3-Dichloropropane	ND		5.0	2.5	ug/L			11/12/22 22:20	5
2,2-Dichloropropane	ND		5.0	2.5	ug/L			11/12/22 22:20	5
1,1-Dichloropropene	ND		5.0	2.5	ug/L			11/12/22 22:20	5
Ethylbenzene	**11**		5.0	2.5	ug/L			11/12/22 22:20	5
Ethyl methacrylate	ND		5.0	3.0	ug/L			11/12/22 22:20	5
Hexachlorobutadiene	ND		25	4.5	ug/L			11/12/22 22:20	5
2-Hexanone	ND		130	7.0	ug/L			11/12/22 22:20	5
Isopropylbenzene	**5.0**		5.0	2.7	ug/L			11/12/22 22:20	5
Methylene bromide	ND		25	1.1	ug/L			11/12/22 22:20	5
Methylene Chloride	ND		25	15	ug/L			11/12/22 22:20	5
4-Methyl-2-pentanone (MIBK)	ND		130	9.0	ug/L			11/12/22 22:20	5
Methyl tert-butyl ether	ND		5.0	1.1	ug/L			11/12/22 22:20	5
m-Xylene & p-Xylene	**59**		25	3.2	ug/L			11/12/22 22:20	5
Naphthalene	**20**	J	25	15	ug/L			11/12/22 22:20	5
n-Butylbenzene	ND		5.0	3.8	ug/L			11/12/22 22:20	5
N-Propylbenzene	**7.5**		5.0	3.5	ug/L			11/12/22 22:20	5
o-Chlorotoluene	ND		5.0	2.9	ug/L			11/12/22 22:20	5
o-Xylene	**5.1**	J	25	3.0	ug/L			11/12/22 22:20	5
p-Chlorotoluene	ND		5.0	2.8	ug/L			11/12/22 22:20	5
p-Isopropyltoluene	ND		5.0	3.6	ug/L			11/12/22 22:20	5
sec-Butylbenzene	ND		5.0	3.5	ug/L			11/12/22 22:20	5

Client Sample ID: T12-ROX-110122
Date Collected: 11/01/22 13:15
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-6
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		5.0	5.0	ug/L			11/12/22 22:20	5
tert-Butylbenzene	ND		5.0	3.2	ug/L			11/12/22 22:20	5
1,1,1,2-Tetrachloroethane	ND		5.0	0.80	ug/L			11/12/22 22:20	5
1,1,2,2-Tetrachloroethane	ND		5.0	2.5	ug/L			11/12/22 22:20	5
Tetrachloroethene	ND		5.0	4.5	ug/L			11/12/22 22:20	5
Toluene	44		5.0	2.1	ug/L			11/12/22 22:20	5
trans-1,2-Dichloroethene	ND		5.0	2.5	ug/L			11/12/22 22:20	5
trans-1,3-Dichloropropene	ND		25	1.0	ug/L			11/12/22 22:20	5
1,2,3-Trichlorobenzene	ND		5.0	4.5	ug/L			11/12/22 22:20	5
1,2,4-Trichlorobenzene	ND		5.0	4.1	ug/L			11/12/22 22:20	5
1,1,1-Trichloroethane	ND		5.0	0.90	ug/L			11/12/22 22:20	5
1,1,2-Trichloroethane	ND		25	1.1	ug/L			11/12/22 22:20	5
Trichloroethene	ND		5.0	0.75	ug/L			11/12/22 22:20	5
Trichlorofluoromethane	ND		5.0	2.6	ug/L			11/12/22 22:20	5
1,2,3-Trichloropropane	ND		25	4.2	ug/L			11/12/22 22:20	5
1,2,4-Trimethylbenzene	5.9		5.0	4.1	ug/L			11/12/22 22:20	5
1,3,5-Trimethylbenzene	11		5.0	2.8	ug/L			11/12/22 22:20	5
Vinyl acetate	ND		130	4.7	ug/L			11/12/22 22:20	5
Vinyl chloride	ND		5.0	2.5	ug/L			11/12/22 22:20	5
Xylenes, Total	64		50	8.0	ug/L			11/12/22 22:20	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/12/22 22:20*	*5*
Dibromofluoromethane	*101*		*75 - 126*		*11/12/22 22:20*	*5*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/12/22 22:20*	*5*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2200		10	1.3	ug/L			11/13/22 22:19	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*97*		*72 - 119*		*11/13/22 22:19*	*10*
Dibromofluoromethane	*101*		*75 - 126*		*11/13/22 22:19*	*10*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/13/22 22:19*	*10*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.27		0.20	0.032	ug/L		11/07/22 08:55	11/11/22 18:39	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/07/22 08:55	11/11/22 18:39	1
Anthracene	ND		0.20	0.032	ug/L		11/07/22 08:55	11/11/22 18:39	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		11/07/22 08:55	11/11/22 18:39	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/07/22 08:55	11/11/22 18:39	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/07/22 08:55	11/11/22 18:39	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/07/22 08:55	11/11/22 18:39	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/07/22 08:55	11/11/22 18:39	1
Chrysene	ND		0.20	0.074	ug/L		11/07/22 08:55	11/11/22 18:39	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/07/22 08:55	11/11/22 18:39	1
Fluoranthene	ND		0.20	0.068	ug/L		11/07/22 08:55	11/11/22 18:39	1
Fluorene	ND		0.20	0.11	ug/L		11/07/22 08:55	11/11/22 18:39	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		11/07/22 08:55	11/11/22 18:39	1

Client Sample ID: T12-ROX-110122
Date Collected: 11/01/22 13:15
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-6
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	13		0.20	0.074	ug/L		11/07/22 08:55	11/11/22 18:39	1
2-Methylnaphthalene	16		0.20	0.060	ug/L		11/07/22 08:55	11/11/22 18:39	1
Phenanthrene	0.19	J	0.20	0.036	ug/L		11/07/22 08:55	11/11/22 18:39	1
Pyrene	ND		0.20	0.040	ug/L		11/07/22 08:55	11/11/22 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*92*		*15 - 122*	*11/07/22 08:55*	*11/11/22 18:39*	*1*
Nitrobenzene-d5	*77*		*19 - 130*	*11/07/22 08:55*	*11/11/22 18:39*	*1*
Terphenyl-d14	*105*		*33 - 138*	*11/07/22 08:55*	*11/11/22 18:39*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 18:11	1
Benzenethiol	ND	*- US	10	1.7	ug/L		11/07/22 08:55	11/08/22 18:11	1
Benzoic acid	ND		30	7.3	ug/L		11/07/22 08:55	11/08/22 18:11	1
Benzyl alcohol	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 18:11	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 18:11	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 18:11	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 18:11	1
Bis(2-ethylhexyl) phthalate	5.5	J	10	5.0	ug/L		11/07/22 08:55	11/08/22 18:11	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/07/22 08:55	11/08/22 18:11	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/07/22 08:55	11/08/22 18:11	1
4-Chloroaniline	ND		10	3.4	ug/L		11/07/22 08:55	11/08/22 18:11	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 18:11	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 18:11	1
2-Chlorophenol	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 18:11	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 18:11	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 18:11	1
Dibenzofuran	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 18:11	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 18:11	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		11/07/22 08:55	11/08/22 18:11	1
Diethyl phthalate	ND		10	0.24	ug/L		11/07/22 08:55	11/08/22 18:11	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 18:11	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 18:11	1
Di-n-butyl phthalate	2.9	J	10	2.7	ug/L		11/07/22 08:55	11/08/22 18:11	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/07/22 08:55	11/08/22 18:11	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		11/07/22 08:55	11/08/22 18:11	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 18:11	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 18:11	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 18:11	1
1,4-Dioxane	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 18:11	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 18:11	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 18:11	1
Hexachlorocyclopentadiene	ND	US	20	2.6	ug/L		11/07/22 08:55	11/08/22 18:11	1
Hexachloroethane	ND		10	4.2	ug/L		11/07/22 08:55	11/08/22 18:11	1
Indene	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 18:11	1
Isophorone	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 18:11	1
2-Methylphenol	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 18:11	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		11/07/22 08:55	11/08/22 18:11	1

Client Sample ID: T12-ROX-110122
Date Collected: 11/01/22 13:15
Date Received: 11/02/22 08:59

Lab Sample ID: 400-228254-6
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 18:11	1
3-Nitroaniline	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 18:11	1
4-Nitroaniline	ND		10	1.5	ug/L		11/07/22 08:55	11/08/22 18:11	1
Nitrobenzene	ND		10	0.13	ug/L		11/07/22 08:55	11/08/22 18:11	1
2-Nitrophenol	ND		10	5.2	ug/L		11/07/22 08:55	11/08/22 18:11	1
4-Nitrophenol	ND		10	2.1	ug/L		11/07/22 08:55	11/08/22 18:11	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 18:11	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		11/07/22 08:55	11/08/22 18:11	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/07/22 08:55	11/08/22 18:11	1
Pentachlorophenol	ND		20	1.4	ug/L		11/07/22 08:55	11/08/22 18:11	1
Phenol	120		10	2.6	ug/L		11/07/22 08:55	11/08/22 18:11	1
Pyridine	ND		10	3.2	ug/L		11/07/22 08:55	11/08/22 18:11	1
Quinoline	ND		10	4.5	ug/L		11/07/22 08:55	11/08/22 18:11	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		11/07/22 08:55	11/08/22 18:11	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 18:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*72*		*46 - 124*	*11/07/22 08:55*	*11/08/22 18:11*	*1*
2-Fluorophenol	*31*		*13 - 113*	*11/07/22 08:55*	*11/08/22 18:11*	*1*
Nitrobenzene-d5	*82*		*36 - 126*	*11/07/22 08:55*	*11/08/22 18:11*	*1*
Phenol-d5	*70*		*17 - 127*	*11/07/22 08:55*	*11/08/22 18:11*	*1*
Terphenyl-d14	*104*		*44 - 149*	*11/07/22 08:55*	*11/08/22 18:11*	*1*
2,4,6-Tribromophenol	*120*		*26 - 150*	*11/07/22 08:55*	*11/08/22 18:11*	*1*

Method: EPA 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		11/11/22 15:26	11/11/22 22:22	1
1,2-Dibromoethane	ND		0.021	0.016	ug/L		11/11/22 15:26	11/11/22 22:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*137*		*51 - 149*	*11/11/22 15:26*	*11/11/22 22:22*	*1*

Definitions/Glossary

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

Job ID: 400-228254-1

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.
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.

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: 400-228254-1

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)
400-228254-1	TB-ROX-110122-8260-SS	97	104	99
400-228254-3	P93C-ROX-110122	99	102	98
400-228254-4	P93A-ROX-110122	98	103	98
400-228254-5	P56-ROX-110122	100	102	102
400-228254-6	T12-ROX-110122	97	101	99
400-228254-6 - DL	T12-ROX-110122	97	101	99
LCS 400-600380/1002	Lab Control Sample	89	95	97
LCS 400-600439/1002	Lab Control Sample	89	98	96
MB 400-600380/4	Method Blank	99	101	99
MB 400-600439/4	Method Blank	98	102	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)
400-228254-3	P93C-ROX-110122	72	27	81	64	105	102
400-228254-4	P93A-ROX-110122	73	45	83	72	118	100
400-228254-4 - RERA	P93A-ROX-110122	84		96		92	
400-228254-5	P56-ROX-110122	78	44	90	79	114	121
400-228254-6	T12-ROX-110122	72	31	82	70	104	120
LCS 400-599497/2-A	Lab Control Sample	72	45	71	72	89	110
LCS 400-599497/4-A	Lab Control Sample	64	47	74	69	95	70
LCS 400-599854/2-A	Lab Control Sample	84		97		107	
LCSD 400-599497/3-A	Lab Control Sample Dup	76	33	76	74	96	116
LCSD 400-599497/5-A	Lab Control Sample Dup	70	46	79	73	104	81
LCSD 400-599854/3-A	Lab Control Sample Dup	83		97		109	
MB 400-599497/1-A	Method Blank	75	27	86	66	113	94
MB 400-599854/1-A	Method Blank	82		93		128	

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)
400-228254-3	P93C-ROX-110122	81	72	105

Surrogate Summary

Client: AECOM Technical Services Inc. Job ID: 400-228254-1
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)
400-228254-4	P93A-ROX-110122	89	75	104
400-228254-5	P56-ROX-110122	89	80	98
400-228254-6	T12-ROX-110122	92	77	105
LCS 400-599497/2-A	Lab Control Sample	86	79	84
LCSD 400-599497/3-A	Lab Control Sample Dup	92	82	93
MB 400-599497/1-A	Method Blank	81	77	112

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)
400-228254-2	TB-ROX-110122-8011-SS	113
400-228254-3	P93C-ROX-110122	127
400-228254-4	P93A-ROX-110122	113
400-228254-5	P56-ROX-110122	108
400-228254-6	T12-ROX-110122	137
LCS 400-600339/2-A	Lab Control Sample	117
LCSD 400-600339/3-A	Lab Control Sample Dup	121
MB 400-600339/1-A	Method Blank	118

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-228254-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET 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: 400-228254-1

Client Sample ID: TB-ROX-110122-8260-SS

Lab Sample ID: 400-228254-1

Date Collected: 11/01/22 12:00
Matrix: Water
Date Received: 11/02/22 08:59

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	600380	11/12/22 16:53	AGW	EET PEN

Client Sample ID: TB-ROX-110122-8011-SS

Lab Sample ID: 400-228254-2

Date Collected: 11/01/22 12:00
Matrix: Water
Date Received: 11/02/22 08:59

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	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 21:00	AKL	EET PEN

Client Sample ID: P93C-ROX-110122

Lab Sample ID: 400-228254-3

Date Collected: 11/01/22 09:40
Matrix: Water
Date Received: 11/02/22 08:59

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	600380	11/12/22 17:43	AGW	EET PEN
Total/NA	Prep	3520C			244.4 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 17:08	S1B	EET PEN
Total/NA	Prep	3520C			244.4 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 17:47	PP1	EET PEN
Total/NA	Prep	8011			34.1 mL	35 mL	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 21:20	AKL	EET PEN

Client Sample ID: P93A-ROX-110122

Lab Sample ID: 400-228254-4

Date Collected: 11/01/22 10:40
Matrix: Water
Date Received: 11/02/22 08:59

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	600380	11/12/22 18:08	AGW	EET PEN
Total/NA	Prep	3520C			245.8 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 17:29	S1B	EET PEN
Total/NA	Prep	3520C	RERA		243.4 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D	RERA	1	0.4 mL	0.4 mL	600291	11/11/22 18:05	S1B	EET PEN
Total/NA	Prep	3520C			245.8 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 18:05	PP1	EET PEN
Total/NA	Prep	8011			34.1 mL	35 mL	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 21:41	AKL	EET PEN

Client Sample ID: P56-ROX-110122

Lab Sample ID: 400-228254-5

Date Collected: 11/01/22 12:05
Matrix: Water
Date Received: 11/02/22 08:59

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	600380	11/12/22 18:34	AGW	EET PEN

Lab Chronicle

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

Job ID: 400-228254-1

Client Sample ID: P56-ROX-110122

Lab Sample ID: 400-228254-5

Date Collected: 11/01/22 12:05
Matrix: Water
Date Received: 11/02/22 08:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			244 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 17:50	S1B	EET PEN
Total/NA	Prep	3520C			244 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 18:22	PP1	EET PEN
Total/NA	Prep	8011			33.8 mL	35 mL	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 22:01	AKL	EET PEN

Client Sample ID: T12-ROX-110122

Lab Sample ID: 400-228254-6

Date Collected: 11/01/22 13:15
Matrix: Water
Date Received: 11/02/22 08:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	600380	11/12/22 22:20	AGW	EET PEN
Total/NA	Analysis	8260B	DL	10	5 mL	5 mL	600439	11/13/22 22:19	AGW	EET PEN
Total/NA	Prep	3520C			250.4 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 18:11	S1B	EET PEN
Total/NA	Prep	3520C			250.4 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 18:39	PP1	EET PEN
Total/NA	Prep	8011			33.2 mL	35 mL	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 22:22	AKL	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-599497/1-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 15:24	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600170	11/10/22 17:57	PP1	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-599854/1-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:13	S1B	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-600339/1-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	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 19:58	AKL	EET PEN

Lab Chronicle

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

Job ID: 400-228254-1

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-600380/4
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	600380	11/12/22 13:06	AGW	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-600439/4
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	600439	11/13/22 13:04	AGW	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-599497/2-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:26	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	600349	11/11/22 17:13	PP1	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-599497/4-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 15:44	S1B	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-599854/2-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:33	S1B	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-600339/2-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	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 20:19	AKL	EET PEN

Lab Chronicle

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

Job ID: 400-228254-1

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-600380/1002
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	600380	11/12/22 12:07	AGW	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-600439/1002
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	600439	11/13/22 12:08	AGW	EET PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-599497/3-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:47	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	600349	11/11/22 17:30	PP1	EET PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-599497/5-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:05	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-599854/3-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:54	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-600339/3-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	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 20:39	AKL	EET PEN

Laboratory References:

EET 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: 400-228254-1

GC/MS VOA

Analysis Batch: 600380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228254-1	TB-ROX-110122-8260-SS	Total/NA	Water	8260B	
400-228254-3	P93C-ROX-110122	Total/NA	Water	8260B	
400-228254-4	P93A-ROX-110122	Total/NA	Water	8260B	
400-228254-5	P56-ROX-110122	Total/NA	Water	8260B	
400-228254-6	T12-ROX-110122	Total/NA	Water	8260B	
MB 400-600380/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600380/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 600439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228254-6 - DL	T12-ROX-110122	Total/NA	Water	8260B	
MB 400-600439/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600439/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 599497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228254-3	P93C-ROX-110122	Total/NA	Water	3520C	
400-228254-4	P93A-ROX-110122	Total/NA	Water	3520C	
400-228254-5	P56-ROX-110122	Total/NA	Water	3520C	
400-228254-6	T12-ROX-110122	Total/NA	Water	3520C	
MB 400-599497/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-599497/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-599497/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 599728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228254-3	P93C-ROX-110122	Total/NA	Water	8270D	599497
400-228254-4	P93A-ROX-110122	Total/NA	Water	8270D	599497
400-228254-5	P56-ROX-110122	Total/NA	Water	8270D	599497
400-228254-6	T12-ROX-110122	Total/NA	Water	8270D	599497
MB 400-599497/1-A	Method Blank	Total/NA	Water	8270D	599497
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	8270D	599497
LCS 400-599497/4-A	Lab Control Sample	Total/NA	Water	8270D	599497
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	599497
LCSD 400-599497/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	599497

Prep Batch: 599854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228254-4 - RERA	P93A-ROX-110122	Total/NA	Water	3520C	
MB 400-599854/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-599854/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-599854/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 600049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-599854/1-A	Method Blank	Total/NA	Water	8270D	599854
LCS 400-599854/2-A	Lab Control Sample	Total/NA	Water	8270D	599854

GC/MS Semi VOA (Continued)

Analysis Batch: 600049 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-599854/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	599854

Analysis Batch: 600170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-599497/1-A	Method Blank	Total/NA	Water	8270D LL	599497

Analysis Batch: 600291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228254-4 - RERA	P93A-ROX-110122	Total/NA	Water	8270D	599854

Analysis Batch: 600349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228254-3	P93C-ROX-110122	Total/NA	Water	8270D LL	599497
400-228254-4	P93A-ROX-110122	Total/NA	Water	8270D LL	599497
400-228254-5	P56-ROX-110122	Total/NA	Water	8270D LL	599497
400-228254-6	T12-ROX-110122	Total/NA	Water	8270D LL	599497
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	8270D LL	599497
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	599497

GC Semi VOA

Prep Batch: 600339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228254-2	TB-ROX-110122-8011-SS	Total/NA	Water	8011	
400-228254-3	P93C-ROX-110122	Total/NA	Water	8011	
400-228254-4	P93A-ROX-110122	Total/NA	Water	8011	
400-228254-5	P56-ROX-110122	Total/NA	Water	8011	
400-228254-6	T12-ROX-110122	Total/NA	Water	8011	
MB 400-600339/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-600339/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-600339/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 600360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228254-2	TB-ROX-110122-8011-SS	Total/NA	Water	8011	600339
400-228254-3	P93C-ROX-110122	Total/NA	Water	8011	600339
400-228254-4	P93A-ROX-110122	Total/NA	Water	8011	600339
400-228254-5	P56-ROX-110122	Total/NA	Water	8011	600339
400-228254-6	T12-ROX-110122	Total/NA	Water	8011	600339
MB 400-600339/1-A	Method Blank	Total/NA	Water	8011	600339
LCS 400-600339/2-A	Lab Control Sample	Total/NA	Water	8011	600339
LCSD 400-600339/3-A	Lab Control Sample Dup	Total/NA	Water	8011	600339

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

Lab Sample ID: MB 400-600380/4
Matrix: Water
Analysis Batch: 600380

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			11/12/22 13:06	1
Acrolein	ND		20	3.3	ug/L			11/12/22 13:06	1
Acrylonitrile	ND		10	2.8	ug/L			11/12/22 13:06	1
Benzene	ND		1.0	0.13	ug/L			11/12/22 13:06	1
Bromobenzene	ND		1.0	0.54	ug/L			11/12/22 13:06	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/12/22 13:06	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/12/22 13:06	1
Bromoform	ND		5.0	0.25	ug/L			11/12/22 13:06	1
Bromomethane	ND		1.0	0.98	ug/L			11/12/22 13:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/12/22 13:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/12/22 13:06	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/12/22 13:06	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/12/22 13:06	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/12/22 13:06	1
Chloroethane	ND		1.0	0.76	ug/L			11/12/22 13:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/12/22 13:06	1
Chloroform	ND		1.0	1.0	ug/L			11/12/22 13:06	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/12/22 13:06	1
Chloromethane	ND		1.0	0.32	ug/L			11/12/22 13:06	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/12/22 13:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/12/22 13:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/12/22 13:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/12/22 13:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/12/22 13:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/12/22 13:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/12/22 13:06	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/12/22 13:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 13:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 13:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 13:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/12/22 13:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/12/22 13:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/12/22 13:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/12/22 13:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/12/22 13:06	1
2-Hexanone	ND		25	1.4	ug/L			11/12/22 13:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/12/22 13:06	1
Methylene bromide	ND		5.0	0.22	ug/L			11/12/22 13:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/12/22 13:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/12/22 13:06	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/12/22 13:06	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/12/22 13:06	1
Naphthalene	ND		5.0	3.0	ug/L			11/12/22 13:06	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/12/22 13:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/12/22 13:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/12/22 13:06	1
o-Xylene	ND		5.0	0.60	ug/L			11/12/22 13:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/12/22 13:06	1

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

Lab Sample ID: MB 400-600380/4
Matrix: Water
Analysis Batch: 600380

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			11/12/22 13:06	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/12/22 13:06	1
Styrene	ND		1.0	1.0	ug/L			11/12/22 13:06	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/12/22 13:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/12/22 13:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/12/22 13:06	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/12/22 13:06	1
Toluene	ND		1.0	0.41	ug/L			11/12/22 13:06	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/12/22 13:06	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/12/22 13:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/12/22 13:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/12/22 13:06	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/12/22 13:06	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/12/22 13:06	1
Trichloroethene	ND		1.0	0.15	ug/L			11/12/22 13:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/12/22 13:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/12/22 13:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/12/22 13:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/12/22 13:06	1
Vinyl acetate	ND		25	0.93	ug/L			11/12/22 13:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/12/22 13:06	1
Xylenes, Total	ND		10	1.6	ug/L			11/12/22 13:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*11/12/22 13:06*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/12/22 13:06*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/12/22 13:06*	*1*

Lab Sample ID: LCS 400-600380/1002
Matrix: Water
Analysis Batch: 600380

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	358	*+	ug/L		179	43 - 160
Acrolein	500	550		ug/L		110	38 - 160
Acrylonitrile	500	534		ug/L		107	64 - 142
Benzene	50.0	53.4		ug/L		107	70 - 130
Bromobenzene	50.0	51.8		ug/L		104	70 - 132
Bromochloromethane	50.0	49.9		ug/L		100	70 - 130
Bromodichloromethane	50.0	54.7		ug/L		109	67 - 133
Bromoform	50.0	55.8		ug/L		112	57 - 140
Bromomethane	50.0	56.9		ug/L		114	10 - 160
2-Butanone (MEK)	200	263		ug/L		131	61 - 145
Carbon disulfide	50.0	53.4		ug/L		107	61 - 137
Carbon tetrachloride	50.0	53.0		ug/L		106	61 - 137
Chlorobenzene	50.0	57.9		ug/L		116	70 - 130
Dibromochloromethane	50.0	57.5		ug/L		115	67 - 135
Chloroethane	50.0	46.6		ug/L		93	55 - 141

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

Lab Sample ID: LCS 400-600380/1002
Matrix: Water
Analysis Batch: 600380

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	46.0		ug/L		92	10 - 160
Chloroform	50.0	52.4		ug/L		105	69 - 130
1-Chlorohexane	50.0	58.9		ug/L		118	69 - 130
Chloromethane	50.0	67.0		ug/L		134	58 - 137
cis-1,2-Dichloroethene	50.0	49.0		ug/L		98	68 - 130
cis-1,3-Dichloropropene	50.0	48.8		ug/L		98	69 - 132
1,2-Dichlorobenzene	50.0	58.7		ug/L		117	67 - 130
1,3-Dichlorobenzene	50.0	57.7		ug/L		115	70 - 130
1,4-Dichlorobenzene	50.0	58.9		ug/L		118	70 - 130
Dichlorodifluoromethane	50.0	63.7		ug/L		127	41 - 146
1,1-Dichloroethane	50.0	53.1		ug/L		106	70 - 130
1,2-Dichloroethane	50.0	50.2		ug/L		100	69 - 130
1,1-Dichloroethene	50.0	50.5		ug/L		101	63 - 134
1,2-Dichloropropane	50.0	55.2		ug/L		110	70 - 130
1,3-Dichloropropane	50.0	54.1		ug/L		108	70 - 130
2,2-Dichloropropane	50.0	47.4		ug/L		95	52 - 135
1,1-Dichloropropene	50.0	50.1		ug/L		100	70 - 130
Ethylbenzene	50.0	52.9		ug/L		106	70 - 130
Ethyl methacrylate	50.0	42.5		ug/L		85	68 - 130
Hexachlorobutadiene	50.0	64.1		ug/L		128	53 - 140
2-Hexanone	200	241		ug/L		120	65 - 137
Isopropylbenzene	50.0	52.7		ug/L		105	70 - 130
Methylene bromide	50.0	52.1		ug/L		104	70 - 130
Methylene Chloride	50.0	50.8		ug/L		102	66 - 135
4-Methyl-2-pentanone (MIBK)	200	210		ug/L		105	69 - 138
Methyl tert-butyl ether	50.0	42.2		ug/L		84	66 - 130
m-Xylene & p-Xylene	50.0	51.7		ug/L		103	70 - 130
Naphthalene	50.0	32.6		ug/L		65	47 - 149
n-Butylbenzene	50.0	64.0		ug/L		128	67 - 130
N-Propylbenzene	50.0	54.1		ug/L		108	70 - 130
o-Chlorotoluene	50.0	55.2		ug/L		110	70 - 130
o-Xylene	50.0	52.0		ug/L		104	70 - 130
p-Chlorotoluene	50.0	57.8		ug/L		116	70 - 130
p-Isopropyltoluene	50.0	55.4		ug/L		111	65 - 130
sec-Butylbenzene	50.0	56.7		ug/L		113	66 - 130
Styrene	50.0	52.8		ug/L		106	70 - 130
tert-Butylbenzene	50.0	53.9		ug/L		108	64 - 139
1,1,1,2-Tetrachloroethane	50.0	58.3		ug/L		117	67 - 131
1,1,2,2-Tetrachloroethane	50.0	55.8		ug/L		112	70 - 131
Tetrachloroethene	50.0	54.9		ug/L		110	65 - 130
Toluene	50.0	52.6		ug/L		105	70 - 130
trans-1,2-Dichloroethene	50.0	51.0		ug/L		102	70 - 130
trans-1,3-Dichloropropene	50.0	49.4		ug/L		99	63 - 130
1,2,3-Trichlorobenzene	50.0	42.7		ug/L		85	60 - 138
1,2,4-Trichlorobenzene	50.0	41.0		ug/L		82	60 - 140
1,1,1-Trichloroethane	50.0	51.7		ug/L		103	68 - 130
1,1,2-Trichloroethane	50.0	55.9		ug/L		112	70 - 130
Trichloroethene	50.0	52.1		ug/L		104	70 - 130
Trichlorofluoromethane	50.0	52.2		ug/L		104	65 - 138

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

Lab Sample ID: LCS 400-600380/1002
Matrix: Water
Analysis Batch: 600380

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	54.5		ug/L		109	70 - 130
1,2,4-Trimethylbenzene	50.0	54.6		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	50.0	53.9		ug/L		108	69 - 130
Vinyl acetate	100	90.3		ug/L		90	26 - 160
Vinyl chloride	50.0	54.5		ug/L		109	59 - 136
Xylenes, Total	100	104		ug/L		104	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*95*		*75 - 126*
Toluene-d8 (Surr)	*97*		*64 - 132*

Lab Sample ID: MB 400-600439/4
Matrix: Water
Analysis Batch: 600439

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			11/13/22 13:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/13/22 13:04*	*1*
Dibromofluoromethane	*102*		*75 - 126*		*11/13/22 13:04*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/13/22 13:04*	*1*

Lab Sample ID: LCS 400-600439/1002
Matrix: Water
Analysis Batch: 600439

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	53.5		ug/L		107	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*89*		*72 - 119*
Dibromofluoromethane	*98*		*75 - 126*
Toluene-d8 (Surr)	*96*		*64 - 132*

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzenethiol	ND		10	1.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzoic acid	ND		30	7.3	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzyl alcohol	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 15:24	1

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 15:24	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/07/22 08:55	11/08/22 15:24	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chloroaniline	ND		10	3.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Chlorophenol	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dibenzofuran	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Diethyl phthalate	ND		10	0.24	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 15:24	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
1,4-Dioxane	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachloroethane	ND		10	4.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
Indene	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Isophorone	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Methylphenol	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Nitroaniline	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
3-Nitroaniline	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Nitroaniline	ND		10	1.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
Nitrobenzene	ND		10	0.13	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Nitrophenol	ND		10	5.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Nitrophenol	ND		10	2.1	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/07/22 08:55	11/08/22 15:24	1
Pentachlorophenol	ND		20	1.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
Phenol	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
Pyridine	ND		10	3.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
Quinoline	ND		10	4.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		46 - 124	11/07/22 08:55	11/08/22 15:24	1
2-Fluorophenol	27		13 - 113	11/07/22 08:55	11/08/22 15:24	1
Nitrobenzene-d5	86		36 - 126	11/07/22 08:55	11/08/22 15:24	1
Phenol-d5	66		17 - 127	11/07/22 08:55	11/08/22 15:24	1
Terphenyl-d14	113		44 - 149	11/07/22 08:55	11/08/22 15:24	1
2,4,6-Tribromophenol	94		26 - 150	11/07/22 08:55	11/08/22 15:24	1

