



Illinois Environmental Protection Agency

Bureau of Land • 1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276

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

Quarterly - Enter: 1, 2, 3, or 4

- Semi-Annual
- Annual
- Biennial

Leachate

Quarterly - Enter: 1, 2, 3, or 4

- Semi-Annual
- Annual
- 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)

Copies of this submittal sent separately directly to Amy Butler and Gina Search with IEPA.

January 13, 2021

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

Groundwater Monitoring Report – 4th Quarter 2020
Roxana, Illinois
1191150002 – Madison County
Equilon Enterprises LLC d/b/a Shell Oil Products US
Log No. B-43R-CA-21

Dear Mr. Smith:

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

Copies of the referenced report are being submitted separately directly to Mses. Amy Butler and Gina Search with Illinois Environmental Protection Agency (IEPA).

If you have any questions during your review, please contact Dan Kirk, SOPUS Principal Program Manager, at dan.kirk@shell.com (281/544-9796), or Bob Billman at bob.billman@aecom.com (314/802-1122).

Sincerely,

AECOM, on behalf of Shell Oil Products US



Melissa Remiger
Environmental Scientist



Robert E. Mooshegian, STS
Senior Program Manager

Enclosures: 4th Quarter 2020 Report, Roxana Interim Groundwater Monitoring Program
RCRA Facility Groundwater, Leachate and Gas Reporting Form
(Original plus 1 copy)

cc: Dan Kirk, SOPUS
Thomas Morgan, Phillips 66
Amy Butler, IEPA, Springfield
Gina Search, IEPA, Collinsville
Michelle Knapp, Atlantic Richfield Company
Erika Reynolds, Greensfelder
Repositories – Roxana Public Library, website

4th Quarter 2020 Report

Roxana Interim Groundwater Monitoring Program

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

Project Number: 60643618
January 2021

Table of Contents

1	Introduction	1
2	Groundwater Sampling and Analytical Procedures	3
2.1	Health & Safety.....	3
2.2	Additional Activities or Modifications	3
2.3	Groundwater Monitoring Well Gauging and Sampling.....	3
2.4	Decontamination and Investigation-Derived Waste	4
2.5	Groundwater Sample Handling and Laboratory Testing	5
2.6	Data Quality Review and Data Management.....	5
3	Groundwater Sampling Results	7
3.1	Groundwater Monitoring Well Gauging Results.....	7
3.2	Data Quality Review Results	7
3.3	Analytical Results and Discussion	8
4	Summary and Conclusions	9
4.1	Limitations	9
5	References	10

Tables

Table 1	Quarterly Groundwater Monitoring Well Gauging Results
Table 2	Summary of Groundwater Monitoring Well Field Parameters
Table 3	Summary of Groundwater Monitoring Well Analytical Detections and Exceedances

Figures

Figure 1	Investigation Area Location Map
Figure 2	Roxana Interim Groundwater Monitoring Well Locations
Figure 3a	Groundwater Contours 4Q20
Figure 3b	Groundwater Contours 4Q20-West Fenceline
Figure 4a	4Q20 Thickness of LNAPL-West Fenceline
Figure 4b	4Q20 Thickness of LNAPL
Figure 5	4Q20 Groundwater Monitoring Well Analytical Exceedances
Figure 6	4Q20 Dissolved Phase Benzene Concentrations in Groundwater
Figure 7	4Q20 Cross-Section of Benzene Groundwater Analytical Results-Chaffer Avenue
Figure 8	4Q20 Cross-Section of Benzene Groundwater Analytical Results-Roxana Public Works Yard

Appendices

Appendix A	Regulatory History
Appendix B	Low Flow Groundwater Sampling Data Sheets
Appendix C	Data Review Forms and Laboratory Analytical Reports
Appendix D	Charts – Benzene Concentrations Over Time – MW-7, MW-8, MW-22, MW-25, P-57, P-59, ROST-4-PZ(C), T-12
	Table D1 - Historical Benzene Analytical Data for Select Groundwater Monitoring Wells

1 Introduction

AECOM Technical Services, Inc. (AECOM) is submitting this report on behalf of Equilon Enterprises LLC d/b/a Shell Oil Products US (SOPUS) for the 4th Quarter 2020 (4Q20) groundwater monitoring well gauging and sampling conducted in the Village of Roxana, Illinois (**Figure 1**). The Interim Groundwater Monitoring 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 and ongoing regulatory-related activity between AECOM, on behalf of SOPUS, and the IEPA during this reporting period (October 2020 through December 2020); prior regulatory-related activity is presented in **Appendix A**.

- SOPUS's current Resource Conservation and Recovery Act (RCRA) Permit at the WRR was issued by IEPA on September 23, 2010 and expires 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 July 13, 2020, Gina Search (IEPA, Collinsville, IL) conducted the routine triennial inspection, observing groundwater gauging and sampling activities in the Village of Roxana (Village); the previous triennial inspection was performed during 2nd Quarter 2017 (2Q17). An IEPA letter with inspection report, dated October 6, 2020, stated that based on the findings of the inspection no apparent violations will be cited (IEPA, 2020c).
- On October 1, 2020, the IEPA issued a letter (IEPA, 2020d) in response to the following submittals by AECOM, on behalf of SOPUS: *TACO Tier 3 Demonstration Report*, dated April 27, 2017 (AECOM, 2017a); and *TACO Tier 3 Demonstration – Response to Agency comments provided between June 30 and October 6, 2017*, dated November 22, 2017 (AECOM, 2017b). Based on a review of the submittals, the IEPA did not approve or deny the submittals but provided several conditions and modifications requests. AECOM and SOPUS are currently responding to these requests.
- 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.

Groundwater samples were collected and analyzed during 4Q20 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 December 30, 2019 (AECOM, 2019).

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.

Prior to beginning site work and at the start of work each day, a daily safety meeting was held. The purpose of this meeting was to discuss the day's planned activities and to address any potential health and safety concerns. As a part of the daily safety meeting, job hazard analyses (JHAs) were reviewed to address task specific safety concerns.

AECOM field personnel wore U.S. Environmental Protection Agency (USEPA) Level D personal protective equipment (PPE). In addition, work within the WRR was performed wearing flame retardant clothing (FRCs) per WRR requirements (in areas where required).

A PID with a 10.6 electron volt (eV) lamp, combustible gas indicator (CGI), and individual hydrogen sulfide gas detectors (for locations inside WRR) were used during the field activities to monitor air quality. A benzene gas monitor with a 9.8 eV lamp was available during field activities to monitor benzene levels, if necessary. Field instruments were calibrated prior to use each day in accordance with the manufacturers' specifications.

2.2 Additional Activities or Modifications

No additional work activities or modifications were conducted during 4Q20.

2.3 Groundwater Monitoring Well Gauging and Sampling

Groundwater Monitoring Well Gauging

The comprehensive quarterly groundwater monitoring well gauging event was conducted between October 5 and 7, 2020. The gauging activities were conducted in conjunction with the 4Q20 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 noted in electronic format using Dell Rugged laptop computers (computer), or similar, and on groundwater field gauging sheets. Quarterly groundwater monitoring well gauging results can be found in **Table 1**. The groundwater gauging data table also includes well-head PID results.

Low-Flow Groundwater Purging and Sampling

Groundwater samples were collected from groundwater monitoring wells between October 8 and 22, 2020. Data are included in this report and discussed in **Section 3**.

Groundwater samples were collected using the most current low-flow groundwater purging and sampling SOPs. Prior to groundwater monitoring well sampling, the initial water level was measured and recorded in the computer and on low flow groundwater sampling data sheets.

Groundwater monitoring wells MW-1 through MW-14; MW-16; MW-22 through MW-28; P-54; P-56; P-57; P-59; P-66; 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 Proactive™ Stainless Steel Monsoon Pump (pump), low-flow controller, and designated¹ polyethylene tubing. The pump and designated polyethylene tubing were slowly lowered into the groundwater monitoring well to be sampled and set with the pump intake near the midpoint of the groundwater monitoring well screen.

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. The Well Wizards® typically have a length of 42 inches, an outside diameter of 1.5 inches, and a Teflon® bladder capacity of approximately 495 milliliters (mL). The Well Wizard® and associated bonded polyethylene tubing are dedicated to each well and remain in place between sampling events. The dedicated pump intake is positioned near the midpoint of the well screen and the pump is operated using a QED MP10 MicroPurge® Controller and compressor.

For both sampling methods, the tubing from the sampling pump was connected to a flow-through cell, which discharged into a 5-gallon plastic container. 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 on the low flow groundwater sampling data sheets after every flow-through cell volume. Purging continued until a minimum of three flow-through cell volumes of water were removed and the groundwater quality parameters stabilized, or a maximum purge time of two hours was reached. The final water quality parameters were recorded in the computer and on low flow groundwater sampling data sheets. Once stabilization was achieved or a maximum purge time of two hours was reached, the groundwater flow was diverted from the flow-through cell and 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, 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 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 by spraying and/or wiping down with isopropyl alcohol, then washing with LiquiNox® and distilled water, and finishing with a distilled water rinse. The wash and rinse water were replaced periodically throughout the day, at least at mid-day. Interface probes were decontaminated by wiping down with LiquiNox® followed by a distilled water rinse. Personnel and small equipment decontamination were performed at the sample locations.

Investigation-Derived Waste

Investigation-derived waste (IDW), such as purge water and decontamination fluid generated during groundwater sampling activities, was collected, stored, and disposed in accordance with RCRA, Illinois and United States

¹ All designated tubing is stored in a sealed bag designated for a particular groundwater monitoring well between sampling events; designated tubing used with Proactive™ Stainless Steel Monsoon pumps is replaced prior to the first quarter sampling event.

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 were initially collected in 5-gallon plastic containers, then transferred to a 30-gallon steel drum, which was staged at the Public Works Yard (satellite accumulation area), and removed by Heritage Environmental Services, LLC (Heritage). This material is managed as hazardous waste based on prior characterization and was disposed at the Heritage facility in Indianapolis, Indiana.

Decontamination fluid and purge water from other groundwater monitoring wells in the Village were initially collected in 5-gallon plastic containers then transferred to 55-gallon steel drums located near the northeastern portion of the former Tannery Property (designated staging area). This material is managed as non-hazardous waste based on prior characterization and was 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 Superfund Organic Methods Data Review (USEPA, 2017). Data qualifiers were also added by AECOM, as appropriate, and are included on **Table 3** and in the laboratory results in **Appendix C**. The results of the data quality review are discussed in **Section 3.2**.

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

The following documentation was completed and supplements the COC records:

- Field logbooks;
- Equipment calibration forms;
- Groundwater field gauging sheets;
- Low Flow Groundwater Sampling Data Sheets;
- Field sample collection data via computer; and
- Safety documentation.

3 Groundwater Sampling Results

This section presents the results of the 4Q20 groundwater gauging and sampling event.

3.1 Groundwater Monitoring Well Gauging Results

The comprehensive quarterly groundwater monitoring well gauging for the 4Q20 event was conducted between October 5 and 7, 2020. 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 northern vicinity of the West Fenceline remained similar to those in 3Q20; groundwater levels in most wells in the southern vicinity of the West Fenceline have fallen approximately 0.25 to 0.75 feet since the 3Q20 gauging event. Groundwater levels in most wells in the central and eastern portion of the WRR have risen approximately 0.5 to 0.75 since the 3Q20 gauging event. Water levels are above the top of the screens in the majority of the wells gauged during the 4Q20 event. The potentiometric surface observed during the 4Q20 groundwater monitoring well gauging (**Figures 3a and 3b**) illustrates groundwater flow toward the WRR groundwater production wells.

During the 4Q20 quarterly groundwater monitoring well gauging event, LNAPL was detected in three Interim Groundwater Monitoring Program groundwater monitoring wells (P-55R, P-58, and P-68) (**Table 1**). These monitoring wells are located in the WRR. In these wells, LNAPL thicknesses ranged from 0.02 to 0.03 feet. **Figures 4a and 4b** illustrate the measured LNAPL thickness observed along the West Fenceline and inside the refinery, respectively, during the 4Q20 gauging event. LNAPL was not observed in groundwater monitoring wells located in the Village.

LNAPL thickness greater than 0.10 feet was not observed during 4Q20; therefore, LNAPL recovery efforts were not performed during 4Q20.

3.2 Data Quality Review Results

A total of 13 sample delivery groups (SDGs) were prepared and sent to TestAmerica for the 4Q20 event. Fifty-two different groundwater sample sets were prepared and analyzed for VOCs and SVOCs (including PAHs). The 52 samples included 41 different investigative sample sets, five field duplicate sets, and three matrix spike/matrix spike duplicate (MS/MSD) sets. SDGs for 4Q20 are presented in **Appendix C**.

Trip blanks (TBs), equipment blanks (EBs), and laboratory method blanks were analyzed to evaluate for the existence and magnitude of any contamination resulting from field and laboratory activities. Five different EB sets were collected for this quarter. A TB set was included in every cooler that contained samples for VOC analysis. A total of 13 TB sets were analyzed for groundwater VOCs. Laboratory method blanks were analyzed with every analytical batch.

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 five investigative samples and laboratory method blanks; bis(2-ethylhexyl) phthalate is a common laboratory and field contaminant. The extraction holding time criteria was exceeded for the re-extracted samples; however, the results from these re-analyses were consistent with historical data (non-detect or below screening value). Based on professional judgement, the results from the re-analyses were used for the purposes of this report. Analytical results qualified by AECOM are specified in the data reviews presented in **Appendix C**.

3.3 Analytical Results and Discussion

Table 2 presents cumulative information on groundwater sampling field parameters for main aquifer wells. These results are consistent with those observed in the 3Q20 sampling event. The laboratory analytical results for the groundwater samples collected during this event are presented in **Table 3**.

Analytical detections were compared to the concentration limits as provided in Condition IV(E) of the Permit for the WRB Refining LP Wood River Refinery². These concentration limits include the Groundwater Quality Standards for Class I: Potable Resource Groundwater (35 IAC 620, Subpart D, Section 410) (Part 620) (IEPA, 2012c), the IEPA Tiered Approach to Corrective Action Objectives (TACO) Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Groundwater Ingestion Route (35 IAC 742, Appendix B, Table E) (IEPA, 2007), and the IEPA Toxicity Assessment Unit (Chemicals not in TACO, Tier 1 Tables) (IEPA, 2018). Where screening values were available from multiple sources from the ones mentioned above, screening values from Part 620 were used preferentially over the screening values found in TACO and Chemicals not in TACO sources. All three sources are checked on a quarterly basis to ensure the most current published screening values are being used. The results of this screening comparison are presented in **Table 3**.

Samples from 13 groundwater monitoring wells in the Interim Groundwater Monitoring Program (six in the Village, seven in the WRR along the West Fenceline) exhibited exceedances of the groundwater screening criteria for one or more of the following constituents:

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

Figure 5 presents concentrations of analytes that exceeded the indicated screening criteria for 4Q20. These findings are generally consistent with the results from previous sampling events. During the 4Q20 event there were first-time VOC detections (ethylbenzene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and/or xylenes) at 15 locations; these detections were below their corresponding screening value. Additionally, phenol was outside historical range in P-93D; phenol was confirmed by the laboratory by serial dilution. Well P-93D will be sampled January 2021 during the 1st Quarter 2021 (1Q21) Roxana Interim Groundwater Monitoring program. **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.

Appendix D contains benzene concentration trend plots for selected monitoring wells³ 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

The data used to develop the plots are included in **Table D-1**.

² IEPA requested that the Interim Groundwater Monitoring Program be consistent with the RCRA Part B Permit.

³ In a meeting with IEPA on April 5, 2018, the AECOM presentation included benzene concentration trend plots pertinent to GMZ discussion.

4 Summary and Conclusions

AECOM conducted the 4Q20 Interim Groundwater Monitoring Program, and the following conclusions are based on the data and information collected as part of this program:

- During 4Q20, 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 northern vicinity of the West Fenceline remained similar to those in 3Q20; groundwater levels in most wells in the southern vicinity of the West Fenceline have fallen approximately 0.25 to 0.75 feet since the 3Q20 gauging event. Groundwater levels in most wells in the central and eastern portion of the WRR have risen 0.5 to 0.75 since the previous quarter.
- The analytical results from 4Q20 are generally similar to those from previous quarters, with the exception of:
 - first-time VOC detections (ethylbenzene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and/or xylenes) at 15 locations; detections were below screening value.
 - phenol outside historical range in P-93D; phenol was confirmed by the laboratory by serial dilution. Well P-93D will be sampled during the 1Q21 Roxana Interim Groundwater Monitoring program.
- Benzene concentration plots presented in **Appendix D** continue to show stable or decreasing trends.
- 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

SOPUS 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. SOPUS 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 SOPUS 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 (SOPUS), dated April 16, 2015.

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

AECOM, 2016 (AECOM, 2016b); *Proposed Groundwater Management Zone*. Prepared for Shell Oil Products US (SOPUS), 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 (SOPUS), dated October 14, 2016.

AECOM, 2017 (AECOM, 2017a); *TACO Tier 3 Demonstration Report*. Prepared for Shell Oil Products US (SOPUS), dated April 27, 2017.

AECOM, 2017 (AECOM, 2017b); *TACO Tier 3 Demonstration – Response to Agency comments provided between June 30 and October 6, 2017*. Prepared for Shell Oil Products US (SOPUS), dated November 22, 2017.

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

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

AECOM, 2019 (AECOM, 2019); *Shell HAZWOPER Health and Safety Plan: Rand Avenue, Roxana / Route 111, and WRR Investigation and Remediation*. Prepared for Shell Oil Products US (SOPUS), dated December 30, 2019.

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

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

Illinois Environmental Protection Agency, 2007 (IEPA, 2007); 35 Illinois Administrative Code 742, Tiered Approach to Corrective Action Objectives. Appendix B. *Table E – Tier 1 Groundwater Remediation Objectives for the Groundwater Component of the Groundwater Ingestion Route*. Effective February 23, 2007; accessed on December 7, 2020.

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

Illinois Environmental Protection Agency, 2010 (IEPA, 2010b); *Hazardous Waste Management RCRA Post-Closure Permit*. Issued to Shell Oil Products US (SOPUS) at the WRB Refining LP Wood River Refinery (WRB WRR), issued September 23, 2010; effective October 28, 2010; modified April 2, 2013; modified June 13, 2014; modified November 25, 2014; modified July 29, 2015; modified December 20, 2019.

Illinois Environmental Protection Agency, 2011 (IEPA, 2011a); *Corrective Action Letter for the West Fenceline*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated June 16, 2011.

Illinois Environmental Protection Agency, 2011 (IEPA, 2011b); *RCRA Response to Groundwater for Second Quarter 2011*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated August 31, 2011.

Illinois Environmental Protection Agency, 2012 (IEPA, 2012a); *Letter (CA-24) in response to ROST-4-PZ Delineation and Sampling Report*. Issued to Shell Oil Products US (SOPUS), dated March 14, 2012.

Illinois Environmental Protection Agency, 2012 (IEPA, 2012b); *Letter (CA-25) in Response to Agency Comments Provided in June 16, 2011 Letter*. Issued to Shell Oil Products US (SOPUS), dated March 14, 2012.

Illinois Environmental Protection Agency, 2012 (IEPA, 2012c); 35 Illinois Administrative Code 620, Subpart D, Section 410. *Groundwater Quality Standards for Class 1: Potable Resource Groundwater (Part 620)*. Effective October 5, 2012; accessed on December 7, 2020.

Illinois Environmental Protection Agency, 2013 (IEPA, 2013a); *Approval with Conditions for the Roxana 4Q10 and 2Q12 Groundwater Monitoring Program Reports*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated April 8, 2013.

Illinois Environmental Protection Agency, 2013 (IEPA, 2013b); *Response to Submittals received February 8, 2012; November 14, 2012; January 25, 2013; and March 14, 2013*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated July 18, 2013.

Illinois Environmental Protection Agency, 2014 (IEPA, 2014a); *Response to Class I* Permit Modification Requests*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated June 13, 2014.

Illinois Environmental Protection Agency, 2014 (IEPA, 2014b); *Response to Groundwater Monitoring Well Installation Plan Location on BP Property*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated October 9, 2014.

Illinois Environmental Protection Agency, 2014 (IEPA, 2014c); *Response to the Groundwater Portions of the Two Subject Submittals (Proposed Plan for Groundwater Corrective Action and Request for a 60-day Extension for Submittal of the Plan)*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated November 25, 2014.

Illinois Environmental Protection Agency, 2015 (IEPA, 2015); *Approval of an April 3, 2013, Submittal Made on Behalf of Equilon Enterprises LLC and WRB Refining LP by Robert Billman, URS Corporation*. Issued to Shell Oil Products (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated May 22, 2015.

Illinois Environmental Protection Agency, 2016 (IEPA, 2016a); *IEPA Approval of Perched Groundwater Monitoring Location Abandonments*. Issued to Shell Oil Products (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated July 27, 2016.

Illinois Environmental Protection Agency, 2016 (IEPA, 2016b); *IEPA Approval Conditions and Modifications for the Response to IEPA Letter Dated April 8, 2013, for Groundwater Conditions Near East 3rd and Chaffer Streets (which was dated July 29, 2013)*. Issued to Shell Oil Products (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated July 27, 2016.