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	104		ug/L		87	21 - 120
Benzoic acid	513	237		ug/L		46	10 - 144
Benzyl alcohol	120	98.3		ug/L		82	28 - 120
Bis(2-chloroethoxy)methane	120	76.5		ug/L		64	47 - 120
Bis(2-chloroethyl)ether	120	85.3		ug/L		71	44 - 120
bis (2-chloroisopropyl) ether	120	138		ug/L		115	33 - 121
Bis(2-ethylhexyl) phthalate	120	116		ug/L		97	52 - 147
4-Bromophenyl phenyl ether	120	114		ug/L		95	54 - 122
Butyl benzyl phthalate	120	103		ug/L		86	54 - 133
4-Chloroaniline	120	81.6		ug/L		68	26 - 120
4-Chloro-3-methylphenol	120	101		ug/L		84	48 - 131
2-Chloronaphthalene	120	93.6		ug/L		78	52 - 121
2-Chlorophenol	120	90.4		ug/L		75	40 - 120
4-Chlorophenyl phenyl ether	120	106		ug/L		88	56 - 125
Dibenz[a,h]acridine	120	106		ug/L		88	31 - 150
Dibenzofuran	120	98.2		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	170		ug/L		106	36 - 132
2,4-Dichlorophenol	120	89.0		ug/L		74	49 - 120
Diethyl phthalate	120	122		ug/L		102	50 - 137
2,4-Dimethylphenol	120	96.5		ug/L		80	48 - 120
Dimethyl phthalate	120	102		ug/L		85	57 - 124
Di-n-butyl phthalate	120	119		ug/L		100	58 - 126
4,6-Dinitro-ortho-cresol	240	317		ug/L		132	23 - 148
2,4-Dinitrophenol	240	300		ug/L		125	10 - 150
2,4-Dinitrotoluene	120	105		ug/L		87	54 - 142
2,6-Dinitrotoluene	120	91.0		ug/L		76	55 - 130
Di-n-octyl phthalate	120	120		ug/L		100	57 - 138
1,4-Dioxane	120	81.6		ug/L		68	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	108		ug/L		90	45 - 124
Hexachlorobenzene	120	134		ug/L		112	52 - 129
Hexachlorocyclopentadiene	120	72.7		ug/L		61	10 - 134
Hexachloroethane	120	108		ug/L		90	20 - 120
Indene	120	90.5		ug/L		75	49 - 120
Isophorone	120	85.2		ug/L		71	48 - 120
2-Methylphenol	120	117		ug/L		97	46 - 124
3 & 4 Methylphenol	120	109		ug/L		91	45 - 120

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

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Nitroaniline	120	110		ug/L		92	51 - 145
3-Nitroaniline	120	104		ug/L		87	37 - 127
4-Nitroaniline	120	118		ug/L		98	36 - 137
Nitrobenzene	120	81.6		ug/L		68	45 - 120
2-Nitrophenol	120	85.5		ug/L		71	40 - 124
4-Nitrophenol	240	303		ug/L		126	23 - 146
N-Nitrosodimethylamine	120	144		ug/L		120	29 - 137
N-Nitrosodi-n-propylamine	120	123		ug/L		102	45 - 120
N-Nitrosodiphenylamine	119	101		ug/L		85	54 - 120
Pentachlorophenol	240	239		ug/L		100	31 - 130
Phenol	120	100		ug/L		83	11 - 120
Pyridine	240	162		ug/L		68	16 - 120
Quinoline	120	82.1		ug/L		68	49 - 130
2,4,5-Trichlorophenol	120	107		ug/L		89	51 - 136
2,4,6-Trichlorophenol	120	104		ug/L		86	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*45*		*13 - 113*
Nitrobenzene-d5	*71*		*36 - 126*
Phenol-d5	*72*		*17 - 127*
Terphenyl-d14	*89*		*44 - 149*
2,4,6-Tribromophenol	*110*		*26 - 150*

Lab Sample ID: LCS 400-599497/4-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	5.96	J *-	ug/L		5	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*64*		*46 - 124*
2-Fluorophenol	*47*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	108		ug/L		90	21 - 120	3	30
Benzoic acid	513	253		ug/L		49	10 - 144	6	30
Benzyl alcohol	120	104		ug/L		86	28 - 120	5	30
Bis(2-chloroethoxy)methane	120	84.1		ug/L		70	47 - 120	9	30

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

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-chloroethyl)ether	120	87.9		ug/L		73	44 - 120	3	30
bis (2-chloroisopropyl) ether	120	140		ug/L		116	33 - 121	2	30
Bis(2-ethylhexyl) phthalate	120	125		ug/L		104	52 - 147	8	30
4-Bromophenyl phenyl ether	120	122		ug/L		102	54 - 122	7	30
Butyl benzyl phthalate	120	111		ug/L		93	54 - 133	8	30
4-Chloroaniline	120	88.4		ug/L		74	26 - 120	8	30
4-Chloro-3-methylphenol	120	107		ug/L		89	48 - 131	6	30
2-Chloronaphthalene	120	101		ug/L		84	52 - 121	7	30
2-Chlorophenol	120	87.3		ug/L		73	40 - 120	3	30
4-Chlorophenyl phenyl ether	120	114		ug/L		95	56 - 125	8	30
Dibenz[a,h]acridine	120	110		ug/L		92	31 - 150	4	30
Dibenzofuran	120	105		ug/L		88	56 - 122	7	30
3,3'-Dichlorobenzidine	160	182		ug/L		114	36 - 132	7	30
2,4-Dichlorophenol	120	97.9		ug/L		82	49 - 120	10	30
Diethyl phthalate	120	132		ug/L		110	50 - 137	8	30
2,4-Dimethylphenol	120	106		ug/L		88	48 - 120	9	30
Dimethyl phthalate	120	111		ug/L		92	57 - 124	8	30
Di-n-butyl phthalate	120	127		ug/L		106	58 - 126	7	30
4,6-Dinitro-ortho-cresol	240	344		ug/L		143	23 - 148	8	30
2,4-Dinitrophenol	240	311		ug/L		130	10 - 150	4	30
2,4-Dinitrotoluene	120	110		ug/L		92	54 - 142	5	30
2,6-Dinitrotoluene	120	96.0		ug/L		80	55 - 130	5	30
Di-n-octyl phthalate	120	131		ug/L		109	57 - 138	8	30
1,4-Dioxane	120	81.7		ug/L		68	31 - 120	0	30
1,2-Diphenylhydrazine (as Azobenzene)	120	116		ug/L		97	45 - 124	7	30
Hexachlorobenzene	120	145		ug/L		121	52 - 129	8	30
Hexachlorocyclopentadiene	120	81.6		ug/L		68	10 - 134	12	30
Hexachloroethane	120	112		ug/L		94	20 - 120	4	30
Indene	120	94.3		ug/L		79	49 - 120	4	30
Isophorone	120	92.8		ug/L		77	48 - 120	9	30
2-Methylphenol	120	123		ug/L		102	46 - 124	5	30
3 & 4 Methylphenol	120	115		ug/L		96	45 - 120	5	30
2-Nitroaniline	120	114		ug/L		95	51 - 145	4	30
3-Nitroaniline	120	109		ug/L		91	37 - 127	5	30
4-Nitroaniline	120	123		ug/L		102	36 - 137	4	30
Nitrobenzene	120	89.1		ug/L		74	45 - 120	9	30
2-Nitrophenol	120	95.9		ug/L		80	40 - 124	11	30
4-Nitrophenol	240	321		ug/L		134	23 - 146	6	30
N-Nitrosodimethylamine	120	156		ug/L		130	29 - 137	8	30
N-Nitrosodi-n-propylamine	120	125		ug/L		104	45 - 120	2	30
N-Nitrosodiphenylamine	119	110		ug/L		92	54 - 120	8	30
Pentachlorophenol	240	255		ug/L		106	31 - 130	6	30
Phenol	120	104		ug/L		87	11 - 120	4	30
Pyridine	240	153		ug/L		64	16 - 120	6	30
Quinoline	120	90.0		ug/L		75	49 - 130	9	30
2,4,5-Trichlorophenol	120	117		ug/L		98	51 - 136	9	30
2,4,6-Trichlorophenol	120	114		ug/L		95	50 - 127	10	30

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

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	76		46 - 124
2-Fluorophenol	33		13 - 113
Nitrobenzene-d5	76		36 - 126
Phenol-d5	74		17 - 127
Terphenyl-d14	96		44 - 149
2,4,6-Tribromophenol	116		26 - 150

Lab Sample ID: LCSD 400-599497/5-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	6.61	J *-	ug/L		6	10 - 120	10	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	70		46 - 124
2-Fluorophenol	46		13 - 113
Nitrobenzene-d5	79		36 - 126
Phenol-d5	73		17 - 127
Terphenyl-d14	104		44 - 149
2,4,6-Tribromophenol	81		26 - 150

Lab Sample ID: MB 400-599854/1-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/09/22 09:13	11/10/22 21:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		46 - 124	11/09/22 09:13	11/10/22 21:13	1
Nitrobenzene-d5	93		36 - 126	11/09/22 09:13	11/10/22 21:13	1
Terphenyl-d14	128		44 - 149	11/09/22 09:13	11/10/22 21:13	1

Lab Sample ID: LCS 400-599854/2-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599854

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-ethylhexyl) phthalate	120	141		ug/L		117	52 - 147

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	84		46 - 124
Nitrobenzene-d5	97		36 - 126
Terphenyl-d14	107		44 - 149

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

Lab Sample ID: LCSD 400-599854/3-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599854

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate	120	146		ug/L		121	52 - 147	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
Nitrobenzene-d5	*97*		*36 - 126*
Terphenyl-d14	*109*		*44 - 149*

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 600170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/07/22 08:55	11/10/22 17:57	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/07/22 08:55	11/10/22 17:57	1
Anthracene	ND		0.20	0.032	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[a]anthracene	0.0610	J	0.20	0.046	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/07/22 08:55	11/10/22 17:57	1
Chrysene	ND		0.20	0.074	ug/L		11/07/22 08:55	11/10/22 17:57	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/07/22 08:55	11/10/22 17:57	1
Fluoranthene	ND		0.20	0.068	ug/L		11/07/22 08:55	11/10/22 17:57	1
Fluorene	ND		0.20	0.11	ug/L		11/07/22 08:55	11/10/22 17:57	1
Indeno[1,2,3-cd]pyrene	0.0714	J	0.20	0.043	ug/L		11/07/22 08:55	11/10/22 17:57	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/07/22 08:55	11/10/22 17:57	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/07/22 08:55	11/10/22 17:57	1
Phenanthrene	ND		0.20	0.036	ug/L		11/07/22 08:55	11/10/22 17:57	1
Pyrene	ND		0.20	0.040	ug/L		11/07/22 08:55	11/10/22 17:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*15 - 122*	*11/07/22 08:55*	*11/10/22 17:57*	*1*
Nitrobenzene-d5	*77*		*19 - 130*	*11/07/22 08:55*	*11/10/22 17:57*	*1*
Terphenyl-d14	*112*		*33 - 138*	*11/07/22 08:55*	*11/10/22 17:57*	*1*

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	105		ug/L		87	41 - 120
Acenaphthylene	120	111		ug/L		93	44 - 120
Anthracene	120	111		ug/L		92	49 - 120
Benzo[a]anthracene	120	112		ug/L		93	61 - 135
Benzo[a]pyrene	120	110		ug/L		91	52 - 120
Benzo[b]fluoranthene	120	115		ug/L		96	53 - 134

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

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzo[g,h,i]perylene	120	112		ug/L		93	47 - 133
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134
Chrysene	120	102		ug/L		85	55 - 122
Dibenz(a,h)anthracene	120	114		ug/L		95	48 - 146
Fluoranthene	120	117		ug/L		98	54 - 128
Fluorene	120	109		ug/L		91	45 - 125
Indeno[1,2,3-cd]pyrene	120	118		ug/L		98	43 - 142
1-Methylnaphthalene	120	89.4		ug/L		74	41 - 120
2-Methylnaphthalene	120	98.8		ug/L		82	32 - 124
Phenanthrene	120	110		ug/L		91	48 - 120
Pyrene	120	110		ug/L		91	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*15 - 122*
Nitrobenzene-d5	*79*		*19 - 130*
Terphenyl-d14	*84*		*33 - 138*

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	109		ug/L		91	41 - 120	4	56
Acenaphthylene	120	115		ug/L		96	44 - 120	3	56
Anthracene	120	112		ug/L		94	49 - 120	2	51
Benzo[a]anthracene	120	116		ug/L		96	61 - 135	3	49
Benzo[a]pyrene	120	110		ug/L		91	52 - 120	0	50
Benzo[b]fluoranthene	120	118		ug/L		99	53 - 134	3	54
Benzo[g,h,i]perylene	120	111		ug/L		92	47 - 133	1	50
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134	0	52
Chrysene	120	106		ug/L		88	55 - 122	3	50
Dibenz(a,h)anthracene	120	111		ug/L		93	48 - 146	2	50
Fluoranthene	120	114		ug/L		95	54 - 128	3	52
Fluorene	120	110		ug/L		92	45 - 125	1	56
Indeno[1,2,3-cd]pyrene	120	117		ug/L		97	43 - 142	1	51
1-Methylnaphthalene	120	91.0		ug/L		76	41 - 120	2	55
2-Methylnaphthalene	120	101		ug/L		84	32 - 124	2	57
Phenanthrene	120	112		ug/L		94	48 - 120	2	56
Pyrene	120	119		ug/L		99	48 - 132	8	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*15 - 122*
Nitrobenzene-d5	*82*		*19 - 130*
Terphenyl-d14	*93*		*33 - 138*

QC Sample Results

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

Job ID: 400-228254-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-600339/1-A
Matrix: Water
Analysis Batch: 600360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 600339

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		11/11/22 15:26	11/11/22 19:58	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/11/22 15:26	11/11/22 19:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*118*		*51 - 149*	*11/11/22 15:26*	*11/11/22 19:58*	*1*

Lab Sample ID: LCS 400-600339/2-A
Matrix: Water
Analysis Batch: 600360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 600339

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.181	*+	ug/L		180	60 - 140
1,2-Dibromoethane	0.101	0.135		ug/L		134	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*117*		*51 - 149*

Lab Sample ID: LCSD 400-600339/3-A
Matrix: Water
Analysis Batch: 600360

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 600339

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.190	*+	ug/L		189	60 - 140	5	30
1,2-Dibromoethane	0.101	0.136		ug/L		135	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*121*		*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: 11/1/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.4.2	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 – 3.4.2

ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA

EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions

PHONE NO.: 314-802-1207

E-MAIL: melissa.remiger@aecom.com

AECOM Other ID:

PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell

SAMPLER NAME(S) (Print): J. Mayer, S. Beadle

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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

SPLIT REPORT

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

FIELD NOTES:

0.8°C IR9

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	Container PID Readings or Laboratory Notes:
	TB-ROX-110122-8260-SS	11/1/2022	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-110122-8011-SS	11/1/2022	0000	Water	2					2		X			
	P93C-ROX-110122	11/1/2022	0940	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93A-ROX-110122	11/1/2022	1040	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P56-ROX-110122	11/1/2022	1205	Water	6			2		8	X	X	X	X	SPLIT REPORT
	T12-ROX-110122	11/1/2022	1315	Water	6			2		8	X	X	X	X	SPLIT REPORT

400-228254 COC

Joe Mayer 11/1/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Joe Mayer	FEDEX: 5293 4337 5250	11/1/2022	1600
Relinquished by: (Signature)	Received by: (Signature) EECIS	Date: 11/2/22	Time: 859
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

Version: 13Oct22

CUSTODY SEALS: 1745806, 1745807

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11/16/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-228254-1

Login Number: 228254
List Number: 1
Creator: Perez, Trina M

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.	True	
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	0.8°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: 400-228254-1

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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

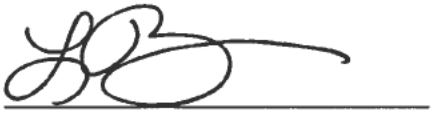
Eurofins Pensacola

Job Notes

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. Eurofins Environment Testing Southeast LLC, Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization



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11/16/2022 1:56:10 PM

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

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-228395-1

Data Reviewer: Andrei Niculau

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/19/2022

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

Sample Identification	Sample Identification
TB-ROX-110322-8260-SS	TB-ROX-110322-8011-SS
P93D-ROX-110322	-

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 benzo[a]anthracene and indeno[1,2,3-cd]pyrene were detected in the method blank. LCS/LCSD recoveries for benzenethiol and acetone were outside evaluation criteria. The continuing calibration verification (CCV) for hexachlorocyclopentadiene was outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (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
MB 400-599497/1-A	PAHs	Benzo[a]anthracene	0.0610 µg/L
MB 400-599497/1-A	PAHs	Indeno[1,2,3-cd] pyrene	0.0714 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/LCSD recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-599497 /3-A/4-A	SVOCs	Benzenethiol	**5/6**	10	10-120/30
LCS 400-600880/1002	VOCs	Acetone	**166**	NA	43-160

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-110322	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 (CCV) for hexachlorocyclopentadiene was outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-110322	SVOCs	Hexachlorocyclopentadiene	**UJ**

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ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis Missouri 63102
Generated 11/21/2022 11:42:09 AM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-228395-1

Reviewed 12/19/202
A.N.

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

my EOL

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Job ID: 400-228395-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-228395-1

Receipt
The samples were received on 11/4/2022 8:59 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 time was 0.2°C

GC/MS VOA
Method 8260B: The laboratory control sample (LCS) for analytical batch 400-600880 recovered outside control limits for the following analyte: Acetone. 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 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-110322-8260-SS (400-228395-1) and P93D-ROX-110322 (400-228395-3). The requested target analyte list includes 2-Chloroethyl vinyl ether, an acid-labile compound that degrades 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 400-599497 and analytical batch 400-599728 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 400-599728 recovered outside acceptance criteria, low biased, for 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 400-599497 and analytical batch 400-600170 contained Indeno[1,2,3-cd]pyrene 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 continuing calibration verification (CCV) associated with batch 400-600170 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
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

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

Job ID: 400-228395-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-228395-1	TB-ROX-110322-8260-SS	Water	11/03/22 12:00	11/04/22 08:59
400-228395-2	TB-ROX-110322-8011-SS	Water	11/03/22 12:00	11/04/22 08:59
400-228395-3	P93D-ROX-110322	Water	11/03/22 13:05	11/04/22 08:59

Detection Summary

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

Job ID: 400-228395-1

Client Sample ID: TB-ROX-110322-8260-SS

Lab Sample ID: 400-228395-1

No Detections.

Client Sample ID: TB-ROX-110322-8011-SS

Lab Sample ID: 400-228395-2

No Detections.

Client Sample ID: P93D-ROX-110322

Lab Sample ID: 400-228395-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloromethane	1.1		1.0	0.32	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	0.73	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[b]fluoranthene	0.12	J	0.18	0.031	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.092	J	0.18	0.063	ug/L	1		8270D LL	Total/NA
Pyrene	0.068	J	0.18	0.037	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	5.1	J	9.2	4.6	ug/L	1		8270D	Total/NA
Diethyl phthalate	0.84	J	9.2	0.22	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	2.6	J	9.2	2.5	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: 400-228395-1

Client Sample ID: TB-ROX-110322-8260-SS
Date Collected: 11/03/22 12:00
Date Received: 11/04/22 08:59

Lab Sample ID: 400-228395-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/16/22 12:03	1
Acrolein	ND		20	3.3	ug/L			11/16/22 12:03	1
Acrylonitrile	ND		10	2.8	ug/L			11/16/22 12:03	1
Benzene	ND		1.0	0.13	ug/L			11/16/22 12:03	1
Bromobenzene	ND		1.0	0.54	ug/L			11/16/22 12:03	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/16/22 12:03	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/16/22 12:03	1
Bromoform	ND		5.0	0.25	ug/L			11/16/22 12:03	1
Bromomethane	ND		1.0	0.98	ug/L			11/16/22 12:03	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/16/22 12:03	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/16/22 12:03	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/16/22 12:03	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/16/22 12:03	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/16/22 12:03	1
Chloroethane	ND		1.0	0.76	ug/L			11/16/22 12:03	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/16/22 12:03	1
Chloroform	ND		1.0	1.0	ug/L			11/16/22 12:03	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/16/22 12:03	1
Chloromethane	ND		1.0	0.32	ug/L			11/16/22 12:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/16/22 12:03	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/16/22 12:03	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/16/22 12:03	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/16/22 12:03	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/16/22 12:03	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/16/22 12:03	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/16/22 12:03	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/16/22 12:03	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/16/22 12:03	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 12:03	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 12:03	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 12:03	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/16/22 12:03	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/16/22 12:03	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/16/22 12:03	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/16/22 12:03	1
2-Hexanone	ND		25	1.4	ug/L			11/16/22 12:03	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/16/22 12:03	1
Methylene bromide	ND		5.0	0.22	ug/L			11/16/22 12:03	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/16/22 12:03	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/16/22 12:03	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/16/22 12:03	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/16/22 12:03	1
Naphthalene	ND		5.0	3.0	ug/L			11/16/22 12:03	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/16/22 12:03	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/16/22 12:03	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/16/22 12:03	1
o-Xylene	ND		5.0	0.60	ug/L			11/16/22 12:03	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/16/22 12:03	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/16/22 12:03	1

Client Sample ID: TB-ROX-110322-8260-SS
Date Collected: 11/03/22 12:00
Date Received: 11/04/22 08:59

Lab Sample ID: 400-228395-1
Matrix: Water

Method: SW846 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			11/16/22 12:03	1
Styrene	ND		1.0	1.0	ug/L			11/16/22 12:03	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/16/22 12:03	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/16/22 12:03	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/16/22 12:03	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/16/22 12:03	1
Toluene	ND		1.0	0.41	ug/L			11/16/22 12:03	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/16/22 12:03	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/16/22 12:03	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/16/22 12:03	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/16/22 12:03	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/16/22 12:03	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/16/22 12:03	1
Trichloroethene	ND		1.0	0.15	ug/L			11/16/22 12:03	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/16/22 12:03	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/16/22 12:03	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/16/22 12:03	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/16/22 12:03	1
Vinyl acetate	ND		25	0.93	ug/L			11/16/22 12:03	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/16/22 12:03	1
Xylenes, Total	ND		10	1.6	ug/L			11/16/22 12:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/16/22 12:03*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/16/22 12:03*	*1*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/16/22 12:03*	*1*

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

Job ID: 400-228395-1

Client Sample ID: TB-ROX-110322-8011-SS
Date Collected: 11/03/22 12:00
Date Received: 11/04/22 08:59

Lab Sample ID: 400-228395-2
Matrix: Water

Method: EPA 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		11/09/22 08:27	11/09/22 17:47	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 17:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*112*		*51 - 149*	*11/09/22 08:27*	*11/09/22 17:47*	*1*

Client Sample ID: P93D-ROX-110322
Date Collected: 11/03/22 13:05
Date Received: 11/04/22 08:59

Lab Sample ID: 400-228395-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	*+	25	10	ug/L			11/16/22 12:27	1
Acrolein	ND		20	3.3	ug/L			11/16/22 12:27	1
Acrylonitrile	ND		10	2.8	ug/L			11/16/22 12:27	1
Benzene	ND		1.0	0.13	ug/L			11/16/22 12:27	1
Bromobenzene	ND		1.0	0.54	ug/L			11/16/22 12:27	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/16/22 12:27	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/16/22 12:27	1
Bromoform	ND		5.0	0.25	ug/L			11/16/22 12:27	1
Bromomethane	ND		1.0	0.98	ug/L			11/16/22 12:27	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/16/22 12:27	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/16/22 12:27	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/16/22 12:27	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/16/22 12:27	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/16/22 12:27	1
Chloroethane	ND		1.0	0.76	ug/L			11/16/22 12:27	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/16/22 12:27	1
Chloroform	ND		1.0	1.0	ug/L			11/16/22 12:27	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/16/22 12:27	1
Chloromethane	**1.1**		1.0	0.32	ug/L			11/16/22 12:27	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/16/22 12:27	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/16/22 12:27	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/16/22 12:27	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/16/22 12:27	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/16/22 12:27	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/16/22 12:27	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/16/22 12:27	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/16/22 12:27	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/16/22 12:27	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 12:27	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 12:27	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 12:27	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/16/22 12:27	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/16/22 12:27	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/16/22 12:27	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/16/22 12:27	1
2-Hexanone	ND		25	1.4	ug/L			11/16/22 12:27	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/16/22 12:27	1
Methylene bromide	ND		5.0	0.22	ug/L			11/16/22 12:27	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/16/22 12:27	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/16/22 12:27	1
Methyl tert-butyl ether	**0.73**	J	1.0	0.22	ug/L			11/16/22 12:27	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/16/22 12:27	1
Naphthalene	ND		5.0	3.0	ug/L			11/16/22 12:27	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/16/22 12:27	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/16/22 12:27	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/16/22 12:27	1
o-Xylene	ND		5.0	0.60	ug/L			11/16/22 12:27	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/16/22 12:27	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/16/22 12:27	1

Client Sample ID: P93D-ROX-110322
Date Collected: 11/03/22 13:05
Date Received: 11/04/22 08:59

Lab Sample ID: 400-228395-3
Matrix: Water

Method: SW846 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			11/16/22 12:27	1
Styrene	ND		1.0	1.0	ug/L			11/16/22 12:27	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/16/22 12:27	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/16/22 12:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/16/22 12:27	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/16/22 12:27	1
Toluene	ND		1.0	0.41	ug/L			11/16/22 12:27	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/16/22 12:27	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/16/22 12:27	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/16/22 12:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/16/22 12:27	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/16/22 12:27	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/16/22 12:27	1
Trichloroethene	ND		1.0	0.15	ug/L			11/16/22 12:27	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/16/22 12:27	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/16/22 12:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/16/22 12:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/16/22 12:27	1
Vinyl acetate	ND		25	0.93	ug/L			11/16/22 12:27	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/16/22 12:27	1
Xylenes, Total	ND		10	1.6	ug/L			11/16/22 12:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*102*		*72 - 119*		*11/16/22 12:27*	*1*
Dibromofluoromethane	*101*		*75 - 126*		*11/16/22 12:27*	*1*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/16/22 12:27*	*1*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.18	0.029	ug/L		11/07/22 08:55	11/11/22 18:56	1
Acenaphthylene	ND		0.18	0.041	ug/L		11/07/22 08:55	11/11/22 18:56	1
Anthracene	ND		0.18	0.029	ug/L		11/07/22 08:55	11/11/22 18:56	1
Benzo[a]anthracene	ND		0.18	0.042	ug/L		11/07/22 08:55	11/11/22 18:56	1
Benzo[a]pyrene	ND		0.18	0.039	ug/L		11/07/22 08:55	11/11/22 18:56	1
Benzo[b]fluoranthene	**0.12**	**J**	0.18	0.031	ug/L		11/07/22 08:55	11/11/22 18:56	1
Benzo[g,h,i]perylene	ND		0.18	0.12	ug/L		11/07/22 08:55	11/11/22 18:56	1
Benzo[k]fluoranthene	ND		0.18	0.092	ug/L		11/07/22 08:55	11/11/22 18:56	1
Chrysene	ND		0.18	0.068	ug/L		11/07/22 08:55	11/11/22 18:56	1
Dibenz(a,h)anthracene	ND		0.18	0.046	ug/L		11/07/22 08:55	11/11/22 18:56	1
Fluoranthene	**0.092**	**J**	0.18	0.063	ug/L		11/07/22 08:55	11/11/22 18:56	1
Fluorene	ND		0.18	0.10	ug/L		11/07/22 08:55	11/11/22 18:56	1
Indeno[1,2,3-cd]pyrene	ND		0.18	0.040	ug/L		11/07/22 08:55	11/11/22 18:56	1
1-Methylnaphthalene	ND		0.18	0.068	ug/L		11/07/22 08:55	11/11/22 18:56	1
2-Methylnaphthalene	ND		0.18	0.055	ug/L		11/07/22 08:55	11/11/22 18:56	1
Phenanthrene	ND		0.18	0.033	ug/L		11/07/22 08:55	11/11/22 18:56	1
Pyrene	**0.068**	**J**	0.18	0.037	ug/L		11/07/22 08:55	11/11/22 18:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*15 - 122*	*11/07/22 08:55*	*11/11/22 18:56*	*1*
Nitrobenzene-d5	*76*		*19 - 130*	*11/07/22 08:55*	*11/11/22 18:56*	*1*

Client Sample ID: P93D-ROX-110322
Date Collected: 11/03/22 13:05
Date Received: 11/04/22 08:59

Lab Sample ID: 400-228395-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	99		33 - 138	11/07/22 08:55	11/11/22 18:56	1

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.2	3.5	ug/L		11/07/22 08:55	11/08/22 18:32	1
Benzenethiol	ND	*- UJ	9.2	1.6	ug/L		11/07/22 08:55	11/08/22 18:32	1
Benzoic acid	ND		28	6.7	ug/L		11/07/22 08:55	11/08/22 18:32	1
Benzyl alcohol	ND		9.2	1.8	ug/L		11/07/22 08:55	11/08/22 18:32	1
Bis(2-chloroethoxy)methane	ND		9.2	0.15	ug/L		11/07/22 08:55	11/08/22 18:32	1
Bis(2-chloroethyl)ether	ND		9.2	2.5	ug/L		11/07/22 08:55	11/08/22 18:32	1
bis (2-chloroisopropyl) ether	ND		9.2	0.15	ug/L		11/07/22 08:55	11/08/22 18:32	1
Bis(2-ethylhexyl) phthalate	**5.1**	J	9.2	4.6	ug/L		11/07/22 08:55	11/08/22 18:32	1
4-Bromophenyl phenyl ether	ND		9.2	0.18	ug/L		11/07/22 08:55	11/08/22 18:32	1
Butyl benzyl phthalate	ND		9.2	0.17	ug/L		11/07/22 08:55	11/08/22 18:32	1
4-Chloroaniline	ND		9.2	3.1	ug/L		11/07/22 08:55	11/08/22 18:32	1
4-Chloro-3-methylphenol	ND		9.2	3.5	ug/L		11/07/22 08:55	11/08/22 18:32	1
2-Chloronaphthalene	ND		9.2	0.13	ug/L		11/07/22 08:55	11/08/22 18:32	1
2-Chlorophenol	ND		9.2	2.0	ug/L		11/07/22 08:55	11/08/22 18:32	1
4-Chlorophenyl phenyl ether	ND		9.2	1.8	ug/L		11/07/22 08:55	11/08/22 18:32	1
Dibenz[a,h]acridine	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 18:32	1
Dibenzofuran	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 18:32	1
3,3'-Dichlorobenzidine	ND		9.2	2.4	ug/L		11/07/22 08:55	11/08/22 18:32	1
2,4-Dichlorophenol	ND		9.2	2.8	ug/L		11/07/22 08:55	11/08/22 18:32	1
Diethyl phthalate	**0.84**	J	9.2	0.22	ug/L		11/07/22 08:55	11/08/22 18:32	1
2,4-Dimethylphenol	ND		9.2	3.2	ug/L		11/07/22 08:55	11/08/22 18:32	1
Dimethyl phthalate	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 18:32	1
Di-n-butyl phthalate	**2.6**	J	9.2	2.5	ug/L		11/07/22 08:55	11/08/22 18:32	1
4,6-Dinitro-ortho-cresol	ND		9.2	1.5	ug/L		11/07/22 08:55	11/08/22 18:32	1
2,4-Dinitrophenol	ND		28	3.1	ug/L		11/07/22 08:55	11/08/22 18:32	1
2,4-Dinitrotoluene	ND		9.2	1.7	ug/L		11/07/22 08:55	11/08/22 18:32	1
2,6-Dinitrotoluene	ND		9.2	1.7	ug/L		11/07/22 08:55	11/08/22 18:32	1
Di-n-octyl phthalate	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 18:32	1
1,4-Dioxane	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 18:32	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 18:32	1
Hexachlorobenzene	ND		9.2	0.16	ug/L		11/07/22 08:55	11/08/22 18:32	1
Hexachlorocyclopentadiene	ND	UJ	18	2.4	ug/L		11/07/22 08:55	11/08/22 18:32	1
Hexachloroethane	ND		9.2	3.9	ug/L		11/07/22 08:55	11/08/22 18:32	1
Indene	ND		9.2	0.92	ug/L		11/07/22 08:55	11/08/22 18:32	1
Isophorone	ND		9.2	0.13	ug/L		11/07/22 08:55	11/08/22 18:32	1
2-Methylphenol	ND		9.2	1.7	ug/L		11/07/22 08:55	11/08/22 18:32	1
3 & 4 Methylphenol	ND		18	0.36	ug/L		11/07/22 08:55	11/08/22 18:32	1
2-Nitroaniline	ND		9.2	2.0	ug/L		11/07/22 08:55	11/08/22 18:32	1
3-Nitroaniline	ND		9.2	1.7	ug/L		11/07/22 08:55	11/08/22 18:32	1
4-Nitroaniline	ND		9.2	1.4	ug/L		11/07/22 08:55	11/08/22 18:32	1
Nitrobenzene	ND		9.2	0.12	ug/L		11/07/22 08:55	11/08/22 18:32	1
2-Nitrophenol	ND		9.2	4.8	ug/L		11/07/22 08:55	11/08/22 18:32	1
4-Nitrophenol	ND		9.2	1.9	ug/L		11/07/22 08:55	11/08/22 18:32	1
N-Nitrosodimethylamine	ND		9.2	3.2	ug/L		11/07/22 08:55	11/08/22 18:32	1

Client Sample ID: P93D-ROX-110322
Date Collected: 11/03/22 13:05
Date Received: 11/04/22 08:59

Lab Sample ID: 400-228395-3
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.2	3.0	ug/L		11/07/22 08:55	11/08/22 18:32	1
N-Nitrosodiphenylamine	ND		9.2	0.17	ug/L		11/07/22 08:55	11/08/22 18:32	1
Pentachlorophenol	ND		18	1.3	ug/L		11/07/22 08:55	11/08/22 18:32	1
Phenol	ND		9.2	2.4	ug/L		11/07/22 08:55	11/08/22 18:32	1
Pyridine	ND		9.2	2.9	ug/L		11/07/22 08:55	11/08/22 18:32	1
Quinoline	ND		9.2	4.1	ug/L		11/07/22 08:55	11/08/22 18:32	1
2,4,5-Trichlorophenol	ND		9.2	3.4	ug/L		11/07/22 08:55	11/08/22 18:32	1
2,4,6-Trichlorophenol	ND		9.2	3.2	ug/L		11/07/22 08:55	11/08/22 18:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*78*		*46 - 124*	*11/07/22 08:55*	*11/08/22 18:32*	*1*
2-Fluorophenol	*54*		*13 - 113*	*11/07/22 08:55*	*11/08/22 18:32*	*1*
Nitrobenzene-d5	*91*		*36 - 126*	*11/07/22 08:55*	*11/08/22 18:32*	*1*
Phenol-d5	*81*		*17 - 127*	*11/07/22 08:55*	*11/08/22 18:32*	*1*
Terphenyl-d14	*113*		*44 - 149*	*11/07/22 08:55*	*11/08/22 18:32*	*1*
2,4,6-Tribromophenol	*114*		*26 - 150*	*11/07/22 08:55*	*11/08/22 18:32*	*1*

Method: EPA 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		11/09/22 08:27	11/09/22 18:08	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*115*		*51 - 149*	*11/09/22 08:27*	*11/09/22 18:08*	*1*

Definitions/Glossary

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

Job ID: 400-228395-1

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.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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: 400-228395-1

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)
400-228395-1	TB-ROX-110322-8260-SS	101	101	99
400-228395-3	P93D-ROX-110322	102	101	101
LCS 400-600880/1002	Lab Control Sample	107	93	100
MB 400-600880/4	Method Blank	100	97	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)
400-228395-3	P93D-ROX-110322	78	54	91	81	113	114
LCS 400-599497/2-A	Lab Control Sample	72	45	71	72	89	110
LCS 400-599497/4-A	Lab Control Sample	64	47	74	69	95	70
LCSD 400-599497/3-A	Lab Control Sample Dup	76	33	76	74	96	116
LCSD 400-599497/5-A	Lab Control Sample Dup	70	46	79	73	104	81
MB 400-599497/1-A	Method Blank	75	27	86	66	113	94

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)
400-228395-3	P93D-ROX-110322	85	76	99
LCS 400-599497/2-A	Lab Control Sample	86	79	84
LCSD 400-599497/3-A	Lab Control Sample Dup	92	82	93
MB 400-599497/1-A	Method Blank	81	77	112

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: 400-228395-1

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)**
400-228395-2	TB-ROX-110322-8011-SS	112
400-228395-3	P93D-ROX-110322	115
LCS 400-599829/2-A	Lab Control Sample	98
LCSD 400-599829/3-A	Lab Control Sample Dup	101
MB 400-599829/1-A	Method Blank	89

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-228395-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET 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: 400-228395-1

Client Sample ID: TB-ROX-110322-8260-SS

Lab Sample ID: 400-228395-1
Matrix: Water
Date Collected: 11/03/22 12:00
Date Received: 11/04/22 08:59

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	600880	11/16/22 12:03	WPD	EET PEN

Client Sample ID: TB-ROX-110322-8011-SS

Lab Sample ID: 400-228395-2
Matrix: Water
Date Collected: 11/03/22 12:00
Date Received: 11/04/22 08:59

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.4 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 17:47	DS	EET PEN

Client Sample ID: P93D-ROX-110322

Lab Sample ID: 400-228395-3
Matrix: Water
Date Collected: 11/03/22 13:05
Date Received: 11/04/22 08:59

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	600880	11/16/22 12:27	WPD	EET PEN
Total/NA	Prep	3520C			271.6 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 18:32	S1B	EET PEN
Total/NA	Prep	3520C			271.6 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 18:56	PP1	EET PEN
Total/NA	Prep	8011			35.4 mL	35 mL	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 18:08	DS	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Date Collected: N/A
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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 15:24	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600170	11/10/22 17:57	PP1	EET PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-599829/1-A
Matrix: Water
Date Collected: N/A
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	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 10:37	DS	EET PEN

Lab Chronicle

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

Job ID: 400-228395-1

Client Sample ID: Method Blank

Lab Sample ID: MB 400-600880/4

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	600880	11/16/22 07:56	WPD	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-599497/2-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	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:26	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	600349	11/11/22 17:13	PP1	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-599497/4-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 15:44	S1B	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-599829/2-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	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 10:58	DS	EET PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-600880/1002

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	600880	11/16/22 07:07	WPD	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-599497/3-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:47	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	600349	11/11/22 17:30	PP1	EET PEN

Lab Chronicle

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

Job ID: 400-228395-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-599497/5-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:05	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-599829/3-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	599829	11/09/22 08:27	DS	EET PEN
Total/NA	Analysis	8011		1			599835	11/09/22 11:18	DS	EET PEN

Laboratory References:

EET 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: 400-228395-1

GC/MS VOA

Analysis Batch: 600880

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228395-1	TB-ROX-110322-8260-SS	Total/NA	Water	8260B	
400-228395-3	P93D-ROX-110322	Total/NA	Water	8260B	
MB 400-600880/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600880/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 599497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228395-3	P93D-ROX-110322	Total/NA	Water	3520C	
MB 400-599497/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-599497/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-599497/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 599728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228395-3	P93D-ROX-110322	Total/NA	Water	8270D	599497
MB 400-599497/1-A	Method Blank	Total/NA	Water	8270D	599497
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	8270D	599497
LCS 400-599497/4-A	Lab Control Sample	Total/NA	Water	8270D	599497
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	599497
LCSD 400-599497/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	599497

Analysis Batch: 600170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-599497/1-A	Method Blank	Total/NA	Water	8270D LL	599497

Analysis Batch: 600349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228395-3	P93D-ROX-110322	Total/NA	Water	8270D LL	599497
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	8270D LL	599497
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	599497

GC Semi VOA

Prep Batch: 599829

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228395-2	TB-ROX-110322-8011-SS	Total/NA	Water	8011	
400-228395-3	P93D-ROX-110322	Total/NA	Water	8011	
MB 400-599829/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-599829/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-599829/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 599835

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228395-2	TB-ROX-110322-8011-SS	Total/NA	Water	8011	599829
400-228395-3	P93D-ROX-110322	Total/NA	Water	8011	599829
MB 400-599829/1-A	Method Blank	Total/NA	Water	8011	599829
LCS 400-599829/2-A	Lab Control Sample	Total/NA	Water	8011	599829
LCSD 400-599829/3-A	Lab Control Sample Dup	Total/NA	Water	8011	599829

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

Lab Sample ID: MB 400-600880/4
Matrix: Water
Analysis Batch: 600880

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			11/16/22 07:56	1
Acrolein	ND		20	3.3	ug/L			11/16/22 07:56	1
Acrylonitrile	ND		10	2.8	ug/L			11/16/22 07:56	1
Benzene	ND		1.0	0.13	ug/L			11/16/22 07:56	1
Bromobenzene	ND		1.0	0.54	ug/L			11/16/22 07:56	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/16/22 07:56	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/16/22 07:56	1
Bromoform	ND		5.0	0.25	ug/L			11/16/22 07:56	1
Bromomethane	ND		1.0	0.98	ug/L			11/16/22 07:56	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/16/22 07:56	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/16/22 07:56	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/16/22 07:56	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/16/22 07:56	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/16/22 07:56	1
Chloroethane	ND		1.0	0.76	ug/L			11/16/22 07:56	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/16/22 07:56	1
Chloroform	ND		1.0	1.0	ug/L			11/16/22 07:56	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/16/22 07:56	1
Chloromethane	ND		1.0	0.32	ug/L			11/16/22 07:56	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/16/22 07:56	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/16/22 07:56	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/16/22 07:56	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/16/22 07:56	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/16/22 07:56	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/16/22 07:56	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/16/22 07:56	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/16/22 07:56	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/16/22 07:56	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 07:56	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 07:56	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 07:56	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/16/22 07:56	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/16/22 07:56	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/16/22 07:56	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/16/22 07:56	1
2-Hexanone	ND		25	1.4	ug/L			11/16/22 07:56	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/16/22 07:56	1
Methylene bromide	ND		5.0	0.22	ug/L			11/16/22 07:56	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/16/22 07:56	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/16/22 07:56	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/16/22 07:56	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/16/22 07:56	1
Naphthalene	ND		5.0	3.0	ug/L			11/16/22 07:56	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/16/22 07:56	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/16/22 07:56	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/16/22 07:56	1
o-Xylene	ND		5.0	0.60	ug/L			11/16/22 07:56	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/16/22 07:56	1

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

Lab Sample ID: MB 400-600880/4
Matrix: Water
Analysis Batch: 600880

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			11/16/22 07:56	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/16/22 07:56	1
Styrene	ND		1.0	1.0	ug/L			11/16/22 07:56	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/16/22 07:56	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/16/22 07:56	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/16/22 07:56	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/16/22 07:56	1
Toluene	ND		1.0	0.41	ug/L			11/16/22 07:56	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/16/22 07:56	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/16/22 07:56	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/16/22 07:56	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/16/22 07:56	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/16/22 07:56	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/16/22 07:56	1
Trichloroethene	ND		1.0	0.15	ug/L			11/16/22 07:56	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/16/22 07:56	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/16/22 07:56	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/16/22 07:56	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/16/22 07:56	1
Vinyl acetate	ND		25	0.93	ug/L			11/16/22 07:56	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/16/22 07:56	1
Xylenes, Total	ND		10	1.6	ug/L			11/16/22 07:56	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/16/22 07:56*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*11/16/22 07:56*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/16/22 07:56*	*1*

Lab Sample ID: LCS 400-600880/1002
Matrix: Water
Analysis Batch: 600880

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	332	*+	ug/L		166	43 - 160
Acrolein	500	481		ug/L		96	38 - 160
Acrylonitrile	500	520		ug/L		104	64 - 142
Benzene	50.0	52.7		ug/L		105	70 - 130
Bromobenzene	50.0	59.0		ug/L		118	70 - 132
Bromochloromethane	50.0	49.7		ug/L		99	70 - 130
Bromodichloromethane	50.0	52.6		ug/L		105	67 - 133
Bromoform	50.0	53.9		ug/L		108	57 - 140
Bromomethane	50.0	29.4		ug/L		59	10 - 160
2-Butanone (MEK)	200	286		ug/L		143	61 - 145
Carbon disulfide	50.0	49.0		ug/L		98	61 - 137
Carbon tetrachloride	50.0	51.0		ug/L		102	61 - 137
Chlorobenzene	50.0	54.5		ug/L		109	70 - 130
Dibromochloromethane	50.0	53.9		ug/L		108	67 - 135
Chloroethane	50.0	44.4		ug/L		89	55 - 141

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

Lab Sample ID: LCS 400-600880/1002
Matrix: Water
Analysis Batch: 600880

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	61.3		ug/L		123	10 - 160
Chloroform	50.0	51.2		ug/L		102	69 - 130
1-Chlorohexane	50.0	53.7		ug/L		107	69 - 130
Chloromethane	50.0	55.6		ug/L		111	58 - 137
cis-1,2-Dichloroethene	50.0	49.8		ug/L		100	68 - 130
cis-1,3-Dichloropropene	50.0	54.2		ug/L		108	69 - 132
1,2-Dichlorobenzene	50.0	57.6		ug/L		115	67 - 130
1,3-Dichlorobenzene	50.0	59.6		ug/L		119	70 - 130
1,4-Dichlorobenzene	50.0	58.3		ug/L		117	70 - 130
Dichlorodifluoromethane	50.0	60.2		ug/L		120	41 - 146
1,1-Dichloroethane	50.0	50.8		ug/L		102	70 - 130
1,2-Dichloroethane	50.0	49.5		ug/L		99	69 - 130
1,1-Dichloroethene	50.0	46.9		ug/L		94	63 - 134
1,2-Dichloropropane	50.0	52.4		ug/L		105	70 - 130
1,3-Dichloropropane	50.0	55.1		ug/L		110	70 - 130
2,2-Dichloropropane	50.0	48.9		ug/L		98	52 - 135
1,1-Dichloropropene	50.0	51.0		ug/L		102	70 - 130
Ethylbenzene	50.0	55.5		ug/L		111	70 - 130
Ethyl methacrylate	50.0	55.4		ug/L		111	68 - 130
Hexachlorobutadiene	50.0	69.4		ug/L		139	53 - 140
2-Hexanone	200	245		ug/L		123	65 - 137
Isopropylbenzene	50.0	54.8		ug/L		110	70 - 130
Methylene bromide	50.0	49.9		ug/L		100	70 - 130
Methylene Chloride	50.0	51.6		ug/L		103	66 - 135
4-Methyl-2-pentanone (MIBK)	200	215		ug/L		108	69 - 138
Methyl tert-butyl ether	50.0	50.2		ug/L		100	66 - 130
m-Xylene & p-Xylene	50.0	55.2		ug/L		110	70 - 130
Naphthalene	50.0	55.0		ug/L		110	47 - 149
n-Butylbenzene	50.0	61.0		ug/L		122	67 - 130
N-Propylbenzene	50.0	61.9		ug/L		124	70 - 130
o-Chlorotoluene	50.0	61.0		ug/L		122	70 - 130
o-Xylene	50.0	55.1		ug/L		110	70 - 130
p-Chlorotoluene	50.0	60.7		ug/L		121	70 - 130
p-Isopropyltoluene	50.0	60.7		ug/L		121	65 - 130
sec-Butylbenzene	50.0	60.2		ug/L		120	66 - 130
Styrene	50.0	54.9		ug/L		110	70 - 130
tert-Butylbenzene	50.0	58.3		ug/L		117	64 - 139
1,1,1,2-Tetrachloroethane	50.0	54.2		ug/L		108	67 - 131
1,1,2,2-Tetrachloroethane	50.0	59.8		ug/L		120	70 - 131
Tetrachloroethene	50.0	53.7		ug/L		107	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	54.4		ug/L		109	63 - 130
1,2,3-Trichlorobenzene	50.0	60.3		ug/L		121	60 - 138
1,2,4-Trichlorobenzene	50.0	61.9		ug/L		124	60 - 140
1,1,1-Trichloroethane	50.0	50.4		ug/L		101	68 - 130
1,1,2-Trichloroethane	50.0	55.0		ug/L		110	70 - 130
Trichloroethene	50.0	51.9		ug/L		104	70 - 130
Trichlorofluoromethane	50.0	40.4		ug/L		81	65 - 138

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

Lab Sample ID: LCS 400-600880/1002
Matrix: Water
Analysis Batch: 600880

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	59.1		ug/L		118	70 - 130
1,2,4-Trimethylbenzene	50.0	59.2		ug/L		118	70 - 130
1,3,5-Trimethylbenzene	50.0	59.8		ug/L		120	69 - 130
Vinyl acetate	100	96.5		ug/L		97	26 - 160
Vinyl chloride	50.0	51.4		ug/L		103	59 - 136
Xylenes, Total	100	110		ug/L		110	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*107*		*72 - 119*
Dibromofluoromethane	*93*		*75 - 126*
Toluene-d8 (Surr)	*100*		*64 - 132*

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzenethiol	ND		10	1.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzoic acid	ND		30	7.3	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzyl alcohol	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 15:24	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 15:24	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/07/22 08:55	11/08/22 15:24	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chloroaniline	ND		10	3.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Chlorophenol	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dibenzofuran	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Diethyl phthalate	ND		10	0.24	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 15:24	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
1,4-Dioxane	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachloroethane	ND		10	4.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
Indene	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Isophorone	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Methylphenol	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Nitroaniline	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
3-Nitroaniline	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Nitroaniline	ND		10	1.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
Nitrobenzene	ND		10	0.13	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Nitrophenol	ND		10	5.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Nitrophenol	ND		10	2.1	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/07/22 08:55	11/08/22 15:24	1
Pentachlorophenol	ND		20	1.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
Phenol	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
Pyridine	ND		10	3.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
Quinoline	ND		10	4.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*11/07/22 08:55*	*11/08/22 15:24*	*1*
2-Fluorophenol	*27*		*13 - 113*	*11/07/22 08:55*	*11/08/22 15:24*	*1*
Nitrobenzene-d5	*86*		*36 - 126*	*11/07/22 08:55*	*11/08/22 15:24*	*1*
Phenol-d5	*66*		*17 - 127*	*11/07/22 08:55*	*11/08/22 15:24*	*1*
Terphenyl-d14	*113*		*44 - 149*	*11/07/22 08:55*	*11/08/22 15:24*	*1*
2,4,6-Tribromophenol	*94*		*26 - 150*	*11/07/22 08:55*	*11/08/22 15:24*	*1*

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	104		ug/L		87	21 - 120
Benzoic acid	513	237		ug/L		46	10 - 144
Benzyl alcohol	120	98.3		ug/L		82	28 - 120
Bis(2-chloroethoxy)methane	120	76.5		ug/L		64	47 - 120
Bis(2-chloroethyl)ether	120	85.3		ug/L		71	44 - 120
bis (2-chloroisopropyl) ether	120	138		ug/L		115	33 - 121
Bis(2-ethylhexyl) phthalate	120	116		ug/L		97	52 - 147
4-Bromophenyl phenyl ether	120	114		ug/L		95	54 - 122
Butyl benzyl phthalate	120	103		ug/L		86	54 - 133
4-Chloroaniline	120	81.6		ug/L		68	26 - 120
4-Chloro-3-methylphenol	120	101		ug/L		84	48 - 131

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

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Chloronaphthalene	120	93.6		ug/L		78	52 - 121
2-Chlorophenol	120	90.4		ug/L		75	40 - 120
4-Chlorophenyl phenyl ether	120	106		ug/L		88	56 - 125
Dibenz[a,h]acridine	120	106		ug/L		88	31 - 150
Dibenzofuran	120	98.2		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	170		ug/L		106	36 - 132
2,4-Dichlorophenol	120	89.0		ug/L		74	49 - 120
Diethyl phthalate	120	122		ug/L		102	50 - 137
2,4-Dimethylphenol	120	96.5		ug/L		80	48 - 120
Dimethyl phthalate	120	102		ug/L		85	57 - 124
Di-n-butyl phthalate	120	119		ug/L		100	58 - 126
4,6-Dinitro-ortho-cresol	240	317		ug/L		132	23 - 148
2,4-Dinitrophenol	240	300		ug/L		125	10 - 150
2,4-Dinitrotoluene	120	105		ug/L		87	54 - 142
2,6-Dinitrotoluene	120	91.0		ug/L		76	55 - 130
Di-n-octyl phthalate	120	120		ug/L		100	57 - 138
1,4-Dioxane	120	81.6		ug/L		68	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	108		ug/L		90	45 - 124
Hexachlorobenzene	120	134		ug/L		112	52 - 129
Hexachlorocyclopentadiene	120	72.7		ug/L		61	10 - 134
Hexachloroethane	120	108		ug/L		90	20 - 120
Indene	120	90.5		ug/L		75	49 - 120
Isophorone	120	85.2		ug/L		71	48 - 120
2-Methylphenol	120	117		ug/L		97	46 - 124
3 & 4 Methylphenol	120	109		ug/L		91	45 - 120
2-Nitroaniline	120	110		ug/L		92	51 - 145
3-Nitroaniline	120	104		ug/L		87	37 - 127
4-Nitroaniline	120	118		ug/L		98	36 - 137
Nitrobenzene	120	81.6		ug/L		68	45 - 120
2-Nitrophenol	120	85.5		ug/L		71	40 - 124
4-Nitrophenol	240	303		ug/L		126	23 - 146
N-Nitrosodimethylamine	120	144		ug/L		120	29 - 137
N-Nitrosodi-n-propylamine	120	123		ug/L		102	45 - 120
N-Nitrosodiphenylamine	119	101		ug/L		85	54 - 120
Pentachlorophenol	240	239		ug/L		100	31 - 130
Phenol	120	100		ug/L		83	11 - 120
Pyridine	240	162		ug/L		68	16 - 120
Quinoline	120	82.1		ug/L		68	49 - 130
2,4,5-Trichlorophenol	120	107		ug/L		89	51 - 136
2,4,6-Trichlorophenol	120	104		ug/L		86	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*45*		*13 - 113*
Nitrobenzene-d5	*71*		*36 - 126*
Phenol-d5	*72*		*17 - 127*
Terphenyl-d14	*89*		*44 - 149*

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

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	*110*		*26 - 150*

Lab Sample ID: LCS 400-599497/4-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	5.96	J *-	ug/L		5	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	*64*		*46 - 124*
2-Fluorophenol	*47*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	108		ug/L		90	21 - 120	3	30
Benzoic acid	513	253		ug/L		49	10 - 144	6	30
Benzyl alcohol	120	104		ug/L		86	28 - 120	5	30
Bis(2-chloroethoxy)methane	120	84.1		ug/L		70	47 - 120	9	30
Bis(2-chloroethyl)ether	120	87.9		ug/L		73	44 - 120	3	30
bis (2-chloroisopropyl) ether	120	140		ug/L		116	33 - 121	2	30
Bis(2-ethylhexyl) phthalate	120	125		ug/L		104	52 - 147	8	30
4-Bromophenyl phenyl ether	120	122		ug/L		102	54 - 122	7	30
Butyl benzyl phthalate	120	111		ug/L		93	54 - 133	8	30
4-Chloroaniline	120	88.4		ug/L		74	26 - 120	8	30
4-Chloro-3-methylphenol	120	107		ug/L		89	48 - 131	6	30
2-Chloronaphthalene	120	101		ug/L		84	52 - 121	7	30
2-Chlorophenol	120	87.3		ug/L		73	40 - 120	3	30
4-Chlorophenyl phenyl ether	120	114		ug/L		95	56 - 125	8	30
Dibenz[a,h]acridine	120	110		ug/L		92	31 - 150	4	30
Dibenzofuran	120	105		ug/L		88	56 - 122	7	30
3,3'-Dichlorobenzidine	160	182		ug/L		114	36 - 132	7	30
2,4-Dichlorophenol	120	97.9		ug/L		82	49 - 120	10	30
Diethyl phthalate	120	132		ug/L		110	50 - 137	8	30
2,4-Dimethylphenol	120	106		ug/L		88	48 - 120	9	30
Dimethyl phthalate	120	111		ug/L		92	57 - 124	8	30
Di-n-butyl phthalate	120	127		ug/L		106	58 - 126	7	30
4,6-Dinitro-ortho-cresol	240	344		ug/L		143	23 - 148	8	30
2,4-Dinitrophenol	240	311		ug/L		130	10 - 150	4	30
2,4-Dinitrotoluene	120	110		ug/L		92	54 - 142	5	30
2,6-Dinitrotoluene	120	96.0		ug/L		80	55 - 130	5	30

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

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Di-n-octyl phthalate	120	131		ug/L		109	57 - 138	8	30
1,4-Dioxane	120	81.7		ug/L		68	31 - 120	0	30
1,2-Diphenylhydrazine (as Azobenzene)	120	116		ug/L		97	45 - 124	7	30
Hexachlorobenzene	120	145		ug/L		121	52 - 129	8	30
Hexachlorocyclopentadiene	120	81.6		ug/L		68	10 - 134	12	30
Hexachloroethane	120	112		ug/L		94	20 - 120	4	30
Indene	120	94.3		ug/L		79	49 - 120	4	30
Isophorone	120	92.8		ug/L		77	48 - 120	9	30
2-Methylphenol	120	123		ug/L		102	46 - 124	5	30
3 & 4 Methylphenol	120	115		ug/L		96	45 - 120	5	30
2-Nitroaniline	120	114		ug/L		95	51 - 145	4	30
3-Nitroaniline	120	109		ug/L		91	37 - 127	5	30
4-Nitroaniline	120	123		ug/L		102	36 - 137	4	30
Nitrobenzene	120	89.1		ug/L		74	45 - 120	9	30
2-Nitrophenol	120	95.9		ug/L		80	40 - 124	11	30
4-Nitrophenol	240	321		ug/L		134	23 - 146	6	30
N-Nitrosodimethylamine	120	156		ug/L		130	29 - 137	8	30
N-Nitrosodi-n-propylamine	120	125		ug/L		104	45 - 120	2	30
N-Nitrosodiphenylamine	119	110		ug/L		92	54 - 120	8	30
Pentachlorophenol	240	255		ug/L		106	31 - 130	6	30
Phenol	120	104		ug/L		87	11 - 120	4	30
Pyridine	240	153		ug/L		64	16 - 120	6	30
Quinoline	120	90.0		ug/L		75	49 - 130	9	30
2,4,5-Trichlorophenol	120	117		ug/L		98	51 - 136	9	30
2,4,6-Trichlorophenol	120	114		ug/L		95	50 - 127	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*46 - 124*
2-Fluorophenol	*33*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*116*		*26 - 150*

Lab Sample ID: LCSD 400-599497/5-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol	120	6.61	J *-	ug/L		6	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*46 - 124*
2-Fluorophenol	*46*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*

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

Lab Sample ID: LCSD 400-599497/5-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	81		26 - 150

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 600170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/07/22 08:55	11/10/22 17:57	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/07/22 08:55	11/10/22 17:57	1
Anthracene	ND		0.20	0.032	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[a]anthracene	0.0610	J	0.20	0.046	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/07/22 08:55	11/10/22 17:57	1
Chrysene	ND		0.20	0.074	ug/L		11/07/22 08:55	11/10/22 17:57	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/07/22 08:55	11/10/22 17:57	1
Fluoranthene	ND		0.20	0.068	ug/L		11/07/22 08:55	11/10/22 17:57	1
Fluorene	ND		0.20	0.11	ug/L		11/07/22 08:55	11/10/22 17:57	1
Indeno[1,2,3-cd]pyrene	0.0714	J	0.20	0.043	ug/L		11/07/22 08:55	11/10/22 17:57	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/07/22 08:55	11/10/22 17:57	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/07/22 08:55	11/10/22 17:57	1
Phenanthrene	ND		0.20	0.036	ug/L		11/07/22 08:55	11/10/22 17:57	1
Pyrene	ND		0.20	0.040	ug/L		11/07/22 08:55	11/10/22 17:57	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	81		15 - 122	11/07/22 08:55	11/10/22 17:57	1
Nitrobenzene-d5	77		19 - 130	11/07/22 08:55	11/10/22 17:57	1
Terphenyl-d14	112		33 - 138	11/07/22 08:55	11/10/22 17:57	1

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	105		ug/L		87	41 - 120
Acenaphthylene	120	111		ug/L		93	44 - 120
Anthracene	120	111		ug/L		92	49 - 120
Benzo[a]anthracene	120	112		ug/L		93	61 - 135
Benzo[a]pyrene	120	110		ug/L		91	52 - 120
Benzo[b]fluoranthene	120	115		ug/L		96	53 - 134
Benzo[g,h,i]perylene	120	112		ug/L		93	47 - 133
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134
Chrysene	120	102		ug/L		85	55 - 122
Dibenz(a,h)anthracene	120	114		ug/L		95	48 - 146
Fluoranthene	120	117		ug/L		98	54 - 128

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

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluorene	120	109		ug/L		91	45 - 125
Indeno[1,2,3-cd]pyrene	120	118		ug/L		98	43 - 142
1-Methylnaphthalene	120	89.4		ug/L		74	41 - 120
2-Methylnaphthalene	120	98.8		ug/L		82	32 - 124
Phenanthrene	120	110		ug/L		91	48 - 120
Pyrene	120	110		ug/L		91	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*15 - 122*
Nitrobenzene-d5	*79*		*19 - 130*
Terphenyl-d14	*84*		*33 - 138*

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	109		ug/L		91	41 - 120	4	56
Acenaphthylene	120	115		ug/L		96	44 - 120	3	56
Anthracene	120	112		ug/L		94	49 - 120	2	51
Benzo[a]anthracene	120	116		ug/L		96	61 - 135	3	49
Benzo[a]pyrene	120	110		ug/L		91	52 - 120	0	50
Benzo[b]fluoranthene	120	118		ug/L		99	53 - 134	3	54
Benzo[g,h,i]perylene	120	111		ug/L		92	47 - 133	1	50
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134	0	52
Chrysene	120	106		ug/L		88	55 - 122	3	50
Dibenz(a,h)anthracene	120	111		ug/L		93	48 - 146	2	50
Fluoranthene	120	114		ug/L		95	54 - 128	3	52
Fluorene	120	110		ug/L		92	45 - 125	1	56
Indeno[1,2,3-cd]pyrene	120	117		ug/L		97	43 - 142	1	51
1-Methylnaphthalene	120	91.0		ug/L		76	41 - 120	2	55
2-Methylnaphthalene	120	101		ug/L		84	32 - 124	2	57
Phenanthrene	120	112		ug/L		94	48 - 120	2	56
Pyrene	120	119		ug/L		99	48 - 132	8	52

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*92*		*15 - 122*
Nitrobenzene-d5	*82*		*19 - 130*
Terphenyl-d14	*93*		*33 - 138*

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-599829/1-A
Matrix: Water
Analysis Batch: 599835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599829

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		11/09/22 08:27	11/09/22 10:37	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-599829/1-A
Matrix: Water
Analysis Batch: 599835

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599829

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/09/22 08:27	11/09/22 10:37	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*89*		*51 - 149*	*11/09/22 08:27*	*11/09/22 10:37*	*1*

Lab Sample ID: LCS 400-599829/2-A
Matrix: Water
Analysis Batch: 599835

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599829

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.132		ug/L		131	60 - 140
1,2-Dibromoethane	0.101	0.114		ug/L		113	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*98*		*51 - 149*

Lab Sample ID: LCSD 400-599829/3-A
Matrix: Water
Analysis Batch: 599835

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599829

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.138		ug/L		138	60 - 140	5	30
1,2-Dibromoethane	0.101	0.117		ug/L		116	60 - 140	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*101*		*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: 11/3/2022
PO #	GSAP Project ID	PAGE: 1 of 1
60674381 – 3.4.2	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 – 3.4.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): Tony Jones, Mary Massa
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

SPLIT REPORT

- Please include "J" values on Reports.
- Please provide sample receipt upon login.
- Please send EQuIS EDDs to EDDSubmissions@accomshell.com; loredana.filimon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

Container PID Readings or Laboratory Notes:

400-228395 COC

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:
	TB-ROX-110322-8260-SS	11/3/2022	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-110322-8011-SS	11/3/2022	0000	Water	2					2		X			
	P93D-ROX-110322	11/3/2022	1305	Water	6			2		8	X	X	X	X	SPLIT REPORT

11/3/22

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3932 8443	11/3/2022	1600
		11/4/22	859

Version: 13Oct22

CUSTODY SEALS: 2026638, 2026639

0.2 C IRU

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11/21/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-228395-1

Login Number: 228395
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	0.2°C IR10
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: 400-228395-1
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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Eurofins Pensacola

Job Notes

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. Eurofins Environment Testing Southeast LLC, Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization

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11/21/2022 11:42:09 AM

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

Roxana Groundwater Quarterly – 4th Quarter 2022 Data Review

Laboratory SDG: 400-228456-1

Data Reviewer: Andreia Vladimirescu

Peer Reviewer: Cheyana Cokley

Date Reviewed: 12/20/2022

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

Sample Identification	Sample Identification
TB-ROX-110422-8260-SS	TB-ROX-110422-8011-SS
P59-ROX-110422	P93B-ROX-110422

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 sample P59-ROX-110422 was re-extracted within the extraction time criteria. Benzo[a]anthracene and indeno[1,2,3-cd]pyrene were detected in the method blank. LCS/LCSD recoveries for 1,2-dikibromo-3-Chloropropane and benzenethiol were outside evaluation criteria. Several PAH internal standard recoveries were outside evaluation criteria in sample P59-ROX-110422. VOCs in samples P59-ROX-110422 and P93B-ROX-110422 were diluted to bring target analytes into calibration range of the instrument. The initial calibration verification (ICV) for carbon disulfide and the continuing calibration verification (CCV) for hexachlorocyclopentadiene were outside evaluation criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 70 (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
MB 400-599497/1-A	PAHs	Benzo[a]anthracene	0.061 µg/L
MB 400-599497/1-A	PAHs	Indeno[1,2,3-cd]pyrene	0.0714 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.