Illinois Environmental Protection Agency, 2016 (IEPA, 2016c); *Response to Two Subject Submittals Submitted on Behalf of Shell Oil Products US (SOPUS) by URS Corporation (URS), in Regards to the WRB Refining, LLC Wood River Refinery (WRR) in Roxana, IL*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated February 23, 2016.

Illinois Environmental Protection Agency, 2017 (IEPA, 2017); *IEPA Approval to Reduce Gauging – Roxana Groundwater Monitoring Program*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated August 2, 2017.

Illinois Environmental Protection Agency Toxicity Assessment Unit; *Chemicals Not in TACO, Tier 1 Tables*, 2018 (IEPA, 2018). <http://www.epa.state.il.us/land/taco/chemicals-not-in-taco-tier-1-tables.html>. Accessed on December 7, 2020.

Illinois Environmental Protection Agency, 2019 (IEPA, 2019); *Groundwater Ordinances Reviewed for Use As Environmental Institutional Controls*. <http://epadata.epa.state.il.us/land/gwordinance/municipality.asp?Municipality=Roxana>. Emailed to Shell Oil Products US (SOPUS), dated November 7, 2019.

Illinois Environmental Protection Agency, 2020 (IEPA, 2020a); *Notice of Permit Renewal Application Incompleteness*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated June 30, 2020.

Illinois Environmental Protection Agency, 2020 (IEPA, 2020b); *Notice of Permit Completeness*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated October 30, 2020.

Illinois Environmental Protection Agency, 2020 (IEPA, 2020c); *RCRA Groundwater O&M Inspection*. Issued to Shell Oil Products US (SOPUS) and WRB Refining LP (WRB) Wood River Refinery (WRR), dated October 6, 2020.

Illinois Environmental Protection Agency, 2020 (IEPA, 2020d); *Conditions and Modifications to Four Submittals (4/6/17, 4/27/17, 7/14/2017, and 11/22/2017) Regarding RCRA Corrective Action Activities*. Issued to SOPUS and WRB WRR, dated October 1, 2020.

URS Corporation, 2013 (URS, 2013a); *Roxana Perched Groundwater Monitoring Locations*; Prepared for Shell Oil Products US (SOPUS); dated August 16, 2013.

URS Corporation, 2013 (URS, 2013b); *Response to IEPA Letter April 8, 2013 – Groundwater Conditions near East 3rd and Chaffer Streets, Roxana, Illinois*; Prepared for Shell Oil Products US (SOPUS); dated July 29, 2013.

URS Corporation, 2013 (URS, 2013c); *Proposed Plan for Groundwater Corrective Action, Roxana, Illinois*; Prepared for Shell Oil Products US (SOPUS); dated November 14, 2013.

URS Corporation, 2014 (URS, 2014a); *Perched Groundwater Monitoring Locations*; Prepared for Shell Oil Products US (SOPUS); dated January 14, 2014.

URS Corporation, 2014 (URS, 2014b); *Perched Groundwater Monitoring Request for Abandonment*; Prepared for Shell Oil Products US (SOPUS); dated January 14, 2014.

URS Corporation, 2014 (URS, 2014c); *Request to Reduce Gauging – Roxana Groundwater Monitoring Program, Roxana IL*; Prepared for Shell Oil Products US (SOPUS); dated December 5, 2014.

U.S. Environmental Protection Agency, January 2017 (USEPA, 2017); *National Functional Guidelines for Superfund Organic Methods Data Review*.

Tables

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.)	WELL HEAD PID (ppm)	Comments
MW 01											
1Q18	442.65	1/2/2018	NE	39.42	NA	NA	NA	403.23	393.85 - 383.85 (48.80 - 58.80)	2.6	-
2Q18		4/2/2018	NE	40.76	NA	NA	NA	401.89		0.0	-
3Q18		7/2/2018	NE	41.36	NA	NA	NA	401.29		0.0	-
4Q18		10/1/2018	NE	41.25	NA	NA	NA	401.40		0.0	-
1Q19		1/2/2019	NE	41.04	NA	NA	NA	401.61		0.0	-
2Q19		4/1/2019	NE	41.00	NA	NA	NA	401.65		0.0	-
3Q19	442.83	7/1/2019	NE	36.65	NA	NA	NA	406.18	394.03 - 384.03 (48.80 - 58.80)	0.0	-
4Q19		10/1/2019	NE	35.66	NA	NA	NA	407.17		0.1	-
1Q20		1/2/2020	NE	36.89	NA	NA	NA	405.94		0.0	-
2Q20		4/1/2020	NE	36.72	NA	NA	NA	406.11		0.0	-
3Q20		7/6/2020	NE	35.59	NA	NA	NA	407.24		0.0	-
4Q20		10/6/2020	NE	36.03	NA	NA	NA	406.80		0.1	-
MW 02											
1Q18	443.77	1/2/2018	NE	41.27	NA	NA	NA	402.50	393.90 - 383.90 (49.87 - 59.87)	106	-
2Q18		4/3/2018	NE	41.84	NA	NA	NA	401.93		62.2	-
3Q18		7/2/2018	NE	42.78	NA	NA	NA	400.99		70.0	-
4Q18		10/1/2018	NE	42.68	NA	NA	NA	401.09		1460	-
1Q19		1/2/2019	NE	42.44	NA	NA	NA	401.33		118	-
2Q19		4/1/2019	NE	42.49	NA	NA	NA	401.28		250	-
3Q19	443.93	7/1/2019	NE	38.26	NA	NA	NA	405.67	394.06 - 384.06 (49.87 - 59.87)	200	-
4Q19		10/1/2019	NE	37.11	NA	NA	NA	406.82		34.6	-
1Q20		1/2/2020	NE	38.39	NA	NA	NA	405.54		0.0	-
2Q20		4/1/2020	NE	38.19	NA	NA	NA	405.74		139	-
3Q20		7/6/2020	NE	37.03	NA	NA	NA	406.90		130	-
4Q20		10/5/2020	NE	37.45	NA	NA	NA	406.48		68.7	-
MW 03											
1Q18	430.08	1/2/2018	NE	27.17	NA	NA	NA	402.91	395.41 - 385.41 (34.67 - 44.67)	0.4	-
2Q18		4/2/2018	NE	28.03	NA	NA	NA	402.05		0.0	-
3Q18		7/2/2018	NE	28.32	NA	NA	NA	401.76		0.2	-
4Q18		10/1/2018	NE	28.20	NA	NA	NA	401.88		0.0	-
1Q19		1/2/2019	NE	27.95	NA	NA	NA	402.13		0.0	-
2Q19		4/1/2019	NE	27.85	NA	NA	NA	402.23		0.0	-
3Q19	430.23	7/1/2019	NE	23.10	NA	NA	NA	407.13	395.56 - 385.56 (34.67 - 44.67)	0.0	-
4Q19		10/1/2019	NE	22.53	NA	NA	NA	407.70		0.0	-
1Q20		1/2/2020	NE	23.74	NA	NA	NA	406.49		0.0	-
2Q20		4/1/2020	NE	23.75	NA	NA	NA	406.48		0.0	-
3Q20		7/6/2020	NE	22.55	NA	NA	NA	407.68		0.0	-
4Q20		10/6/2020	NE	23.31	NA	NA	NA	406.92		0.0	-
MW 04											
1Q18	441.14	1/2/2018	NE	38.46	NA	NA	NA	402.68	396.08 - 386.08 (45.06 - 55.06)	1.9	-
2Q18		4/2/2018	NE	39.26	NA	NA	NA	401.88		29.2	-
3Q18		7/2/2018	NE	39.73	NA	NA	NA	401.41		0.0	-
4Q18		10/1/2018	NE	39.64	NA	NA	NA	401.50		0.0	-
1Q19		1/2/2019	NE	39.38	NA	NA	NA	401.76		0.0	-
2Q19		4/1/2019	NE	39.27	NA	NA	NA	401.87		0.0	-
3Q19	441.31	7/1/2019	NE	34.84	NA	NA	NA	406.47	396.25 - 386.25 (45.06 - 55.06)	16.9	-
4Q19		10/1/2019	NE	33.97	NA	NA	NA	407.34		0.7	-
1Q20		1/2/2020	NE	35.25	NA	NA	NA	406.06		0.0	-
2Q20		4/1/2020	NE	35.14	NA	NA	NA	406.17		0.0	-
3Q20		7/6/2020	NE	33.99	NA	NA	NA	407.32		0.0	-
4Q20		10/6/2020	NE	34.52	NA	NA	NA	406.79		0.0	-
MW 05											
1Q18	429.80	1/2/2018	NE	27.01	NA	NA	NA	402.79	395.83 - 385.83 (33.97 - 43.97)	0.1	-
2Q18		4/2/2018	NE	27.73	NA	NA	NA	402.07		0.0	-
3Q18		7/2/2018	NE	27.99	NA	NA	NA	401.81		0.1	-
4Q18		10/2/2018	NE	27.93	NA	NA	NA	401.87		0.0	-
1Q19		1/2/2019	NE	27.64	NA	NA	NA	402.16		0.0	-
2Q19		4/1/2019	NE	27.50	NA	NA	NA	402.30		0.0	-
3Q19	429.98	7/1/2019	NE	22.80	NA	NA	NA	407.18	396.01 - 386.01 (33.97 - 43.97)	4.1	-
4Q19		10/1/2019	NE	22.24	NA	NA	NA	407.74		0.0	-
1Q20		1/2/2020	NE	23.46	NA	NA	NA	406.52		0.0	-
2Q20		4/1/2020	NE	23.44	NA	NA	NA	406.54		0.0	-
3Q20		7/6/2020	NE	22.25	NA	NA	NA	407.73		0.0	-
4Q20		10/6/2020	NE	23.01	NA	NA	NA	406.97		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
MW 06A											
1Q18	432.14	1/2/2018	NE	29.18	NA	NA	NA	402.96	397.31 - 387.31 (34.83 - 44.83) 398.29 - 388.29 (33.85 - 43.85)	0.0	*
2Q18		4/2/2018	NE	29.82	NA	NA	NA	402.32		0.0	*
3Q18		7/2/2018	NE	30.05	NA	NA	NA	402.09		0.0	*
4Q18		10/2/2018	NE	30.03	NA	NA	NA	402.11		0.0	*
1Q19		1/2/2019	NE	29.77	NA	NA	NA	402.37		0.0	*
2Q19		4/2/2019	NE	29.42	NA	NA	NA	402.72		0.0	*
3Q19		7/1/2019	NE	24.94	NA	NA	NA	407.39		0.0	*
4Q19	432.33	10/1/2019	NE	24.40	NA	NA	NA	407.93	398.48 - 388.48 (33.85 - 43.85)	0.0	*
1Q20		1/2/2020	NE	25.60	NA	NA	NA	406.73		0.0	*
2Q20		4/1/2020	NE	25.59	NA	NA	NA	406.74		0.0	*
3Q20		7/6/2020	NE	24.38	NA	NA	NA	407.95		0.0	*
4Q20		10/6/2020	NE	25.16	NA	NA	NA	407.17		0.0	*
MW 06B											
1Q18	432.29	1/2/2018	NE	29.22	NA	NA	NA	403.07	368.24 - 363.24 (64.05 - 69.05)	0.0	*
2Q18		4/2/2018	NE	29.88	NA	NA	NA	402.41		0.0	*
3Q18		7/2/2018	NE	30.10	NA	NA	NA	402.19		0.0	*
4Q18		10/2/2018	NE	30.09	NA	NA	NA	402.20		0.0	*
1Q19		1/2/2019	NE	29.81	NA	NA	NA	402.48		0.0	*
2Q19		4/2/2019	NE	29.46	NA	NA	NA	402.83		0.0	*
3Q19		7/1/2019	NE	24.97	NA	NA	NA	407.40		0.0	*
4Q19	432.37	10/1/2019	NE	24.47	NA	NA	NA	407.90	368.32 - 363.32 (64.05 - 69.05)	0.1	*
1Q20		1/2/2020	NE	25.66	NA	NA	NA	406.71		0.0	*
2Q20		4/1/2020	NE	25.64	NA	NA	NA	406.73		0.0	*
3Q20		7/6/2020	NE	24.44	NA	NA	NA	407.93		0.0	*
4Q20		10/6/2020	NE	25.19	NA	NA	NA	407.18		0.0	*
MW 06C											
1Q18	432.11	1/2/2018	NE	29.01	NA	NA	NA	403.10	347.16 - 342.16 (84.95 - 89.95)	0.0	*
2Q18		4/2/2018	NE	29.68	NA	NA	NA	402.43		0.0	*
3Q18		7/2/2018	NE	29.90	NA	NA	NA	402.21		0.0	*
4Q18		10/2/2018	NE	29.87	NA	NA	NA	402.24		0.0	*
1Q19		1/2/2019	NE	29.61	NA	NA	NA	402.50		0.0	*
2Q19		4/2/2019	NE	29.25	NA	NA	NA	402.86		0.0	*
3Q19		7/1/2019	NE	24.77	NA	NA	NA	407.41		0.0	*
4Q19	432.18	10/1/2019	NE	24.25	NA	NA	NA	407.93	347.23 - 342.23 (84.95 - 89.95)	0.1	*
1Q20		1/2/2020	NE	25.46	NA	NA	NA	406.72		0.0	*
2Q20		4/1/2020	NE	25.40	NA	NA	NA	406.78		0.0	*
3Q20		7/6/2020	NE	24.23	NA	NA	NA	407.95		0.0	*
4Q20		10/6/2020	NE	24.99	NA	NA	NA	407.19		0.0	*
MW 06D											
1Q18	431.99	1/2/2018	NE	28.87	NA	NA	NA	403.12	327.27 - 322.27 (104.72 - 109.72)	0.0	*
2Q18		4/2/2018	NE	29.53	NA	NA	NA	402.46		0.0	*
3Q18		7/2/2018	NE	29.74	NA	NA	NA	402.25		0.0	*
4Q18		10/2/2018	NE	29.72	NA	NA	NA	402.27		0.0	*
1Q19		1/2/2019	NE	29.45	NA	NA	NA	402.54		0.0	*
2Q19		4/2/2019	NE	29.11	NA	NA	NA	402.88		0.0	*
3Q19		7/1/2019	NE	24.60	NA	NA	NA	407.46		0.0	*
4Q19	432.06	10/1/2019	NE	24.09	NA	NA	NA	407.97	327.34 - 322.34 (104.72 - 109.72)	0.0	*
1Q20		1/2/2020	NE	25.31	NA	NA	NA	406.75		0.0	*
2Q20		4/1/2020	NE	25.25	NA	NA	NA	406.81		0.0	*
3Q20		7/6/2020	NE	24.09	NA	NA	NA	407.97		0.0	*
4Q20		10/6/2020	NE	24.85	NA	NA	NA	407.21		0.0	*
MW 07											
1Q18	443.10	1/4/2018	NE	40.57	NA	NA	NA	402.53	400.18 - 390.18 (42.92 - 52.92)	2840	** PID data from 1/2/2018
2Q18		4/2/2018	NE	41.32	NA	NA	NA	401.78		490	*
3Q18		7/2/2018	NE	41.76	NA	NA	NA	401.34		5380	*
4Q18		10/2/2018	NE	41.72	NA	NA	NA	401.38		15000	*
1Q19		1/2/2019	NE	41.45	NA	NA	NA	401.65		2574	*
2Q19		4/1/2019	NE	41.33	NA	NA	NA	401.77		683	*
3Q19		7/1/2019	NE	36.94	NA	NA	NA	406.37		9714	*
4Q19	443.31	10/1/2019	NE	36.08	NA	NA	NA	407.23	400.39 - 390.39 (42.92 - 52.92)	3349	*
1Q20		1/2/2020	NE	37.39	NA	NA	NA	405.92		1900	*
2Q20		4/1/2020	NE	37.34	NA	NA	NA	405.97		5935	*
3Q20		7/6/2020	NE	36.07	NA	NA	NA	407.24		5498	*
4Q20		10/5/2020	NE	36.64	NA	NA	NA	406.67		6064	*

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 08											
1Q18	434.11	1/2/2018	NE	31.53	NA	NA	NA	402.58	400.51 - 390.51 (33.60 - 43.60)	87.6	-
2Q18		4/2/2018	NE	32.24	NA	NA	NA	401.87		169	-
3Q18		7/2/2018	NE	32.54	NA	NA	NA	401.57		231	-
4Q18		10/2/2018	NE	32.47	NA	NA	NA	401.64		1.4	-
1Q19		1/2/2019	NE	32.20	NA	NA	NA	401.91		0.0	-
2Q19		4/1/2019	NE	32.06	NA	NA	NA	402.05		0.0	-
3Q19	434.43	7/1/2019	NE	27.49	NA	NA	NA	406.94	400.83 - 390.83 (33.60 - 43.60)	6186	-
4Q19		10/1/2019	NE	26.85	NA	NA	NA	407.58		43.8	-
1Q20		1/2/2020	NE	28.06	NA	NA	NA	406.37		2.7	-
2Q20		4/1/2020	NE	28.02	NA	NA	NA	406.41		0.0	-
3Q20		7/6/2020	NE	26.64	NA	NA	NA	407.79		25.4	-
4Q20		10/6/2020	NE	27.49	NA	NA	NA	406.94		0.1	-
MW 09											
1Q18	445.20	1/2/2018	NE	41.08	NA	NA	NA	404.12	398.75 - 388.75 (46.45 - 56.45)	2.9	-
2Q18		4/3/2018	NE	42.12	NA	NA	NA	403.08		0.0	-
3Q18		7/2/2018	NE	42.86	NA	NA	NA	402.34		0.0	-
4Q18		10/1/2018	NE	42.91	NA	NA	NA	402.29		0.0	-
1Q19		1/3/2019	NE	42.85	NA	NA	NA	402.35		0.0	-
2Q19		4/1/2019	NE	42.90	NA	NA	NA	402.30		0.0	-
3Q19	445.28	7/1/2019	NE	39.16	NA	NA	NA	406.12	399.16 - 389.16 (46.04 - 56.04)	1.9	-
4Q19		10/1/2019	NE	37.90	NA	NA	NA	407.38		0.0	-
1Q20		1/2/2020	NE	38.61	NA	NA	NA	406.67		0.0	-
2Q20		4/1/2020	NE	38.52	NA	NA	NA	406.76		0.0	-
3Q20		7/6/2020	NE	37.26	NA	NA	NA	408.02		0.0	-
4Q20		10/5/2020	NE	37.48	NA	NA	NA	407.80		0.0	-
MW 10											
1Q18	445.03	1/2/2018	NE	40.94	NA	NA	NA	404.09	398.75 - 388.75 (44.43 - 54.43)	6.9	-
2Q18		4/2/2018	NE	42.10	NA	NA	NA	402.93		0.0	-
3Q18		7/2/2018	NE	42.94	NA	NA	NA	402.09		0.0	-
4Q18		10/2/2018	NE	43.08	NA	NA	NA	401.95		0.0	-
1Q19		1/2/2019	NE	43.02	NA	NA	NA	402.01		0.0	-
2Q19		4/1/2019	NE	43.20	NA	NA	NA	401.83		5.3	-
3Q19	445.06	7/1/2019	NE	39.75	NA	NA	NA	405.31	400.63 - 390.63 (44.43 - 54.43)	0.0	-
4Q19		10/1/2019	NE	38.24	NA	NA	NA	406.82		0.0	-
1Q20		1/2/2020	NE	38.79	NA	NA	NA	406.27		0.0	-
2Q20		4/1/2020	NE	38.54	NA	NA	NA	406.52		0.0	-
3Q20		7/6/2020	NE	37.17	NA	NA	NA	407.89		0.0	-
4Q20		10/5/2020	NE	37.33	NA	NA	NA	407.73		0.0	-
MW 11											
1Q18	442.33	1/2/2018	NE	38.93	NA	NA	NA	403.40	400.67 - 390.67 (41.66 - 51.66)	0.6	-
2Q18		4/2/2018	NE	39.93	NA	NA	NA	402.40		0.0	-
3Q18		7/2/2018	NE	40.59	NA	NA	NA	401.74		0.0	-
4Q18		10/1/2018	NE	40.58	NA	NA	NA	401.75		0.0	-
1Q19		1/3/2019	NE	40.46	NA	NA	NA	401.87		0.0	-
2Q19		4/1/2019	NE	40.47	NA	NA	NA	401.86		0.0	-
3Q19	442.38	7/1/2019	NE	36.33	NA	NA	NA	406.05	400.72 - 390.72 (41.66 - 51.66)	0.0	-
4Q19		10/1/2019	NE	35.20	NA	NA	NA	407.18		0.0	-
1Q20		1/2/2020	NE	36.20	NA	NA	NA	406.18		0.0	-
2Q20		4/1/2020	NE	35.98	NA	NA	NA	406.40		0.0	-
3Q20		7/6/2020	NE	34.85	NA	NA	NA	407.53		0.0	-
4Q20		10/5/2020	NE	35.12	NA	NA	NA	407.26		0.0	-
MW 12											
1Q18	442.60	1/2/2018	NE	39.55	NA	NA	NA	403.05	400.68 - 390.68 (41.92 - 51.92)	0.8	-
2Q18		4/3/2018	NE	40.38	NA	NA	NA	402.22		0.0	-
3Q18		7/2/2018	NE	41.00	NA	NA	NA	401.60		0.0	-
4Q18		10/1/2018	NE	40.94	NA	NA	NA	401.66		0.0	-
1Q19		1/2/2019	NE	40.70	NA	NA	NA	401.90		0.0	-
2Q19		4/1/2019	NE	40.72	NA	NA	NA	401.88		0.0	-
3Q19	442.64	7/1/2019	NE	36.32	NA	NA	NA	406.32	400.72 - 390.72 (41.92 - 51.92)	0.0	-
4Q19		10/1/2019	NE	35.39	NA	NA	NA	407.25		0.0	-
1Q20		1/2/2020	NE	36.56	NA	NA	NA	406.08		0.0	-
2Q20		4/1/2020	NE	36.38	NA	NA	NA	406.26		0.1	-
3Q20		7/6/2020	NE	35.23	NA	NA	NA	407.41		0.0	-
4Q20		10/6/2020	NE	35.68	NA	NA	NA	406.96		0.0	-

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 13											
1Q18	430.27	1/3/2018	NE	26.97	NA	NA	NA	403.30	404.70 - 394.70 (25.57 - 35.57) 405.47 - 395.47 (24.80 - 34.80)	65.2	
2Q18		4/4/2018	NE	27.92	NA	NA	NA	402.35		0.0	
3Q18		7/3/2018	NE	27.67	NA	NA	NA	402.60		0.0	
4Q18		10/2/2018	NE	27.56	NA	NA	NA	402.71		4398	
1Q19		1/3/2019	NE	27.27	NA	NA	NA	403.00		231	
2Q19		4/3/2019	NE	27.03	NA	NA	NA	403.24		3.0	
3Q19	430.30	7/1/2019	NE	21.84	NA	NA	NA	408.46	405.50 - 395.50 (24.80 - 34.80)	81.1	*
4Q19		10/2/2019	NE	21.90	NA	NA	NA	408.40		0.4	*
1Q20		1/3/2020	NE	23.29	NA	NA	NA	407.01		0.0	*
2Q20		4/3/2020	NE	23.02	NA	NA	NA	407.28		0.0	*
3Q20		7/7/2020	NE	21.85	NA	NA	NA	408.45		0.9	*
4Q20		10/6/2020	NE	22.96	NA	NA	NA	407.34		0.0	*
MW 14											
1Q18	434.44	1/4/2018	NE	31.23	NA	NA	NA	403.21	401.02 - 391.02 (33.42 - 43.42)	45.2	*
2Q18		4/4/2018	NE	32.17	NA	NA	NA	402.27		40.7	*
3Q18		7/2/2018	NE	32.19	NA	NA	NA	402.25		82.8	*
4Q18		10/3/2018	NE	32.07	NA	NA	NA	402.37		12.0	*
1Q19		1/4/2019	NE	31.78	NA	NA	NA	402.66		73.4	*
2Q19		4/2/2019	NE	31.52	NA	NA	NA	402.92		400	*
3Q19	434.61	7/2/2019	NE	27.22	NA	NA	NA	407.39	401.19 - 391.19 (33.42 - 43.42)	596	*
4Q19		10/2/2019	NE	26.64	NA	NA	NA	407.97		49.8	*
1Q20		1/3/2020	NE	27.98	NA	NA	NA	406.63		69.9	*
2Q20		4/3/2020	NE	27.66	NA	NA	NA	406.95		75.1	*
3Q20		7/13/2020	NE	26.52	NA	NA	NA	408.09		38.2	*
4Q20		10/7/2020	NE	27.29	NA	NA	NA	407.32		53.4	*
MW 16											
1Q18	443.39	1/2/2018	NE	40.68	NA	NA	NA	402.71	406.33 - 396.33 (37.06 - 47.06)	0.8	
2Q18		4/3/2018	NE	41.42	NA	NA	NA	401.97		0.0	
3Q18		7/2/2018	NE	42.33	NA	NA	NA	401.06		0.0	
4Q18		10/1/2018	NE	42.27	NA	NA	NA	401.12		0.0	
1Q19		1/11/2019	NE	42.10	NA	NA	NA	401.29		0.0	
2Q19		4/1/2019	NE	42.11	NA	NA	NA	401.28		0.0	
3Q19	443.60	7/2/2019	NE	37.87	NA	NA	NA	405.73	406.10 - 396.10 (37.50 - 47.50)	0.0	
4Q19		10/1/2019	NE	36.74	NA	NA	NA	406.86		0.0	*
1Q20		1/2/2020	NE	37.94	NA	NA	NA	405.66		0.0	
2Q20		4/13/2020	NE	37.64	NA	NA	NA	405.96		0.0	
3Q20		7/6/2020	NE	36.56	NA	NA	NA	407.04		0.0	*
4Q20		10/6/2020	NE	36.78	NA	NA	NA	406.82		0.0	*
MW 17											
1Q18	441.57	1/3/2018	NE	38.79	NA	NA	NA	402.78	407.28 - 392.28 (34.29 - 49.29)	362	PID data from 1/2/2018
2Q18		4/2/2018	NE	39.67	NA	NA	NA	401.90		0.0	
3Q18		7/2/2018	NE	40.82	NA	NA	NA	400.75		0.0	
4Q18		10/1/2018	NE	40.78	NA	NA	NA	400.79		0.0	
1Q19		1/3/2019	NE	40.54	NA	NA	NA	401.03		0.0	
2Q19		4/1/2019	NE	40.63	NA	NA	NA	400.94		0.0	
3Q19	441.78	7/1/2019	NE	36.88	NA	NA	NA	404.90	407.49 - 392.49 (34.29 - 49.29)	0.0	
4Q19		10/1/2019	NE	35.40	NA	NA	NA	406.38		0.0	
1Q20		1/2/2020	NE	36.67	NA	NA	NA	405.11		157	
2Q20		4/1/2020	NE	35.82	NA	NA	NA	405.96		0.0	
3Q20		7/6/2020	NE	35.08	NA	NA	NA	406.70		0.0	
4Q20		10/5/2020	NE	35.04	NA	NA	NA	406.74		79.4	
MW 18											
1Q18	442.04	1/2/2018	NE	39.73	NA	NA	NA	402.31	407.12 - 392.12 (34.92 - 49.92)	3.2	
2Q18		4/2/2018	NE	40.34	NA	NA	NA	401.70		0.0	
3Q18		7/2/2018	NE	41.47	NA	NA	NA	400.57		0.0	
4Q18		10/1/2018	NE	41.43	NA	NA	NA	400.61		0.0	
1Q19		1/2/2019	NE	41.13	NA	NA	NA	400.91		0.0	
2Q19		4/1/2019	NE	41.29	NA	NA	NA	400.75		0.0	
3Q19	442.24	7/1/2019	NE	37.30	NA	NA	NA	404.94	407.32 - 392.32 (34.92 - 49.92)	0.0	
4Q19		10/2/2019	NE	35.86	NA	NA	NA	406.38		0.0	
1Q20		1/2/2020	NE	37.29	NA	NA	NA	404.95		0.0	
2Q20		4/1/2020	NE	36.38	NA	NA	NA	405.86		0.0	
3Q20		7/6/2020	NE	35.71	NA	NA	NA	406.53		0.0	
4Q20		10/5/2020	NE	35.80	NA	NA	NA	406.44		0.0	

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 19											
1Q18	442.77	1/4/2018	NE	40.32	NA	NA	NA	402.45	406.43 - 391.43 (36.34 - 51.34)	43.8	PID data from 1/2/2018
2Q18		4/3/2018	NE	40.90	NA	NA	NA	401.87		0.0	
3Q18		7/2/2018	NE	42.08	NA	NA	NA	400.69		0.0	
4Q18		10/1/2018	NE	42.04	NA	NA	NA	400.73		0.1	
1Q19		1/2/2019	NE	41.76	NA	NA	NA	401.01		0.0	
2Q19		4/1/2019	NE	41.92	NA	NA	NA	400.85		0.0	
3Q19	442.98	7/1/2019	NE	37.88	NA	NA	NA	405.10	406.64 - 391.64 (36.34 - 51.34)	0.0	
4Q19		10/2/2019	NE	36.49	NA	NA	NA	406.49		22.5	
1Q20		1/2/2020	NE	37.83	NA	NA	NA	405.15		0.0	
2Q20		4/1/2020	NE	37.20	NA	NA	NA	405.78		0.0	
3Q20		7/6/2020	NE	36.34	NA	NA	NA	406.64		79.9	
4Q20		10/5/2020	NE	36.41	NA	NA	NA	406.57		88.8	
MW 20											
1Q18	443.67	1/3/2018	NE	41.03	NA	NA	NA	402.64	407.79 - 392.79 (35.88 - 50.88)	27.0	PID data from 1/2/2018
2Q18		4/3/2018	NE	41.76	NA	NA	NA	401.91		0.0	
3Q18		7/2/2018	NE	42.88	NA	NA	NA	400.79		0.0	
4Q18		10/2/2018	NE	42.77	NA	NA	NA	400.90		0.0	
1Q19		1/2/2019	NE	42.55	NA	NA	NA	401.12		0.0	
2Q19		4/1/2019	NE	42.62	NA	NA	NA	401.05		0.0	
3Q19	443.86	7/1/2019	NE	38.56	NA	NA	NA	405.30	407.98 - 392.98 (35.88 - 50.88)	0.0	
4Q19		10/2/2019	NE	37.22	NA	NA	NA	406.64		0.0	
1Q20		1/2/2020	NE	38.49	NA	NA	NA	405.37		0.0	
2Q20		4/1/2020	NE	38.14	NA	NA	NA	405.72		0.0	
3Q20		7/6/2020	NE	37.10	NA	NA	NA	406.76		0.0	
4Q20		10/5/2020	NE	37.31	NA	NA	NA	406.55		228	
MW 21											
1Q18	443.81	1/2/2018	NE	41.44	NA	NA	NA	402.37	408.80 - 393.80 (35.01 - 50.01)	2.0	
2Q18		4/3/2018	NE	41.98	NA	NA	NA	401.83		0.1	
3Q18		7/2/2018	NE	42.74	NA	NA	NA	401.07		0.0	
4Q18		10/2/2018	NE	42.70	NA	NA	NA	401.11		8.7	
1Q19		1/2/2019	NE	42.42	NA	NA	NA	401.39		0.0	
2Q19		4/1/2019	NE	42.39	NA	NA	NA	401.42		0.0	
3Q19	444.01	7/1/2019	NE	38.11	NA	NA	NA	405.90	409.00 - 394.00 (35.01 - 50.01)	0.6	
4Q19		10/1/2019	NE	37.05	NA	NA	NA	406.96		0.0	
1Q20		1/2/2020	NE	38.39	NA	NA	NA	405.62		0.0	
2Q20		4/1/2020	NE	38.25	NA	NA	NA	405.76		0.0	
3Q20		7/6/2020	NE	37.03	NA	NA	NA	406.98		0.0	
4Q20		10/5/2020	NE	37.47	NA	NA	NA	406.54		1.1	
MW 22											
1Q18	442.16	1/3/2018	NE	39.14	NA	NA	NA	403.02	404.28 - 394.28 (37.88 - 47.88)	10.1	PID data from 1/2/2018
2Q18		4/3/2018	NE	40.01	NA	NA	NA	402.15		0.0	
3Q18		7/2/2018	NE	41.00	NA	NA	NA	401.16		0.0	
4Q18		10/2/2018	NE	40.96	NA	NA	NA	401.20		0.0	
1Q19		1/9/2019	NE	40.91	NA	NA	NA	401.25		0.0	
2Q19		4/2/2019	NE	40.79	NA	NA	NA	401.37		0.0	
3Q19	442.38	7/1/2019	NM	NM	NA	NA	NA	NA	403.95 - 393.95 (38.43 - 48.43)	NM	Unable to access
4Q19		10/2/2019	NE	35.50	NA	NA	NA	406.88		0.0	*
1Q20		1/2/2020	NE	36.84	NA	NA	NA	405.54		0.0	*
2Q20		4/1/2020	NE	36.22	NA	NA	NA	406.16		0.0	*
3Q20		7/7/2020	NE	35.25	NA	NA	NA	407.13		0.1	*
4Q20		10/6/2020	NE	35.39	NA	NA	NA	406.99		0.0	*
MW 23											
1Q18	431.41	1/2/2018	NE	28.34	NA	NA	NA	403.07	402.39 - 392.39 (29.02 - 39.02)	0.6	-
2Q18		4/2/2018	NE	29.20	NA	NA	NA	402.21		36.4	
3Q18		7/2/2018	NE	29.19	NA	NA	NA	402.22		0.0	
4Q18		10/1/2018	NE	29.08	NA	NA	NA	402.33		0.0	
1Q19		1/3/2019	NE	28.81	NA	NA	NA	402.60		0.0	*
2Q19		4/2/2019	NE	28.49	NA	NA	NA	402.92		0.0	*
3Q19	431.57	7/1/2019	NE	23.34	NA	NA	NA	408.23	402.55 - 392.55 (29.02 - 39.02)	1.2	*
4Q19		10/1/2019	NE	23.30	NA	NA	NA	408.27		0.1	*
1Q20		1/2/2020	NE	24.54	NA	NA	NA	407.03		0.0	*
2Q20		4/1/2020	NE	24.54	NA	NA	NA	407.03		0.1	*
3Q20		7/6/2020	NE	23.32	NA	NA	NA	408.25		0.0	*
4Q20		10/6/2020	NE	24.46	NA	NA	NA	407.11		0.2	*

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 24											
1Q18	443.42	1/3/2018	NE	40.22	NA	NA	NA	403.20	404.53 - 394.53 (36.89 - 48.89) 403.81 - 393.81 (39.61 - 49.61)	0.5	PID data from 1/2/2018
2Q18		4/3/2018	NE	41.17	NA	NA	NA	402.25		0.2	
3Q18		7/2/2018	NE	41.86	NA	NA	NA	401.56		0.0	
4Q18		10/1/2018	NE	41.83	NA	NA	NA	401.59		1.8	
1Q19		1/2/2019	NE	41.63	NA	NA	NA	401.79		0.0	
2Q19		4/1/2019	NE	41.70	NA	NA	NA	401.72		0.0	
3Q19	443.65	7/1/2019	NE	37.42	NA	NA	NA	406.23	404.04 - 394.04 (39.61 - 49.61)	0.0	*
4Q19		10/1/2019	NE	36.40	NA	NA	NA	407.25		0.0	*
1Q20		1/2/2020	NE	37.42	NA	NA	NA	406.23		0.0	*
2Q20		4/1/2020	NE	37.26	NA	NA	NA	406.39		0.0	*
3Q20		7/6/2020	NE	36.11	NA	NA	NA	407.54		0.0	*
4Q20		10/6/2020	NE	36.46	NA	NA	NA	407.19		0.0	*
MW 25											
1Q18	438.35	1/3/2018	NE	35.51	NA	NA	NA	402.84	402.76 - 392.76 (35.59 - 45.59)	69.2	*
2Q18		4/2/2018	NE	36.44	NA	NA	NA	401.91		110	
3Q18		7/2/2018	NE	36.82	NA	NA	NA	401.53		0.5	
4Q18		10/2/2018	NE	36.75	NA	NA	NA	401.60		3.9	
1Q19		1/2/2019	NE	36.47	NA	NA	NA	401.88		44.7	
2Q19		4/1/2019	NE	36.36	NA	NA	NA	401.99		150	
3Q19	438.53	7/1/2019	NE	31.85	NA	NA	NA	406.68	402.94 - 392.94 (35.59 - 45.59)	32.8	*
4Q19		10/1/2019	NE	31.08	NA	NA	NA	407.45		76.5	*
1Q20		1/2/2020	NE	32.35	NA	NA	NA	406.18		99.5	*
2Q20		4/1/2020	NE	32.26	NA	NA	NA	406.27		103	*
3Q20		7/6/2020	NE	31.09	NA	NA	NA	407.44		103	*
4Q20		10/6/2020	NE	31.68	NA	NA	NA	406.85		81.5	*
MW 26											
1Q18	441.02	1/2/2018	NE	38.33	NA	NA	NA	402.69	402.87 - 392.87 (38.15 - 48.15)	5.0	
2Q18		4/4/2018	NE	39.35	NA	NA	NA	401.67		0.0	
3Q18		7/2/2018	NE	39.71	NA	NA	NA	401.31		0.2	
4Q18		10/1/2018	NE	39.60	NA	NA	NA	401.42		0.0	
1Q19		1/2/2019	NE	39.38	NA	NA	NA	401.64		0.0	
2Q19		4/1/2019	NE	39.30	NA	NA	NA	401.72		0.0	
3Q19	441.23	7/1/2019	NE	34.94	NA	NA	NA	406.29	403.08 - 393.08 (38.15 - 48.15)	0.0	*
4Q19		10/1/2019	NE	33.99	NA	NA	NA	407.24		0.0	*
1Q20		1/2/2020	NE	35.24	NA	NA	NA	405.99		0.0	*
2Q20		4/3/2020	NE	35.16	NA	NA	NA	406.07		0.0	*
3Q20		7/6/2020	NE	33.93	NA	NA	NA	407.30		0.0	*
4Q20		10/6/2020	NE	34.40	NA	NA	NA	406.83		0.0	*
MW 27											
1Q18	443.40	1/2/2018	NE	38.78	NA	NA	NA	404.62	403.61 - 393.61 (39.79 - 49.79)	1.7	*
2Q18		4/3/2018	NE	40.19	NA	NA	NA	403.21		0.0	
3Q18		7/2/2018	NE	41.16	NA	NA	NA	402.24		0.0	
4Q18		10/1/2018	NE	41.11	NA	NA	NA	402.29		0.0	
1Q19		1/3/2019	NE	40.99	NA	NA	NA	402.41		0.0	
2Q19		4/1/2019	NE	41.26	NA	NA	NA	402.14		0.0	
3Q19	443.60	7/1/2019	NE	38.03	NA	NA	NA	405.57	403.81 - 393.81 (39.79 - 49.79)	0.0	*
4Q19		10/1/2019	NE	36.00	NA	NA	NA	407.60		0.0	*
1Q20		1/2/2020	NE	36.80	NA	NA	NA	406.80		0.0	*
2Q20		4/1/2020	NE	36.82	NA	NA	NA	406.78		0.0	*
3Q20		7/6/2020	NE	35.62	NA	NA	NA	407.98		0.0	*
4Q20		10/5/2020	NE	35.45	NA	NA	NA	408.15		0.0	*
MW 28											
1Q18	443.34	1/2/2018	NE	37.96	NA	NA	NA	405.38	409.73 - 399.73 (33.61 - 43.61)	0.9	
2Q18		4/3/2018	NE	39.39	NA	NA	NA	403.95		0.0	
3Q18		7/2/2018	NE	40.14	NA	NA	NA	403.20		0.0	
4Q18		10/1/2018	NE	40.18	NA	NA	NA	403.16		0.0	
1Q19		1/3/2019	NE	40.20	NA	NA	NA	403.14		0.0	
2Q19		4/1/2019	NE	40.46	NA	NA	NA	402.88		0.0	
3Q19	443.55	7/1/2019	NE	37.56	NA	NA	NA	405.99	409.94 - 399.94 (33.61 - 43.61)	0.0	
4Q19		10/1/2019	NE	35.72	NA	NA	NA	407.83		0.0	
1Q20		1/2/2020	NE	36.11	NA	NA	NA	407.44		0.0	
2Q20		4/1/2020	NE	36.24	NA	NA	NA	407.31		0.0	
3Q20		7/6/2020	NE	35.19	NA	NA	NA	408.36		0.0	
4Q20		10/5/2020	NE	34.96	NA	NA	NA	408.59		2.1	