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 400-600339/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-Chloropropane	**180/189**	5	60-140/30
LCS/LCSD 400-599497/4-A/5-A	SVOCs	Benzenethiol	**5/6**	10	10-120/30

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-110422	SVOCs	Benzenethiol	**UJ**
P93B-ROX-110422	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?

No

Sample ID	Parameter	Analyte	IS Area Recovery	12/24 Hour Standard	IS Criteria
P59-ROX-110422	PAHs	Chrysene-d_{12}	**328927**	682462	341231-1364924
P59-ROX-110422	PAHs	Perylene-d_{12}	**281299**	575339	287670-1150678

Analytes associated with internal standard recoveries outside evaluation criteria were reported from an unaffected analytical run. 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; analytes were detected in samples that were diluted with the exception of non-detect VOCs in sample P93B-ROX-110422 to bring benzene into calibration range of the instrument. VOCs were non-detect at a dilution factor of 2000X, with raised reporting limits of between 2,000 and 50,000 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 (CCV) for hexachlorocyclopentadiene, and the initial calibration verification (ICV) for carbon disulfide, were outside evaluation criteria, biased low. Analytes are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P59-ROX-110422	VOCs	Carbon Disulfide	**UJ**
P59-ROX-110422	SVOCs	Hexachlorocyclopentadiene	**UJ**
P93B-ROX-110422	SVOCs	Hexachlorocyclopentadiene	**UJ**

Additionally, VOCs in sample P93B-ROX-110422 were qualified as estimated non-detect due to sample dilution and historical detections.

Sample ID	Parameter	Analyte	Qualification
P93B-ROX-110422	VOCs	All non-detects	**UJ**

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ANALYTICAL REPORT

PREPARED FOR

Attn: Melissa Remiger
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis Missouri 63102

Generated 11/21/2022 12:39:21 PM

JOB DESCRIPTION

ROXANA QUARTERLY GW

JOB NUMBER

400-228456-1

Reviewed 12/20/202
A.V.

Eurofins Pensacola
3355 McLemore Drive
Pensacola FL 32514

my EOL

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Case Narrative

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

Job ID: 400-228456-1

Job ID: 400-228456-1

Laboratory: Eurofins Pensacola

Narrative

Job Narrative
400-228456-1

Receipt
The samples were received on 11/5/2022 9:26 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 time was 0.0°C

GC/MS VOA
Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: P59-ROX-110422 (400-228456-3). 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-110422-8260-SS (400-228456-1) and P59-ROX-110422 (400-228456-3). 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 was diluted to bring the concentration of target analytes within the calibration range: P93B-ROX-110422 (400-228456-4). 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/MS Semi VOA
Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-599497 and analytical batch 400-599728 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 400-599728 recovered outside acceptance criteria, low biased, for 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: The samples were re-extracted due to the confirmation of Bis(2-ethylhexyl) Phthalate was detected above the method detection limit (MDL 6.0ug/L) for the following sample(s): 400-227995-G-4-A, 400-227995-G-5-A, 400-228254-G-4-A, and 400-228456-G-3-A. Samples were re-prepared and/or re-analyzed outside holding time, and both sets of data have been reported.

Method 8270D_LL: The method blank for preparation batch 400-599497 and analytical batch 400-600170 contained Indeno[1,2,3-cd]pyrene 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 continuing calibration verification (CCV) associated with batch 400-600170 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 laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-600339 and analytical batch 400-600360 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.

Sample Summary

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

Job ID: 400-228456-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-228456-1	TB-ROX-110422-8260-SS	Water	11/04/22 12:00	11/05/22 09:26
400-228456-2	TB-ROX-110422-8011-SS	Water	11/04/22 12:00	11/05/22 09:26
400-228456-3	P59-ROX-110422	Water	11/04/22 10:25	11/05/22 09:26
400-228456-4	P93B-ROX-110422	Water	11/04/22 11:50	11/05/22 09:26

Detection Summary

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

Job ID: 400-228456-1

Client Sample ID: TB-ROX-110422-8260-SS — Lab Sample ID: 400-228456-1

No Detections.

Client Sample ID: TB-ROX-110422-8011-SS — Lab Sample ID: 400-228456-2

No Detections.

Client Sample ID: P59-ROX-110422 — Lab Sample ID: 400-228456-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	140	J	250	100	ug/L	10		8260B	Total/NA
Benzene	2200		10	1.3	ug/L	10		8260B	Total/NA
Ethylbenzene	170		10	5.0	ug/L	10		8260B	Total/NA
Isopropylbenzene	44		10	5.3	ug/L	10		8260B	Total/NA
m-Xylene & p-Xylene	160		50	6.3	ug/L	10		8260B	Total/NA
Naphthalene	96		50	30	ug/L	10		8260B	Total/NA
N-Propylbenzene	77		10	6.9	ug/L	10		8260B	Total/NA
Toluene	110		10	4.1	ug/L	10		8260B	Total/NA
1,2,4-Trimethylbenzene	69		10	8.2	ug/L	10		8260B	Total/NA
1,3,5-Trimethylbenzene	38		10	5.6	ug/L	10		8260B	Total/NA
Xylenes, Total	160		100	16	ug/L	10		8260B	Total/NA
Acenaphthene	0.39		0.19	0.030	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.45		0.19	0.063	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	13		0.19	0.069	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	19		0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	1.1		0.19	0.033	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	6.6	J	9.3	4.6	ug/L	1		8270D	Total/NA
Phenol	24		9.3	2.4	ug/L	1		8270D	Total/NA

Client Sample ID: P93B-ROX-110422 — Lab Sample ID: 400-228456-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene - DL	790000		5000	650	ug/L	5000		8260B	Total/NA
1-Methylnaphthalene	0.16	J	0.19	0.069	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	4.9	J	9.3	4.6	ug/L	1		8270D	Total/NA
2,4-Dimethylphenol	4.4	J	9.3	3.2	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	1.2	J	19	0.36	ug/L	1		8270D	Total/NA
Phenol	310		9.3	2.4	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: TB-ROX-110422-8260-SS
Date Collected: 11/04/22 12:00
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-1
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/16/22 16:42	1
Acrolein	ND		20	3.3	ug/L			11/16/22 16:42	1
Acrylonitrile	ND		10	2.8	ug/L			11/16/22 16:42	1
Benzene	ND		1.0	0.13	ug/L			11/16/22 16:42	1
Bromobenzene	ND		1.0	0.54	ug/L			11/16/22 16:42	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/16/22 16:42	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/16/22 16:42	1
Bromoform	ND		5.0	0.25	ug/L			11/16/22 16:42	1
Bromomethane	ND		1.0	0.98	ug/L			11/16/22 16:42	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/16/22 16:42	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/16/22 16:42	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/16/22 16:42	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/16/22 16:42	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/16/22 16:42	1
Chloroethane	ND		1.0	0.76	ug/L			11/16/22 16:42	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/16/22 16:42	1
Chloroform	ND		1.0	1.0	ug/L			11/16/22 16:42	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/16/22 16:42	1
Chloromethane	ND		1.0	0.32	ug/L			11/16/22 16:42	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/16/22 16:42	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/16/22 16:42	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/16/22 16:42	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/16/22 16:42	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/16/22 16:42	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/16/22 16:42	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/16/22 16:42	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/16/22 16:42	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/16/22 16:42	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 16:42	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 16:42	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 16:42	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/16/22 16:42	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/16/22 16:42	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/16/22 16:42	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/16/22 16:42	1
2-Hexanone	ND		25	1.4	ug/L			11/16/22 16:42	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/16/22 16:42	1
Methylene bromide	ND		5.0	0.22	ug/L			11/16/22 16:42	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/16/22 16:42	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/16/22 16:42	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/16/22 16:42	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/16/22 16:42	1
Naphthalene	ND		5.0	3.0	ug/L			11/16/22 16:42	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/16/22 16:42	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/16/22 16:42	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/16/22 16:42	1
o-Xylene	ND		5.0	0.60	ug/L			11/16/22 16:42	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/16/22 16:42	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/16/22 16:42	1

Client Sample ID: TB-ROX-110422-8260-SS
Date Collected: 11/04/22 12:00
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-1
Matrix: Water

Method: SW846 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			11/16/22 16:42	1
Styrene	ND		1.0	1.0	ug/L			11/16/22 16:42	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/16/22 16:42	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/16/22 16:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/16/22 16:42	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/16/22 16:42	1
Toluene	ND		1.0	0.41	ug/L			11/16/22 16:42	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/16/22 16:42	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/16/22 16:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/16/22 16:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/16/22 16:42	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/16/22 16:42	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/16/22 16:42	1
Trichloroethene	ND		1.0	0.15	ug/L			11/16/22 16:42	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/16/22 16:42	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/16/22 16:42	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/16/22 16:42	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/16/22 16:42	1
Vinyl acetate	ND		25	0.93	ug/L			11/16/22 16:42	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/16/22 16:42	1
Xylenes, Total	ND		10	1.6	ug/L			11/16/22 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*101*		*72 - 119*		*11/16/22 16:42*	*1*
Dibromofluoromethane	*98*		*75 - 126*		*11/16/22 16:42*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/16/22 16:42*	*1*

Client Sample Results

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

Job ID: 400-228456-1

Client Sample ID: TB-ROX-110422-8011-SS
Date Collected: 11/04/22 12:00
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-2
Matrix: Water

Method: EPA 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		11/11/22 15:26	11/11/22 22:42	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/11/22 15:26	11/11/22 22:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*117*		*51 - 149*	*11/11/22 15:26*	*11/11/22 22:42*	*1*

Client Sample Results

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

Job ID: 400-228456-1

Client Sample ID: P59-ROX-110422
Date Collected: 11/04/22 10:25
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-3
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	**140**	J	250	100	ug/L			11/16/22 17:30	10
Acrolein	ND		200	33	ug/L			11/16/22 17:30	10
Acrylonitrile	ND		100	28	ug/L			11/16/22 17:30	10
Benzene	**2200**		10	1.3	ug/L			11/16/22 17:30	10
Bromobenzene	ND		10	5.4	ug/L			11/16/22 17:30	10
Bromochloromethane	ND		10	2.1	ug/L			11/16/22 17:30	10
Bromodichloromethane	ND		10	5.0	ug/L			11/16/22 17:30	10
Bromoform	ND		50	2.5	ug/L			11/16/22 17:30	10
Bromomethane	ND		10	9.8	ug/L			11/16/22 17:30	10
2-Butanone (MEK)	ND		250	26	ug/L			11/16/22 17:30	10
Carbon disulfide	ND	UJ	10	5.0	ug/L			11/16/22 17:30	10
Carbon tetrachloride	ND		10	1.9	ug/L			11/16/22 17:30	10
Chlorobenzene	ND		10	1.5	ug/L			11/16/22 17:30	10
Dibromochloromethane	ND		10	2.4	ug/L			11/16/22 17:30	10
Chloroethane	ND		10	7.6	ug/L			11/16/22 17:30	10
2-Chloroethyl vinyl ether	ND		50	20	ug/L			11/16/22 17:30	10
Chloroform	ND		10	10	ug/L			11/16/22 17:30	10
1-Chlorohexane	ND		10	3.2	ug/L			11/16/22 17:30	10
Chloromethane	ND		10	3.2	ug/L			11/16/22 17:30	10
cis-1,2-Dichloroethene	ND		10	2.0	ug/L			11/16/22 17:30	10
cis-1,3-Dichloropropene	ND		50	5.0	ug/L			11/16/22 17:30	10
1,2-Dichlorobenzene	ND		10	5.0	ug/L			11/16/22 17:30	10
1,3-Dichlorobenzene	ND		10	5.4	ug/L			11/16/22 17:30	10
1,4-Dichlorobenzene	ND		10	6.4	ug/L			11/16/22 17:30	10
Dichlorodifluoromethane	ND		10	8.5	ug/L			11/16/22 17:30	10
1,1-Dichloroethane	ND		10	5.0	ug/L			11/16/22 17:30	10
1,2-Dichloroethane	ND		10	1.9	ug/L			11/16/22 17:30	10
1,1-Dichloroethene	ND		10	5.0	ug/L			11/16/22 17:30	10
1,2-Dichloropropane	ND		10	5.0	ug/L			11/16/22 17:30	10
1,3-Dichloropropane	ND		10	5.0	ug/L			11/16/22 17:30	10
2,2-Dichloropropane	ND		10	5.0	ug/L			11/16/22 17:30	10
1,1-Dichloropropene	ND		10	5.0	ug/L			11/16/22 17:30	10
Ethylbenzene	**170**		10	5.0	ug/L			11/16/22 17:30	10
Ethyl methacrylate	ND		10	6.0	ug/L			11/16/22 17:30	10
Hexachlorobutadiene	ND		50	9.0	ug/L			11/16/22 17:30	10
2-Hexanone	ND		250	14	ug/L			11/16/22 17:30	10
Isopropylbenzene	**44**		10	5.3	ug/L			11/16/22 17:30	10
Methylene bromide	ND		50	2.2	ug/L			11/16/22 17:30	10
Methylene Chloride	ND		50	30	ug/L			11/16/22 17:30	10
4-Methyl-2-pentanone (MIBK)	ND		250	18	ug/L			11/16/22 17:30	10
Methyl tert-butyl ether	ND		10	2.2	ug/L			11/16/22 17:30	10
m-Xylene & p-Xylene	**160**		50	6.3	ug/L			11/16/22 17:30	10
Naphthalene	**96**		50	30	ug/L			11/16/22 17:30	10
n-Butylbenzene	ND		10	7.6	ug/L			11/16/22 17:30	10
N-Propylbenzene	**77**		10	6.9	ug/L			11/16/22 17:30	10
o-Chlorotoluene	ND		10	5.7	ug/L			11/16/22 17:30	10
o-Xylene	ND		50	6.0	ug/L			11/16/22 17:30	10
p-Chlorotoluene	ND		10	5.6	ug/L			11/16/22 17:30	10
p-Isopropyltoluene	ND		10	7.1	ug/L			11/16/22 17:30	10

Client Sample ID: P59-ROX-110422
Date Collected: 11/04/22 10:25
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-3
Matrix: Water

Method: SW846 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			11/16/22 17:30	10
Styrene	ND		10	10	ug/L			11/16/22 17:30	10
tert-Butylbenzene	ND		10	6.3	ug/L			11/16/22 17:30	10
1,1,1,2-Tetrachloroethane	ND		10	1.6	ug/L			11/16/22 17:30	10
1,1,2,2-Tetrachloroethane	ND		10	5.0	ug/L			11/16/22 17:30	10
Tetrachloroethene	ND		10	9.0	ug/L			11/16/22 17:30	10
Toluene	**110**		10	4.1	ug/L			11/16/22 17:30	10
trans-1,2-Dichloroethene	ND		10	5.0	ug/L			11/16/22 17:30	10
trans-1,3-Dichloropropene	ND		50	2.0	ug/L			11/16/22 17:30	10
1,2,3-Trichlorobenzene	ND		10	9.0	ug/L			11/16/22 17:30	10
1,2,4-Trichlorobenzene	ND		10	8.2	ug/L			11/16/22 17:30	10
1,1,1-Trichloroethane	ND		10	1.8	ug/L			11/16/22 17:30	10
1,1,2-Trichloroethane	ND		50	2.1	ug/L			11/16/22 17:30	10
Trichloroethene	ND		10	1.5	ug/L			11/16/22 17:30	10
Trichlorofluoromethane	ND		10	5.2	ug/L			11/16/22 17:30	10
1,2,3-Trichloropropane	ND		50	8.4	ug/L			11/16/22 17:30	10
1,2,4-Trimethylbenzene	**69**		10	8.2	ug/L			11/16/22 17:30	10
1,3,5-Trimethylbenzene	**38**		10	5.6	ug/L			11/16/22 17:30	10
Vinyl acetate	ND		250	9.3	ug/L			11/16/22 17:30	10
Vinyl chloride	ND		10	5.0	ug/L			11/16/22 17:30	10
Xylenes, Total	**160**		100	16	ug/L			11/16/22 17:30	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*104*		*72 - 119*		*11/16/22 17:30*	*10*
Dibromofluoromethane	*95*		*75 - 126*		*11/16/22 17:30*	*10*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/16/22 17:30*	*10*

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	**0.39**		0.19	0.030	ug/L		11/07/22 08:55	11/11/22 19:14	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/07/22 08:55	11/11/22 19:14	1
Anthracene	ND		0.19	0.030	ug/L		11/07/22 08:55	11/11/22 19:14	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		11/07/22 08:55	11/14/22 14:11	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/07/22 08:55	11/14/22 14:11	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/07/22 08:55	11/14/22 14:11	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/07/22 08:55	11/14/22 14:11	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		11/07/22 08:55	11/14/22 14:11	1
Chrysene	ND		0.19	0.069	ug/L		11/07/22 08:55	11/14/22 14:11	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		11/07/22 08:55	11/14/22 14:11	1
Fluoranthene	**0.45**		0.19	0.063	ug/L		11/07/22 08:55	11/11/22 19:14	1
Fluorene	ND		0.19	0.10	ug/L		11/07/22 08:55	11/11/22 19:14	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		11/07/22 08:55	11/14/22 14:11	1
1-Methylnaphthalene	**13**		0.19	0.069	ug/L		11/07/22 08:55	11/11/22 19:14	1
2-Methylnaphthalene	**19**		0.19	0.056	ug/L		11/07/22 08:55	11/11/22 19:14	1
Phenanthrene	**1.1**		0.19	0.033	ug/L		11/07/22 08:55	11/11/22 19:14	1
Pyrene	ND		0.19	0.037	ug/L		11/07/22 08:55	11/14/22 14:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*50*		*15 - 122*	*11/07/22 08:55*	*11/14/22 14:11*	*1*
Nitrobenzene-d5	*42*		*19 - 130*	*11/07/22 08:55*	*11/14/22 14:11*	*1*

Client Sample ID: P59-ROX-110422
Date Collected: 11/04/22 10:25
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-3
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	40		33 - 138	11/07/22 08:55	11/14/22 14:11	1

Method: SW846 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		11/07/22 08:55	11/08/22 18:52	1
Benzenethiol	ND	*- UJ	9.3	1.6	ug/L		11/07/22 08:55	11/08/22 18:52	1
Benzoic acid	ND		28	6.8	ug/L		11/07/22 08:55	11/08/22 18:52	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 18:52	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/07/22 08:55	11/08/22 18:52	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/07/22 08:55	11/08/22 18:52	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/07/22 08:55	11/08/22 18:52	1
Bis(2-ethylhexyl) phthalate	**6.6**	J	9.3	4.6	ug/L		11/07/22 08:55	11/08/22 18:52	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/07/22 08:55	11/08/22 18:52	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/07/22 08:55	11/08/22 18:52	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 18:52	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/07/22 08:55	11/08/22 18:52	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/07/22 08:55	11/08/22 18:52	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 18:52	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 18:52	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 18:52	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 18:52	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/07/22 08:55	11/08/22 18:52	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/07/22 08:55	11/08/22 18:52	1
Diethyl phthalate	ND		9.3	0.22	ug/L		11/07/22 08:55	11/08/22 18:52	1
2,4-Dimethylphenol	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 18:52	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 18:52	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/07/22 08:55	11/08/22 18:52	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/07/22 08:55	11/08/22 18:52	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/07/22 08:55	11/08/22 18:52	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/07/22 08:55	11/08/22 18:52	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/07/22 08:55	11/08/22 18:52	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 18:52	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 18:52	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 18:52	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 18:52	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/07/22 08:55	11/08/22 18:52	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/07/22 08:55	11/08/22 18:52	1
Indene	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 18:52	1
Isophorone	ND		9.3	0.13	ug/L		11/07/22 08:55	11/08/22 18:52	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/07/22 08:55	11/08/22 18:52	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		11/07/22 08:55	11/08/22 18:52	1
2-Nitroaniline	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 18:52	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/07/22 08:55	11/08/22 18:52	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/07/22 08:55	11/08/22 18:52	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/07/22 08:55	11/08/22 18:52	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/07/22 08:55	11/08/22 18:52	1
4-Nitrophenol	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 18:52	1
N-Nitrosodimethylamine	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 18:52	1

Client Sample ID: P59-ROX-110422
Date Collected: 11/04/22 10:25
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-3
Matrix: Water

Method: SW846 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		11/07/22 08:55	11/08/22 18:52	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/07/22 08:55	11/08/22 18:52	1
Pentachlorophenol	ND		19	1.3	ug/L		11/07/22 08:55	11/08/22 18:52	1
Phenol	24		9.3	2.4	ug/L		11/07/22 08:55	11/08/22 18:52	1
Pyridine	ND		9.3	3.0	ug/L		11/07/22 08:55	11/08/22 18:52	1
Quinoline	ND		9.3	4.2	ug/L		11/07/22 08:55	11/08/22 18:52	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/07/22 08:55	11/08/22 18:52	1
2,4,6-Trichlorophenol	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 18:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*67*		*46 - 124*	*11/07/22 08:55*	*11/08/22 18:52*	*1*
2-Fluorophenol	*34*		*13 - 113*	*11/07/22 08:55*	*11/08/22 18:52*	*1*
Nitrobenzene-d5	*72*		*36 - 126*	*11/07/22 08:55*	*11/08/22 18:52*	*1*
Phenol-d5	*65*		*17 - 127*	*11/07/22 08:55*	*11/08/22 18:52*	*1*
Terphenyl-d14	*110*		*44 - 149*	*11/07/22 08:55*	*11/08/22 18:52*	*1*
2,4,6-Tribromophenol	*132*		*26 - 150*	*11/07/22 08:55*	*11/08/22 18:52*	*1*

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		11/09/22 09:13	11/11/22 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*63*		*46 - 124*	*11/09/22 09:13*	*11/11/22 18:26*	*1*
Nitrobenzene-d5	*71*		*36 - 126*	*11/09/22 09:13*	*11/11/22 18:26*	*1*
Terphenyl-d14	*83*		*44 - 149*	*11/09/22 09:13*	*11/11/22 18:26*	*1*

Method: EPA 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		11/11/22 15:26	11/11/22 23:03	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/11/22 15:26	11/11/22 23:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*110*		*51 - 149*	*11/11/22 15:26*	*11/11/22 23:03*	*1*

Client Sample Results

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

Job ID: 400-228456-1

Client Sample ID: P93B-ROX-110422
Date Collected: 11/04/22 11:50
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50000	20000	ug/L			11/18/22 12:06	2000
Acrolein	ND		40000	6600	ug/L			11/18/22 12:06	2000
Acrylonitrile	ND		20000	5600	ug/L			11/18/22 12:06	2000
Bromobenzene	ND		2000	1100	ug/L			11/18/22 12:06	2000
Bromochloromethane	ND		2000	420	ug/L			11/18/22 12:06	2000
Bromodichloromethane	ND		2000	1000	ug/L			11/18/22 12:06	2000
Bromoform	ND		10000	500	ug/L			11/18/22 12:06	2000
Bromomethane	ND		2000	2000	ug/L			11/18/22 12:06	2000
2-Butanone (MEK)	ND		50000	5200	ug/L			11/18/22 12:06	2000
Carbon disulfide	ND		2000	1000	ug/L			11/18/22 12:06	2000
Carbon tetrachloride	ND		2000	380	ug/L			11/18/22 12:06	2000
Chlorobenzene	ND		2000	300	ug/L			11/18/22 12:06	2000
Dibromochloromethane	ND		2000	480	ug/L			11/18/22 12:06	2000
Chloroethane	ND		2000	1500	ug/L			11/18/22 12:06	2000
2-Chloroethyl vinyl ether	ND		10000	4000	ug/L			11/18/22 12:06	2000
Chloroform	ND		2000	2000	ug/L			11/18/22 12:06	2000
1-Chlorohexane	ND		2000	640	ug/L			11/18/22 12:06	2000
Chloromethane	ND		2000	640	ug/L			11/18/22 12:06	2000
cis-1,2-Dichloroethene	ND		2000	400	ug/L			11/18/22 12:06	2000
cis-1,3-Dichloropropene	ND		10000	1000	ug/L			11/18/22 12:06	2000
1,2-Dichlorobenzene	ND		2000	1000	ug/L			11/18/22 12:06	2000
1,3-Dichlorobenzene	ND		2000	1100	ug/L			11/18/22 12:06	2000
1,4-Dichlorobenzene	ND		2000	1300	ug/L			11/18/22 12:06	2000
Dichlorodifluoromethane	ND		2000	1700	ug/L			11/18/22 12:06	2000
1,1-Dichloroethane	ND		2000	1000	ug/L			11/18/22 12:06	2000
1,2-Dichloroethane	ND		2000	380	ug/L			11/18/22 12:06	2000
1,1-Dichloroethene	ND		2000	1000	ug/L			11/18/22 12:06	2000
1,2-Dichloropropane	ND		2000	1000	ug/L			11/18/22 12:06	2000
1,3-Dichloropropane	ND		2000	1000	ug/L			11/18/22 12:06	2000
2,2-Dichloropropane	ND		2000	1000	ug/L			11/18/22 12:06	2000
1,1-Dichloropropene	ND		2000	1000	ug/L			11/18/22 12:06	2000
Ethylbenzene	ND		2000	1000	ug/L			11/18/22 12:06	2000
Ethyl methacrylate	ND		2000	1200	ug/L			11/18/22 12:06	2000
Hexachlorobutadiene	ND		10000	1800	ug/L			11/18/22 12:06	2000
2-Hexanone	ND		50000	2800	ug/L			11/18/22 12:06	2000
Isopropylbenzene	ND		2000	1100	ug/L			11/18/22 12:06	2000
Methylene bromide	ND		10000	440	ug/L			11/18/22 12:06	2000
Methylene Chloride	ND		10000	6000	ug/L			11/18/22 12:06	2000
4-Methyl-2-pentanone (MIBK)	ND		50000	3600	ug/L			11/18/22 12:06	2000
Methyl tert-butyl ether	ND		2000	440	ug/L			11/18/22 12:06	2000
m-Xylene & p-Xylene	ND		10000	1300	ug/L			11/18/22 12:06	2000
Naphthalene	ND		10000	6000	ug/L			11/18/22 12:06	2000
n-Butylbenzene	ND		2000	1500	ug/L			11/18/22 12:06	2000
N-Propylbenzene	ND		2000	1400	ug/L			11/18/22 12:06	2000
o-Chlorotoluene	ND		2000	1100	ug/L			11/18/22 12:06	2000
o-Xylene	ND		10000	1200	ug/L			11/18/22 12:06	2000
p-Chlorotoluene	ND		2000	1100	ug/L			11/18/22 12:06	2000
p-Isopropyltoluene	ND		2000	1400	ug/L			11/18/22 12:06	2000
sec-Butylbenzene	ND		2000	1400	ug/L			11/18/22 12:06	2000

Client Sample ID: P93B-ROX-110422
Date Collected: 11/04/22 11:50
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-4
Matrix: Water

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		2000	2000	ug/L			11/18/22 12:06	2000
tert-Butylbenzene	ND		2000	1300	ug/L			11/18/22 12:06	2000
1,1,1,2-Tetrachloroethane	ND		2000	320	ug/L			11/18/22 12:06	2000
1,1,2,2-Tetrachloroethane	ND		2000	1000	ug/L			11/18/22 12:06	2000
Tetrachloroethene	ND		2000	1800	ug/L			11/18/22 12:06	2000
Toluene	ND		2000	820	ug/L			11/18/22 12:06	2000
trans-1,2-Dichloroethene	ND		2000	1000	ug/L			11/18/22 12:06	2000
trans-1,3-Dichloropropene	ND		10000	400	ug/L			11/18/22 12:06	2000
1,2,3-Trichlorobenzene	ND		2000	1800	ug/L			11/18/22 12:06	2000
1,2,4-Trichlorobenzene	ND		2000	1600	ug/L			11/18/22 12:06	2000
1,1,1-Trichloroethane	ND		2000	360	ug/L			11/18/22 12:06	2000
1,1,2-Trichloroethane	ND		10000	420	ug/L			11/18/22 12:06	2000
Trichloroethene	ND		2000	300	ug/L			11/18/22 12:06	2000
Trichlorofluoromethane	ND		2000	1000	ug/L			11/18/22 12:06	2000
1,2,3-Trichloropropane	ND		10000	1700	ug/L			11/18/22 12:06	2000
1,2,4-Trimethylbenzene	ND		2000	1600	ug/L			11/18/22 12:06	2000
1,3,5-Trimethylbenzene	ND		2000	1100	ug/L			11/18/22 12:06	2000
Vinyl acetate	ND		50000	1900	ug/L			11/18/22 12:06	2000
Vinyl chloride	ND		2000	1000	ug/L			11/18/22 12:06	2000
Xylenes, Total	ND		20000	3200	ug/L			11/18/22 12:06	2000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/18/22 12:06*	*2000*
Dibromofluoromethane	*100*		*75 - 126*		*11/18/22 12:06*	*2000*
Toluene-d8 (Surr)	*99*		*64 - 132*		*11/18/22 12:06*	*2000*

Method: SW846 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	790000		5000	650	ug/L			11/18/22 13:47	5000