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.)	WELL HEAD PID (ppm)	Comments
P 01											
1Q18	442.73	1/4/2018	NE	30.05	NA	NA	NA	412.68	380.78 - 375.78 (61.95 - 66.95) 380.51 - 375.51 (62.22 - 67.22)	0.0	-
2Q18		4/4/2018	NE	30.60	NA	NA	NA	412.13		0.0	-
3Q18		7/3/2018	NE	31.03	NA	NA	NA	411.70		0.0	-
4Q18		10/3/2018	NE	31.93	NA	NA	NA	410.80		0.1	-
1Q19		1/3/2019	NE	33.27	NA	NA	NA	409.46		0.0	-
2Q19		4/3/2019	NE	32.24	NA	NA	NA	410.49		0.0	-
3Q19	442.98	7/2/2019	NE	29.96	NA	NA	NA	413.02	380.76 - 375.76 (62.22 - 67.22)	0.0	-
4Q19		10/2/2019	NE	29.51	NA	NA	NA	413.47		0.0	-
1Q20		1/3/2020	NE	29.63	NA	NA	NA	413.35		0.0	-
2Q20		4/1/2020	NE	27.85	NA	NA	NA	415.13		0.0	-
3Q20		7/8/2020	NE	26.47	NA	NA	NA	416.51		0.0	-
4Q20		10/7/2020	NE	26.62	NA	NA	NA	416.36		0.1	-
P 4U											
1Q18	442.54	1/4/2018	NE	31.25	NA	NA	NA	411.29	361.39 - 359.39 (81.15 - 83.15)	0.0	-
2Q18		4/4/2018	NE	32.40	NA	NA	NA	410.14		0.0	-
3Q18		7/3/2018	NE	32.61	NA	NA	NA	409.93		0.0	-
4Q18		10/3/2018	NE	33.25	NA	NA	NA	409.29		0.0	-
1Q19		1/4/2019	NE	34.45	NA	NA	NA	408.09		0.0	-
2Q19		4/3/2019	NE	34.06	NA	NA	NA	408.48		0.0	-
3Q19	442.74	7/2/2019	NE	31.80	NA	NA	NA	410.94	361.59 - 359.59 (81.15 - 83.15)	0.0	-
4Q19		10/2/2019	NE	31.10	NA	NA	NA	411.64		0.0	-
1Q20		1/3/2020	NE	31.11	NA	NA	NA	411.63		0.0	-
2Q20		4/1/2020	NE	29.40	NA	NA	NA	413.34		0.0	-
3Q20		7/8/2020	NE	27.92	NA	NA	NA	414.82		0.0	-
4Q20		10/7/2020	NE	27.62	NA	NA	NA	415.12		0.0	-
P 5L											
1Q18	443.84	1/3/2018	NE	31.43	NA	NA	NA	412.41	303.44 - 301.44 (140.40 - 142.40)	0.0	-
2Q18		4/3/2018	NE	31.85	NA	NA	NA	411.99		0.0	-
3Q18		7/3/2018	NE	32.59	NA	NA	NA	411.25		0.0	-
4Q18		10/3/2018	NE	33.59	NA	NA	NA	410.25		0.0	-
1Q19		1/4/2019	NE	34.93	NA	NA	NA	408.91		0.0	-
2Q19		4/3/2019	NE	34.05	NA	NA	NA	409.79		0.0	-
3Q19	444.01	7/2/2019	NE	31.10	NA	NA	NA	412.91	303.61 - 301.61 (140.40 - 142.40)	0.0	-
4Q19		10/2/2019	NE	30.98	NA	NA	NA	413.03		0.0	-
1Q20		1/3/2020	NE	31.18	NA	NA	NA	412.83		0.0	-
2Q20		4/1/2020	NE	29.25	NA	NA	NA	414.76		0.0	-
3Q20		7/8/2020	NE	27.62	NA	NA	NA	416.39		0.0	-
4Q20		10/7/2020	NE	27.73	NA	NA	NA	416.28		0.0	-
P 5U											
1Q18	444.24	1/3/2018	NE	32.44	NA	NA	NA	411.80	313.61 - 311.61 (130.63 - 132.63)	0.1	-
2Q18		4/3/2018	NE	33.14	NA	NA	NA	411.10		0.0	-
3Q18		7/3/2018	NE	33.86	NA	NA	NA	410.38		0.0	-
4Q18		10/3/2018	NE	34.77	NA	NA	NA	409.47		0.0	-
1Q19		1/4/2019	NE	36.21	NA	NA	NA	408.03		0.0	-
2Q19		4/3/2019	NE	35.29	NA	NA	NA	408.95		0.0	-
3Q19	444.42	7/2/2019	NE	33.08	NA	NA	NA	411.34	313.79 - 311.79 (130.63 - 132.63)	0.0	-
4Q19		10/2/2019	NE	32.31	NA	NA	NA	412.11		0.0	-
1Q20		1/3/2020	NE	32.29	NA	NA	NA	412.13		0.0	-
2Q20		4/1/2020	NE	30.38	NA	NA	NA	414.04		0.0	-
3Q20		7/8/2020	NE	28.96	NA	NA	NA	415.46		0.0	-
4Q20		10/7/2020	NE	28.93	NA	NA	NA	415.49		0.0	-
P 6U											
1Q18	443.45	1/4/2018	NE	32.14	NA	NA	NA	411.31	362.95 - 360.95 (80.50 - 82.50)	0.0	-
2Q18		4/3/2018	NE	32.69	NA	NA	NA	410.76		0.0	-
3Q18		7/3/2018	NE	33.39	NA	NA	NA	410.06		0.0	-
4Q18		10/3/2018	NE	34.06	NA	NA	NA	409.39		0.0	-
1Q19		1/4/2019	NE	35.37	NA	NA	NA	408.08		0.0	-
2Q19		4/3/2019	NE	35.00	NA	NA	NA	408.45		0.0	-
3Q19	443.63	7/2/2019	NE	32.51	NA	NA	NA	411.12	363.13 - 361.13 (80.50 - 82.50)	0.0	-
4Q19		10/2/2019	NE	31.92	NA	NA	NA	411.71		0.0	-
1Q20		1/3/2020	NE	32.04	NA	NA	NA	411.59		0.0	-
2Q20		4/1/2020	NE	30.20	NA	NA	NA	413.43		0.0	-
3Q20		7/8/2020	NE	28.66	NA	NA	NA	414.97		0.0	-
4Q20		10/7/2020	NE	28.38	NA	NA	NA	415.25		0.0	-

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 7U											
1Q18	443.91	1/3/2018	NE	32.38	NA	NA	NA	411.53	382.83 - 380.83 (61.08 - 63.08)	0.0	-
2Q18		4/3/2018	NE	33.01	NA	NA	NA	410.90		0.0	-
3Q18		7/3/2018	NE	33.65	NA	NA	NA	410.26		0.0	-
4Q18		10/3/2018	NE	34.39	NA	NA	NA	409.52		0.0	-
1Q19		1/4/2019	NE	35.76	NA	NA	NA	408.15		0.0	-
2Q19		4/3/2019	NE	35.25	NA	NA	NA	408.66		0.0	-
3Q19	444.08	7/2/2019	NE	32.68	NA	NA	NA	411.40	383.00 - 381.00 (61.08 - 63.08)	0.0	-
4Q19		10/2/2019	NE	32.15	NA	NA	NA	411.93		0.0	-
1Q20		1/3/2020	NE	32.34	NA	NA	NA	411.74		0.0	-
2Q20		4/1/2020	NE	30.45	NA	NA	NA	413.63		0.0	-
3Q20		7/8/2020	NE	28.87	NA	NA	NA	415.21		0.0	-
4Q20		10/7/2020	NE	28.73	NA	NA	NA	415.35		0.1	-
P 8U											
1Q18	441.85	1/4/2018	NE	32.20	NA	NA	NA	409.65	382.33 - 380.33 (59.52 - 61.52)	83.5	-
2Q18		4/3/2018	NE	33.13	NA	NA	NA	408.72		0.0	-
3Q18		7/3/2018	NE	33.88	NA	NA	NA	407.97		0.0	-
4Q18		10/2/2018	NE	34.39	NA	NA	NA	407.46		0.0	-
1Q19		1/3/2019	NE	35.60	NA	NA	NA	406.25		0.0	-
2Q19		4/2/2019	NE	35.24	NA	NA	NA	406.61		0.0	-
3Q19	442.07	7/2/2019	NE	33.51	NA	NA	NA	408.56	381.94 - 379.94 (60.13 - 62.13)	0.0	-
4Q19		10/2/2019	NE	32.58	NA	NA	NA	409.49		0.0	-
1Q20		1/3/2020	NE	31.32	NA	NA	NA	410.75		0.0	-
2Q20		4/1/2020	NE	30.70	NA	NA	NA	411.37		0.0	-
3Q20		7/7/2020	NE	29.17	NA	NA	NA	412.90		0.0	-
4Q20		10/7/2020	NE	28.54	NA	NA	NA	413.53		0.0	-
P 9U											
1Q18	445.04	1/4/2018	NE	36.60	NA	NA	NA	408.44	344.45 - 342.45 (100.59 - 102.59)	40.5	-
2Q18		4/4/2018	NM	NM	NA	NA	NA	NA		NM	Unsafe condition at well - Unable to access
3Q18		7/3/2018	NE	38.51	NA	NA	NA	406.53		0.0	-
4Q18		10/2/2018	NE	39.11	NA	NA	NA	405.93		0.0	-
1Q19		1/3/2019	NE	40.12	NA	NA	NA	404.92		0.0	-
2Q19		4/2/2019	NE	40.14	NA	NA	NA	404.90		0.0	-
3Q19	445.20	7/2/2019	NE	38.31	NA	NA	NA	406.89	344.61 - 342.61 (100.59 - 102.59)	0.0	-
4Q19		10/2/2019	NE	41.75	NA	NA	NA	403.45		0.0	-
1Q20		1/2/2020	NE	36.80	NA	NA	NA	408.40		0.0	-
2Q20		4/1/2020	NE	35.40	NA	NA	NA	409.80		0.0	-
3Q20		7/7/2020	NE	33.75	NA	NA	NA	411.45		0.2	-
4Q20		10/6/2020	NE	33.13	NA	NA	NA	412.07		0.0	-
P 11L											
1Q18	442.55	1/4/2018	NE	32.83	NA	NA	NA	409.72	332.34 - 330.34 (110.21 - 112.21)	0.0	-
2Q18		4/3/2018	NE	33.92	NA	NA	NA	408.63		0.0	-
3Q18		7/3/2018	NE	34.66	NA	NA	NA	407.89		0.0	-
4Q18		10/2/2018	NE	35.08	NA	NA	NA	407.47		0.0	-
1Q19		1/4/2019	NE	36.07	NA	NA	NA	406.48		0.0	-
2Q19		4/3/2019	NE	36.07	NA	NA	NA	406.48		0.0	-
3Q19	442.76	7/2/2019	NE	34.80	NA	NA	NA	407.96	332.55 - 330.55 (110.21 - 112.21)	0.0	-
4Q19		10/2/2019	NE	33.20	NA	NA	NA	409.56		0.0	-
1Q20		1/3/2020	NE	32.86	NA	NA	NA	409.90		0.0	-
2Q20		4/2/2020	NE	31.37	NA	NA	NA	411.39		0.0	-
3Q20		7/8/2020	NE	29.91	NA	NA	NA	412.85		0.0	-
4Q20		10/7/2020	NE	29.32	NA	NA	NA	413.44		0.0	-
P 11U											
1Q18	443.17	1/4/2018	NE	33.45	NA	NA	NA	409.72	343.25 - 341.25 (99.92 - 101.92)	3.8	-
2Q18		4/3/2018	NE	34.50	NA	NA	NA	408.67		0.0	-
3Q18		7/3/2018	NE	35.25	NA	NA	NA	407.92		0.0	-
4Q18		10/2/2018	NE	35.68	NA	NA	NA	407.49		0.0	-
1Q19		1/4/2019	NE	36.73	NA	NA	NA	406.44		0.0	-
2Q19		4/3/2019	NE	36.67	NA	NA	NA	406.50		0.0	-
3Q19	443.38	7/2/2019	NE	34.94	NA	NA	NA	408.44	343.46 - 341.46 (99.92 - 101.92)	0.0	-
4Q19		10/2/2019	NE	33.80	NA	NA	NA	409.58		0.0	-
1Q20		1/3/2020	NE	33.49	NA	NA	NA	409.89		0.0	-
2Q20		4/2/2020	NE	31.98	NA	NA	NA	411.40		0.0	-
3Q20		7/8/2020	NE	30.52	NA	NA	NA	412.86		0.0	-
4Q20		10/7/2020	NE	29.89	NA	NA	NA	413.49		0.0	-

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.)	WELL HEAD PID (ppm)	Comments
P 14											
1Q18	442.74	1/4/2018	NE	30.12	NA	NA	NA	412.62	395.41 - 385.41 (47.33 - 57.33)	0.0	-
2Q18		4/4/2018	NE	30.69	NA	NA	NA	412.05		0.0	-
3Q18		7/3/2018	NE	31.10	NA	NA	NA	411.64		0.0	-
4Q18		10/3/2018	NE	32.01	NA	NA	NA	410.73		0.0	-
1Q19		1/3/2019	NE	33.34	NA	NA	NA	409.40		0.0	-
2Q19		4/3/2019	NE	32.33	NA	NA	NA	410.41		0.0	-
3Q19	443.01	7/2/2019	NE	30.05	NA	NA	NA	412.96	395.54 - 385.54 (47.47 - 57.47)	0.0	-
4Q19		10/2/2019	NE	29.59	NA	NA	NA	413.42		0.0	-
1Q20		1/3/2020	NE	29.71	NA	NA	NA	413.30		0.0	-
2Q20		4/1/2020	NE	27.95	NA	NA	NA	415.06		0.0	-
3Q20		7/8/2020	NE	26.56	NA	NA	NA	416.45		0.0	-
4Q20		10/7/2020	NE	26.70	NA	NA	NA	416.31		0.0	-
P 15											
1Q18	443.69	1/4/2018	NE	31.93	NA	NA	NA	411.76	398.24 - 388.24 (45.45 - 55.45)	0.0	-
2Q18		4/4/2018	NE	33.19	NA	NA	NA	410.50		0.0	-
3Q18		7/3/2018	NE	33.28	NA	NA	NA	410.41		0.0	-
4Q18		10/3/2018	NE	33.86	NA	NA	NA	409.83		0.0	-
1Q19		1/4/2019	NE	35.10	NA	NA	NA	408.59		0.0	-
2Q19		4/3/2019	NE	34.75	NA	NA	NA	408.94		0.0	-
3Q19	443.88	7/2/2019	NE	32.11	NA	NA	NA	411.77	398.43 - 388.43 (45.45 - 55.45)	0.0	-
4Q19		10/2/2019	NE	31.70	NA	NA	NA	412.18		0.0	-
1Q20		1/3/2020	NE	31.80	NA	NA	NA	412.08		0.0	-
2Q20		4/1/2020	NE	30.10	NA	NA	NA	413.78		0.0	-
3Q20		7/8/2020	NE	28.61	NA	NA	NA	415.27		0.0	-
4Q20		10/7/2020	NE	28.30	NA	NA	NA	415.58		0.1	-
P 16											
1Q18	442.68	1/4/2018	NE	31.07	NA	NA	NA	411.61	396.94 - 386.94 (45.74 - 55.74)	0.0	-
2Q18		4/3/2018	NE	31.66	NA	NA	NA	411.02		0.0	-
3Q18		7/3/2018	NE	32.29	NA	NA	NA	410.39		0.0	-
4Q18		10/3/2018	NE	32.99	NA	NA	NA	409.69		0.0	-
1Q19		1/4/2019	NE	34.28	NA	NA	NA	408.40		0.0	-
2Q19		4/3/2019	NE	33.88	NA	NA	NA	408.80		0.0	-
3Q19	442.84	7/2/2019	NE	31.11	NA	NA	NA	411.73	397.10 - 387.10 (45.74 - 55.74)	0.0	-
4Q19		10/2/2019	NE	30.76	NA	NA	NA	412.08		0.0	-
1Q20		1/3/2020	NE	30.91	NA	NA	NA	411.93		0.0	-
2Q20		4/1/2020	NE	29.05	NA	NA	NA	413.79		0.0	-
3Q20		7/8/2020	NE	27.57	NA	NA	NA	415.27		0.0	-
4Q20		10/7/2020	NE	27.32	NA	NA	NA	415.52		0.0	-
P 43											
1Q18	444.44	1/4/2018	NE	34.34	NA	NA	NA	410.10	380.88 - 370.88 (63.56 - 73.56)	0.0	-
2Q18		4/3/2018	NE	35.37	NA	NA	NA	409.07		0.0	-
3Q18		7/3/2018	NE	36.11	NA	NA	NA	408.33		0.0	-
4Q18		10/2/2018	NE	36.53	NA	NA	NA	407.91		0.0	-
1Q19		1/4/2019	NE	37.59	NA	NA	NA	406.85		0.3	-
2Q19		4/3/2019	NE	37.55	NA	NA	NA	406.89		0.0	-
3Q19	444.62	7/2/2019	NE	35.45	NA	NA	NA	409.17	381.06 - 371.06 (63.56 - 73.56)	0.0	-
4Q19		10/2/2019	NE	34.64	NA	NA	NA	409.98		0.0	-
1Q20		1/3/2020	NE	34.37	NA	NA	NA	410.25		0.0	-
2Q20		4/2/2020	NE	32.83	NA	NA	NA	411.79		0.0	-
3Q20		7/8/2020	NE	31.38	NA	NA	NA	413.24		0.0	-
4Q20		10/7/2020	NE	30.72	NA	NA	NA	413.90		0.0	-
P 53											
1Q18	446.41	1/2/2018	NE	40.11	NA	NA	NA	406.30	407.91 - 382.91 (38.50 - 63.50)	0.5	
2Q18		4/3/2018	NE	41.38	NA	NA	NA	405.03		0.0	
3Q18		7/2/2018	NE	42.12	NA	NA	NA	404.29		0.0	
4Q18		10/2/2018	NE	42.54	NA	NA	NA	403.87		0.0	
1Q19		1/3/2019	NE	42.64	NA	NA	NA	403.77		0.0	
2Q19		4/1/2019	NE	42.79	NA	NA	NA	403.62		0.0	
3Q19	446.57	7/1/2019	NE	40.33	NA	NA	NA	406.24	406.10 - 381.10 (40.31 - 65.31)	0.0	
4Q19		10/1/2019	NE	38.69	NA	NA	NA	407.88		0.0	-
1Q20		1/2/2020	NE	38.63	NA	NA	NA	407.94		0.0	-
2Q20		4/2/2020	NE	38.36	NA	NA	NA	408.21		0.0	-
3Q20		7/6/2020	NE	37.09	NA	NA	NA	409.48		0.0	-
4Q20		10/6/2020	NE	36.79	NA	NA	NA	409.78		0.0	-

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 54											
1Q18	442.32	1/2/2018	NE	39.02	NA	NA	NA	403.30	404.32 - 379.32 (38.00 - 63.00)	0.4	
2Q18		4/3/2018	NE	39.94	NA	NA	NA	402.38		0.0	
3Q18		7/2/2018	NE	40.51	NA	NA	NA	401.81		0.0	
4Q18		10/2/2018	NE	40.50	NA	NA	NA	401.82		0.0	
1Q19		1/2/2019	NE	40.29	NA	NA	NA	402.03		0.0	
2Q19		4/1/2019	NE	40.36	NA	NA	NA	401.96		0.0	
3Q19	442.52	7/1/2019	NE	35.96	NA	NA	NA	406.56	404.52 - 379.52 (38.00 - 63.00)	0.0	-
4Q19		10/1/2019	NE	35.07	NA	NA	NA	407.45		0.0	-
1Q20		1/2/2020	NE	36.05	NA	NA	NA	406.47		0.0	-
2Q20		4/1/2020	NE	35.92	NA	NA	NA	406.60		0.0	-
3Q20		7/6/2020	NE	34.77	NA	NA	NA	407.75		0.0	-
4Q20		10/6/2020	NE	35.20	NA	NA	NA	407.32		0.0	-
P 55R											
1Q18	443.79	1/2/2018	40.30	40.38	403.41	403.49	0.08	403.47	403.36 - 393.36 (40.43 - 50.43)	260	-
2Q18		4/2/2018	39.20	41.25	402.54	404.59	2.05	404.18		238	-
3Q18		7/2/2018	41.51	42.12	401.67	402.28	0.61	402.16		152	
4Q18		10/1/2018	41.49	42.18	401.61	402.30	0.69	402.16		153	
1Q19		1/2/2019	41.84	42.27	401.52	401.95	0.43	401.86		15000	
2Q19		4/1/2019	41.21	41.52	402.27	402.58	0.31	402.52		280	
3Q19	444.01	7/1/2019	37.66	38.16	405.85	406.35	0.50	406.25	403.58 - 393.58 (40.43 - 50.43)	66.7	-
4Q19		10/1/2019	36.11	36.17	407.84	407.90	0.06	407.89		210	-
1Q20		1/2/2020	36.73	36.78	407.23	407.28	0.05	407.27		85.8	-
2Q20		4/1/2020	36.62	36.65	407.36	407.39	0.03	407.38		67.0	-
3Q20		7/6/2020	35.44	35.46	408.57	408.55	0.02	408.55		78.3	-
4Q20		10/5/2020	35.25	35.27	408.74	408.76	0.02	408.76		210	-
P 56											
1Q18	446.14	1/3/2018	NE	43.51	NA	NA	NA	402.63	405.32 - 380.32 (40.82 - 65.82)	209	
2Q18		4/3/2018	NE	44.24	NA	NA	NA	401.90		0.0	
3Q18		7/2/2018	NE	45.34	NA	NA	NA	400.80		0.0	
4Q18		10/1/2018	NE	45.27	NA	NA	NA	400.87		0.0	
1Q19		1/2/2019	NE	45.11	NA	NA	NA	401.03		0.0	
2Q19		4/1/2019	NE	45.07	NA	NA	NA	401.07		0.0	
3Q19	446.32	7/1/2019	NE	41.09	NA	NA	NA	405.23	405.50 - 380.50 (40.82 - 65.82)	0.1	
4Q19		10/1/2019	NE	39.72	NA	NA	NA	406.60		109	-
1Q20		1/2/2020	NE	41.01	NA	NA	NA	405.31		112	
2Q20		4/1/2020	NE	40.70	NA	NA	NA	405.62		113	-
3Q20		7/6/2020	NE	39.61	NA	NA	NA	406.71		170	-
4Q20		10/5/2020	NE	39.74	NA	NA	NA	406.58		126	-
P 57											
1Q18	446.96	1/2/2018	NE	44.59	NA	NA	NA	402.37	402.77 - 392.77 (44.19 - 54.19)	190	
2Q18		4/3/2018	NE	45.10	NA	NA	NA	401.86		1.3	
3Q18		7/2/2018	NE	45.89	NA	NA	NA	401.07		1.7	
4Q18		10/2/2018	NE	45.86	NA	NA	NA	401.10		0.2	
1Q19		1/2/2019	NE	45.66	NA	NA	NA	401.30		0.0	
2Q19		4/1/2019	NE	45.49	NA	NA	NA	401.47		0.0	
3Q19	447.15	7/1/2019	NE	41.35	NA	NA	NA	405.80	402.96 - 392.96 (44.19 - 54.19)	6.8	-
4Q19		10/1/2019	NE	40.19	NA	NA	NA	406.96		85.8	-
1Q20		1/2/2020	NE	41.59	NA	NA	NA	405.56		64.2	-
2Q20		4/1/2020	NE	41.43	NA	NA	NA	405.72		105	-
3Q20		7/6/2020	NE	40.23	NA	NA	NA	406.92		127	-
4Q20		10/5/2020	NE	40.59	NA	NA	NA	406.56		13.7	-
P 58											
1Q18	444.94	1/2/2018	42.53	42.55	402.39	402.41	0.02	402.41	404.73 - 379.73 (40.21 - 65.21)	180	
2Q18		4/2/2018	NE	43.19	NA	NA	NA	401.75		0.0	
3Q18		7/2/2018	NE	43.70	NA	NA	NA	401.24		0.0	
4Q18		7/12/2018	43.63	43.64	401.30	401.31	0.01	401.31		0.0	
1Q19		10/1/2018	NE	43.66	NA	NA	NA	401.28		0.0	
2Q19		1/2/2019	43.42	43.43	401.51	401.52	0.01	401.52		0.0	
3Q19	445.16	4/1/2019	NE	43.19	NA	NA	NA	401.75	404.95 - 379.95 (40.21 - 65.21)	0.0	
4Q19		7/1/2019	NE	38.92	NA	NA	NA	406.24		2.5	-
1Q20		10/1/2019	37.93	37.94	407.22	407.23	0.01	407.23		67.2	-
2Q20		1/2/2020	39.38	40.00	405.16	405.78	0.62	405.66		38.5	-
3Q20		4/1/2020	39.30	39.31	405.85	405.86	0.01	405.86		41.0	-
4Q20		7/6/2020	38.06	38.08	407.08	407.10	0.02	407.10		28.7	-
1Q20		10/5/2020	38.58	38.61	406.55	406.58	0.03	406.57		134	-

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.)	WELL HEAD PID (ppm)	Comments
P 59											
1Q18	446.86	1/4/2018	NE	44.44	NA	NA	NA	402.42	398.95 - 373.95 (47.91 - 72.91)	3119	-
2Q18		4/3/2018	NE	44.99	NA	NA	NA	401.87		108	-
3Q18		7/2/2018	NE	46.26	NA	NA	NA	400.60		214	-
4Q18		10/1/2018	NE	46.19	NA	NA	NA	400.67		179	-
1Q19		1/2/2019	NE	45.95	NA	NA	NA	400.91		15000	-
2Q19		4/1/2019	46.05	46.06	400.80	400.81	0.01	400.81		313	-
3Q19	447.07	7/1/2019	NE	42.06	NA	NA	NA	405.01	399.16 - 374.16 (47.91 - 72.91)	400	-
4Q19		7/15/2019	41.53	41.54	405.53	405.54	0.01	405.54		406	-
1Q20		10/1/2019	NE	40.81	NA	NA	NA	406.46		180	-
2Q20		1/2/2020	NE	41.99	NA	NA	NA	405.08		113	-
3Q20		4/1/2020	NE	41.35	NA	NA	NA	405.72		161	-
4Q20		7/6/2020	NE	40.40	NA	NA	NA	406.67		163	-
		10/5/2020	NE	40.49	NA	NA	NA	406.58		231	-
P 60											
1Q18	446.69	1/2/2018	43.54	43.56	403.13	403.15	0.02	403.15	403.24 - 383.24 (43.45 - 63.45)	118	-
2Q18		4/3/2018	NE	44.25	NA	NA	NA	402.44		15.6	-
3Q18		7/2/2018	45.61	45.62	401.07	401.08	0.01	401.08		40.7	-
4Q18		10/1/2018	45.61	45.63	401.06	401.08	0.02	401.08		36.7	-
1Q19		1/2/2019	45.48	45.54	401.15	401.21	0.06	401.20		923	-
2Q19		4/1/2019	45.62	45.63	401.06	401.07	0.01	401.07		83.5	-
3Q19	446.88	7/1/2019	NE	41.98	NA	NA	NA	404.90	402.23 - 382.23 (44.65 - 64.65)	31.7	-
4Q19		10/1/2019	NE	40.42	NA	NA	NA	406.46		1.7	-
1Q20		10/15/2019	40.41	40.42	406.46	406.47	0.01	406.47		1.7	-
2Q20		1/2/2020	41.44	41.45	405.43	405.44	0.01	405.44		6.6	-
3Q20		4/1/2020	NE	40.87	NA	NA	NA	406.01		3.4	-
4Q20		7/6/2020	NE	39.94	NA	NA	NA	406.94		15.5	-
		10/5/2020	NE	39.83	NA	NA	NA	407.05		41.2	-
P 61											
1Q18	444.47	1/2/2018	41.78	41.84	402.63	402.69	0.06	402.68	398.80 - 373.80 (45.68 - 70.68)	313	-
2Q18		4/4/2018	NM	NM	NA	NA	NA	NA		NM	Unsafe condition at well - Unable to access
3Q18		7/2/2018	43.77	44.20	400.27	400.70	0.43	400.61		91.3	-
4Q18		10/2/2018	43.89	43.93	400.54	400.58	0.04	400.57		237	-
1Q19		1/3/2019	43.79	43.83	400.64	400.68	0.04	400.67		375	-
2Q19		4/1/2019	43.80	43.81	400.66	400.67	0.01	400.67		417	-
3Q19	444.66	7/1/2019	40.39	40.40	404.26	404.27	0.01	404.27	398.98 - 373.98 (45.68 - 70.68)	220	-
4Q19		10/1/2019	NE	38.74	NA	NA	NA	405.92		68.4	-
1Q20		1/7/2020	40.07	40.08	404.58	404.59	0.01	404.59		8.5	-
2Q20		4/2/2020	39.46	39.49	405.17	405.20	0.03	405.19		37.0	-
3Q20		7/7/2020	38.47	38.49	406.17	406.19	0.02	406.19		29.0	-
4Q20		10/5/2020	38.44	38.45	406.21	406.22	0.01	406.22		18.4	-
P 62											
1Q18	442.43	1/2/2018	39.05	39.09	403.34	403.38	0.04	403.37	400.96 - 375.96 (41.47 - 66.47)	345	-
2Q18		4/2/2018	40.03	41.01	401.42	402.40	0.98	402.20		151	-
3Q18		7/2/2018	41.38	42.49	399.94	401.05	1.11	400.83		0.0	-
4Q18		10/3/2018	41.43	42.42	400.01	401.00	0.99	400.80		0.4	-
1Q19		1/3/2019	41.47	42.57	399.86	400.96	1.10	400.74		1.2	-
2Q19		4/1/2019	41.58	42.34	400.09	400.85	0.76	400.70		63.7	-
3Q19	442.60	7/1/2019	38.86	38.89	403.71	403.74	0.03	403.73	401.13 - 376.13 (41.47 - 66.47)	301	-
4Q19		10/1/2019	37.05	37.08	405.52	405.55	0.03	405.54		104	-
1Q20		1/2/2020	37.59	37.65	404.95	405.01	0.06	405.00		40.1	-
2Q20		4/2/2020	37.19	37.21	405.39	405.41	0.02	405.41		46.0	-
3Q20		7/6/2020	36.00	36.01	406.59	406.60	0.01	406.60		63.0	-
4Q20		10/5/2020	35.81	36.01	406.59	406.79	0.20	406.75		10.4	-
P 63											
1Q18	445.85	1/3/2018	42.27	42.29	403.56	403.58	0.02	403.58	398.56 - 373.56 (47.29 - 72.29)	33.8	-
2Q18		4/4/2018	44.09	44.11	401.74	401.76	0.02	401.76		36.5	-
3Q18		7/3/2018	45.41	45.43	400.42	400.44	0.02	400.44		222	-
4Q18		10/2/2018	45.59	45.62	400.23	400.26	0.03	400.25		70.1	-
1Q19		1/3/2019	45.58	45.61	400.24	400.27	0.03	400.26		68.2	-
2Q19		4/1/2019	45.62	45.65	400.20	400.23	0.03	400.22		852	-
3Q19	446.06	7/1/2019	43.86	43.91	402.15	402.20	0.05	402.19	398.77 - 373.77 (47.29 - 72.29)	81.2	-
4Q19		10/2/2019	41.89	41.92	404.14	404.17	0.03	404.16		5.0	-
1Q20		1/2/2020	41.63	41.65	404.41	404.43	0.02	404.43		8.7	-
2Q20		4/2/2020	41.16	41.17	404.89	404.90	0.01	404.90		10.5	-
3Q20		7/7/2020	39.67	39.68	406.38	406.39	0.01	406.39		28.0	-
4Q20		10/6/2020	39.20	39.21	406.85	406.86	0.01	406.86		54.2	-

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 64											
1Q18	446.89	1/3/2018	43.20	43.23	403.66	403.69	0.03	403.68	399.66 - 374.66 (47.23 - 72.23)	278	-
2Q18		4/4/2018	45.14	45.19	401.70	401.75	0.05	401.74		184	-
3Q18		7/3/2018	46.69	46.73	400.16	400.20	0.04	400.19		269	-
4Q18		10/2/2018	46.94	46.99	399.90	399.95	0.05	399.94		178	-
1Q19		1/2/2019	47.21	47.53	399.36	399.68	0.32	399.62		2559	
2Q19		4/1/2019	46.96	47.08	399.81	399.93	0.12	399.91		1220	-
3Q19	446.78	7/1/2019	45.63	45.72	401.06	401.15	0.09	401.13	399.55 - 374.55 (47.23 - 72.23)	206	-
4Q19		10/2/2019	43.58	43.61	403.17	403.20	0.03	403.19		77.5	-
1Q20		1/2/2020	42.98	43.04	403.74	403.80	0.06	403.79		38.9	-
2Q20		4/1/2020	42.35	42.40	404.38	404.43	0.05	404.42		154	-
3Q20		7/7/2020	40.85	40.88	405.90	405.93	0.03	405.92		112	-
4Q20		10/6/2020	40.30	40.34	406.44	406.48	0.04	406.47		115	-
P 65											
1Q18	444.60	1/3/2018	NE	41.10	NA	NA	NA	403.50	397.58 - 372.58 (47.02 - 72.02)	5.0	-
2Q18		4/4/2018	NE	43.02	NA	NA	NA	401.58		3.5	-
3Q18		7/3/2018	NE	43.58	NA	NA	NA	401.02		24.9	-
4Q18		10/2/2018	NE	43.91	NA	NA	NA	400.69		4.0	-
1Q19		1/3/2019	NE	44.19	NA	NA	NA	400.41		115	-
2Q19		4/1/2019	43.92	43.93	400.67	400.68	0.01	400.68		185	-
3Q19	444.77	7/1/2019	NE	41.97	NA	NA	NA	402.80	397.75 - 372.75 (47.02 - 72.02)	72.8	-
4Q19		10/2/2019	40.01	40.02	404.75	404.76	0.01	404.76		31.1	-
1Q20		1/2/2020	NE	39.96	NA	NA	NA	404.81		9.0	-
2Q20		4/2/2020	NE	39.54	NA	NA	NA	405.23		1.3	-
3Q20		7/7/2020	NE	38.28	NA	NA	NA	406.49		2.8	-
4Q20		10/6/2020	NE	37.82	NA	NA	NA	406.95		25.6	-
P 66											
1Q18	436.81	1/4/2018	NE	34.06	NA	NA	NA	402.75	402.09 - 377.09 (34.72 - 59.72)	68.7	-
2Q18		4/4/2018	NE	35.12	NA	NA	NA	401.69		3.7	
3Q18		7/2/2018	NE	35.20	NA	NA	NA	401.61		0.0	
4Q18		10/3/2018	NE	35.03	NA	NA	NA	401.78		8.0	
1Q19		1/4/2019	NE	34.75	NA	NA	NA	402.06		1.2	
2Q19		4/2/2019	NE	34.48	NA	NA	NA	402.33		2.6	-
3Q19	437.00	7/2/2019	NE	30.27	NA	NA	NA	406.73	402.28 - 377.28 (34.72 - 59.72)	87.7	-
4Q19		10/2/2019	NE	29.50	NA	NA	NA	407.50		42.2	-
1Q20		1/3/2020	NE	30.98	NA	NA	NA	406.02		77.3	-
2Q20		4/3/2020	NE	30.84	NA	NA	NA	406.16		122	-
3Q20		7/13/2020	NE	29.51	NA	NA	NA	407.49		35.6	-
4Q20		10/7/2020	NE	30.10	NA	NA	NA	406.90		51.2	-
P 67											
1Q18	444.10	1/4/2018	39.98	39.99	404.11	404.12	0.01	404.12	402.12 - 377.12 (41.98 - 66.98)	36.7	-
2Q18		4/4/2018	NE	41.04	NA	NA	NA	403.06		6.0	-
3Q18		7/2/2018	41.21	41.24	402.86	402.89	0.03	402.88		0.0	-
4Q18		10/3/2018	41.12	41.14	402.96	402.98	0.02	402.98		0.0	-
1Q19		1/4/2019	40.97	41.00	403.10	403.13	0.03	403.12		25.0	-
2Q19		4/2/2019	40.81	40.82	403.28	403.29	0.01	403.29		99.9	-
3Q19	444.30	7/2/2019	37.20	37.24	407.06	407.10	0.04	407.09	402.32 - 377.32 (41.98 - 66.98)	1.1	-
4Q19		10/2/2019	36.27	36.32	407.98	408.03	0.05	408.02		0.9	-
1Q20		1/3/2020	37.30	37.31	406.99	407.00	0.01	407.00		4.4	-
2Q20		4/3/2020	36.91	36.92	407.38	407.39	0.01	407.39		12.0	-
3Q20		7/7/2020	35.80	35.81	408.49	408.50	0.01	408.50		0.9	-
4Q20		10/7/2020	36.24	36.26	408.04	408.06	0.02	408.06		3.3	-
P 68											
1Q18	445.18	1/3/2018	42.05	42.07	403.11	403.13	0.02	403.13	399.92 - 374.92 (45.26 - 70.26)	137	-
2Q18		4/3/2018	42.89	42.94	402.24	402.29	0.05	402.28		92.0	-
3Q18		7/2/2018	44.25	44.32	400.86	400.93	0.07	400.92		136	
4Q18		10/2/2018	44.22	44.31	400.87	400.96	0.09	400.94		169	
1Q19		1/3/2019	44.07	44.26	400.92	401.11	0.19	401.07		187	
2Q19		4/1/2019	44.21	44.34	400.84	400.97	0.13	400.94		468	
3Q19	445.38	7/1/2019	40.75	40.88	404.50	404.63	0.13	404.60	401.42 - 376.42 (43.76 - 68.76)	259	-
4Q19		10/1/2019	39.13	39.17	406.21	406.25	0.04	406.24		189	-
1Q20		1/2/2020	40.15	40.20	405.18	405.23	0.05	405.22		115	-
2Q20		4/2/2020	39.42	39.46	405.92	405.96	0.04	405.95		181	-
3Q20		7/7/2020	38.60	38.61	406.77	406.78	0.01	406.78		159	-
4Q20		10/5/2020	38.44	38.47	406.91	406.94	0.03	406.93		112	-

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.)	WELL HEAD PID (ppm)	Comments
P 69											
1Q18	443.40	1/3/2018	NE	40.76	NA	NA	NA	402.64	402.58 - 377.58 (40.82 - 65.82)	120	-
2Q18		4/4/2018	NE	42.00	NA	NA	NA	401.40		0.0	
3Q18		7/2/2018	NE	43.00	NA	NA	NA	400.40		0.0	
4Q18		10/2/2018	NE	42.95	NA	NA	NA	400.45		0.0	
1Q19		1/3/2019	NE	42.80	NA	NA	NA	400.60		0.1	
2Q19		4/1/2019	NE	42.96	NA	NA	NA	400.44		0.0	
3Q19	443.77	7/1/2019	NE	39.38	NA	NA	NA	404.39	402.95 - 377.95 (40.82 - 65.82)	270	-
4Q19		10/1/2019	NE	37.70	NA	NA	NA	406.07		42.3	-
1Q20		1/2/2020	NE	38.94	NA	NA	NA	404.83		21.2	-
2Q20		4/2/2020	NE	38.05	NA	NA	NA	405.72		72.0	-
3Q20		7/7/2020	NE	37.40	NA	NA	NA	406.37		149	-
4Q20		10/5/2020	NE	37.18	NA	NA	NA	406.59		71.5	-
P 70											
1Q18	442.95	1/2/2018	40.03	40.06	402.89	402.92	0.03	402.91	398.28 - 373.28 (44.67 - 69.67)	282	-
2Q18		4/2/2018	40.94	40.98	401.97	402.01	0.04	402.00		90.4	-
3Q18		7/2/2018	42.23	42.26	400.69	400.72	0.03	400.71		238	-
4Q18		10/2/2018	42.25	42.27	400.68	400.70	0.02	400.70		297	-
1Q19		1/3/2019	42.18	42.19	400.76	400.77	0.01	400.77		204	-
2Q19		4/1/2019	42.26	42.27	400.68	400.69	0.01	400.69		1406	-
3Q19	443.11	7/1/2019	38.92	38.93	404.18	404.19	0.01	404.19	398.44 - 373.44 (44.67 - 69.67)	371	-
4Q19		10/1/2019	37.22	37.23	405.88	405.89	0.01	405.89		221	-
1Q20		1/2/2020	NE	38.15	NA	NA	NA	404.96		150	-
2Q20		4/2/2020	37.65	37.66	405.45	405.46	0.01	405.46		190	-
3Q20		7/7/2020	NE	36.67	NA	NA	NA	406.44		268	-
4Q20		10/5/2020	NE	36.58	NA	NA	NA	406.53		242	-
P 71											
1Q18	444.94	1/3/2018	NE	41.42	NA	NA	NA	403.52	402.33 - 377.33 (42.61 - 67.61)	6.0	-
2Q18		4/4/2018	NE	42.99	NA	NA	NA	401.95		50.4	
3Q18		7/3/2018	NE	43.36	NA	NA	NA	401.58		41.2	
4Q18		10/2/2018	NE	43.61	NA	NA	NA	401.33		108	
1Q19		1/3/2019	NE	43.73	NA	NA	NA	401.21		123	
2Q19		4/1/2019	NE	43.38	NA	NA	NA	401.56		350	
3Q19	445.09	7/1/2019	NE	40.85	NA	NA	NA	404.24	402.48 - 377.48 (42.61 - 67.61)	52.7	-
4Q19		10/1/2019	NE	38.67	NA	NA	NA	406.42		72.4	-
1Q20		1/2/2020	NE	39.49	NA	NA	NA	405.60		49.6	-
2Q20		4/2/2020	NE	39.30	NA	NA	NA	405.79		101	-
3Q20		7/7/2020	NE	38.35	NA	NA	NA	406.74		51.8	-
4Q20		10/6/2020	NE	38.06	NA	NA	NA	407.03		101	-
P 72											
1Q18	444.49	1/3/2018	NE	40.84	NA	NA	NA	403.65	398.72 - 373.72 (45.77 - 70.77)	40.0	-
2Q18		4/4/2018	NE	42.81	NA	NA	NA	401.68		2.6	-
3Q18		7/3/2018	NE	42.90	NA	NA	NA	401.59		2.3	-
4Q18		10/3/2018	43.01	43.02	401.47	401.48	0.01	401.48		7.2	
1Q19		1/3/2019	43.11	43.12	401.37	401.38	0.01	401.38		135	-
2Q19		4/1/2019	42.93	42.94	401.55	401.56	0.01	401.56		83.4	-
3Q19	444.70	7/1/2019	NE	40.20	NA	NA	NA	404.50	398.93 - 373.93 (45.77 - 70.77)	11.0	-
4Q19		10/2/2019	NM	NM	NA	NA	NA	NA		NM	Unsafe condition at well - Unable to access
1Q20		1/2/2020	NM	NM	NA	NA	NA	NA		NM	Unsafe condition at well - Unable to access
2Q20		4/2/2020	NE	38.84	NA	NA	NA	405.86		0.8	-
3Q20		7/7/2020	NE	37.75	NA	NA	NA	406.95		5.6	-
4Q20		10/6/2020	NE	37.54	NA	NA	NA	407.16		49.4	-
P 73											
1Q18	443.86	1/3/2018	NE	41.93	NA	NA	NA	401.93	402.27 - 377.27 (41.59 - 66.59)	67.8	
2Q18		4/4/2018	NE	43.21	NA	NA	NA	400.65		0.0	
3Q18		7/3/2018	NE	43.43	NA	NA	NA	400.43		0.0	
4Q18		10/3/2018	NE	43.24	NA	NA	NA	400.62		1.8	
1Q19		1/3/2019	NE	43.06	NA	NA	NA	400.80		6.6	
2Q19		4/2/2019	NE	42.70	NA	NA	NA	401.16		2.6	
3Q19	444.02	7/1/2019	NE	38.98	NA	NA	NA	405.04	402.42 - 377.42 (41.59 - 66.59)	488	-
4Q19		10/1/2019	NE	37.68	NA	NA	NA	406.34		226	-
1Q20		1/2/2020	NE	39.30	NA	NA	NA	404.72		38.4	-
2Q20		4/2/2020	NE	38.75	NA	NA	NA	405.27		42.8	-
3Q20		7/7/2020	NE	37.81	NA	NA	NA	406.21		230	-
4Q20		10/6/2020	NE	38.01	NA	NA	NA	406.01		202	-