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*98*		*72 - 119*		*11/18/22 13:47*	*5000*
Dibromofluoromethane	*101*		*75 - 126*		*11/18/22 13:47*	*5000*
Toluene-d8 (Surr)	*101*		*64 - 132*		*11/18/22 13:47*	*5000*

Method: SW846 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		11/07/22 08:55	11/11/22 19:31	1
Acenaphthylene	ND		0.19	0.042	ug/L		11/07/22 08:55	11/11/22 19:31	1
Anthracene	ND		0.19	0.030	ug/L		11/07/22 08:55	11/11/22 19:31	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		11/07/22 08:55	11/11/22 19:31	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		11/07/22 08:55	11/11/22 19:31	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		11/07/22 08:55	11/11/22 19:31	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		11/07/22 08:55	11/11/22 19:31	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		11/07/22 08:55	11/11/22 19:31	1
Chrysene	ND		0.19	0.069	ug/L		11/07/22 08:55	11/11/22 19:31	1
Dibenz(a,h)anthracene	ND		0.19	0.046	ug/L		11/07/22 08:55	11/11/22 19:31	1
Fluoranthene	ND		0.19	0.063	ug/L		11/07/22 08:55	11/11/22 19:31	1
Fluorene	ND		0.19	0.10	ug/L		11/07/22 08:55	11/11/22 19:31	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		11/07/22 08:55	11/11/22 19:31	1

Client Sample ID: P93B-ROX-110422
Date Collected: 11/04/22 11:50
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-4
Matrix: Water

Method: SW846 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	**0.16**	**J**	0.19	0.069	ug/L		11/07/22 08:55	11/11/22 19:31	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		11/07/22 08:55	11/11/22 19:31	1
Phenanthrene	ND		0.19	0.033	ug/L		11/07/22 08:55	11/11/22 19:31	1
Pyrene	ND		0.19	0.037	ug/L		11/07/22 08:55	11/11/22 19:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*85*		*15 - 122*	*11/07/22 08:55*	*11/11/22 19:31*	*1*
Nitrobenzene-d5	*71*		*19 - 130*	*11/07/22 08:55*	*11/11/22 19:31*	*1*
Terphenyl-d14	*78*		*33 - 138*	*11/07/22 08:55*	*11/11/22 19:31*	*1*

Method: SW846 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		11/07/22 08:55	11/08/22 19:13	1
Benzenethiol	ND	*- UJ	9.3	1.6	ug/L		11/07/22 08:55	11/08/22 19:13	1
Benzoic acid	ND		28	6.8	ug/L		11/07/22 08:55	11/08/22 19:13	1
Benzyl alcohol	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 19:13	1
Bis(2-chloroethoxy)methane	ND		9.3	0.15	ug/L		11/07/22 08:55	11/08/22 19:13	1
Bis(2-chloroethyl)ether	ND		9.3	2.5	ug/L		11/07/22 08:55	11/08/22 19:13	1
bis (2-chloroisopropyl) ether	ND		9.3	0.15	ug/L		11/07/22 08:55	11/08/22 19:13	1
Bis(2-ethylhexyl) phthalate	**4.9**	**J**	9.3	4.6	ug/L		11/07/22 08:55	11/08/22 19:13	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		11/07/22 08:55	11/08/22 19:13	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		11/07/22 08:55	11/08/22 19:13	1
4-Chloroaniline	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 19:13	1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L		11/07/22 08:55	11/08/22 19:13	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		11/07/22 08:55	11/08/22 19:13	1
2-Chlorophenol	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 19:13	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 19:13	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 19:13	1
Dibenzofuran	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 19:13	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		11/07/22 08:55	11/08/22 19:13	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		11/07/22 08:55	11/08/22 19:13	1
Diethyl phthalate	ND		9.3	0.22	ug/L		11/07/22 08:55	11/08/22 19:13	1
2,4-Dimethylphenol	**4.4**	**J**	9.3	3.2	ug/L		11/07/22 08:55	11/08/22 19:13	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 19:13	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		11/07/22 08:55	11/08/22 19:13	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		11/07/22 08:55	11/08/22 19:13	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		11/07/22 08:55	11/08/22 19:13	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		11/07/22 08:55	11/08/22 19:13	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		11/07/22 08:55	11/08/22 19:13	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 19:13	1
1,4-Dioxane	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 19:13	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 19:13	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		11/07/22 08:55	11/08/22 19:13	1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L		11/07/22 08:55	11/08/22 19:13	1
Hexachloroethane	ND		9.3	3.9	ug/L		11/07/22 08:55	11/08/22 19:13	1
Indene	ND		9.3	0.93	ug/L		11/07/22 08:55	11/08/22 19:13	1
Isophorone	ND		9.3	0.13	ug/L		11/07/22 08:55	11/08/22 19:13	1
2-Methylphenol	ND		9.3	1.7	ug/L		11/07/22 08:55	11/08/22 19:13	1
3 & 4 Methylphenol	**1.2**	**J**	19	0.36	ug/L		11/07/22 08:55	11/08/22 19:13	1

Client Sample ID: P93B-ROX-110422
Date Collected: 11/04/22 11:50
Date Received: 11/05/22 09:26

Lab Sample ID: 400-228456-4
Matrix: Water

Method: SW846 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.3	2.0	ug/L		11/07/22 08:55	11/08/22 19:13	1
3-Nitroaniline	ND		9.3	1.7	ug/L		11/07/22 08:55	11/08/22 19:13	1
4-Nitroaniline	ND		9.3	1.4	ug/L		11/07/22 08:55	11/08/22 19:13	1
Nitrobenzene	ND		9.3	0.12	ug/L		11/07/22 08:55	11/08/22 19:13	1
2-Nitrophenol	ND		9.3	4.8	ug/L		11/07/22 08:55	11/08/22 19:13	1
4-Nitrophenol	ND		9.3	1.9	ug/L		11/07/22 08:55	11/08/22 19:13	1
N-Nitrosodimethylamine	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 19:13	1
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		11/07/22 08:55	11/08/22 19:13	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		11/07/22 08:55	11/08/22 19:13	1
Pentachlorophenol	ND		19	1.3	ug/L		11/07/22 08:55	11/08/22 19:13	1
Phenol	310		9.3	2.4	ug/L		11/07/22 08:55	11/08/22 19:13	1
Pyridine	ND		9.3	3.0	ug/L		11/07/22 08:55	11/08/22 19:13	1
Quinoline	ND		9.3	4.2	ug/L		11/07/22 08:55	11/08/22 19:13	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L		11/07/22 08:55	11/08/22 19:13	1
2,4,6-Trichlorophenol	ND		9.3	3.2	ug/L		11/07/22 08:55	11/08/22 19:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*74*		*46 - 124*	*11/07/22 08:55*	*11/08/22 19:13*	*1*
2-Fluorophenol	*44*		*13 - 113*	*11/07/22 08:55*	*11/08/22 19:13*	*1*
Nitrobenzene-d5	*87*		*36 - 126*	*11/07/22 08:55*	*11/08/22 19:13*	*1*
Phenol-d5	*80*		*17 - 127*	*11/07/22 08:55*	*11/08/22 19:13*	*1*
Terphenyl-d14	*97*		*44 - 149*	*11/07/22 08:55*	*11/08/22 19:13*	*1*
2,4,6-Tribromophenol	*123*		*26 - 150*	*11/07/22 08:55*	*11/08/22 19:13*	*1*

Method: EPA 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		11/11/22 15:26	11/11/22 23:44	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/11/22 15:26	11/11/22 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*109*		*51 - 149*	*11/11/22 15:26*	*11/11/22 23:44*	*1*

Definitions/Glossary

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

Job ID: 400-228456-1

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.

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: 400-228456-1

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)
400-228456-1	TB-ROX-110422-8260-SS	101	98	100
400-228456-3	P59-ROX-110422	104	95	99
400-228456-4	P93B-ROX-110422	98	100	99
400-228456-4 - DL	P93B-ROX-110422	98	101	101
LCS 400-600985/1002	Lab Control Sample	105	93	99
LCS 400-601300/1002	Lab Control Sample	88	96	98
MB 400-600985/4	Method Blank	100	97	100
MB 400-601300/4	Method Blank	99	100	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)
400-228456-3	P59-ROX-110422	67	34	72	65	110	132
400-228456-3 - RERA	P59-ROX-110422	63		71		83	
400-228456-4	P93B-ROX-110422	74	44	87	80	97	123
LCS 400-599497/2-A	Lab Control Sample	72	45	71	72	89	110
LCS 400-599497/4-A	Lab Control Sample	64	47	74	69	95	70
LCS 400-599854/2-A	Lab Control Sample	84		97		107	
LCSD 400-599497/3-A	Lab Control Sample Dup	76	33	76	74	96	116
LCSD 400-599497/5-A	Lab Control Sample Dup	70	46	79	73	104	81
LCSD 400-599854/3-A	Lab Control Sample Dup	83		97		109	
MB 400-599497/1-A	Method Blank	75	27	86	66	113	94
MB 400-599854/1-A	Method Blank	82		93		128	

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)
400-228456-3	P59-ROX-110422	50	42	40
400-228456-4	P93B-ROX-110422	85	71	78
LCS 400-599497/2-A	Lab Control Sample	86	79	84
LCSD 400-599497/3-A	Lab Control Sample Dup	92	82	93
MB 400-599497/1-A	Method Blank	81	77	112

Surrogate Summary

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

Job ID: 400-228456-1

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)**
400-228456-2	TB-ROX-110422-8011-SS	117
400-228456-3	P59-ROX-110422	110
400-228456-4	P93B-ROX-110422	109
LCS 400-600339/2-A	Lab Control Sample	117
LCSD 400-600339/3-A	Lab Control Sample Dup	121
MB 400-600339/1-A	Method Blank	118

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-228456-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	EET PEN
8011	EDB and DBCP in Water by Microextraction	EPA	EET PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	EET PEN
5030B	Purge and Trap	SW846	EET PEN
8011	Microextraction	SW846	EET 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:

EET 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: 400-228456-1

Client Sample ID: TB-ROX-110422-8260-SS

Lab Sample ID: 400-228456-1

Date Collected: 11/04/22 12:00
Matrix: Water
Date Received: 11/05/22 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	600985	11/16/22 16:42	WPD	EET PEN

Client Sample ID: TB-ROX-110422-8011-SS

Lab Sample ID: 400-228456-2

Date Collected: 11/04/22 12:00
Matrix: Water
Date Received: 11/05/22 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			35.4 mL	35 mL	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 22:42	AKL	EET PEN

Client Sample ID: P59-ROX-110422

Lab Sample ID: 400-228456-3

Date Collected: 11/04/22 10:25
Matrix: Water
Date Received: 11/05/22 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		10	5 mL	5 mL	600985	11/16/22 17:30	WPD	EET PEN
Total/NA	Prep	3520C			269.8 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 18:52	S1B	EET PEN
Total/NA	Prep	3520C	RERA		266.4 mL	1 mL	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D	RERA	1	0.4 mL	0.4 mL	600291	11/11/22 18:26	S1B	EET PEN
Total/NA	Prep	3520C			269.8 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 19:14	PP1	EET PEN
Total/NA	Prep	3520C			269.8 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600570	11/14/22 14:11	VC1	EET PEN
Total/NA	Prep	8011			35.2 mL	35 mL	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 23:03	AKL	EET PEN

Client Sample ID: P93B-ROX-110422

Lab Sample ID: 400-228456-4

Date Collected: 11/04/22 11:50
Matrix: Water
Date Received: 11/05/22 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		2000	5 mL	5 mL	601300	11/18/22 12:06	AGW	EET PEN
Total/NA	Analysis	8260B	DL	5000	5 mL	5 mL	601300	11/18/22 13:47	AGW	EET PEN
Total/NA	Prep	3520C			269.4 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 19:13	S1B	EET PEN
Total/NA	Prep	3520C			269.4 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600349	11/11/22 19:31	PP1	EET PEN
Total/NA	Prep	8011			34.4 mL	35 mL	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 23:44	AKL	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-599497/1-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 15:24	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		1	0.4 mL	0.4 mL	600170	11/10/22 17:57	PP1	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-599854/1-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:13	S1B	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-600339/1-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	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 19:58	AKL	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-600985/4
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	600985	11/16/22 16:18	WPD	EET PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-601300/4
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	601300	11/18/22 10:51	AGW	EET PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-599497/2-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:26	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	600349	11/11/22 17:13	PP1	EET PEN

Lab Chronicle

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

Job ID: 400-228456-1

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-599497/4-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 15:44	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-599854/2-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:33	S1B	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-600339/2-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	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 20:19	AKL	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-600985/1002
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	600985	11/16/22 15:29	WPD	EET PEN

Client Sample ID: Lab Control Sample
Lab Sample ID: LCS 400-601300/1002
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	601300	11/18/22 09:54	AGW	EET PEN

Client Sample ID: Lab Control Sample Dup
Lab Sample ID: LCSD 400-599497/3-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:47	S1B	EET PEN
Total/NA	Prep	3520C			250 mL	1 mL	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D LL		5	0.4 mL	0.4 mL	600349	11/11/22 17:30	PP1	EET PEN

Lab Chronicle

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

Job ID: 400-228456-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-599497/5-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	599497	11/07/22 08:55	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	599728	11/08/22 16:05	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-599854/3-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	599854	11/09/22 09:13	KWS	EET PEN
Total/NA	Analysis	8270D		1	0.4 mL	0.4 mL	600049	11/10/22 21:54	S1B	EET PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-600339/3-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	600339	11/11/22 15:26	AKL	EET PEN
Total/NA	Analysis	8011		1			600360	11/11/22 20:39	AKL	EET PEN

Laboratory References:

EET 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: 400-228456-1

GC/MS VOA

Analysis Batch: 600985

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228456-1	TB-ROX-110422-8260-SS	Total/NA	Water	8260B	
400-228456-3	P59-ROX-110422	Total/NA	Water	8260B	
MB 400-600985/4	Method Blank	Total/NA	Water	8260B	
LCS 400-600985/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 601300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228456-4	P93B-ROX-110422	Total/NA	Water	8260B	
400-228456-4 - DL	P93B-ROX-110422	Total/NA	Water	8260B	
MB 400-601300/4	Method Blank	Total/NA	Water	8260B	
LCS 400-601300/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 599497

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228456-3	P59-ROX-110422	Total/NA	Water	3520C	
400-228456-4	P93B-ROX-110422	Total/NA	Water	3520C	
MB 400-599497/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-599497/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-599497/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 599728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228456-3	P59-ROX-110422	Total/NA	Water	8270D	599497
400-228456-4	P93B-ROX-110422	Total/NA	Water	8270D	599497
MB 400-599497/1-A	Method Blank	Total/NA	Water	8270D	599497
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	8270D	599497
LCS 400-599497/4-A	Lab Control Sample	Total/NA	Water	8270D	599497
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	599497
LCSD 400-599497/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	599497

Prep Batch: 599854

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228456-3 - RERA	P59-ROX-110422	Total/NA	Water	3520C	
MB 400-599854/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-599854/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-599854/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 600049

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-599854/1-A	Method Blank	Total/NA	Water	8270D	599854
LCS 400-599854/2-A	Lab Control Sample	Total/NA	Water	8270D	599854
LCSD 400-599854/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	599854

Analysis Batch: 600170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-599497/1-A	Method Blank	Total/NA	Water	8270D LL	599497

QC Association Summary

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

Job ID: 400-228456-1

GC/MS Semi VOA

Analysis Batch: 600291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228456-3 - RERA	P59-ROX-110422	Total/NA	Water	8270D	599854

Analysis Batch: 600349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228456-3	P59-ROX-110422	Total/NA	Water	8270D LL	599497
400-228456-4	P93B-ROX-110422	Total/NA	Water	8270D LL	599497
LCS 400-599497/2-A	Lab Control Sample	Total/NA	Water	8270D LL	599497
LCSD 400-599497/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	599497

Analysis Batch: 600570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228456-3	P59-ROX-110422	Total/NA	Water	8270D LL	599497

GC Semi VOA

Prep Batch: 600339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228456-2	TB-ROX-110422-8011-SS	Total/NA	Water	8011	
400-228456-3	P59-ROX-110422	Total/NA	Water	8011	
400-228456-4	P93B-ROX-110422	Total/NA	Water	8011	
MB 400-600339/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-600339/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-600339/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 600360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-228456-2	TB-ROX-110422-8011-SS	Total/NA	Water	8011	600339
400-228456-3	P59-ROX-110422	Total/NA	Water	8011	600339
400-228456-4	P93B-ROX-110422	Total/NA	Water	8011	600339
MB 400-600339/1-A	Method Blank	Total/NA	Water	8011	600339
LCS 400-600339/2-A	Lab Control Sample	Total/NA	Water	8011	600339
LCSD 400-600339/3-A	Lab Control Sample Dup	Total/NA	Water	8011	600339

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

Lab Sample ID: MB 400-600985/4
Matrix: Water
Analysis Batch: 600985

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			11/16/22 16:18	1
Acrolein	ND		20	3.3	ug/L			11/16/22 16:18	1
Acrylonitrile	ND		10	2.8	ug/L			11/16/22 16:18	1
Benzene	ND		1.0	0.13	ug/L			11/16/22 16:18	1
Bromobenzene	ND		1.0	0.54	ug/L			11/16/22 16:18	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/16/22 16:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/16/22 16:18	1
Bromoform	ND		5.0	0.25	ug/L			11/16/22 16:18	1
Bromomethane	ND		1.0	0.98	ug/L			11/16/22 16:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/16/22 16:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/16/22 16:18	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/16/22 16:18	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/16/22 16:18	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/16/22 16:18	1
Chloroethane	ND		1.0	0.76	ug/L			11/16/22 16:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/16/22 16:18	1
Chloroform	ND		1.0	1.0	ug/L			11/16/22 16:18	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/16/22 16:18	1
Chloromethane	ND		1.0	0.32	ug/L			11/16/22 16:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/16/22 16:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/16/22 16:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/16/22 16:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/16/22 16:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/16/22 16:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/16/22 16:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/16/22 16:18	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/16/22 16:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/16/22 16:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 16:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 16:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/16/22 16:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/16/22 16:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/16/22 16:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/16/22 16:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/16/22 16:18	1
2-Hexanone	ND		25	1.4	ug/L			11/16/22 16:18	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/16/22 16:18	1
Methylene bromide	ND		5.0	0.22	ug/L			11/16/22 16:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/16/22 16:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/16/22 16:18	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/16/22 16:18	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/16/22 16:18	1
Naphthalene	ND		5.0	3.0	ug/L			11/16/22 16:18	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/16/22 16:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/16/22 16:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/16/22 16:18	1
o-Xylene	ND		5.0	0.60	ug/L			11/16/22 16:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/16/22 16:18	1

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

Lab Sample ID: MB 400-600985/4
Matrix: Water
Analysis Batch: 600985

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			11/16/22 16:18	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/16/22 16:18	1
Styrene	ND		1.0	1.0	ug/L			11/16/22 16:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/16/22 16:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/16/22 16:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/16/22 16:18	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/16/22 16:18	1
Toluene	ND		1.0	0.41	ug/L			11/16/22 16:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/16/22 16:18	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/16/22 16:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/16/22 16:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/16/22 16:18	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/16/22 16:18	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/16/22 16:18	1
Trichloroethene	ND		1.0	0.15	ug/L			11/16/22 16:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/16/22 16:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/16/22 16:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/16/22 16:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/16/22 16:18	1
Vinyl acetate	ND		25	0.93	ug/L			11/16/22 16:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/16/22 16:18	1
Xylenes, Total	ND		10	1.6	ug/L			11/16/22 16:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*100*		*72 - 119*		*11/16/22 16:18*	*1*
Dibromofluoromethane	*97*		*75 - 126*		*11/16/22 16:18*	*1*
Toluene-d8 (Surr)	*100*		*64 - 132*		*11/16/22 16:18*	*1*

Lab Sample ID: LCS 400-600985/1002
Matrix: Water
Analysis Batch: 600985

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	299		ug/L		149	43 - 160
Acrolein	500	418		ug/L		84	38 - 160
Acrylonitrile	500	480		ug/L		96	64 - 142
Benzene	50.0	49.5		ug/L		99	70 - 130
Bromobenzene	50.0	54.5		ug/L		109	70 - 132
Bromochloromethane	50.0	46.3		ug/L		93	70 - 130
Bromodichloromethane	50.0	48.4		ug/L		97	67 - 133
Bromoform	50.0	48.6		ug/L		97	57 - 140
Bromomethane	50.0	33.5		ug/L		67	10 - 160
2-Butanone (MEK)	200	260		ug/L		130	61 - 145
Carbon disulfide	50.0	45.0		ug/L		90	61 - 137
Carbon tetrachloride	50.0	48.0		ug/L		96	61 - 137
Chlorobenzene	50.0	50.7		ug/L		101	70 - 130
Dibromochloromethane	50.0	50.0		ug/L		100	67 - 135
Chloroethane	50.0	37.9		ug/L		76	55 - 141

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

Lab Sample ID: LCS 400-600985/1002
Matrix: Water
Analysis Batch: 600985

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	55.1		ug/L		110	10 - 160
Chloroform	50.0	48.2		ug/L		96	69 - 130
1-Chlorohexane	50.0	50.0		ug/L		100	69 - 130
Chloromethane	50.0	48.4		ug/L		97	58 - 137
cis-1,2-Dichloroethene	50.0	46.6		ug/L		93	68 - 130
cis-1,3-Dichloropropene	50.0	51.8		ug/L		104	69 - 132
1,2-Dichlorobenzene	50.0	53.4		ug/L		107	67 - 130
1,3-Dichlorobenzene	50.0	55.4		ug/L		111	70 - 130
1,4-Dichlorobenzene	50.0	55.6		ug/L		111	70 - 130
Dichlorodifluoromethane	50.0	50.6		ug/L		101	41 - 146
1,1-Dichloroethane	50.0	47.6		ug/L		95	70 - 130
1,2-Dichloroethane	50.0	46.3		ug/L		93	69 - 130
1,1-Dichloroethene	50.0	43.8		ug/L		88	63 - 134
1,2-Dichloropropane	50.0	47.8		ug/L		96	70 - 130
1,3-Dichloropropane	50.0	51.9		ug/L		104	70 - 130
2,2-Dichloropropane	50.0	46.2		ug/L		92	52 - 135
1,1-Dichloropropene	50.0	47.3		ug/L		95	70 - 130
Ethylbenzene	50.0	51.4		ug/L		103	70 - 130
Ethyl methacrylate	50.0	50.2		ug/L		100	68 - 130
Hexachlorobutadiene	50.0	63.8		ug/L		128	53 - 140
2-Hexanone	200	222		ug/L		111	65 - 137
Isopropylbenzene	50.0	50.7		ug/L		101	70 - 130
Methylene bromide	50.0	47.0		ug/L		94	70 - 130
Methylene Chloride	50.0	48.7		ug/L		97	66 - 135
4-Methyl-2-pentanone (MIBK)	200	195		ug/L		98	69 - 138
Methyl tert-butyl ether	50.0	46.4		ug/L		93	66 - 130
m-Xylene & p-Xylene	50.0	51.3		ug/L		103	70 - 130
Naphthalene	50.0	48.8		ug/L		98	47 - 149
n-Butylbenzene	50.0	56.7		ug/L		113	67 - 130
N-Propylbenzene	50.0	56.7		ug/L		113	70 - 130
o-Chlorotoluene	50.0	54.8		ug/L		110	70 - 130
o-Xylene	50.0	51.6		ug/L		103	70 - 130
p-Chlorotoluene	50.0	55.6		ug/L		111	70 - 130
p-Isopropyltoluene	50.0	56.1		ug/L		112	65 - 130
sec-Butylbenzene	50.0	55.3		ug/L		111	66 - 130
Styrene	50.0	51.7		ug/L		103	70 - 130
tert-Butylbenzene	50.0	56.3		ug/L		113	64 - 139
1,1,1,2-Tetrachloroethane	50.0	50.1		ug/L		100	67 - 131
1,1,2,2-Tetrachloroethane	50.0	53.8		ug/L		108	70 - 131
Tetrachloroethene	50.0	51.1		ug/L		102	65 - 130
Toluene	50.0	50.1		ug/L		100	70 - 130
trans-1,2-Dichloroethene	50.0	47.5		ug/L		95	70 - 130
trans-1,3-Dichloropropene	50.0	49.8		ug/L		100	63 - 130
1,2,3-Trichlorobenzene	50.0	55.3		ug/L		111	60 - 138
1,2,4-Trichlorobenzene	50.0	58.6		ug/L		117	60 - 140
1,1,1-Trichloroethane	50.0	47.3		ug/L		95	68 - 130
1,1,2-Trichloroethane	50.0	51.1		ug/L		102	70 - 130
Trichloroethene	50.0	48.4		ug/L		97	70 - 130
Trichlorofluoromethane	50.0	35.3		ug/L		71	65 - 138

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

Lab Sample ID: LCS 400-600985/1002
Matrix: Water
Analysis Batch: 600985

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	54.9		ug/L		110	70 - 130
1,2,4-Trimethylbenzene	50.0	55.4		ug/L		111	70 - 130
1,3,5-Trimethylbenzene	50.0	55.6		ug/L		111	69 - 130
Vinyl acetate	100	82.1		ug/L		82	26 - 160
Vinyl chloride	50.0	45.9		ug/L		92	59 - 136
Xylenes, Total	100	103		ug/L		103	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*105*		*72 - 119*
Dibromofluoromethane	*93*		*75 - 126*
Toluene-d8 (Surr)	*99*		*64 - 132*

Lab Sample ID: MB 400-601300/4
Matrix: Water
Analysis Batch: 601300

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			11/18/22 10:51	1
Acrolein	ND		20	3.3	ug/L			11/18/22 10:51	1
Acrylonitrile	ND		10	2.8	ug/L			11/18/22 10:51	1
Benzene	ND		1.0	0.13	ug/L			11/18/22 10:51	1
Bromobenzene	ND		1.0	0.54	ug/L			11/18/22 10:51	1
Bromochloromethane	ND		1.0	0.21	ug/L			11/18/22 10:51	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/18/22 10:51	1
Bromoform	ND		5.0	0.25	ug/L			11/18/22 10:51	1
Bromomethane	ND		1.0	0.98	ug/L			11/18/22 10:51	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/18/22 10:51	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/18/22 10:51	1
Carbon tetrachloride	ND		1.0	0.19	ug/L			11/18/22 10:51	1
Chlorobenzene	ND		1.0	0.15	ug/L			11/18/22 10:51	1
Dibromochloromethane	ND		1.0	0.24	ug/L			11/18/22 10:51	1
Chloroethane	ND		1.0	0.76	ug/L			11/18/22 10:51	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/18/22 10:51	1
Chloroform	ND		1.0	1.0	ug/L			11/18/22 10:51	1
1-Chlorohexane	ND		1.0	0.32	ug/L			11/18/22 10:51	1
Chloromethane	ND		1.0	0.32	ug/L			11/18/22 10:51	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/22 10:51	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/18/22 10:51	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/18/22 10:51	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/18/22 10:51	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/18/22 10:51	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/18/22 10:51	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/18/22 10:51	1
1,2-Dichloroethane	ND		1.0	0.19	ug/L			11/18/22 10:51	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/18/22 10:51	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/18/22 10:51	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/18/22 10:51	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/18/22 10:51	1

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

Lab Sample ID: MB 400-601300/4
Matrix: Water
Analysis Batch: 601300

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			11/18/22 10:51	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/18/22 10:51	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/18/22 10:51	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/18/22 10:51	1
2-Hexanone	ND		25	1.4	ug/L			11/18/22 10:51	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/18/22 10:51	1
Methylene bromide	ND		5.0	0.22	ug/L			11/18/22 10:51	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/18/22 10:51	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/18/22 10:51	1
Methyl tert-butyl ether	ND		1.0	0.22	ug/L			11/18/22 10:51	1
m-Xylene & p-Xylene	ND		5.0	0.63	ug/L			11/18/22 10:51	1
Naphthalene	ND		5.0	3.0	ug/L			11/18/22 10:51	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/18/22 10:51	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/18/22 10:51	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/18/22 10:51	1
o-Xylene	ND		5.0	0.60	ug/L			11/18/22 10:51	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/18/22 10:51	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/18/22 10:51	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/18/22 10:51	1
Styrene	ND		1.0	1.0	ug/L			11/18/22 10:51	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/18/22 10:51	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.16	ug/L			11/18/22 10:51	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/18/22 10:51	1
Tetrachloroethene	ND		1.0	0.90	ug/L			11/18/22 10:51	1
Toluene	ND		1.0	0.41	ug/L			11/18/22 10:51	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/18/22 10:51	1
trans-1,3-Dichloropropene	ND		5.0	0.20	ug/L			11/18/22 10:51	1
1,2,3-Trichlorobenzene	ND		1.0	0.90	ug/L			11/18/22 10:51	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/18/22 10:51	1
1,1,1-Trichloroethane	ND		1.0	0.18	ug/L			11/18/22 10:51	1
1,1,2-Trichloroethane	ND		5.0	0.21	ug/L			11/18/22 10:51	1
Trichloroethene	ND		1.0	0.15	ug/L			11/18/22 10:51	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/18/22 10:51	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/18/22 10:51	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/18/22 10:51	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/18/22 10:51	1
Vinyl acetate	ND		25	0.93	ug/L			11/18/22 10:51	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/18/22 10:51	1
Xylenes, Total	ND		10	1.6	ug/L			11/18/22 10:51	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene	*99*		*72 - 119*		*11/18/22 10:51*	*1*
Dibromofluoromethane	*100*		*75 - 126*		*11/18/22 10:51*	*1*
Toluene-d8 (Surr)	*97*		*64 - 132*		*11/18/22 10:51*	*1*

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

Lab Sample ID: LCS 400-601300/1002
Matrix: Water
Analysis Batch: 601300

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	200	203		ug/L		101	43 - 160
Acrolein	500	512		ug/L		102	38 - 160
Acrylonitrile	500	526		ug/L		105	64 - 142
Benzene	50.0	53.3		ug/L		107	70 - 130
Bromobenzene	50.0	50.5		ug/L		101	70 - 132
Bromochloromethane	50.0	50.5		ug/L		101	70 - 130
Bromodichloromethane	50.0	52.9		ug/L		106	67 - 133
Bromoform	50.0	51.5		ug/L		103	57 - 140
Bromomethane	50.0	45.0		ug/L		90	10 - 160
2-Butanone (MEK)	200	208		ug/L		104	61 - 145
Carbon disulfide	50.0	52.0		ug/L		104	61 - 137
Carbon tetrachloride	50.0	50.3		ug/L		101	61 - 137
Chlorobenzene	50.0	58.0		ug/L		116	70 - 130
Dibromochloromethane	50.0	55.9		ug/L		112	67 - 135
Chloroethane	50.0	43.0		ug/L		86	55 - 141
2-Chloroethyl vinyl ether	50.0	44.9		ug/L		90	10 - 160
Chloroform	50.0	50.8		ug/L		102	69 - 130
1-Chlorohexane	50.0	56.7		ug/L		113	69 - 130
Chloromethane	50.0	59.0		ug/L		118	58 - 137
cis-1,2-Dichloroethene	50.0	47.7		ug/L		95	68 - 130
cis-1,3-Dichloropropene	50.0	48.2		ug/L		96	69 - 132
1,2-Dichlorobenzene	50.0	58.8		ug/L		118	67 - 130
1,3-Dichlorobenzene	50.0	57.2		ug/L		114	70 - 130
1,4-Dichlorobenzene	50.0	58.9		ug/L		118	70 - 130
Dichlorodifluoromethane	50.0	52.0		ug/L		104	41 - 146
1,1-Dichloroethane	50.0	51.4		ug/L		103	70 - 130
1,2-Dichloroethane	50.0	49.4		ug/L		99	69 - 130
1,1-Dichloroethene	50.0	49.1		ug/L		98	63 - 134
1,2-Dichloropropane	50.0	55.5		ug/L		111	70 - 130
1,3-Dichloropropane	50.0	53.8		ug/L		108	70 - 130
2,2-Dichloropropane	50.0	44.0		ug/L		88	52 - 135
1,1-Dichloropropene	50.0	48.4		ug/L		97	70 - 130
Ethylbenzene	50.0	52.4		ug/L		105	70 - 130
Ethyl methacrylate	50.0	42.9		ug/L		86	68 - 130
Hexachlorobutadiene	50.0	62.9		ug/L		126	53 - 140
2-Hexanone	200	202		ug/L		101	65 - 137
Isopropylbenzene	50.0	52.4		ug/L		105	70 - 130
Methylene bromide	50.0	52.5		ug/L		105	70 - 130
Methylene Chloride	50.0	50.1		ug/L		100	66 - 135
4-Methyl-2-pentanone (MIBK)	200	203		ug/L		101	69 - 138
Methyl tert-butyl ether	50.0	41.6		ug/L		83	66 - 130
m-Xylene & p-Xylene	50.0	52.2		ug/L		104	70 - 130
Naphthalene	50.0	33.8		ug/L		68	47 - 149
n-Butylbenzene	50.0	63.8		ug/L		128	67 - 130
N-Propylbenzene	50.0	52.2		ug/L		104	70 - 130
o-Chlorotoluene	50.0	54.8		ug/L		110	70 - 130
o-Xylene	50.0	52.6		ug/L		105	70 - 130
p-Chlorotoluene	50.0	56.8		ug/L		114	70 - 130

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

Lab Sample ID: LCS 400-601300/1002
Matrix: Water
Analysis Batch: 601300

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	54.4		ug/L		109	65 - 130
sec-Butylbenzene	50.0	54.3		ug/L		109	66 - 130
Styrene	50.0	55.4		ug/L		111	70 - 130
tert-Butylbenzene	50.0	52.3		ug/L		105	64 - 139
1,1,1,2-Tetrachloroethane	50.0	57.4		ug/L		115	67 - 131
1,1,2,2-Tetrachloroethane	50.0	55.4		ug/L		111	70 - 131
Tetrachloroethene	50.0	53.8		ug/L		108	65 - 130
Toluene	50.0	52.6		ug/L		105	70 - 130
trans-1,2-Dichloroethene	50.0	49.9		ug/L		100	70 - 130
trans-1,3-Dichloropropene	50.0	47.9		ug/L		96	63 - 130
1,2,3-Trichlorobenzene	50.0	44.3		ug/L		89	60 - 138
1,2,4-Trichlorobenzene	50.0	41.3		ug/L		83	60 - 140
1,1,1-Trichloroethane	50.0	49.1		ug/L		98	68 - 130
1,1,2-Trichloroethane	50.0	55.2		ug/L		110	70 - 130
Trichloroethene	50.0	52.5		ug/L		105	70 - 130
Trichlorofluoromethane	50.0	44.0		ug/L		88	65 - 138
1,2,3-Trichloropropane	50.0	52.3		ug/L		105	70 - 130
1,2,4-Trimethylbenzene	50.0	54.5		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	50.0	52.7		ug/L		105	69 - 130
Vinyl acetate	100	84.0		ug/L		84	26 - 160
Vinyl chloride	50.0	49.1		ug/L		98	59 - 136
Xylenes, Total	100	105		ug/L		105	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*88*		*72 - 119*
Dibromofluoromethane	*96*		*75 - 126*
Toluene-d8 (Surr)	*98*		*64 - 132*

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzenethiol	ND		10	1.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzoic acid	ND		30	7.3	ug/L		11/07/22 08:55	11/08/22 15:24	1
Benzyl alcohol	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 15:24	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		11/07/22 08:55	11/08/22 15:24	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		11/07/22 08:55	11/08/22 15:24	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chloroaniline	ND		10	3.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Chloronaphthalene	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Chlorophenol	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 15:24	1

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dibenzofuran	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Diethyl phthalate	ND		10	0.24	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
Dimethyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		11/07/22 08:55	11/08/22 15:24	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
1,4-Dioxane	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachlorobenzene	ND		10	0.17	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
Hexachloroethane	ND		10	4.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
Indene	ND		10	1.0	ug/L		11/07/22 08:55	11/08/22 15:24	1
Isophorone	ND		10	0.14	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Methylphenol	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Nitroaniline	ND		10	2.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
3-Nitroaniline	ND		10	1.8	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Nitroaniline	ND		10	1.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
Nitrobenzene	ND		10	0.13	ug/L		11/07/22 08:55	11/08/22 15:24	1
2-Nitrophenol	ND		10	5.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
4-Nitrophenol	ND		10	2.1	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		11/07/22 08:55	11/08/22 15:24	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		11/07/22 08:55	11/08/22 15:24	1
Pentachlorophenol	ND		20	1.4	ug/L		11/07/22 08:55	11/08/22 15:24	1
Phenol	ND		10	2.6	ug/L		11/07/22 08:55	11/08/22 15:24	1
Pyridine	ND		10	3.2	ug/L		11/07/22 08:55	11/08/22 15:24	1
Quinoline	ND		10	4.5	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		11/07/22 08:55	11/08/22 15:24	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		11/07/22 08:55	11/08/22 15:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*75*		*46 - 124*	*11/07/22 08:55*	*11/08/22 15:24*	*1*
2-Fluorophenol	*27*		*13 - 113*	*11/07/22 08:55*	*11/08/22 15:24*	*1*
Nitrobenzene-d5	*86*		*36 - 126*	*11/07/22 08:55*	*11/08/22 15:24*	*1*
Phenol-d5	*66*		*17 - 127*	*11/07/22 08:55*	*11/08/22 15:24*	*1*
Terphenyl-d14	*113*		*44 - 149*	*11/07/22 08:55*	*11/08/22 15:24*	*1*
2,4,6-Tribromophenol	*94*		*26 - 150*	*11/07/22 08:55*	*11/08/22 15:24*	*1*

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

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aniline	120	104		ug/L		87	21 - 120
Benzoic acid	513	237		ug/L		46	10 - 144
Benzyl alcohol	120	98.3		ug/L		82	28 - 120
Bis(2-chloroethoxy)methane	120	76.5		ug/L		64	47 - 120
Bis(2-chloroethyl)ether	120	85.3		ug/L		71	44 - 120
bis (2-chloroisopropyl) ether	120	138		ug/L		115	33 - 121
Bis(2-ethylhexyl) phthalate	120	116		ug/L		97	52 - 147
4-Bromophenyl phenyl ether	120	114		ug/L		95	54 - 122
Butyl benzyl phthalate	120	103		ug/L		86	54 - 133
4-Chloroaniline	120	81.6		ug/L		68	26 - 120
4-Chloro-3-methylphenol	120	101		ug/L		84	48 - 131
2-Chloronaphthalene	120	93.6		ug/L		78	52 - 121
2-Chlorophenol	120	90.4		ug/L		75	40 - 120
4-Chlorophenyl phenyl ether	120	106		ug/L		88	56 - 125
Dibenz[a,h]acridine	120	106		ug/L		88	31 - 150
Dibenzofuran	120	98.2		ug/L		82	56 - 122
3,3'-Dichlorobenzidine	160	170		ug/L		106	36 - 132
2,4-Dichlorophenol	120	89.0		ug/L		74	49 - 120
Diethyl phthalate	120	122		ug/L		102	50 - 137
2,4-Dimethylphenol	120	96.5		ug/L		80	48 - 120
Dimethyl phthalate	120	102		ug/L		85	57 - 124
Di-n-butyl phthalate	120	119		ug/L		100	58 - 126
4,6-Dinitro-ortho-cresol	240	317		ug/L		132	23 - 148
2,4-Dinitrophenol	240	300		ug/L		125	10 - 150
2,4-Dinitrotoluene	120	105		ug/L		87	54 - 142
2,6-Dinitrotoluene	120	91.0		ug/L		76	55 - 130
Di-n-octyl phthalate	120	120		ug/L		100	57 - 138
1,4-Dioxane	120	81.6		ug/L		68	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	108		ug/L		90	45 - 124
Hexachlorobenzene	120	134		ug/L		112	52 - 129
Hexachlorocyclopentadiene	120	72.7		ug/L		61	10 - 134
Hexachloroethane	120	108		ug/L		90	20 - 120
Indene	120	90.5		ug/L		75	49 - 120
Isophorone	120	85.2		ug/L		71	48 - 120
2-Methylphenol	120	117		ug/L		97	46 - 124
3 & 4 Methylphenol	120	109		ug/L		91	45 - 120
2-Nitroaniline	120	110		ug/L		92	51 - 145
3-Nitroaniline	120	104		ug/L		87	37 - 127
4-Nitroaniline	120	118		ug/L		98	36 - 137
Nitrobenzene	120	81.6		ug/L		68	45 - 120
2-Nitrophenol	120	85.5		ug/L		71	40 - 124
4-Nitrophenol	240	303		ug/L		126	23 - 146
N-Nitrosodimethylamine	120	144		ug/L		120	29 - 137
N-Nitrosodi-n-propylamine	120	123		ug/L		102	45 - 120
N-Nitrosodiphenylamine	119	101		ug/L		85	54 - 120
Pentachlorophenol	240	239		ug/L		100	31 - 130
Phenol	120	100		ug/L		83	11 - 120
Pyridine	240	162		ug/L		68	16 - 120

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

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Quinoline	120	82.1		ug/L		68	49 - 130
2,4,5-Trichlorophenol	120	107		ug/L		89	51 - 136
2,4,6-Trichlorophenol	120	104		ug/L		86	50 - 127

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*72*		*46 - 124*
2-Fluorophenol	*45*		*13 - 113*
Nitrobenzene-d5	*71*		*36 - 126*
Phenol-d5	*72*		*17 - 127*
Terphenyl-d14	*89*		*44 - 149*
2,4,6-Tribromophenol	*110*		*26 - 150*

Lab Sample ID: LCS 400-599497/4-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzenethiol	120	5.96	J *-	ug/L		5	10 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*64*		*46 - 124*
2-Fluorophenol	*47*		*13 - 113*
Nitrobenzene-d5	*74*		*36 - 126*
Phenol-d5	*69*		*17 - 127*
Terphenyl-d14	*95*		*44 - 149*
2,4,6-Tribromophenol	*70*		*26 - 150*

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aniline	120	108		ug/L		90	21 - 120	3	30
Benzoic acid	513	253		ug/L		49	10 - 144	6	30
Benzyl alcohol	120	104		ug/L		86	28 - 120	5	30
Bis(2-chloroethoxy)methane	120	84.1		ug/L		70	47 - 120	9	30
Bis(2-chloroethyl)ether	120	87.9		ug/L		73	44 - 120	3	30
bis (2-chloroisopropyl) ether	120	140		ug/L		116	33 - 121	2	30
Bis(2-ethylhexyl) phthalate	120	125		ug/L		104	52 - 147	8	30
4-Bromophenyl phenyl ether	120	122		ug/L		102	54 - 122	7	30
Butyl benzyl phthalate	120	111		ug/L		93	54 - 133	8	30
4-Chloroaniline	120	88.4		ug/L		74	26 - 120	8	30
4-Chloro-3-methylphenol	120	107		ug/L		89	48 - 131	6	30
2-Chloronaphthalene	120	101		ug/L		84	52 - 121	7	30
2-Chlorophenol	120	87.3		ug/L		73	40 - 120	3	30
4-Chlorophenyl phenyl ether	120	114		ug/L		95	56 - 125	8	30
Dibenz[a,h]acridine	120	110		ug/L		92	31 - 150	4	30
Dibenzofuran	120	105		ug/L		88	56 - 122	7	30

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

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
3,3'-Dichlorobenzidine	160	182		ug/L		114	36 - 132	7	30
2,4-Dichlorophenol	120	97.9		ug/L		82	49 - 120	10	30
Diethyl phthalate	120	132		ug/L		110	50 - 137	8	30
2,4-Dimethylphenol	120	106		ug/L		88	48 - 120	9	30
Dimethyl phthalate	120	111		ug/L		92	57 - 124	8	30
Di-n-butyl phthalate	120	127		ug/L		106	58 - 126	7	30
4,6-Dinitro-ortho-cresol	240	344		ug/L		143	23 - 148	8	30
2,4-Dinitrophenol	240	311		ug/L		130	10 - 150	4	30
2,4-Dinitrotoluene	120	110		ug/L		92	54 - 142	5	30
2,6-Dinitrotoluene	120	96.0		ug/L		80	55 - 130	5	30
Di-n-octyl phthalate	120	131		ug/L		109	57 - 138	8	30
1,4-Dioxane	120	81.7		ug/L		68	31 - 120	0	30
1,2-Diphenylhydrazine (as Azobenzene)	120	116		ug/L		97	45 - 124	7	30
Hexachlorobenzene	120	145		ug/L		121	52 - 129	8	30
Hexachlorocyclopentadiene	120	81.6		ug/L		68	10 - 134	12	30
Hexachloroethane	120	112		ug/L		94	20 - 120	4	30
Indene	120	94.3		ug/L		79	49 - 120	4	30
Isophorone	120	92.8		ug/L		77	48 - 120	9	30
2-Methylphenol	120	123		ug/L		102	46 - 124	5	30
3 & 4 Methylphenol	120	115		ug/L		96	45 - 120	5	30
2-Nitroaniline	120	114		ug/L		95	51 - 145	4	30
3-Nitroaniline	120	109		ug/L		91	37 - 127	5	30
4-Nitroaniline	120	123		ug/L		102	36 - 137	4	30
Nitrobenzene	120	89.1		ug/L		74	45 - 120	9	30
2-Nitrophenol	120	95.9		ug/L		80	40 - 124	11	30
4-Nitrophenol	240	321		ug/L		134	23 - 146	6	30
N-Nitrosodimethylamine	120	156		ug/L		130	29 - 137	8	30
N-Nitrosodi-n-propylamine	120	125		ug/L		104	45 - 120	2	30
N-Nitrosodiphenylamine	119	110		ug/L		92	54 - 120	8	30
Pentachlorophenol	240	255		ug/L		106	31 - 130	6	30
Phenol	120	104		ug/L		87	11 - 120	4	30
Pyridine	240	153		ug/L		64	16 - 120	6	30
Quinoline	120	90.0		ug/L		75	49 - 130	9	30
2,4,5-Trichlorophenol	120	117		ug/L		98	51 - 136	9	30
2,4,6-Trichlorophenol	120	114		ug/L		95	50 - 127	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*76*		*46 - 124*
2-Fluorophenol	*33*		*13 - 113*
Nitrobenzene-d5	*76*		*36 - 126*
Phenol-d5	*74*		*17 - 127*
Terphenyl-d14	*96*		*44 - 149*
2,4,6-Tribromophenol	*116*		*26 - 150*

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

Lab Sample ID: LCSD 400-599497/5-A
Matrix: Water
Analysis Batch: 599728

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzenethiol			120	6.61	J *-	ug/L		6	10 - 120	10	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*70*		*46 - 124*
2-Fluorophenol	*46*		*13 - 113*
Nitrobenzene-d5	*79*		*36 - 126*
Phenol-d5	*73*		*17 - 127*
Terphenyl-d14	*104*		*44 - 149*
2,4,6-Tribromophenol	*81*		*26 - 150*

Lab Sample ID: MB 400-599854/1-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599854

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		11/09/22 09:13	11/10/22 21:13	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*82*		*46 - 124*	*11/09/22 09:13*	*11/10/22 21:13*	*1*
Nitrobenzene-d5	*93*		*36 - 126*	*11/09/22 09:13*	*11/10/22 21:13*	*1*
Terphenyl-d14	*128*		*44 - 149*	*11/09/22 09:13*	*11/10/22 21:13*	*1*

Lab Sample ID: LCS 400-599854/2-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599854

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bis(2-ethylhexyl) phthalate			120	141		ug/L		117	52 - 147

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*84*		*46 - 124*
Nitrobenzene-d5	*97*		*36 - 126*
Terphenyl-d14	*107*		*44 - 149*

Lab Sample ID: LCSD 400-599854/3-A
Matrix: Water
Analysis Batch: 600049

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599854

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Bis(2-ethylhexyl) phthalate			120	146		ug/L		121	52 - 147	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2-Fluorobiphenyl	*83*		*46 - 124*
Nitrobenzene-d5	*97*		*36 - 126*
Terphenyl-d14	*109*		*44 - 149*

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

Lab Sample ID: MB 400-599497/1-A
Matrix: Water
Analysis Batch: 600170

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 599497

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		11/07/22 08:55	11/10/22 17:57	1
Acenaphthylene	ND		0.20	0.045	ug/L		11/07/22 08:55	11/10/22 17:57	1
Anthracene	ND		0.20	0.032	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[a]anthracene	0.0610	J	0.20	0.046	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		11/07/22 08:55	11/10/22 17:57	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		11/07/22 08:55	11/10/22 17:57	1
Chrysene	ND		0.20	0.074	ug/L		11/07/22 08:55	11/10/22 17:57	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		11/07/22 08:55	11/10/22 17:57	1
Fluoranthene	ND		0.20	0.068	ug/L		11/07/22 08:55	11/10/22 17:57	1
Fluorene	ND		0.20	0.11	ug/L		11/07/22 08:55	11/10/22 17:57	1
Indeno[1,2,3-cd]pyrene	0.0714	J	0.20	0.043	ug/L		11/07/22 08:55	11/10/22 17:57	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		11/07/22 08:55	11/10/22 17:57	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		11/07/22 08:55	11/10/22 17:57	1
Phenanthrene	ND		0.20	0.036	ug/L		11/07/22 08:55	11/10/22 17:57	1
Pyrene	ND		0.20	0.040	ug/L		11/07/22 08:55	11/10/22 17:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2-Fluorobiphenyl	*81*		*15 - 122*	*11/07/22 08:55*	*11/10/22 17:57*	*1*
Nitrobenzene-d5	*77*		*19 - 130*	*11/07/22 08:55*	*11/10/22 17:57*	*1*
Terphenyl-d14	*112*		*33 - 138*	*11/07/22 08:55*	*11/10/22 17:57*	*1*

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acenaphthene	120	105		ug/L		87	41 - 120
Acenaphthylene	120	111		ug/L		93	44 - 120
Anthracene	120	111		ug/L		92	49 - 120
Benzo[a]anthracene	120	112		ug/L		93	61 - 135
Benzo[a]pyrene	120	110		ug/L		91	52 - 120
Benzo[b]fluoranthene	120	115		ug/L		96	53 - 134
Benzo[g,h,i]perylene	120	112		ug/L		93	47 - 133
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134
Chrysene	120	102		ug/L		85	55 - 122
Dibenz(a,h)anthracene	120	114		ug/L		95	48 - 146
Fluoranthene	120	117		ug/L		98	54 - 128
Fluorene	120	109		ug/L		91	45 - 125
Indeno[1,2,3-cd]pyrene	120	118		ug/L		98	43 - 142
1-Methylnaphthalene	120	89.4		ug/L		74	41 - 120
2-Methylnaphthalene	120	98.8		ug/L		82	32 - 124
Phenanthrene	120	110		ug/L		91	48 - 120
Pyrene	120	110		ug/L		91	48 - 132

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorobiphenyl	*86*		*15 - 122*

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

Lab Sample ID: LCS 400-599497/2-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 599497

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Nitrobenzene-d5	79		19 - 130
Terphenyl-d14	84		33 - 138

Lab Sample ID: LCSD 400-599497/3-A
Matrix: Water
Analysis Batch: 600349

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 599497

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Acenaphthene	120	109		ug/L		91	41 - 120	4	56
Acenaphthylene	120	115		ug/L		96	44 - 120	3	56
Anthracene	120	112		ug/L		94	49 - 120	2	51
Benzo[a]anthracene	120	116		ug/L		96	61 - 135	3	49
Benzo[a]pyrene	120	110		ug/L		91	52 - 120	0	50
Benzo[b]fluoranthene	120	118		ug/L		99	53 - 134	3	54
Benzo[g,h,i]perylene	120	111		ug/L		92	47 - 133	1	50
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134	0	52
Chrysene	120	106		ug/L		88	55 - 122	3	50
Dibenz(a,h)anthracene	120	111		ug/L		93	48 - 146	2	50
Fluoranthene	120	114		ug/L		95	54 - 128	3	52
Fluorene	120	110		ug/L		92	45 - 125	1	56
Indeno[1,2,3-cd]pyrene	120	117		ug/L		97	43 - 142	1	51
1-Methylnaphthalene	120	91.0		ug/L		76	41 - 120	2	55
2-Methylnaphthalene	120	101		ug/L		84	32 - 124	2	57
Phenanthrene	120	112		ug/L		94	48 - 120	2	56
Pyrene	120	119		ug/L		99	48 - 132	8	52

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	92		15 - 122
Nitrobenzene-d5	82		19 - 130
Terphenyl-d14	93		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-600339/1-A
Matrix: Water
Analysis Batch: 600360

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 600339

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		11/11/22 15:26	11/11/22 19:58	1
1,2-Dibromoethane	ND		0.020	0.015	ug/L		11/11/22 15:26	11/11/22 19:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	118		51 - 149	11/11/22 15:26	11/11/22 19:58	1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-600339/2-A
Matrix: Water
Analysis Batch: 600360

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 600339

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dibromo-3-Chloropropane	0.101	0.181	*+	ug/L		180	60 - 140
1,2-Dibromoethane	0.101	0.135		ug/L		134	60 - 140

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene	*117*		*51 - 149*

Lab Sample ID: LCSD 400-600339/3-A
Matrix: Water
Analysis Batch: 600360

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 600339

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,2-Dibromo-3-Chloropropane	0.101	0.190	*+	ug/L		189	60 - 140	5	30
1,2-Dibromoethane	0.101	0.136		ug/L		135	60 - 140	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene	*121*		*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: 11/4/2022
PO #	**GSAP Project ID**	PAGE: 1 of 1
60674381 – 3.4.2	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 – 3.4.2
ADDRESS: 100 N. Broadway, 20th Floor; ST. LOUIS, MO 63102, USA
EDF DELIVERABLE TO (Name, Company, Office Location): Melissa Remiger - please see special instructions
PHONE NO.: 314-802-1207
E-MAIL: melissa.remiger@aecom.com
AECOM Other ID:
PROJECT CONTACT (Hardcopy or PDF Report to): Melissa Remiger, Mary Massa, Brett Howell
SAMPLER NAME(S) (Print): Tony Jones, Mary Massa
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 :

Email reports to: melissa.remiger@aecom.com; mary.massa@aecom.com; brett.howell@aecom.com

SPLIT REPORT

* Please include "J" values on Reports.
* Please provide sample receipt upon login.
* Please send EQuIS EDDs to EDDSubmissions@aecomshell.com; loredana.fillmon@aecom.com

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
60674381 – 3.4.2

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	Container PID Readings or Laboratory Notes:
	TB-ROX-110422-8260-SS	11/4/2022	0000	Water	2					2	X				SPLIT REPORT
	TB-ROX-110422-8011-SS	11/4/2022	0000	Water	2					2		X			
	P59-ROX-110422	11/4/2022	1025	Water	6			2		8	X	X	X	X	SPLIT REPORT
	P93B-ROX-110422	11/4/2022	1150	Water	6			2		8	X	X	X	X	SPLIT REPORT

400-228456 COC

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
MARY MASSA	FEDEX: 5564 3932 8465	11/4/2022	1600
		11/5/22	926

Version: 13Oct22

CUSTODY SEALS: 2026636, 2026637

0.0°C IR9

Page 42 of 45

11/21/2022

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-228456-1

Login Number: 228456
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
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: 400-228456-1
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	06-30-23
ANAB	ISO/IEC 17025	L2471	02-23-23
Arkansas DEQ	State	88-0689	09-01-23
California	State	2510	06-30-23
Florida	NELAP	E81010	06-30-23
Georgia	State	E81010(FL)	06-30-23
Illinois	NELAP	200041	10-09-23
Kansas	NELAP	E-10253	10-31-23
Kentucky (UST)	State	53	06-30-23
Kentucky (WW)	State	KY98030	12-31-22
Louisiana (All)	NELAP	30976	06-30-23
Louisiana (DW)	State	LA017	12-31-22
Maryland	State	233	09-30-23
Michigan	State	9912	06-30-23
North Carolina (WW/SW)	State	314	12-31-22
Oklahoma	NELAP	9810	08-31-23
Pennsylvania	NELAP	68-00467	01-31-23
South Carolina	State	96026	06-30-23
Tennessee	State	TN02907	06-30-23
Texas	NELAP	T104704286	09-30-23
US Fish & Wildlife	US Federal Programs	A22340	06-30-23
USDA	US Federal Programs	P330-21-00056	05-17-24
Virginia	NELAP	460166	06-14-23
West Virginia DEP	State	136	03-31-23

Eurofins Pensacola

Job Notes

The test results in this report meet all NELAP requirements for accredited parameters, unless otherwise noted, and relate only to the referenced samples. Pursuant to NELAP, this report may not be reproduced, except in full, without written approval from the laboratory. For questions please contact the Project Manager at the e-mail address listed on this page, or the telephone number at the bottom of the page. Eurofins Environment Testing Southeast LLC, Pensacola Certifications and Approvals: Alabama (40150), Arizona (AZ0710), Arkansas (88-0689), Florida (E81010), Illinois (200041), Iowa (367), Kansas (E-10253), Kentucky UST (53), Louisiana (30748), Maryland (233), Massachusetts (M-FL094), Michigan (9912), New Hampshire (250510), New Jersey (FL006), North Carolina (314), Oklahoma (9810), Pennsylvania (68-00467), Rhode Island (LAO00307), South Carolina (96026), Tennessee (TN02907), Texas (T104704286-10-2), Virginia (00008), Washington (C2043), West Virginia (136), USDA Foreign Soil Permit (P330-08-00006).

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Southeast, LLC Project Manager.

Authorization

Generated
11/21/2022 12:39:21 PM

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

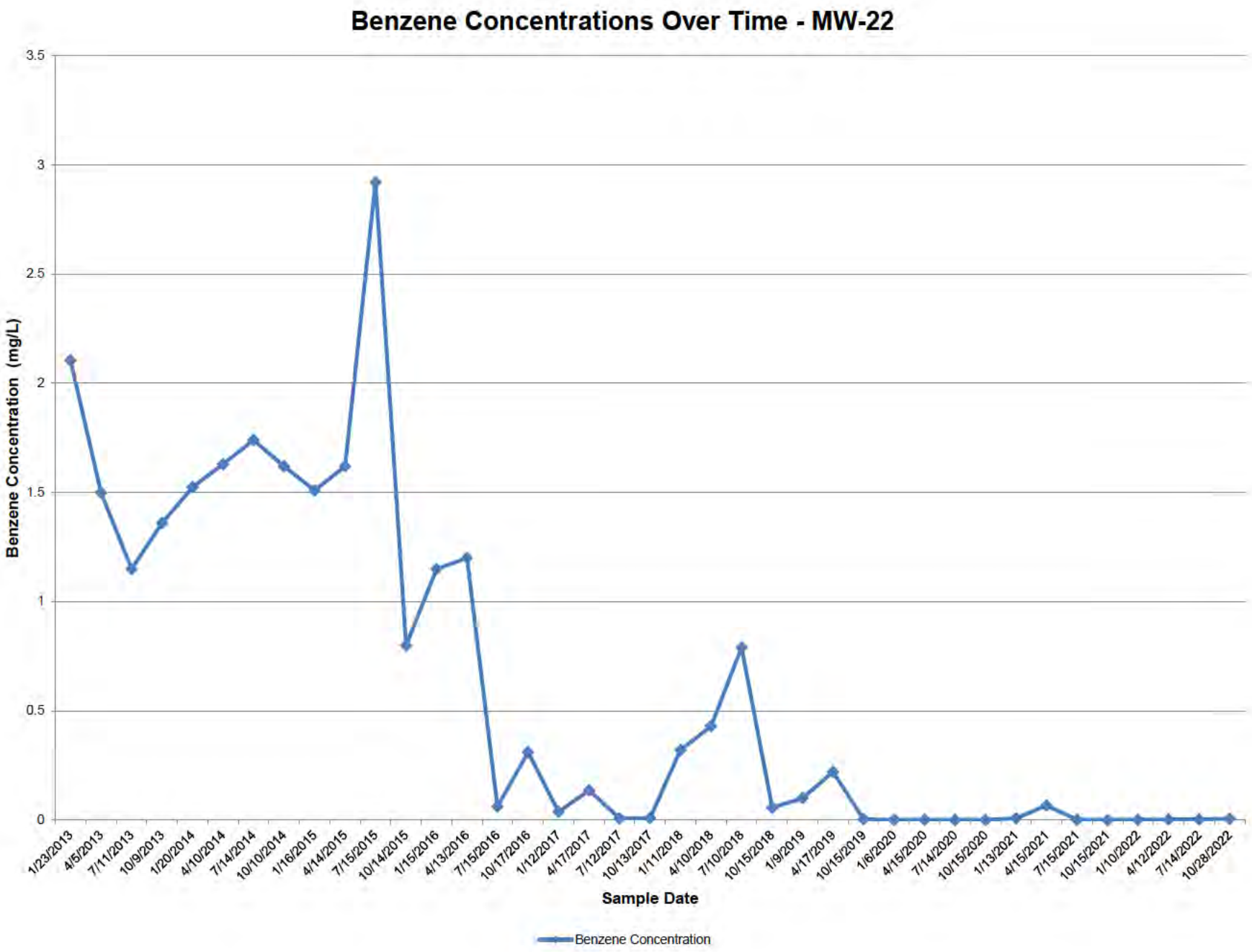
Appendix D

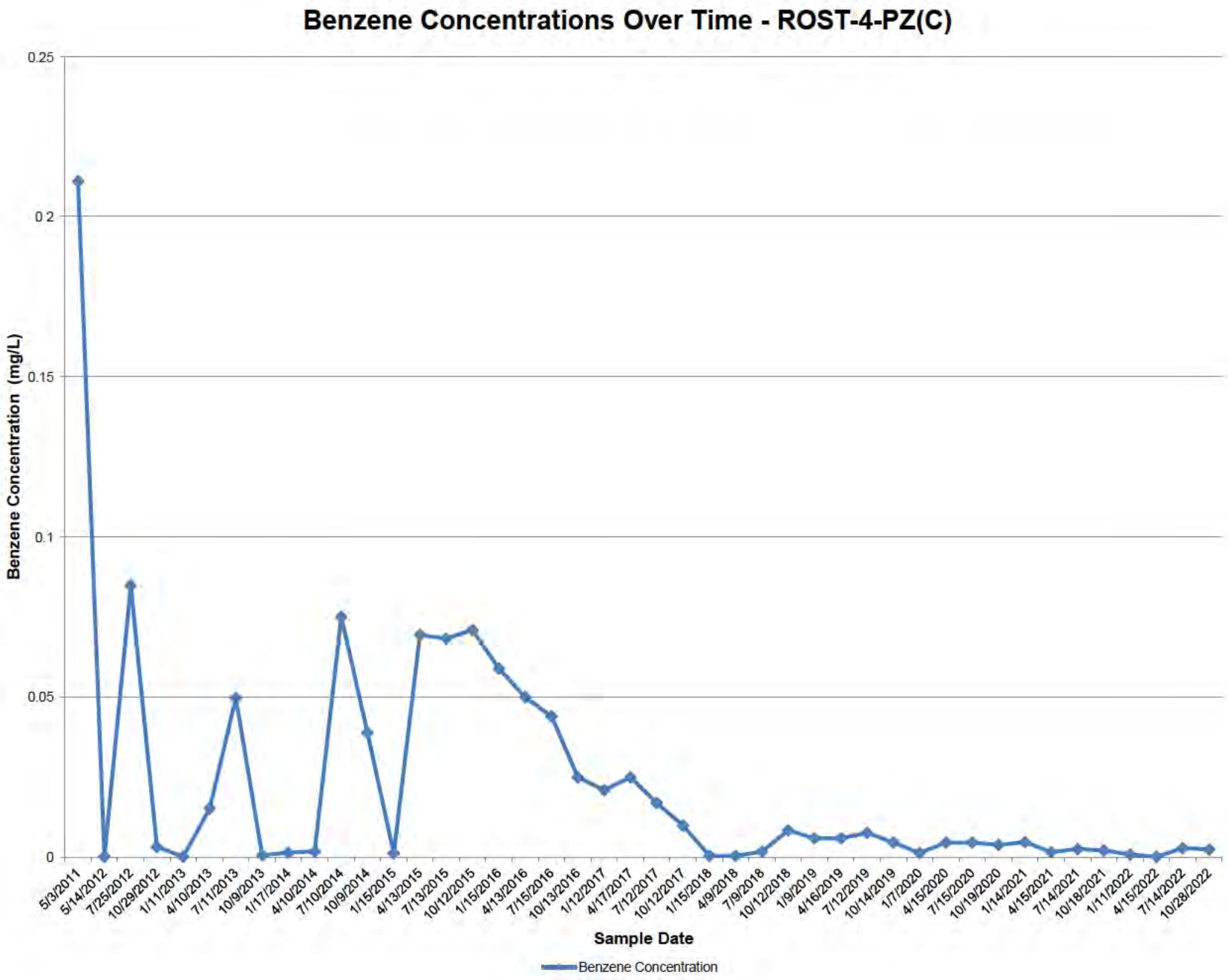
Appendix D – 1 Charts – Benzene Concentrations Over Time