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.)	WELL HEAD PID (ppm)	Comments
P 74											
1Q18	442.72	1/3/2018	NE	40.21	NA	NA	NA	402.51	398.29 - 373.29 (44.43 - 69.43) 398.89 - 373.89 (43.83 - 68.83)	1.6	*
2Q18		4/4/2018	NE	39.81	NA	NA	NA	402.91		0.0	*
3Q18		7/2/2018	NE	42.35	NA	NA	NA	400.37		0.0	*
4Q18		10/2/2018	NE	42.18	NA	NA	NA	400.54		1.1	*
1Q19		1/3/2019	NE	41.95	NA	NA	NA	400.77		0.0	*
2Q19		4/1/2019	NE	40.46	NA	NA	NA	402.26		0.7	* Gauging result anomalous
3Q19	442.93	7/1/2019	NE	38.32	NA	NA	NA	404.61	399.10 - 374.10 (43.83 - 68.83)	0.0	*
4Q19		10/1/2019	NE	36.71	NA	NA	NA	406.22		0.2	*
1Q20		1/2/2020	NE	38.07	NA	NA	NA	404.86		0.0	*
2Q20		4/2/2020	NE	37.28	NA	NA	NA	405.65		0.0	*
3Q20		7/7/2020	NE	36.55	NA	NA	NA	406.38		0.1	*
4Q20		10/5/2020	NE	36.46	NA	NA	NA	406.47		0.1	*
P 75											
1Q18	446.42	1/4/2018	NE	44.01	NA	NA	NA	402.41	403.29 - 378.29 (43.13 - 68.13)	3.0	
2Q18		4/4/2018	NE	45.06	NA	NA	NA	401.36		0.0	
3Q18		7/2/2018	NE	45.15	NA	NA	NA	401.27		0.0	
4Q18		10/3/2018	NE	45.06	NA	NA	NA	401.36		14.4	
1Q19		1/4/2019	NE	44.74	NA	NA	NA	401.68		4.6	
2Q19		4/2/2019	NE	44.43	NA	NA	NA	401.99		21.6	
3Q19	446.68	7/2/2019	NE	40.50	NA	NA	NA	406.18	403.55 - 378.55 (43.13 - 68.13)	10.5	*
4Q19		10/2/2019	NE	39.53	NA	NA	NA	407.15		5.7	*
1Q20		1/2/2020	NE	41.08	NA	NA	NA	405.60		33.8	*
2Q20		4/3/2020	NE	40.65	NA	NA	NA	406.03		87.7	*
3Q20		7/7/2020	NE	39.62	NA	NA	NA	407.06		31.9	*
4Q20		10/7/2020	NE	40.01	NA	NA	NA	406.67		43.8	*
P 82A											
1Q18	435.02	1/3/2018	NE	27.54	NA	NA	NA	407.48	401.81 - 386.81 (33.21 - 48.21)	0.0	*
2Q18		4/3/2018	NE	27.83	NA	NA	NA	407.19		0.0	*
3Q18		7/2/2018	NE	28.14	NA	NA	NA	406.88		0.0	*
4Q18		10/3/2018	NE	28.38	NA	NA	NA	406.64		0.0	*
1Q19		1/4/2019	NE	28.25	NA	NA	NA	406.77		0.0	*
2Q19		4/2/2019	NE	27.83	NA	NA	NA	407.19		0.0	*
3Q19	434.94	7/1/2019	NE	24.08	NA	NA	NA	410.86	401.73 - 386.73 (33.21 - 48.21)	0.0	*
4Q19		10/1/2019	NE	23.86	NA	NA	NA	411.08		0.1	*
1Q20		1/2/2020	NE	24.67	NA	NA	NA	410.27		0.0	*
2Q20		4/2/2020	NE	24.11	NA	NA	NA	410.83		0.0	*
3Q20		7/7/2020	NE	22.98	NA	NA	NA	411.96		0.0	*
4Q20		10/7/2020	NE	24.11	NA	NA	NA	410.83		0.0	*
P 82B											
1Q18	434.48	1/3/2018	NE	27.26	NA	NA	NA	407.22	370.88 - 368.88 (63.60 - 65.60)	0.0	*
2Q18		4/3/2018	NE	27.54	NA	NA	NA	406.94		0.0	*
3Q18		7/2/2018	NE	27.85	NA	NA	NA	406.63		0.0	*
4Q18		10/3/2018	NE	28.09	NA	NA	NA	406.39		0.0	*
1Q19		1/4/2019	NE	27.97	NA	NA	NA	406.51		0.0	*
2Q19		4/2/2019	NE	27.55	NA	NA	NA	406.93		0.0	*
3Q19	434.68	7/1/2019	NE	23.78	NA	NA	NA	410.90	371.88 - 369.88 (62.80 - 64.80)	0.0	*
4Q19		10/1/2019	NE	23.59	NA	NA	NA	411.09		0.0	*
1Q20		1/2/2020	NE	24.40	NA	NA	NA	410.28		0.0	*
2Q20		4/2/2020	NE	23.82	NA	NA	NA	410.86		0.0	*
3Q20		7/7/2020	NE	22.71	NA	NA	NA	411.97		0.1	*
4Q20		10/7/2020	NE	23.82	NA	NA	NA	410.86		0.0	*
P 82C											
1Q18	434.21	1/3/2018	NE	26.98	NA	NA	NA	407.23	351.44 - 349.44 (82.77 - 84.77)	0.0	*
2Q18		4/3/2018	NE	27.22	NA	NA	NA	406.99		0.0	*
3Q18		7/2/2018	NE	27.65	NA	NA	NA	406.56		0.0	*
4Q18		10/3/2018	NE	27.79	NA	NA	NA	406.42		0.0	*
1Q19		1/4/2019	NE	27.67	NA	NA	NA	406.54		0.0	*
2Q19		4/2/2019	NE	27.25	NA	NA	NA	406.96		0.0	*
3Q19	434.41	7/1/2019	NE	23.49	NA	NA	NA	410.92	351.64 - 349.64 (82.77 - 84.77)	0.0	*
4Q19		10/1/2019	NE	23.30	NA	NA	NA	411.11		0.0	*
1Q20		1/2/2020	NE	24.72	NA	NA	NA	409.69		0.0	*
2Q20		4/2/2020	NE	23.52	NA	NA	NA	410.89		0.0	*
3Q20		7/7/2020	NE	22.40	NA	NA	NA	412.01		0.0	*
4Q20		10/7/2020	NE	23.53	NA	NA	NA	410.88		0.0	*

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.)	WELL HEAD PID (ppm)	Comments
P 82D											
1Q18	434.89	1/3/2018	NE	27.78	NA	NA	NA	407.11	323.47 - 321.47 (111.42 - 113.42)	0.0	-
2Q18		4/3/2018	NE	27.99	NA	NA	NA	406.90		0.0	-
3Q18		7/2/2018	NE	28.35	NA	NA	NA	406.54		0.0	-
4Q18		10/3/2018	NE	28.57	NA	NA	NA	406.32		0.0	-
1Q19		1/4/2019	NE	28.42	NA	NA	NA	406.47		0.0	-
2Q19		4/2/2019	NE	27.99	NA	NA	NA	406.90		0.0	-
3Q19	435.09	7/1/2019	NE	24.20	NA	NA	NA	410.89	323.55 - 321.55 (111.54 - 113.54)	0.0	-
4Q19		10/1/2019	NE	24.02	NA	NA	NA	411.07		0.0	-
1Q20		1/2/2020	NE	25.86	NA	NA	NA	409.23		0.0	-
2Q20		4/2/2020	NE	24.27	NA	NA	NA	410.82		0.0	-
3Q20		7/7/2020	NE	23.16	NA	NA	NA	411.93		0.0	-
4Q20		10/7/2020	NE	24.30	NA	NA	NA	410.79		0.0	-
P 83A											
1Q18	445.36	1/3/2018	NE	39.76	NA	NA	NA	405.60	398.71 - 383.71 (46.65 - 61.65)	0.0	-
2Q18		4/2/2018	NE	40.74	NA	NA	NA	404.62		0.0	-
3Q18		7/2/2018	NE	42.59	NA	NA	NA	402.77		0.0	-
4Q18		10/1/2018	NE	43.03	NA	NA	NA	402.33		0.0	-
1Q19		1/2/2019	NE	43.55	NA	NA	NA	401.81		0.0	-
2Q19		4/2/2019	NE	43.34	NA	NA	NA	402.02		0.0	-
3Q19	445.54	7/1/2019	NE	41.95	NA	NA	NA	403.59	397.96 - 382.96 (47.40 - 62.40)	0.0	-
4Q19		10/2/2019	NE	40.55	NA	NA	NA	404.99		0.0	-
1Q20		1/2/2020	NE	39.80	NA	NA	NA	405.74		0.0	-
2Q20		4/2/2020	NE	38.84	NA	NA	NA	406.70		0.0	-
3Q20		7/7/2020	NE	37.27	NA	NA	NA	408.27		0.0	-
4Q20		10/6/2020	NE	36.71	NA	NA	NA	408.83		0.0	-
P 83B											
1Q18	445.55	1/3/2018	NE	40.01	NA	NA	NA	405.54	375.90 - 373.90 (69.65 - 71.65)	0.6	-
2Q18		4/2/2018	NE	41.01	NA	NA	NA	404.54		0.0	-
3Q18		7/2/2018	NE	42.83	NA	NA	NA	402.72		0.0	-
4Q18		10/1/2018	NE	43.29	NA	NA	NA	402.26		0.0	-
1Q19		1/2/2019	NE	43.80	NA	NA	NA	401.75		0.0	-
2Q19		4/2/2019	NE	43.59	NA	NA	NA	401.96		0.0	-
3Q19	445.77	7/1/2019	NE	42.20	NA	NA	NA	403.57	371.75 - 369.75 (73.80 - 75.80)	0.0	-
4Q19		10/2/2019	NE	40.80	NA	NA	NA	404.97		0.0	-
1Q20		1/2/2020	NE	40.06	NA	NA	NA	405.71		0.0	-
2Q20		4/2/2020	NE	39.09	NA	NA	NA	406.68		0.0	-
3Q20		7/7/2020	NE	37.54	NA	NA	NA	408.23		0.0	-
4Q20		10/6/2020	NE	36.96	NA	NA	NA	408.81		0.1	-
P 83C											
1Q18	445.78	1/3/2018	NE	40.16	NA	NA	NA	405.62	353.39 - 351.39 (92.39 - 94.39)	0.0	-
2Q18		4/2/2018	NE	41.15	NA	NA	NA	404.63		0.0	-
3Q18		7/2/2018	NE	42.99	NA	NA	NA	402.79		0.0	-
4Q18		10/1/2018	NE	43.44	NA	NA	NA	402.34		0.0	-
1Q19		1/2/2019	NE	43.95	NA	NA	NA	401.83		0.0	-
2Q19		4/2/2019	NE	43.75	NA	NA	NA	402.03		0.0	-
3Q19	445.95	7/1/2019	NE	42.44	NA	NA	NA	403.51	373.97 - 369.97 (73.80 - 75.80)	0.0	-
4Q19		10/2/2019	NE	40.96	NA	NA	NA	404.99		0.0	-
1Q20		1/2/2020	NE	40.21	NA	NA	NA	405.74		0.0	-
2Q20		4/2/2020	NE	39.25	NA	NA	NA	406.70		0.0	-
3Q20		7/7/2020	NE	37.69	NA	NA	NA	408.26		0.0	-
4Q20		10/6/2020	NE	37.11	NA	NA	NA	408.84		0.0	-
P 83D											
1Q18	445.70	1/3/2018	NE	40.11	NA	NA	NA	405.59	311.99 - 309.99 (133.71 - 135.71)	0.0	-
2Q18		4/2/2018	NE	41.13	NA	NA	NA	404.57		0.0	-
3Q18		7/2/2018	NE	43.96	NA	NA	NA	401.74		0.0	-
4Q18		10/1/2018	NE	43.41	NA	NA	NA	402.29		0.0	-
1Q19		1/2/2019	NE	43.93	NA	NA	NA	401.77		0.0	-
2Q19		4/2/2019	NE	43.72	NA	NA	NA	401.98		0.0	-
3Q19	445.86	7/1/2019	NE	42.40	NA	NA	NA	403.46	312.06 - 310.06 (133.80 - 135.80)	0.0	-
4Q19		10/2/2019	NE	40.94	NA	NA	NA	404.92		0.0	-
1Q20		1/2/2020	NE	40.19	NA	NA	NA	405.67		0.0	-
2Q20		4/2/2020	NE	39.22	NA	NA	NA	406.64		0.0	-
3Q20		7/7/2020	NE	37.66	NA	NA	NA	408.20		0.0	-
4Q20		10/6/2020	NE	37.08	NA	NA	NA	408.78		0.0	-

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.)	WELL HEAD PID (ppm)	Comments
P 84A											
1Q18	446.49	1/3/2018	NE	40.84	NA	NA	NA	405.65	397.99 - 382.99 (48.50 - 63.50)	0.1	-
2Q18		4/4/2018	NE	42.22	NA	NA	NA	404.27		0.0	-
3Q18		7/3/2018	NE	43.16	NA	NA	NA	403.33		0.0	-
4Q18		10/3/2018	NE	43.55	NA	NA	NA	402.94		0.0	-
1Q19		1/3/2019	NE	43.79	NA	NA	NA	402.70		0.0	-
2Q19		4/2/2019	NE	43.79	NA	NA	NA	402.70		0.0	-
3Q19	446.63	7/1/2019	NE	41.69	NA	NA	NA	404.94	397.71 - 382.71 (48.92 - 63.92)	0.0	-
4Q19		10/1/2019	NE	40.00	NA	NA	NA	406.63		0.0	-
1Q20		1/2/2020	NE	39.85	NA	NA	NA	406.78		0.0	-
2Q20		4/1/2020	NE	39.39	NA	NA	NA	407.24		0.0	-
3Q20		7/7/2020	NE	37.98	NA	NA	NA	408.65		0.0	-
4Q20		10/6/2020	NE	37.65	NA	NA	NA	408.98		0.0	-
P 84B											
1Q18	446.21	1/3/2018	NE	40.56	NA	NA	NA	405.65	372.71 - 370.71 (73.50 - 75.50)	0.1	-
2Q18		4/4/2018	NE	41.94	NA	NA	NA	404.27		0.0	-
3Q18		7/3/2018	NE	42.90	NA	NA	NA	403.31		0.0	-
4Q18		10/3/2018	NE	43.28	NA	NA	NA	402.93		0.0	-
1Q19		1/3/2019	NE	43.51	NA	NA	NA	402.70		0.1	-
2Q19		4/2/2019	NE	43.51	NA	NA	NA	402.70		0.0	-
3Q19	446.35	7/1/2019	NE	41.41	NA	NA	NA	404.94	372.85 - 370.85 (73.50 - 75.50)	0.0	-
4Q19		10/1/2019	NE	39.72	NA	NA	NA	406.63		0.0	-
1Q20		1/2/2020	NE	39.56	NA	NA	NA	406.79		0.0	-
2Q20		4/1/2020	NE	39.14	NA	NA	NA	407.21		0.0	-
3Q20		7/7/2020	NE	37.72	NA	NA	NA	408.63		0.0	-
4Q20		10/6/2020	NE	37.39	NA	NA	NA	408.96		0.0	-
P 84C											
1Q18	446.22	1/3/2018	NE	40.57	NA	NA	NA	405.65	352.17 - 350.17 (94.05 - 96.05)	0.0	-
2Q18		4/4/2018	NE	41.96	NA	NA	NA	404.26		0.0	-
3Q18		7/3/2018	NE	43.89	NA	NA	NA	402.33		0.0	-
4Q18		10/3/2018	NE	43.28	NA	NA	NA	402.94		0.0	-
1Q19		1/3/2019	NE	43.53	NA	NA	NA	402.69		0.1	-
2Q19		4/2/2019	NE	43.52	NA	NA	NA	402.70		0.0	-
3Q19	446.37	7/1/2019	NE	41.45	NA	NA	NA	404.92	352.32 - 350.32 (94.05 - 96.05)	0.0	-
4Q19		10/1/2019	NE	39.75	NA	NA	NA	406.62		0.0	-
1Q20		1/2/2020	NE	38.57	NA	NA	NA	407.80		0.0	-
2Q20		4/1/2020	NE	39.13	NA	NA	NA	407.24		0.0	-
3Q20		7/7/2020	NE	37.74	NA	NA	NA	408.63		0.0	-
4Q20		10/6/2020	NE	37.41	NA	NA	NA	408.96		0.0	-
P 84D											
1Q18	446.24	1/3/2018	NE	40.58	NA	NA	NA	405.66	325.09 - 323.09 (121.15 - 123.15)	0.1	-
2Q18		4/4/2018	NE	41.97	NA	NA	NA	404.27		0.0	-
3Q18		7/3/2018	NE	42.89	NA	NA	NA	403.35		0.0	-
4Q18		10/3/2018	NE	43.28	NA	NA	NA	402.96		0.0	-
1Q19		1/3/2019	NE	43.51	NA	NA	NA	402.73		0.1	-
2Q19		4/2/2019	NE	43.52	NA	NA	NA	402.72		0.0	-
3Q19	446.38	7/1/2019	NE	41.42	NA	NA	NA	404.96	325.55 - 323.55 (120.83 - 122.83)	0.0	-
4Q19		10/1/2019	NE	39.73	NA	NA	NA	406.65		0.0	-
1Q20		1/2/2020	NE	39.57	NA	NA	NA	406.81		0.0	-
2Q20		4/1/2020	NE	39.14	NA	NA	NA	407.24		0.0	-
3Q20		7/7/2020	NE	37.74	NA	NA	NA	408.64		0.0	-
4Q20		10/6/2020	NE	37.40	NA	NA	NA	408.98		0.0	-
P 88A											
1Q18	443.09	1/4/2018	NE	32.60	NA	NA	NA	410.49	404.69 - 389.69 (38.40 - 53.40)	0.0	-
2Q18		4/4/2018	NE	34.04	NA	NA	NA	409.05		0.0	-
3Q18		7/2/2018	NE	33.86	NA	NA	NA	409.23		0.0	-
4Q18		10/3/2018	NE	34.01	NA	NA	NA	409.08		0.0	-
1Q19		1/4/2019	NE	34.31	NA	NA	NA	408.78		0.0	-
2Q19		4/2/2019	NE	34.22	NA	NA	NA	408.87		0.0	-
3Q19	443.27	7/2/2019	NE	31.34	NA	NA	NA	411.93	404.87 - 389.87 (38.40 - 53.40)	0.0	-
4Q19		10/2/2019	NE	30.41	NA	NA	NA	412.86		0.0	-
1Q20		1/3/2020	NE	30.75	NA	NA	NA	412.52		0.0	-
2Q20		4/3/2020	NE	30.01	NA	NA	NA	413.26		0.0	-
3Q20		7/7/2020	NE	29.04	NA	NA	NA	414.23		0.0	-
4Q20		10/7/2020	NE	29.24	NA	NA	NA	414.03		0.0	-