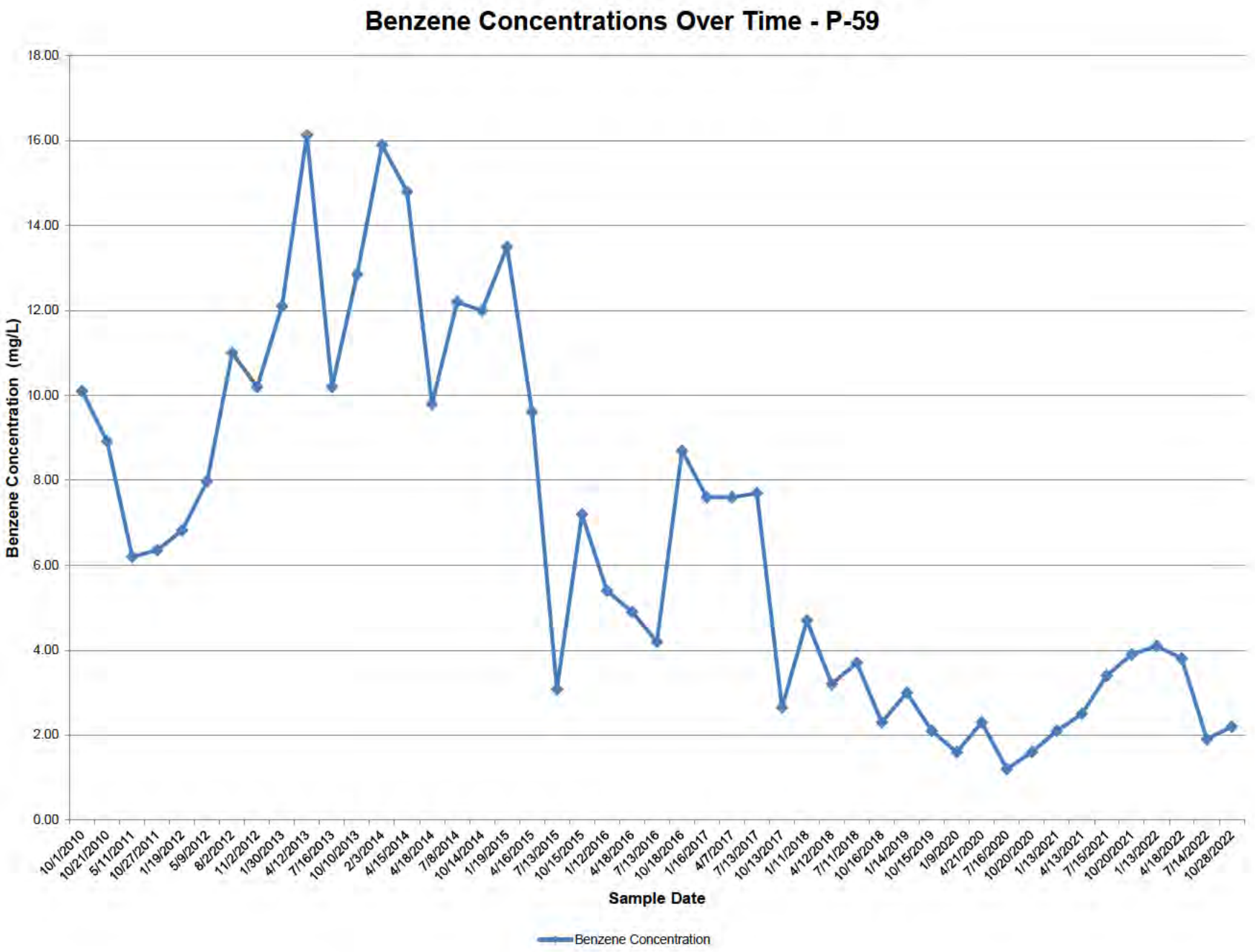
Appendix D – 2 GWSDAT Charts

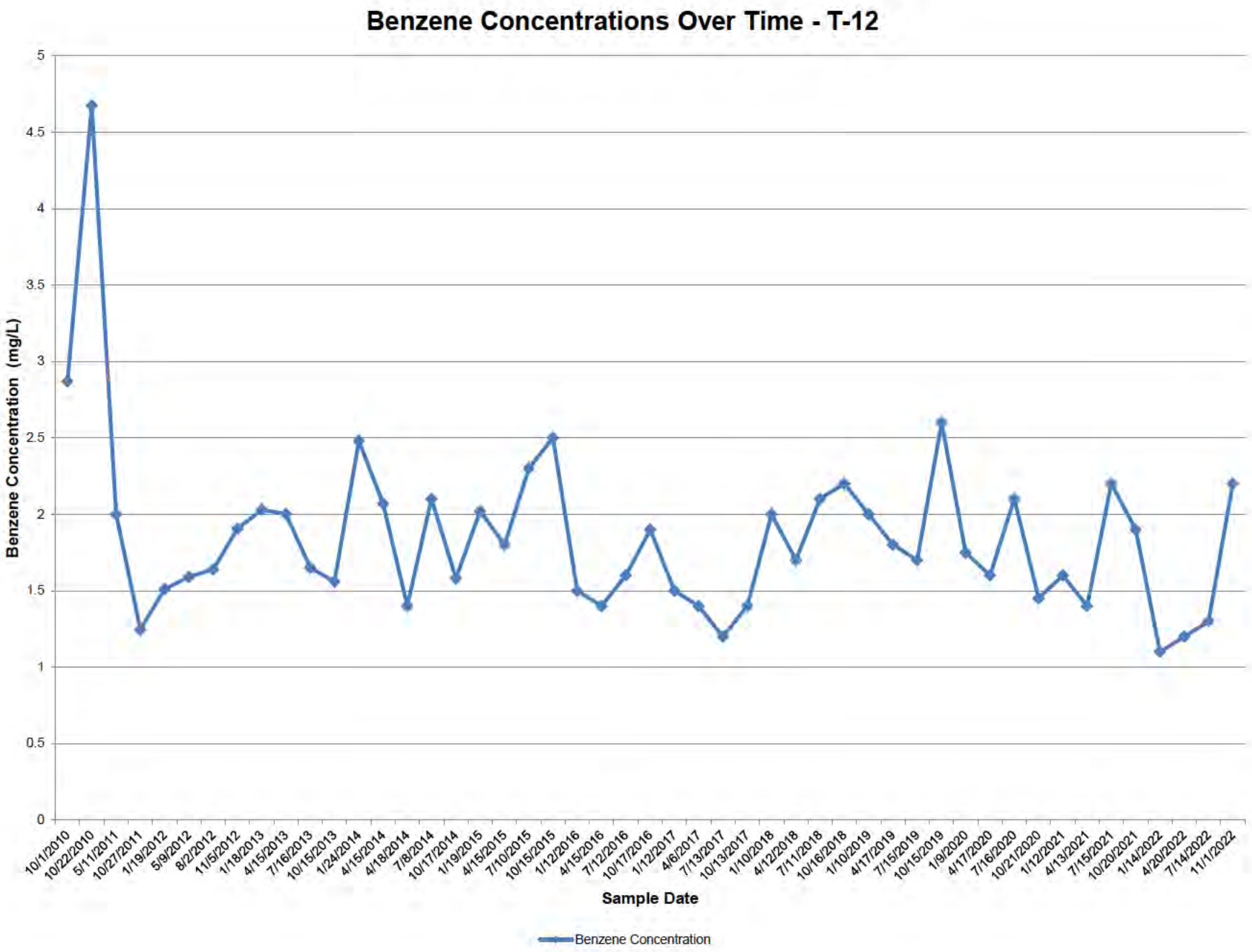
- 4th Street area – MW-22, ROST-4 PZ(C), P-59, and T-12
- Public Works Yard area – MW-7, MW-8, MW-25, and P-57

4th Street Area

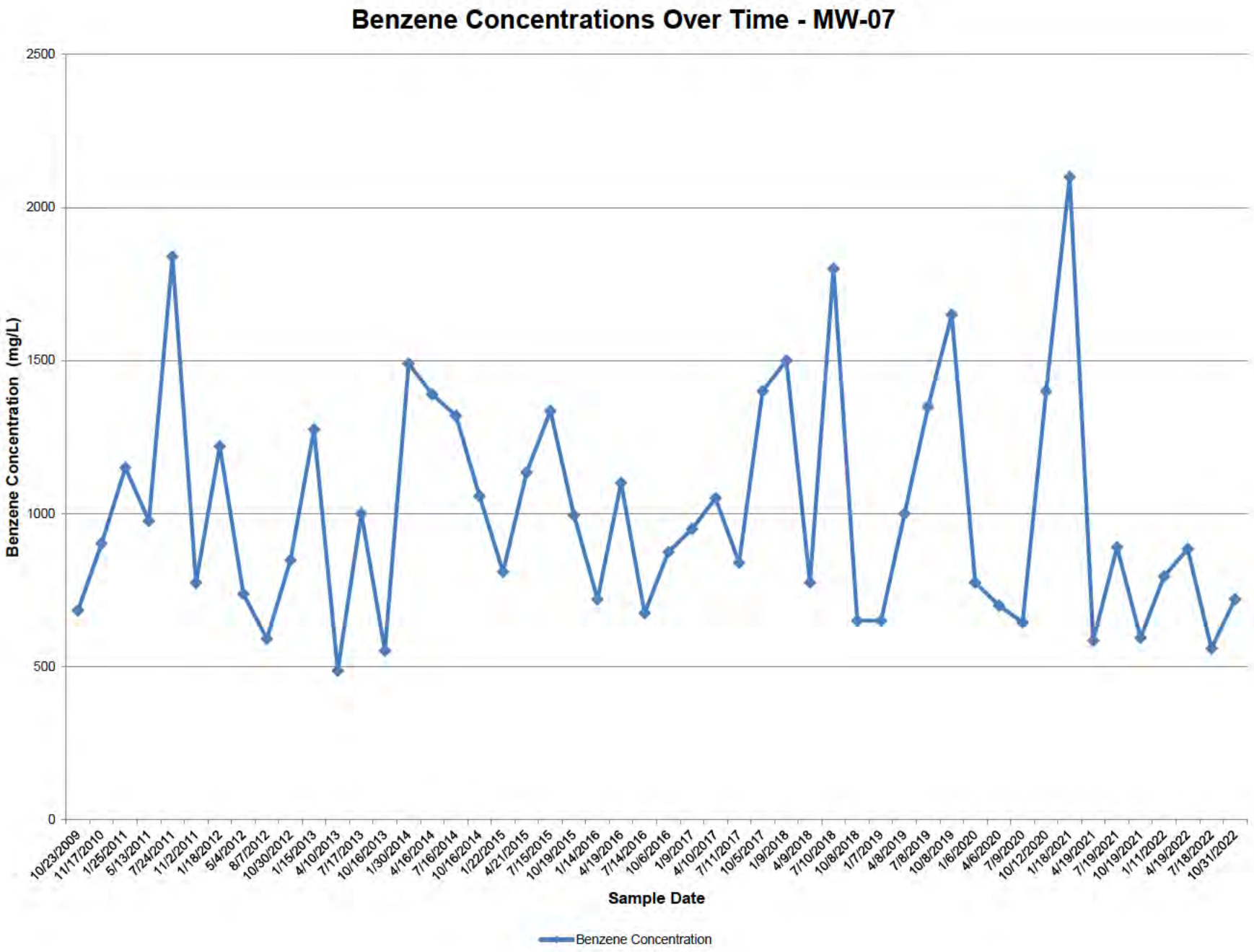

Benzene Concentrations Over Time - MW-22
Benzene Concentration (mg/L)
3.5
3
2.5
2
1.5
1
0.5
0
1/23/2013
4/5/2013
7/11/2013
10/9/2013
1/20/2014
4/10/2014
7/14/2014
10/10/2014
1/16/2015
4/14/2015
7/15/2015
10/14/2015
1/15/2016
4/13/2016
7/15/2016
10/17/2016
1/12/2017
4/17/2017
7/12/2017
10/13/2017
1/11/2018
4/10/2018
7/10/2018
10/15/2018
1/9/2019
4/17/2019
10/15/2019
1/6/2020
4/15/2020
7/14/2020
10/15/2020
1/13/2021
4/15/2021
7/15/2021
10/15/2021
1/10/2022
4/12/2022
7/14/2022
10/28/2022
Sample Date
Benzene Concentration

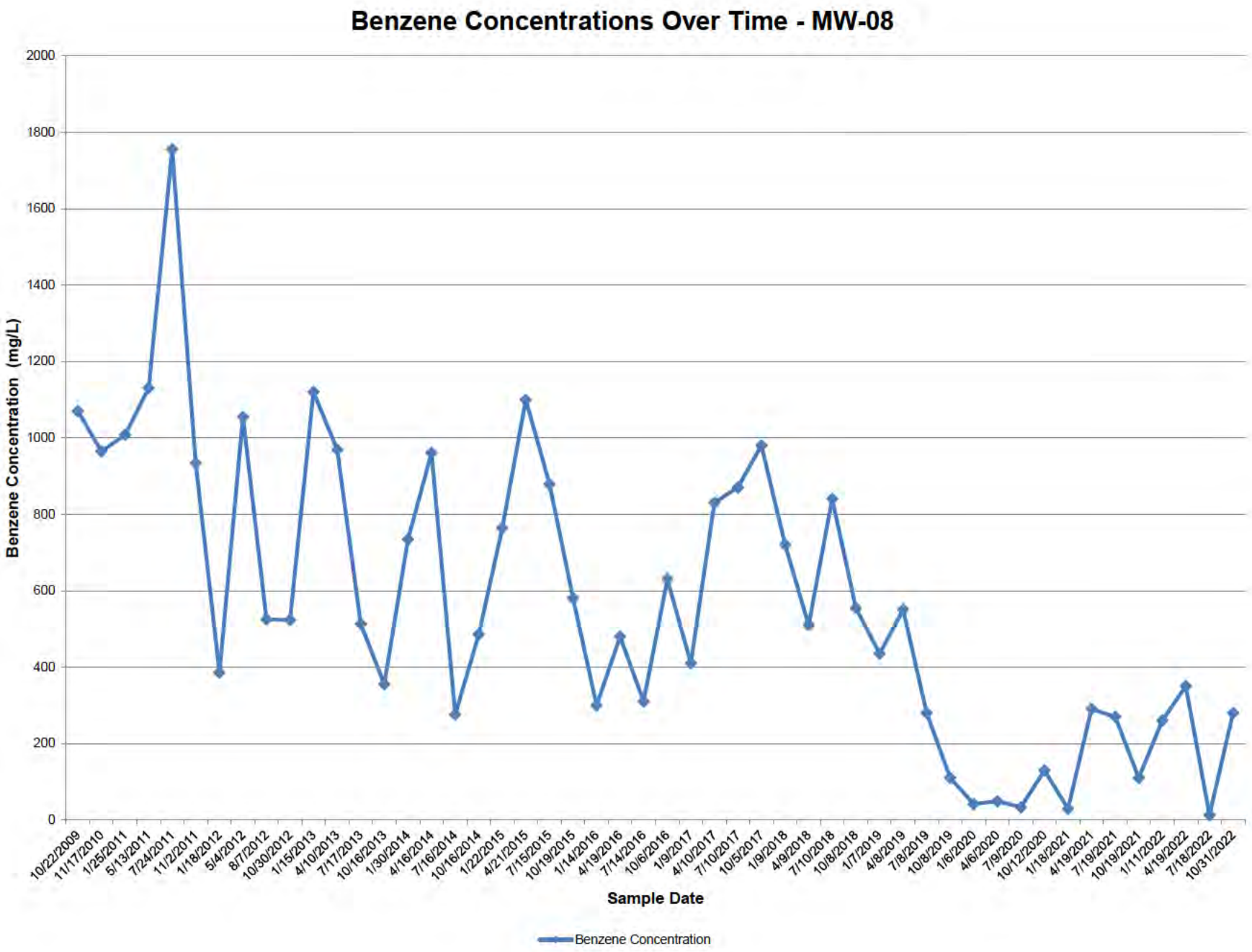

Benzene Concentrations Over Time - ROST-4-PZ(C)
Benzene Concentration (mg/L)
0.25
0.2
0.15
0.1
0.05
0
5/3/2011
5/14/2012
7/25/2012
10/29/2012
1/11/2013
4/10/2013
7/11/2013
10/9/2013
1/17/2014
4/10/2014
7/10/2014
10/9/2014
1/15/2015
4/13/2015
7/13/2015
10/12/2015
1/15/2016
4/13/2016
7/15/2016
10/13/2016
1/12/2017
4/17/2017
7/12/2017
10/12/2017
1/15/2018
4/9/2018
7/9/2018
10/12/2018
1/9/2019
4/16/2019
7/12/2019
10/14/2019
1/7/2020
4/15/2020
7/15/2020
10/19/2020
1/14/2021
4/15/2021
7/14/2021
10/18/2021
1/11/2022
4/15/2022
7/14/2022
10/28/2022
Sample Date
Benzene Concentration

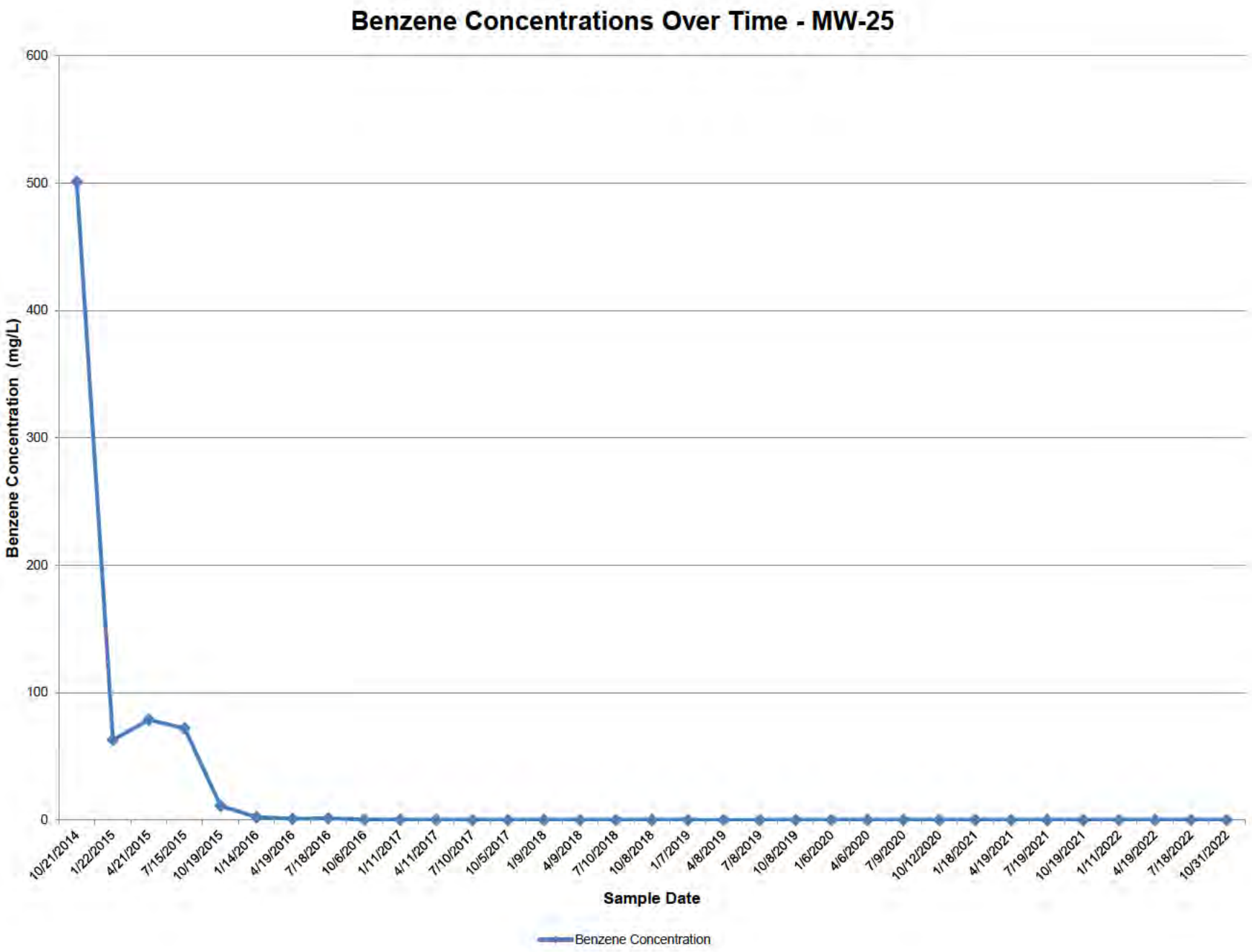

Benzene Concentrations Over Time - P-59
Benzene Concentration (mg/L)
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
10/1/2010
10/21/2010
5/11/2011
10/27/2011
1/19/2012
5/9/2012
8/2/2012
11/2/2012
1/30/2013
4/12/2013
7/16/2013
10/10/2013
2/3/2014
4/15/2014
4/18/2014
7/8/2014
10/14/2014
1/19/2015
4/16/2015
7/13/2015
10/15/2015
1/12/2016
4/18/2016
7/13/2016
10/18/2016
1/16/2017
4/7/2017
7/13/2017
10/13/2017
1/11/2018
4/12/2018
7/11/2018
10/16/2018
1/14/2019
10/15/2019
1/9/2020
4/21/2020
7/16/2020
10/20/2020
1/13/2021
4/13/2021
7/15/2021
10/20/2021
1/13/2022
4/18/2022
7/14/2022
10/28/2022
Sample Date
Benzene Concentration

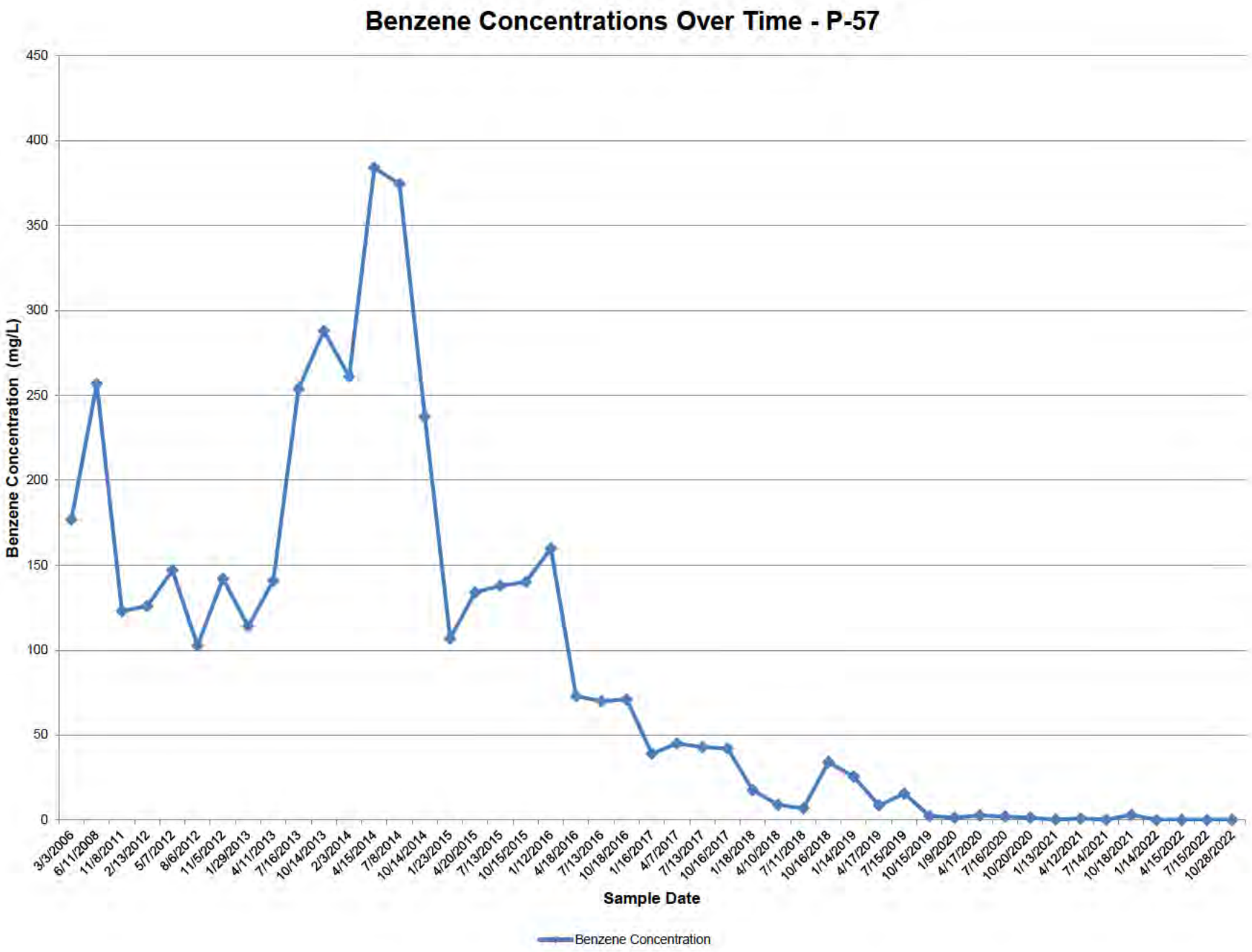

Benzene Concentrations Over Time - T-12
Benzene Concentration (mg/L)
5
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
10/1/2010
10/22/2010
5/11/2011
10/27/2011
1/19/2012
5/9/2012
8/2/2012
11/5/2012
1/18/2013
4/15/2013
7/16/2013
10/15/2013
1/24/2014
4/15/2014
4/18/2014
7/8/2014
10/17/2014
1/19/2015
4/15/2015
7/10/2015
10/15/2015
1/12/2016
4/15/2016
7/12/2016
10/17/2016
1/12/2017
4/6/2017
7/13/2017
10/13/2017
1/10/2018
4/12/2018
7/11/2018
10/16/2018
1/10/2019
4/17/2019
7/15/2019
10/15/2019
1/9/2020
4/17/2020
7/16/2020
10/21/2020
1/12/2021
4/13/2021
7/15/2021
10/20/2021
1/14/2022
4/20/2022
7/14/2022
11/1/2022
Sample Date
Benzene Concentration

Public Works Yard Area

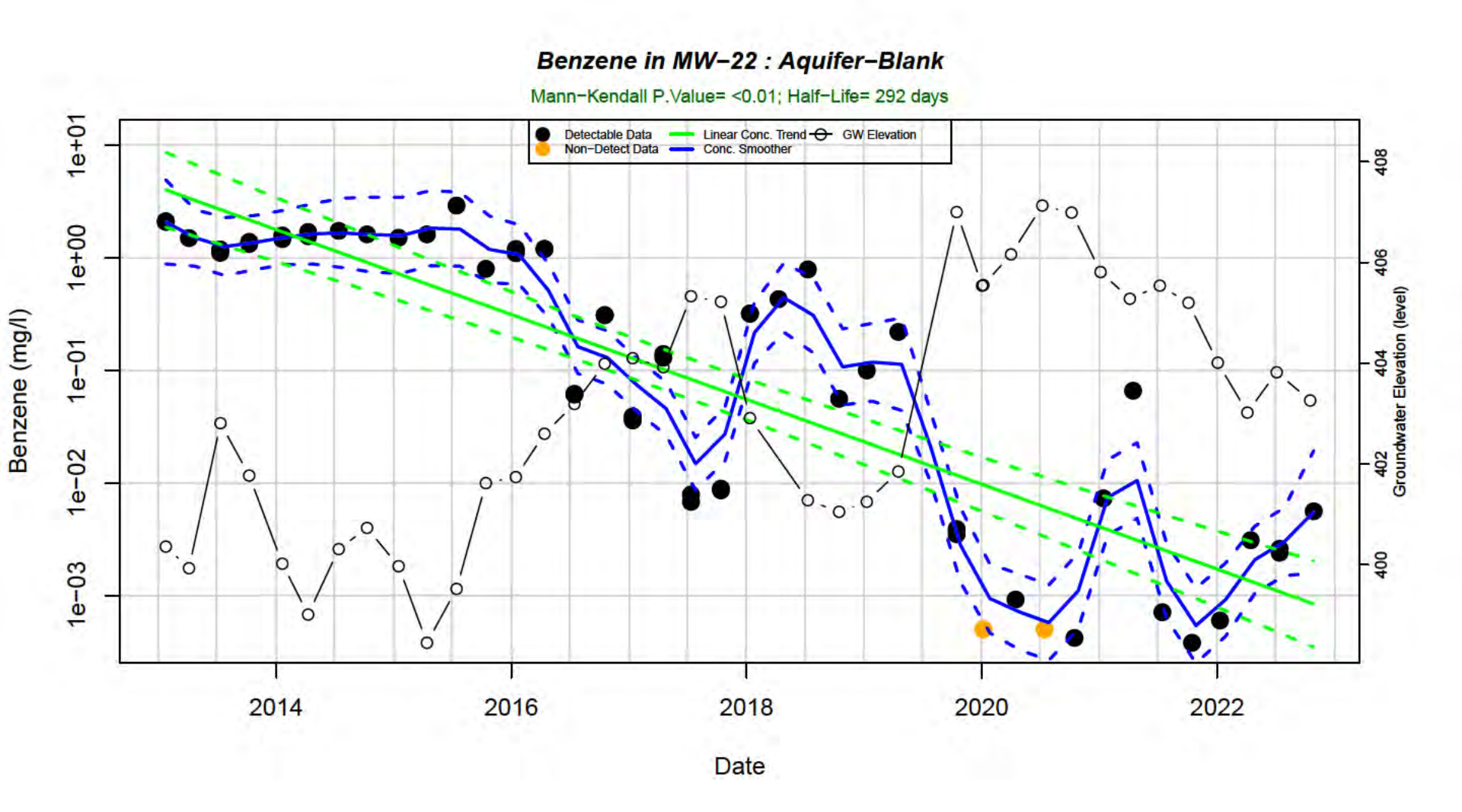

Benzene Concentrations Over Time - MW-07
Benzene Concentration (mg/L)
2500
2000
1500
1000
500
0
10/23/2009
11/17/2010
1/25/2011
5/13/2011
7/24/2011
11/2/2011
1/18/2012
5/4/2012
8/7/2012
10/30/2012
1/15/2013
4/10/2013
7/17/2013
10/16/2013
1/30/2014
4/16/2014
7/16/2014
10/16/2014
1/22/2015
4/21/2015
7/15/2015
10/19/2015
1/14/2016
4/19/2016
7/14/2016
10/6/2016
1/9/2017
4/10/2017
7/11/2017
10/5/2017
1/9/2018
4/9/2018
7/10/2018
10/8/2018
1/7/2019
4/8/2019
7/8/2019
10/8/2019
1/6/2020
4/6/2020
7/9/2020
10/12/2020
1/18/2021
4/19/2021
7/19/2021
10/19/2021
1/11/2022
4/19/2022
7/18/2022
10/31/2022
Sample Date
Benzene Concentration

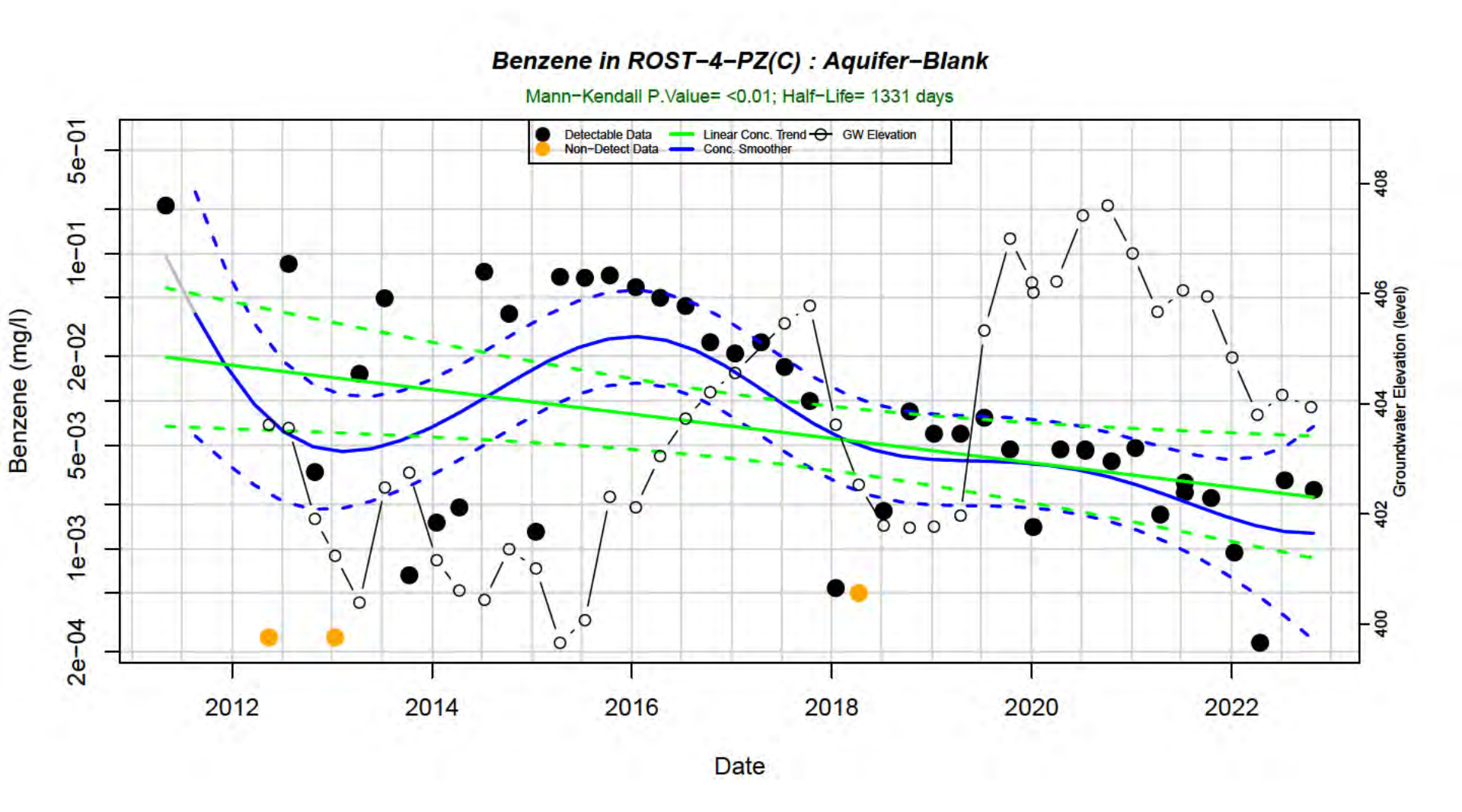

Benzene Concentrations Over Time - MW-08
Benzene Concentration (mg/L)
2000
1800
1600
1400
1200
1000
800
600
400
200
0
10/22/2009
11/17/2010
1/25/2011
5/13/2011
7/24/2011
11/2/2011
1/18/2012
5/4/2012
8/7/2012
10/30/2012
1/15/2013
4/10/2013
7/17/2013
10/16/2013
1/30/2014
4/16/2014
7/16/2014
10/16/2014
1/22/2015
4/21/2015
7/15/2015
10/19/2015
1/14/2016
4/19/2016
7/14/2016
10/6/2016
1/9/2017
4/10/2017
7/10/2017
10/5/2017
1/9/2018
4/9/2018
7/10/2018
10/8/2018
1/7/2019
4/8/2019
7/8/2019
10/8/2019
1/6/2020
4/6/2020
7/9/2020
10/12/2020
1/18/2021
4/19/2021
7/19/2021
10/19/2021
1/11/2022
4/19/2022
7/18/2022
10/31/2022
Sample Date
Benzene Concentration

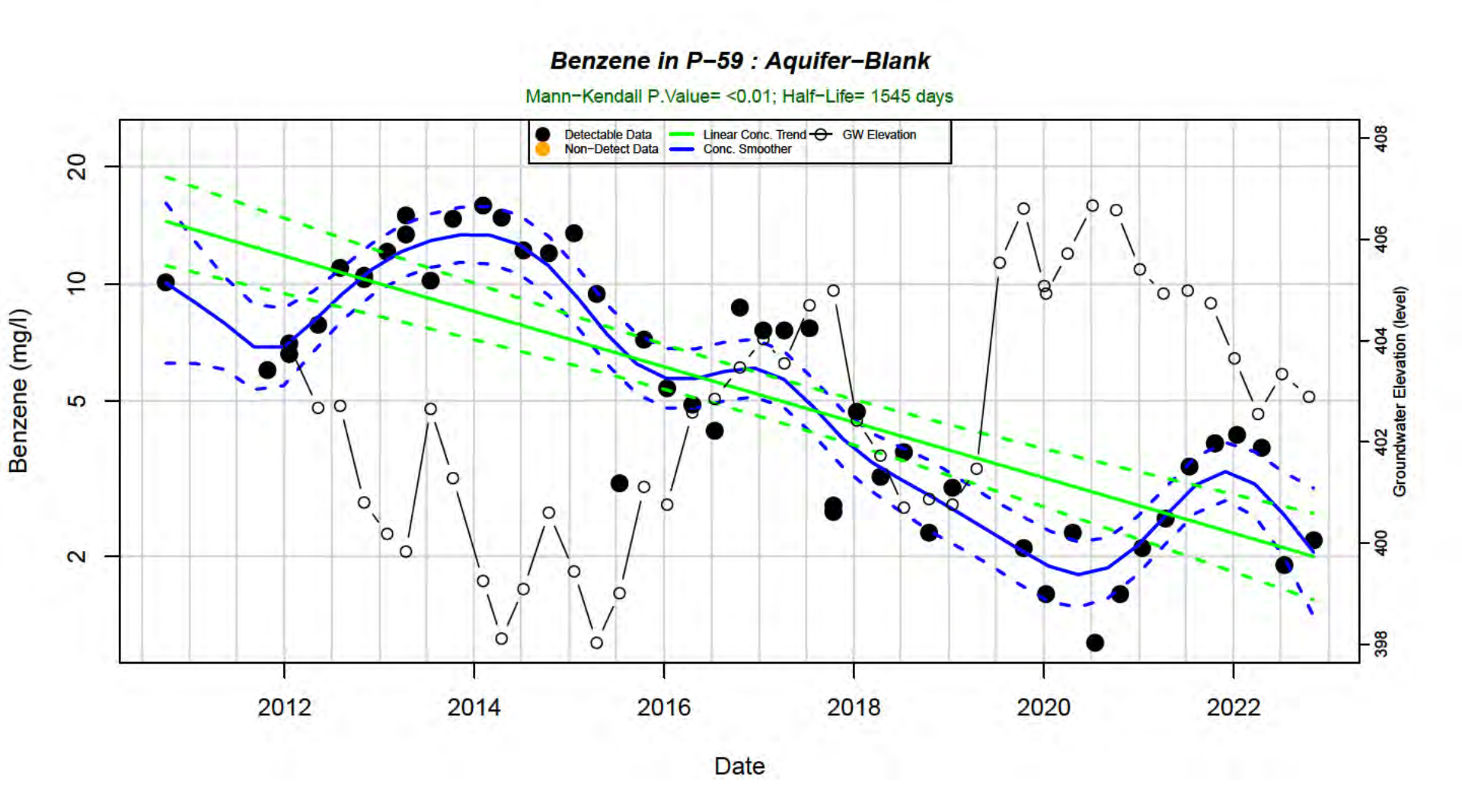

Benzene Concentrations Over Time - MW-25
Benzene Concentration (mg/L)
600
500
400
300
200
100
0
10/21/2014
1/22/2015
4/21/2015
7/15/2015
10/19/2015
1/14/2016
4/19/2016
7/18/2016
10/6/2016
1/11/2017
4/11/2017
7/10/2017
10/5/2017
1/9/2018
4/9/2018
7/10/2018
10/8/2018
1/7/2019
4/8/2019
7/8/2019
10/8/2019
1/6/2020
4/6/2020
7/9/2020
10/12/2020
1/18/2021
4/19/2021
7/19/2021
10/19/2021
1/11/2022
4/19/2022
7/18/2022
10/31/2022
Sample Date
Benzene Concentration

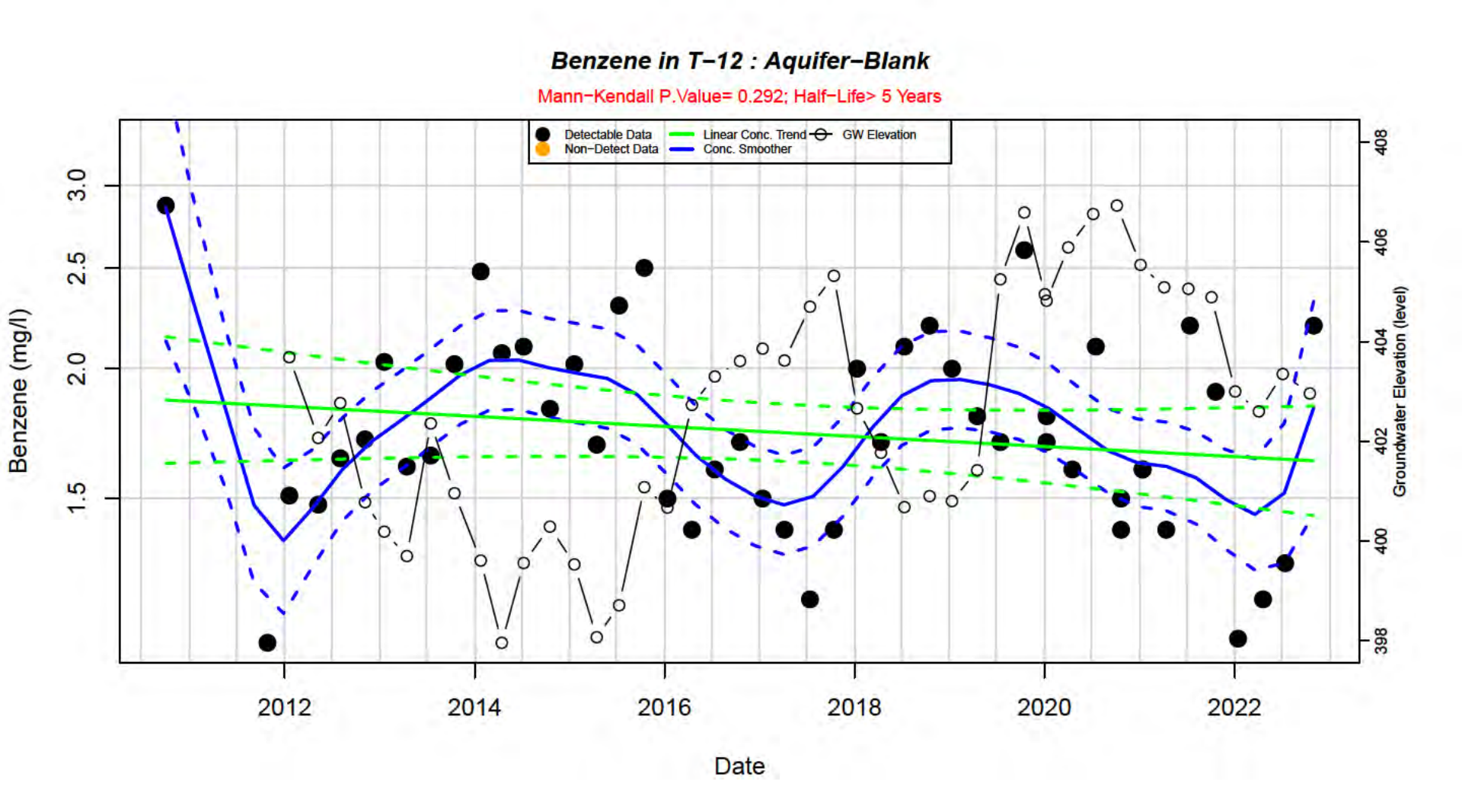

Benzene Concentrations Over Time - P-57
Benzene Concentration (mg/L)
450
400
350
300
250
200
150
100
50
0
3/3/2006
6/11/2008
11/8/2011
2/13/2012
5/7/2012
8/6/2012
11/5/2012
1/29/2013
4/11/2013
7/16/2013
10/14/2013
2/3/2014
4/15/2014
7/8/2014
10/14/2014
1/23/2015
4/20/2015
7/13/2015
10/15/2015
1/12/2016
4/18/2016
7/13/2016
10/18/2016
1/16/2017
4/7/2017
7/13/2017
10/16/2017
1/18/2018
4/10/2018
7/11/2018
10/16/2018
1/14/2019
4/17/2019
7/15/2019
10/15/2019
1/9/2020
4/17/2020
7/16/2020
10/20/2020
1/13/2021
4/12/2021
7/14/2021
10/18/2021
1/14/2022
4/15/2022
7/15/2022
10/28/2022
Sample Date
Benzene Concentration

4th Street Area

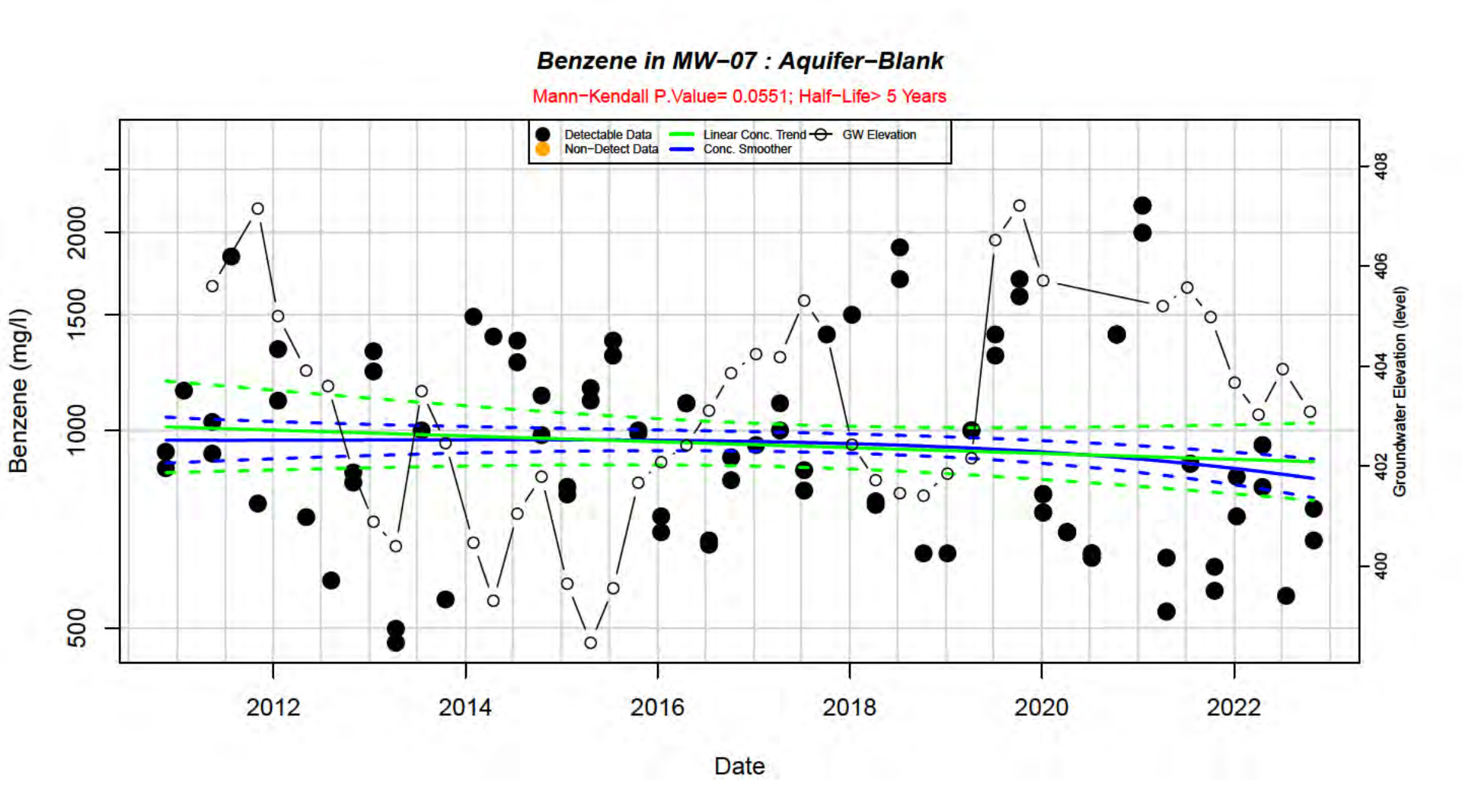

Benzene in MW−22 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 292 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
1e−03
1e−02
1e−01
1e+00
1e+01
Groundwater Elevation (level)
400
402
404
406
408
2014
2016
2018
2020
2022
Date

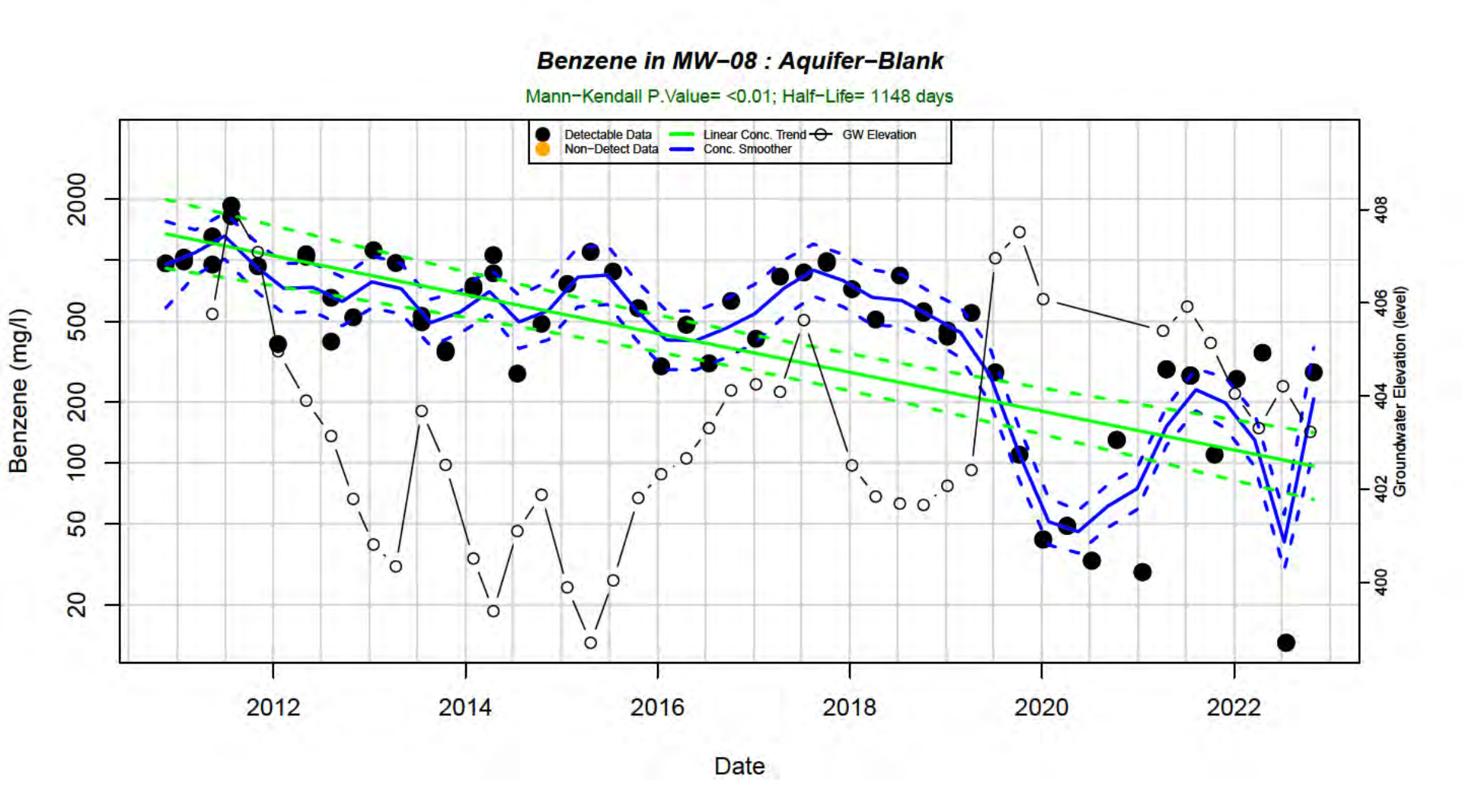

Benzene in ROST−4−PZ(C) : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 1331 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
5e−01
1e−01
2e−02
5e−03
1e−03
2e−04
Groundwater Elevation (level)
408
406
404
402
400
2012
2014
2016
2018
2020
2022
Date

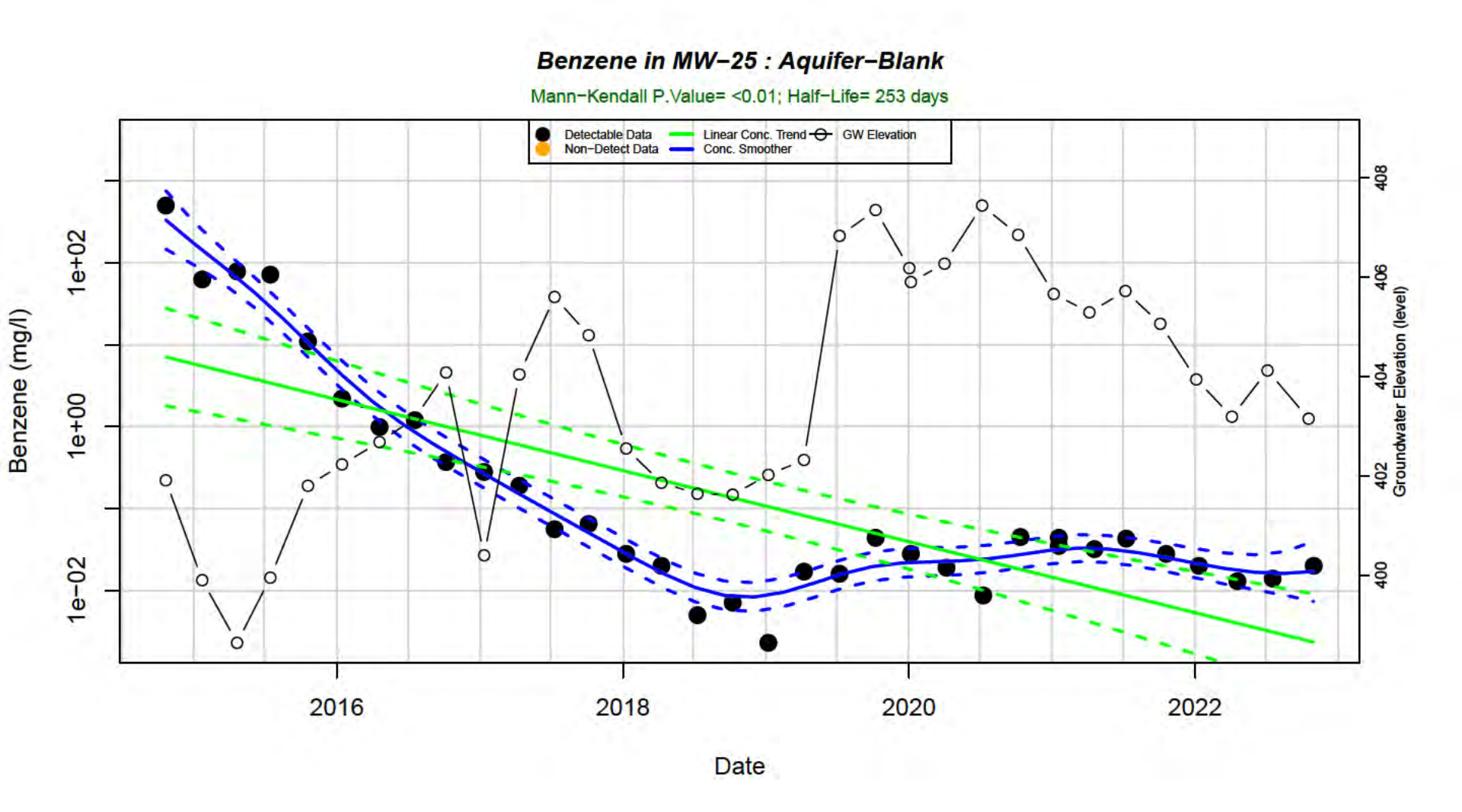

Benzene in P−59 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 1545 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
Groundwater Elevation (level)
Date
2012
2014
2016
2018
2020
2022
2
5
10
20
398
400
402
404
406
408

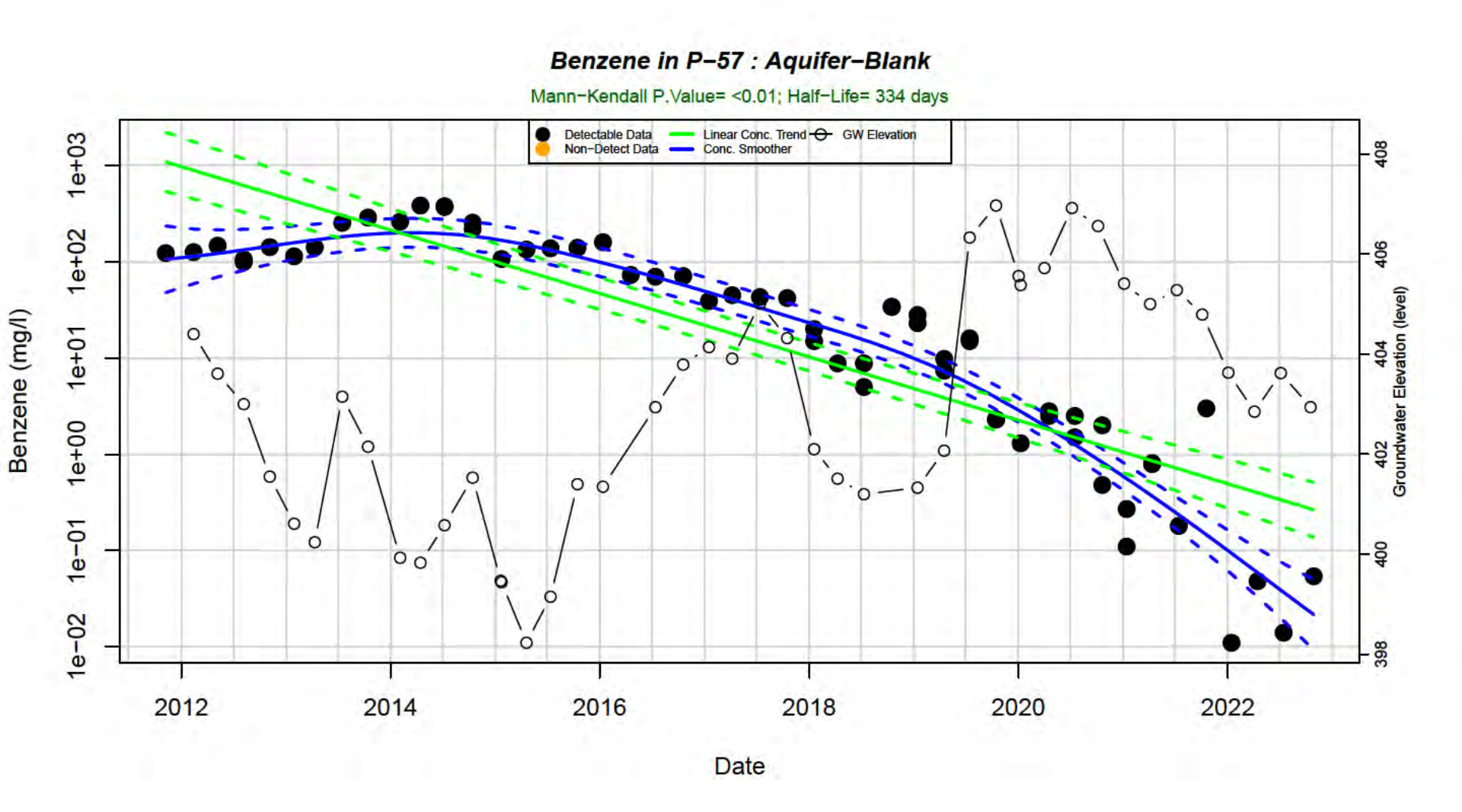

Benzene in T−12 : Aquifer−Blank
Mann−Kendall P.Value= 0.292; Half−Life> 5 Years
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
1.5
2.0
2.5
3.0
Groundwater Elevation (level)
398
400
402
404
406
408
2012
2014
2016
2018
2020
2022
Date

Public Works Yard Area


Benzene in MW−07 : Aquifer−Blank
Mann−Kendall P.Value= 0.0551; 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= 1148 days
Detectable Data
Non−Detect Data
Linear Conc. Trend
Conc. Smoother
GW Elevation
Benzene (mg/l)
20
50
100
200
500
2000
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= 253 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)
400
402
404
406
408
2016
2018
2020
2022
Date


Benzene in P−57 : Aquifer−Blank
Mann−Kendall P.Value= <0.01; Half−Life= 334 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

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