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 88B											
1Q18	443.16	1/4/2018	NE	32.67	NA	NA	NA	410.49	371.16 - 369.16 (72.00 - 74.00) 371.51 - 369.51 (71.65 - 73.65)	0.0	*
2Q18		4/4/2018	NE	34.09	NA	NA	NA	409.07		0.0	*
3Q18		7/2/2018	NE	33.84	NA	NA	NA	409.32		0.0	*
4Q18		10/3/2018	NE	34.08	NA	NA	NA	409.08		0.1	*
1Q19		1/4/2019	NE	34.37	NA	NA	NA	408.79		0.0	*
2Q19		4/2/2019	NE	34.29	NA	NA	NA	408.87		0.0	*
3Q19	443.35	7/2/2019	NE	31.41	NA	NA	NA	411.94	371.70 - 369.70 (71.65 - 73.65)	0.0	*
4Q19		10/2/2019	NE	30.47	NA	NA	NA	412.88		0.0	*
1Q20		1/3/2020	NE	30.80	NA	NA	NA	412.55		0.0	*
2Q20		4/3/2020	NE	30.07	NA	NA	NA	413.28		0.0	*
3Q20		7/7/2020	NE	29.09	NA	NA	NA	414.26		0.0	*
4Q20		10/7/2020	NE	29.30	NA	NA	NA	414.05		0.0	*
P 88C											
1Q18	443.13	1/4/2018	NE	32.62	NA	NA	NA	410.51	350.83 - 348.83 (92.30 - 94.30)	0.0	*
2Q18		4/4/2018	NE	34.05	NA	NA	NA	409.08		0.0	*
3Q18		7/2/2018	NE	33.88	NA	NA	NA	409.25		0.0	*
4Q18		10/3/2018	NE	34.02	NA	NA	NA	409.11		0.0	*
1Q19		1/4/2019	NE	34.32	NA	NA	NA	408.81		0.0	*
2Q19		4/2/2019	NE	34.24	NA	NA	NA	408.89		0.0	*
3Q19	443.31	7/2/2019	NE	31.37	NA	NA	NA	411.94	351.01 - 349.01 (92.30 - 94.30)	0.0	*
4Q19		10/2/2019	NE	30.44	NA	NA	NA	412.87		0.0	*
1Q20		1/3/2020	NE	30.77	NA	NA	NA	412.54		0.0	*
2Q20		4/3/2020	NE	30.04	NA	NA	NA	413.27		0.0	*
3Q20		7/7/2020	NE	29.05	NA	NA	NA	414.26		0.1	*
4Q20		10/7/2020	NE	29.25	NA	NA	NA	414.06		0.0	*
P 88D											
1Q18	443.20	1/4/2018	NE	32.82	NA	NA	NA	410.38	329.50 - 327.50 (113.70 - 115.70)	0.0	*
2Q18		4/4/2018	NE	34.17	NA	NA	NA	409.03		0.0	*
3Q18		7/2/2018	NE	34.09	NA	NA	NA	409.11		0.0	*
4Q18		10/3/2018	NE	34.26	NA	NA	NA	408.94		0.0	*
1Q19		1/4/2019	NE	34.45	NA	NA	NA	408.75		0.0	*
2Q19		4/2/2019	NE	34.30	NA	NA	NA	408.90		0.0	*
3Q19	443.38	7/2/2019	NE	31.35	NA	NA	NA	412.03	331.21 - 329.21 (112.17 - 114.17)	0.0	*
4Q19		10/2/2019	NE	30.56	NA	NA	NA	412.82		0.0	*
1Q20		1/3/2020	NE	30.89	NA	NA	NA	412.49		0.0	*
2Q20		4/3/2020	NE	29.97	NA	NA	NA	413.41		0.0	*
3Q20		7/7/2020	NE	29.16	NA	NA	NA	414.22		0.0	*
4Q20		10/7/2020	NE	29.43	NA	NA	NA	413.95		0.0	*
P 89B											
1Q18	447.44	1/4/2018	NE	39.23	NA	NA	NA	408.21	370.08 - 368.08 (77.36 - 79.36)	0.0	*
2Q18		4/3/2018	NE	40.47	NA	NA	NA	406.97		0.0	*
3Q18		7/3/2018	NE	41.39	NA	NA	NA	406.05		0.0	*
4Q18		10/2/2018	NE	41.74	NA	NA	NA	405.70		0.0	*
1Q19		1/3/2019	NE	42.63	NA	NA	NA	404.81		0.0	*
2Q19		4/2/2019	NE	42.41	NA	NA	NA	405.03		0.0	*
3Q19	447.64	7/2/2019	NE	41.60	NA	NA	NA	406.04	370.28 - 368.28 (77.36 - 79.36)	0.0	*
4Q19		10/2/2019	NE	40.11	NA	NA	NA	407.53		0.0	*
1Q20		1/2/2020	NE	39.20	NA	NA	NA	408.44		0.0	*
2Q20		4/3/2020	NE	37.98	NA	NA	NA	409.66		0.0	*
3Q20		7/8/2020	NE	36.46	NA	NA	NA	411.18		0.0	*
4Q20		10/6/2020	NE	35.79	NA	NA	NA	411.85		0.0	*
P 89C											
1Q18	447.76	1/4/2018	NE	39.65	NA	NA	NA	408.11	350.13 - 348.13 (97.63 - 99.63)	0.0	*
2Q18		4/3/2018	NE	40.79	NA	NA	NA	406.97		0.0	*
3Q18		7/3/2018	NE	42.09	NA	NA	NA	405.67		0.0	*
4Q18		10/2/2018	NE	42.11	NA	NA	NA	405.65		0.0	*
1Q19		1/3/2019	NE	43.03	NA	NA	NA	404.73		0.0	*
2Q19		4/2/2019	NE	42.75	NA	NA	NA	405.01		0.0	*
3Q19	447.96	7/2/2019	NE	41.95	NA	NA	NA	406.01	351.36 - 349.36 (96.40 - 98.40)	0.0	*
4Q19		10/2/2019	NE	40.46	NA	NA	NA	407.50		0.0	*
1Q20		1/2/2020	NE	39.54	NA	NA	NA	408.42		0.0	*
2Q20		4/3/2020	NE	38.27	NA	NA	NA	409.69		0.0	*
3Q20		7/8/2020	NE	37.00	NA	NA	NA	410.96		0.0	*
4Q20		10/6/2020	NE	36.13	NA	NA	NA	411.83		0.0	*

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.)	WELL HEAD PID (ppm)	Comments
P 89D											
1Q18	447.63	1/4/2018	NE	39.48	NA	NA	NA	408.15	307.29 - 305.29 (140.34 - 142.34)	2.0	-
2Q18		4/3/2018	NE	40.95	NA	NA	NA	406.68		0.0	-
3Q18		7/3/2018	NE	41.76	NA	NA	NA	405.87		0.0	-
4Q18		10/2/2018	NE	42.15	NA	NA	NA	405.48		0.0	-
1Q19		1/3/2019	NE	43.11	NA	NA	NA	404.52		0.0	-
2Q19		4/2/2019	NE	42.87	NA	NA	NA	404.76		0.0	-
3Q19	447.83	7/2/2019	NE	42.05	NA	NA	NA	405.78	309.33 - 307.33 (138.50 - 140.50)	0.0	-
4Q19		10/2/2019	NE	40.53	NA	NA	NA	407.30		0.0	-
1Q20		1/2/2020	NE	39.58	NA	NA	NA	408.25		0.0	-
2Q20		4/3/2020	NE	38.29	NA	NA	NA	409.54		0.0	-
3Q20		7/8/2020	NE	37.03	NA	NA	NA	410.80		0.0	-
4Q20		10/6/2020	NE	36.15	NA	NA	NA	411.68		0.0	-
P 91A											
1Q18	447.24	1/2/2018	44.43	44.45	402.79	402.81	0.02	402.81	395.72 - 380.72 (51.51 - 66.51)	25.8	-
2Q18		4/3/2018	NE	45.39	NA	NA	NA	401.85		43.1	-
3Q18		7/2/2018	NE	48.52	NA	NA	NA	398.72		151	-
4Q18		10/1/2018	NE	48.70	NA	NA	NA	398.54		5.6	-
1Q19		1/2/2019	48.87	48.90	398.34	398.37	0.03	398.36		1129	-
2Q19		4/2/2019	48.58	48.59	398.65	398.66	0.01	398.66		413	-
3Q19	447.43	7/1/2019	47.77	47.78	399.65	399.66	0.01	399.66	395.92 - 380.92 (51.51 - 66.51)	14.7	-
4Q19		10/2/2019	NE	45.72	NA	NA	NA	401.71		9.5	-
1Q20		1/2/2020	44.69	44.70	402.73	402.74	0.01	402.74		7.4	-
2Q20		4/1/2020	NE	44.10	NA	NA	NA	403.33		38.0	-
3Q20		7/6/2020	NE	42.34	NA	NA	NA	405.09		21.8	-
4Q20		10/6/2020	NE	41.66	NA	NA	NA	405.77		33.5	-
P 91B											
1Q18	447.28	1/2/2018	NE	44.23	NA	NA	NA	403.05	372.59 - 370.59 (74.69 - 76.69)	102	-
2Q18		4/3/2018	NE	45.45	NA	NA	NA	401.83		0.5	-
3Q18		7/2/2018	NE	48.69	NA	NA	NA	398.59		11.0	-
4Q18		10/1/2018	NE	48.88	NA	NA	NA	398.40		12.1	-
1Q19		1/2/2019	NE	49.04	NA	NA	NA	398.24		73.3	-
2Q19		4/2/2019	NE	48.75	NA	NA	NA	398.53		116	-
3Q19	447.47	7/1/2019	NE	47.97	NA	NA	NA	399.50	372.78 - 370.78 (74.69 - 76.69)	3.5	-
4Q19		10/2/2019	NE	45.89	NA	NA	NA	401.58		6.5	-
1Q20		1/2/2020	NE	44.85	NA	NA	NA	402.62		0.0	-
2Q20		4/1/2020	NE	44.05	NA	NA	NA	403.42		15.5	-
3Q20		7/6/2020	NE	42.47	NA	NA	NA	405.00		20.6	-
4Q20		10/6/2020	NE	41.79	NA	NA	NA	405.68		11.3	-
P 91C											
1Q18	447.07	1/2/2018	NE	44.00	NA	NA	NA	403.07	352.34 - 350.34 (94.73 - 96.73)	9.5	-
2Q18		4/3/2018	NE	45.21	NA	NA	NA	401.86		0.0	-
3Q18		7/2/2018	NE	48.44	NA	NA	NA	398.63		0.0	-
4Q18		10/1/2018	NE	48.61	NA	NA	NA	398.46		0.0	-
1Q19		1/2/2019	NE	48.80	NA	NA	NA	398.27		1.2	-
2Q19		4/2/2019	NE	48.47	NA	NA	NA	398.60		0.0	-
3Q19	447.27	7/1/2019	NE	47.69	NA	NA	NA	399.58	352.54 - 350.54 (94.73 - 96.73)	0.0	-
4Q19		10/2/2019	NE	45.63	NA	NA	NA	401.64		0.0	-
1Q20		1/2/2020	NE	44.60	NA	NA	NA	402.67		0.1	-
2Q20		4/1/2020	NE	43.80	NA	NA	NA	403.47		0.0	-
3Q20		7/6/2020	NE	42.22	NA	NA	NA	405.05		0.0	-
4Q20		10/6/2020	NE	41.55	NA	NA	NA	405.72		0.0	-
P 91D											
1Q18	447.06	1/2/2018	NE	43.98	NA	NA	NA	403.08	278.74 - 276.74 (168.32 - 170.32)	3.4	-
2Q18		4/3/2018	NE	45.20	NA	NA	NA	401.86		0.0	-
3Q18		7/2/2018	NE	48.41	NA	NA	NA	398.65		0.0	-
4Q18		10/1/2018	NE	48.56	NA	NA	NA	398.50		0.0	-
1Q19		1/2/2019	NE	48.76	NA	NA	NA	398.30		1.6	-
2Q19		4/2/2019	NE	48.44	NA	NA	NA	398.62		0.0	-
3Q19	447.26	7/1/2019	NE	47.66	NA	NA	NA	399.60	278.94 - 276.94 (168.32 - 170.32)	0.0	-
4Q19		10/2/2019	NE	45.60	NA	NA	NA	401.66		0.0	-
1Q20		1/2/2020	NE	44.59	NA	NA	NA	402.67		0.1	-
2Q20		4/1/2020	NE	43.77	NA	NA	NA	403.49		0.8	-
3Q20		7/6/2020	NE	42.20	NA	NA	NA	405.06		0.0	-
4Q20		10/6/2020	NE	41.54	NA	NA	NA	405.72		0.0	-

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.)	WELL HEAD PID (ppm)	Comments
P 92A											
1Q18	446.24	1/3/2018	42.91	42.94	403.30	403.33	0.03	403.32	398.67 - 383.67 (47.57 - 62.57)	119	-
2Q18		4/4/2018	44.83	44.84	401.40	401.41	0.01	401.41		31.5	-
3Q18		7/3/2018	NE	45.69	NA	NA	NA	400.55		4.0	-
4Q18		10/2/2018	46.04	46.06	400.18	400.20	0.02	400.20		33.8	-
1Q19		1/2/2019	46.39	46.41	399.83	399.85	0.02	399.85		640	-
2Q19		4/1/2019	46.10	46.11	400.13	400.14	0.01	400.14		232	-
3Q19	446.39	7/1/2019	44.54	44.56	401.83	401.85	0.02	401.85	398.82 - 383.82 (47.57 - 62.57)	36.4	-
4Q19		10/2/2019	42.50	42.51	403.88	403.89	0.01	403.89		11.1	-
1Q20		1/2/2020	42.13	42.14	404.25	404.26	0.01	404.26		26.0	-
2Q20		4/2/2020	41.58	41.60	404.79	404.81	0.02	404.81		32.3	-
3Q20		7/7/2020	40.21	40.22	406.17	406.18	0.01	406.18		61.8	-
4Q20		10/6/2020	39.67	39.68	406.71	406.72	0.01	406.72		84.4	-
P 92B											
1Q18	446.18	1/3/2018	NE	42.89	NA	NA	NA	403.29	372.53 - 370.53 (73.65 - 75.65)	0.2	-
2Q18		4/4/2018	NE	44.79	NA	NA	NA	401.39		0.0	-
3Q18		7/3/2018	NE	45.65	NA	NA	NA	400.53		0.5	-
4Q18		10/2/2018	NE	46.01	NA	NA	NA	400.17		0.1	-
1Q19		1/2/2019	NE	46.34	NA	NA	NA	399.84		0.0	-
2Q19		4/1/2019	NE	46.06	NA	NA	NA	400.12		1.9	-
3Q19	446.33	7/1/2019	NE	44.53	NA	NA	NA	401.80	371.77 - 369.77 (74.41 - 76.41)	0.3	-
4Q19		10/2/2019	NE	42.46	NA	NA	NA	403.87		0.0	-
1Q20		1/2/2020	NE	42.09	NA	NA	NA	404.24		0.0	-
2Q20		4/2/2020	NE	41.54	NA	NA	NA	404.79		0.9	-
3Q20		7/7/2020	NE	40.15	NA	NA	NA	406.18		0.0	-
4Q20		10/6/2020	NE	39.63	NA	NA	NA	406.70		0.3	-
P 92C											
1Q18	446.17	1/3/2018	NE	42.88	NA	NA	NA	403.29	353.21 - 348.21 (92.96 - 97.96)	1.2	-
2Q18		4/4/2018	NE	44.76	NA	NA	NA	401.41		0.0	-
3Q18		7/3/2018	NE	45.60	NA	NA	NA	400.57		0.3	-
4Q18		10/2/2018	NE	45.97	NA	NA	NA	400.20		2.5	-
1Q19		1/2/2019	NE	46.34	NA	NA	NA	399.83		83.1	-
2Q19		4/1/2019	NE	46.03	NA	NA	NA	400.14		22.6	-
3Q19	446.34	7/1/2019	NE	44.51	NA	NA	NA	401.83	353.38 - 348.38 (92.96 - 97.96)	4.0	-
4Q19		10/2/2019	NE	42.45	NA	NA	NA	403.89		0.0	-
1Q20		1/2/2020	NE	42.10	NA	NA	NA	404.24		0.1	-
2Q20		4/2/2020	NE	41.53	NA	NA	NA	404.81		12.8	-
3Q20		7/7/2020	NE	40.15	NA	NA	NA	406.19		2.8	-
4Q20		10/6/2020	NE	39.60	NA	NA	NA	406.74		1.3	-
P 92D											
1Q18	446.00	1/3/2018	NE	42.70	NA	NA	NA	403.30	305.00 - 303.00 (141.00 - 143.00)	0.2	-
2Q18		4/4/2018	NE	44.61	NA	NA	NA	401.39		0.0	-
3Q18		7/3/2018	NE	45.50	NA	NA	NA	400.50		0.0	-
4Q18		10/2/2018	NE	45.88	NA	NA	NA	400.12		0.1	-
1Q19		1/2/2019	NE	46.24	NA	NA	NA	399.76		0.0	-
2Q19		4/1/2019	NE	45.94	NA	NA	NA	400.06		0.2	-
3Q19	446.15	7/1/2019	NE	44.45	NA	NA	NA	401.70	305.15 - 303.15 (141.00 - 143.00)	0.0	-
4Q19		10/2/2019	NE	42.35	NA	NA	NA	403.80		0.0	-
1Q20		1/2/2020	NE	41.98	NA	NA	NA	404.17		0.0	-
2Q20		4/2/2020	NE	41.43	NA	NA	NA	404.72		2.7	-
3Q20		7/7/2020	NE	40.03	NA	NA	NA	406.12		0.1	-
4Q20		10/6/2020	NE	39.46	NA	NA	NA	406.69		0.0	-
P 93A											
1Q18	445.12	1/4/2018	NE	42.79	NA	NA	NA	402.33	402.05 - 392.05 (43.07 - 53.07)	12.8	-
2Q18		4/2/2018	NE	43.58	NA	NA	NA	401.54		21.1	-
3Q18		7/2/2018	NE	44.03	NA	NA	NA	401.09		0.0	-
4Q18		10/2/2018	NE	43.98	NA	NA	NA	401.14		0.0	-
1Q19		1/2/2019	NE	43.83	NA	NA	NA	401.29		0.0	-
2Q19		4/1/2019	NE	43.61	NA	NA	NA	401.51		0.3	-
3Q19	445.37	7/1/2019	NE	39.40	NA	NA	NA	405.97	402.30 - 392.30 (43.07 - 53.07)	0.0	-
4Q19		10/1/2019	NE	38.34	NA	NA	NA	407.03		1.7	-
1Q20		1/2/2020	NE	39.77	NA	NA	NA	405.60		3.4	-
2Q20		4/1/2020	NE	39.60	NA	NA	NA	405.77		7.3	-
3Q20		7/6/2020	NE	38.41	NA	NA	NA	406.96		2.2	-
4Q20		10/5/2020	NE	38.80	NA	NA	NA	406.57		36.4	-

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 93B											
1Q18	446.52	1/3/2018	NE	44.25	NA	NA	NA	402.27	371.92 - 369.92 (74.60 - 76.60)	0.0	*
2Q18		4/2/2018	NE	44.94	NA	NA	NA	401.58	371.64 - 369.64 (74.88 - 76.88)	0.0	*
3Q18		7/2/2018	NE	45.60	NA	NA	NA	400.92	371.64 - 369.64 (74.88 - 76.88)	0.5	*
4Q18		10/2/2018	NE	45.36	NA	NA	NA	401.16	371.64 - 369.64 (74.88 - 76.88)	0.0	*
1Q19		1/2/2019	NE	45.19	NA	NA	NA	401.33	371.74 - 369.74 (74.78 - 76.78)	12.5	*
2Q19		4/1/2019	NE	44.99	NA	NA	NA	401.53	371.74 - 369.74 (74.78 - 76.78)	0.0	*
3Q19	446.70	7/1/2019	NE	40.31	NA	NA	NA	406.39	371.92 - 369.92 (74.78 - 76.78)	0.1	*
4Q19		10/1/2019	NE	39.67	NA	NA	NA	407.03		0.1	*
1Q20		1/2/2020	NE	41.12	NA	NA	NA	405.58		0.0	*
2Q20		4/1/2020	NE	40.97	NA	NA	NA	405.73		0.0	*
3Q20		7/6/2020	NE	39.74	NA	NA	NA	406.96		0.2	*
4Q20		10/5/2020	NE	40.21	NA	NA	NA	406.49		3.1	*
P 93C											
1Q18	446.28	1/3/2018	NE	43.77	NA	NA	NA	402.51	353.81 - 348.81 (92.47 - 97.47)	0.3	*
2Q18		4/2/2018	NE	44.78	NA	NA	NA	401.50	353.40 - 348.40 (92.88 - 97.88)	0.0	*
3Q18		7/2/2018	NE	45.28	NA	NA	NA	401.00	353.40 - 348.40 (92.88 - 97.88)	0.0	*
4Q18		10/2/2018	NE	45.19	NA	NA	NA	401.09	353.40 - 348.40 (92.88 - 97.88)	0.0	*
1Q19		1/2/2019	NE	45.02	NA	NA	NA	401.26	353.40 - 348.40 (92.88 - 97.88)	0.0	*
2Q19		4/1/2019	NE	44.81	NA	NA	NA	401.47	353.40 - 348.40 (92.88 - 97.88)	0.0	*
3Q19	446.55	7/1/2019	NE	40.59	NA	NA	NA	405.96	353.67 - 348.67 (92.88 - 97.88)	0.0	*
4Q19		10/1/2019	NE	39.51	NA	NA	NA	407.04		0.0	*
1Q20		1/2/2020	NE	40.96	NA	NA	NA	405.59		0.0	*
2Q20		4/1/2020	NE	40.80	NA	NA	NA	405.75		0.0	*
3Q20		7/6/2020	NE	39.60	NA	NA	NA	406.95		0.3	*
4Q20		10/5/2020	NE	40.05	NA	NA	NA	406.50		0.1	*
P 93D											
1Q18	446.73	1/3/2018	NE	44.19	NA	NA	NA	402.54	320.98 - 318.98 (125.75 - 127.75)	0.0	*
2Q18		4/2/2018	NE	45.12	NA	NA	NA	401.61		0.0	*
3Q18		7/2/2018	NE	45.67	NA	NA	NA	401.06		0.0	*
4Q18		10/2/2018	NE	45.57	NA	NA	NA	401.16		0.0	*
1Q19		1/2/2019	NE	45.36	NA	NA	NA	401.37		0.0	*
2Q19		4/1/2019	NE	45.18	NA	NA	NA	401.55		0.0	*
3Q19	446.97	7/1/2019	NE	40.97	NA	NA	NA	406.00	321.22 - 319.22 (125.75 - 127.75)	0.0	*
4Q19		10/1/2019	NE	39.87	NA	NA	NA	407.10		0.0	*
1Q20		1/2/2020	NE	41.32	NA	NA	NA	405.65		0.0	*
2Q20		4/1/2020	NE	41.15	NA	NA	NA	405.82		0.0	*
3Q20		7/6/2020	NE	39.99	NA	NA	NA	406.98		0.2	*
4Q20		10/5/2020	NE	40.45	NA	NA	NA	406.52		0.6	*
P 94											
1Q18	445.14	1/3/2018	NE	35.80	NA	NA	NA	409.34	399.29 - 384.29 (45.85 - 60.85)	0.0	*
2Q18		4/2/2018	NE	37.09	NA	NA	NA	408.05		0.0	*
3Q18		7/2/2018	NE	37.80	NA	NA	NA	407.34		0.0	*
4Q18		10/1/2018	NE	38.36	NA	NA	NA	406.78		0.0	*
1Q19		1/2/2019	NE	39.49	NA	NA	NA	405.65		0.0	*
2Q19		4/2/2019	NE	39.18	NA	NA	NA	405.96		0.0	*
3Q19	445.04	7/1/2019	NE	37.01	NA	NA	NA	408.03	398.80 - 383.80 (46.24 - 61.24)	0.0	*
4Q19		10/2/2019	NE	36.86	NA	NA	NA	408.18		0.0	*
1Q20		1/2/2020	NE	36.10	NA	NA	NA	408.94		0.0	*
2Q20		4/2/2020	NE	34.53	NA	NA	NA	410.51		0.0	*
3Q20		7/7/2020	NE	32.99	NA	NA	NA	412.05		0.3	*
4Q20		10/6/2020	NE	32.28	NA	NA	NA	412.76		0.0	*
P 95											
1Q18	443.42	1/4/2018	NE	30.53	NA	NA	NA	412.89	406.90 - 391.90 (36.52 - 51.52)	0.0	*
2Q18		4/4/2018	NE	32.02	NA	NA	NA	411.40		0.0	*
3Q18		7/2/2018	NE	31.87	NA	NA	NA	411.55		0.0	*
4Q18		10/3/2018	NE	32.03	NA	NA	NA	411.39		0.1	*
1Q19		1/4/2019	NE	32.63	NA	NA	NA	410.79		0.0	*
2Q19		4/2/2019	NE	32.49	NA	NA	NA	410.93		0.0	*
3Q19	443.95	7/2/2019	NE	30.02	NA	NA	NA	413.93	407.43 - 392.43 (36.52 - 51.52)	0.0	*
4Q19		10/2/2019	NE	28.89	NA	NA	NA	415.06		0.0	*
1Q20		1/3/2020	NE	29.17	NA	NA	NA	414.78		0.0	*
2Q20		4/3/2020	NE	28.24	NA	NA	NA	415.71		0.0	*
3Q20		7/7/2020	NE	27.21	NA	NA	NA	416.74		0.0	*
4Q20		10/7/2020	NE	27.09	NA	NA	NA	416.86		0.0	*

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 102											
1Q18	444.97	1/4/2018	NE	33.41	NA	NA	NA	411.56	402.22 - 382.22 (42.75 - 62.75)	363	*
2Q18		4/4/2018	NE	35.06	NA	NA	NA	409.91		0.2	*
3Q18		7/2/2018	NE	35.09	NA	NA	NA	409.88		0.0	*
4Q18		10/3/2018	NE	35.32	NA	NA	NA	409.65		6.3	*
1Q19		1/4/2019	NE	36.10	NA	NA	NA	408.87		0.2	*
2Q19		4/2/2019	NE	36.06	NA	NA	NA	408.91		0.0	*
3Q19	445.14	7/2/2019	NE	34.23	NA	NA	NA	410.91	402.39 - 382.39 (42.75 - 62.75)	0.5	*
4Q19		10/2/2019	NE	32.95	NA	NA	NA	412.19		0.1	*
1Q20		1/3/2020	NE	32.88	NA	NA	NA	412.26		0.5	*
2Q20		4/3/2020	NE	31.82	NA	NA	NA	413.32		0.5	*
3Q20		7/7/2020	NE	30.62	NA	NA	NA	414.52		0.0	*
4Q20		10/7/2020	NE	30.15	NA	NA	NA	414.99		22.6	*
P 114R											
1Q18	429.26	1/3/2018	NE	26.16	NA	NA	NA	403.10	406.25 - 396.25 (23.01 - 33.01)	9.0	
2Q18		4/9/2018	NE	26.76	NA	NA	NA	402.50		0.1	
3Q18		7/2/2018	NE	26.50	NA	NA	NA	402.76		0.0	
4Q18		10/2/2018	NE	26.26	NA	NA	NA	403.00		0.0	
1Q19		1/3/2019	NE	26.02	NA	NA	NA	403.24		38.7	
2Q19		4/2/2019	NE	25.47	NA	NA	NA	403.79		132	
3Q19	429.48	7/1/2019	NE	19.67	NA	NA	NA	409.81	406.47 - 396.47 (23.01 - 33.01)	1.5	*
4Q19		10/2/2019	NE	20.49	NA	NA	NA	408.99		0.0	*
1Q20		1/2/2020	NE	21.85	NA	NA	NA	407.63		0.0	*
2Q20		4/3/2020	NE	21.72	NA	NA	NA	407.76		0.0	*
3Q20		7/7/2020	NE	20.49	NA	NA	NA	408.99		0.1	*
4Q20		10/6/2020	NE	22.11	NA	NA	NA	407.37		0.0	*
P 115											
1Q18	433.36	1/3/2018	NE	30.22	NA	NA	NA	403.14	401.06 - 381.06 (32.30 - 52.30)	0.0	*
2Q18		4/4/2018	NE	31.03	NA	NA	NA	402.33		0.0	*
3Q18		7/2/2018	NE	30.38	NA	NA	NA	402.98		0.0	*
4Q18		10/2/2018	NE	30.07	NA	NA	NA	403.29		0.0	*
1Q19		1/3/2019	NE	29.83	NA	NA	NA	403.53		0.0	*
2Q19		4/2/2019	NE	29.08	NA	NA	NA	404.28		0.0	*
3Q19	433.54	7/1/2019	NE	23.18	NA	NA	NA	410.36	401.24 - 381.24 (32.30 - 52.30)	0.0	*
4Q19		10/2/2019	NE	24.34	NA	NA	NA	409.20		0.0	*
1Q20		1/3/2020	NE	22.02	NA	NA	NA	411.52		0.0	* Gauging results anomalous
2Q20		4/3/2020	NE	25.46	NA	NA	NA	408.08		0.0	*
3Q20		7/7/2020	NE	24.28	NA	NA	NA	409.26		0.1	*
4Q20		10/6/2020	NE	26.13	NA	NA	NA	407.41		0.0	*
P 116											
1Q18	436.63	1/3/2018	NE	33.69	NA	NA	NA	402.94	399.19 - 379.19 (37.44 - 57.44)	0.0	*
2Q18		4/4/2018	NE	34.47	NA	NA	NA	402.16		0.0	*
3Q18		7/2/2018	NE	33.74	NA	NA	NA	402.89		0.0	*
4Q18		10/2/2018	NE	33.38	NA	NA	NA	403.25		0.0	*
1Q19		1/3/2019	NE	33.18	NA	NA	NA	403.45		0.1	*
2Q19		4/3/2019	NE	32.53	NA	NA	NA	404.10		0.0	*
3Q19	436.79	7/1/2019	NE	26.27	NA	NA	NA	410.52	399.35 - 379.35 (37.44 - 57.44)	0.0	*
4Q19		10/2/2019	NE	27.66	NA	NA	NA	409.13		0.0	*
1Q20		1/2/2020	NE	29.10	NA	NA	NA	407.69		0.1	*
2Q20		4/3/2020	NE	28.80	NA	NA	NA	407.99		0.0	*
3Q20		7/7/2020	NE	27.61	NA	NA	NA	409.18		0.0	*
4Q20		10/6/2020	NE	29.81	NA	NA	NA	406.98		0.0	*
P 117											
1Q18	432.71	1/3/2018	NE	29.90	NA	NA	NA	402.81	399.78 - 379.78 (32.93 - 52.93)	0.0	*
2Q18		4/4/2018	NE	30.68	NA	NA	NA	402.03		0.0	*
3Q18		7/2/2018	NE	29.92	NA	NA	NA	402.79		0.0	*
4Q18		10/2/2018	NE	29.56	NA	NA	NA	403.15		0.0	*
1Q19		1/3/2019	NE	29.37	NA	NA	NA	403.34		0.4	*
2Q19		4/2/2019	NE	28.45	NA	NA	NA	404.26		0.0	*
3Q19	432.87	7/1/2019	NE	22.26	NA	NA	NA	410.61	399.94 - 379.94 (32.93 - 52.93)	0.0	*
4Q19		10/2/2019	NE	23.79	NA	NA	NA	409.08		0.0	*
1Q20		1/2/2020	NE	25.26	NA	NA	NA	407.61		0.0	*
2Q20		4/3/2020	NE	24.98	NA	NA	NA	407.89		0.0	*
3Q20		7/7/2020	NE	23.75	NA	NA	NA	409.12		0.0	*
4Q20		10/6/2020	NE	25.82	NA	NA	NA	407.05		0.0	*

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.)	WELL HEAD PID (ppm)	Comments
P 118											
1Q18	431.31	1/3/2018	NE	28.99	NA	NA	NA	402.32	400.19 - 384.26 (31.12 - 47.05)	0.0	-
2Q18		4/4/2018	NE	29.57	NA	NA	NA	401.74		0.0	-
3Q18		7/2/2018	NE	28.63	NA	NA	NA	402.68		0.0	-
4Q18		10/3/2018	NE	28.11	NA	NA	NA	403.20		0.0	-
1Q19		1/3/2019	NE	28.03	NA	NA	NA	403.28		0.3	-
2Q19		4/3/2019	NE	26.92	NA	NA	NA	404.39		0.0	-
3Q19	431.48	7/1/2019	NE	20.11	NA	NA	NA	411.37	400.36 - 384.43 (31.12 - 47.05)	0.0	-
4Q19		10/2/2019	NE	22.37	NA	NA	NA	409.11		0.0	-
1Q20		1/2/2020	NE	23.99	NA	NA	NA	407.49		0.0	-
2Q20		4/3/2020	NE	23.53	NA	NA	NA	407.95		0.0	-
3Q20		7/7/2020	NE	22.37	NA	NA	NA	409.11		0.0	-
4Q20		10/6/2020	NE	24.89	NA	NA	NA	406.59		0.0	-
P 119											
1Q18	431.90	1/3/2018	NE	28.27	NA	NA	NA	403.63	401.23 - 385.30 (30.67 - 46.60)	0.0	-
2Q18		4/4/2018	NE	29.24	NA	NA	NA	402.66		0.0	-
3Q18		7/2/2018	NE	29.03	NA	NA	NA	402.87		0.0	-
4Q18		10/2/2018	NE	28.88	NA	NA	NA	403.02		0.0	-
1Q19		1/3/2019	NE	28.62	NA	NA	NA	403.28		0.5	-
2Q19		4/3/2019	NE	28.33	NA	NA	NA	403.57		0.0	-
3Q19	432.11	7/1/2019	NE	23.32	NA	NA	NA	408.79	401.44 - 385.51 (30.67 - 46.60)	0.0	-
4Q19		10/2/2019	NE	23.37	NA	NA	NA	408.74		0.0	-
1Q20		1/3/2020	NE	24.75	NA	NA	NA	407.36		0.0	-
2Q20		4/3/2020	NE	24.34	NA	NA	NA	407.77		0.0	-
3Q20		7/7/2020	NE	23.24	NA	NA	NA	408.87		0.0	-
4Q20		10/6/2020	NE	24.36	NA	NA	NA	407.75		0.0	-
P 120											
1Q18	432.82	1/3/2018	NE	28.69	NA	NA	NA	404.13	401.44 - 385.51 (31.38 - 47.31)	0.0	-
2Q18		4/4/2018	NE	29.48	NA	NA	NA	403.34		0.0	-
3Q18		7/2/2018	NE	29.04	NA	NA	NA	403.78		0.0	-
4Q18		10/2/2018	NE	28.90	NA	NA	NA	403.92		0.0	-
1Q19		1/3/2019	NE	28.65	NA	NA	NA	404.17		0.3	-
2Q19		4/2/2019	NE	27.96	NA	NA	NA	404.86		0.0	-
3Q19	433.00	7/1/2019	NE	22.74	NA	NA	NA	410.26	401.62 - 385.69 (31.38 - 47.31)	0.0	-
4Q19		10/2/2019	NE	23.40	NA	NA	NA	409.60		0.0	-
1Q20		1/3/2020	NE	24.93	NA	NA	NA	408.07		0.0	-
2Q20		4/3/2020	NE	24.21	NA	NA	NA	408.79		0.0	-
3Q20		7/7/2020	NE	23.15	NA	NA	NA	409.85		0.0	-
4Q20		10/6/2020	NE	24.75	NA	NA	NA	408.25		0.0	-
P 129											
1Q18	432.43	1/3/2018	NE	31.67	NA	NA	NA	400.76	400.46 - 384.53 (31.97 - 47.90)	0.0	-
2Q18		4/4/2018	NE	31.58	NA	NA	NA	400.85		0.0	-
3Q18		7/3/2018	NE	29.91	NA	NA	NA	402.52		0.0	-
4Q18		10/2/2018	NE	29.62	NA	NA	NA	402.81		0.0	-
1Q19		1/3/2019	NE	29.58	NA	NA	NA	402.85		0.1	-
2Q19		4/2/2019	NE	26.90	NA	NA	NA	405.53		0.0	-
3Q19	432.66	7/8/2019	NE	19.55	NA	NA	NA	413.11	400.69 - 384.76 (31.97 - 47.90)	0.0	-
4Q19		10/2/2019	NE	23.75	NA	NA	NA	408.91		0.0	-
1Q20		1/2/2020	NE	25.92	NA	NA	NA	406.74		0.0	-
2Q20		4/3/2020	NE	24.80	NA	NA	NA	407.86		0.0	-
3Q20		7/7/2020	NE	23.89	NA	NA	NA	408.77		0.0	-
4Q20		10/6/2020	NE	27.53	NA	NA	NA	405.13		0.0	-
ROST 3 MW											
1Q18	442.29	1/3/2018	NE	38.80	NA	NA	NA	403.49	404.48 - 394.48 (37.81 - 47.81)	296	
2Q18		4/2/2018	NE	39.89	NA	NA	NA	402.40		1.3	
3Q18		7/2/2018	NE	40.72	NA	NA	NA	401.57		0.0	
4Q18		10/1/2018	NE	40.78	NA	NA	NA	401.51		0.0	
1Q19		1/3/2019	NE	40.61	NA	NA	NA	401.68		0.0	
2Q19		4/1/2019	NE	40.68	NA	NA	NA	401.61		0.0	
3Q19	442.52	7/1/2019	NE	36.84	NA	NA	NA	405.68	404.71 - 394.71 (37.81 - 47.81)	134	-
4Q19		10/1/2019	NE	35.46	NA	NA	NA	407.06		50.1	-
1Q20		1/2/2020	NE	36.41	NA	NA	NA	406.11		227	-
2Q20		4/1/2020	NE	36.16	NA	NA	NA	406.36		1.1	-
3Q20		7/6/2020	NE	35.03	NA	NA	NA	407.49		14.9	-
4Q20		10/5/2020	NE	35.15	NA	NA	NA	407.37		0.5	-

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
ROST 4 PZ											
1Q18	442.13	1/2/2018	NE	37.88	NA	NA	NA	404.25	407.20 - 397.20 (34.93 - 44.93)	60.7	
2Q18		4/2/2018	NE	39.15	NA	NA	NA	402.98		0.0	
3Q18		7/2/2018	NE	39.77	NA	NA	NA	402.36		0.0	
4Q18		10/1/2018	NE	39.81	NA	NA	NA	402.32		0.0	
1Q19		1/2/2019	NE	39.72	NA	NA	NA	402.41		0.0	
2Q19		4/1/2019	NE	40.00	NA	NA	NA	402.13		0.0	
3Q19	442.15	7/1/2019	NE	37.35	NA	NA	NA	404.80	407.22 - 397.22 (34.93 - 44.93)	0.0	
4Q19		10/1/2019	NE	35.10	NA	NA	NA	407.05		31.4	
1Q20		1/2/2020	NE	35.93	NA	NA	NA	406.22		11.2	
2Q20		4/1/2020	NE	35.92	NA	NA	NA	406.23		0.1	
3Q20		7/6/2020	NE	34.79	NA	NA	NA	407.36		115	*
4Q20		10/5/2020	NE	34.49	NA	NA	NA	407.66		83.9	*
ROST 4 PZ(A)											
1Q18	442.11	1/2/2018	NE	37.16	NA	NA	NA	404.95	407.34 - 397.34 (34.77 - 44.77)	1.3	
2Q18		4/2/2018	NE	38.53	NA	NA	NA	403.58		0.0	
3Q18		7/2/2018	NE	39.59	NA	NA	NA	402.52		0.0	
4Q18		10/2/2018	NE	39.67	NA	NA	NA	402.44		0.0	
1Q19		1/2/2019	NE	39.53	NA	NA	NA	402.58		0.0	
2Q19		4/1/2019	NE	40.05	NA	NA	NA	402.06		0.0	
3Q19	442.15	7/1/2019	NE	36.34	NA	NA	NA	405.81	407.38 - 397.38 (34.77 - 44.77)	0.0	
4Q19		10/1/2019	NE	34.38	NA	NA	NA	407.77		6.0	*
1Q20		1/2/2020	NE	35.20	NA	NA	NA	406.95		0.0	
2Q20		4/1/2020	NE	35.24	NA	NA	NA	406.91		0.0	
3Q20		7/6/2020	NE	34.10	NA	NA	NA	408.05		0.0	*
4Q20		10/5/2020	NE	33.66	NA	NA	NA	408.49		0.2	*
ROST 4 PZ(B)											
1Q18	442.38	1/2/2018	NE	37.85	NA	NA	NA	404.53	407.33 - 397.33 (35.05 - 45.05)	0.9	
2Q18		4/2/2018	NE	39.30	NA	NA	NA	403.08		0.0	
3Q18		7/2/2018	NE	40.02	NA	NA	NA	402.36		0.0	
4Q18		10/1/2018	NE	39.82	NA	NA	NA	402.56		0.0	
1Q19		1/2/2019	NE	39.86	NA	NA	NA	402.52		0.0	
2Q19		4/1/2019	NE	40.18	NA	NA	NA	402.20		0.0	
3Q19	442.40	7/1/2019	NE	37.26	NA	NA	NA	405.14	407.35 - 397.35 (35.05 - 45.05)	0.0	
4Q19		10/1/2019	NE	35.09	NA	NA	NA	407.31		0.0	
1Q20		1/2/2020	NE	35.91	NA	NA	NA	406.49		0.0	
2Q20		4/1/2020	NE	35.94	NA	NA	NA	406.46		0.0	
3Q20		7/6/2020	NE	34.78	NA	NA	NA	407.62		0.0	*
4Q20		10/5/2020	NE	34.39	NA	NA	NA	408.01		0.0	*
ROST 4 PZ(C)											
1Q18	442.66	1/2/2018	NE	38.75	NA	NA	NA	403.91	407.71 - 397.71 (34.95 - 44.95)	30.9	
2Q18		4/2/2018	NE	39.98	NA	NA	NA	402.68		0.0	
3Q18		7/2/2018	NE	40.88	NA	NA	NA	401.78		0.0	
4Q18		10/1/2018	NE	40.93	NA	NA	NA	401.73		0.0	
1Q19		1/3/2019	NE	40.78	NA	NA	NA	401.88		0.0	
2Q19		4/1/2019	NE	41.04	NA	NA	NA	401.62		0.0	
3Q19	442.97	7/1/2019	NE	38.14	NA	NA	NA	404.83	408.02 - 398.02 (34.95 - 44.95)	0.0	
4Q19		10/1/2019	NE	35.92	NA	NA	NA	407.05		0.0	
1Q20		1/2/2020	NE	36.77	NA	NA	NA	406.20		0.1	
2Q20		4/1/2020	NE	36.75	NA	NA	NA	406.22		0.0	
3Q20		7/6/2020	NE	35.55	NA	NA	NA	407.42		0.0	
4Q20		10/5/2020	NE	35.37	NA	NA	NA	407.60		120	
ROST 4 PZ(D)											
1Q18	442.98	1/2/2018	NE	38.63	NA	NA	NA	404.35	408.01 - 398.01 (34.97 - 44.97)	0.0	
2Q18		4/2/2018	NE	39.82	NA	NA	NA	403.16		0.0	
3Q18		7/2/2018	NE	40.77	NA	NA	NA	402.21		0.0	
4Q18		10/1/2018	NE	40.23	NA	NA	NA	402.75		0.0	
1Q19		1/3/2019	NE	40.65	NA	NA	NA	402.33		0.0	
2Q19		4/1/2019	NE	40.88	NA	NA	NA	402.10		0.0	
3Q19	442.92	7/1/2019	NE	37.98	NA	NA	NA	404.94	407.95 - 397.95 (34.97 - 44.97)	0.0	
4Q19		10/1/2019	NE	35.80	NA	NA	NA	407.12		2.0	
1Q20		1/2/2020	NE	36.66	NA	NA	NA	406.26		3.8	
2Q20		4/1/2020	NE	36.61	NA	NA	NA	406.31		0.1	
3Q20		7/6/2020	NE	35.51	NA	NA	NA	407.41		29.5	
4Q20		10/5/2020	NE	35.20	NA	NA	NA	407.72		77.3	

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
ROST 4 PZ(E)											
1Q18	441.96	1/2/2018	NE	37.85	NA	NA	NA	404.11	407.21 - 397.21 (34.75 - 44.75)	11.1	
2Q18		4/3/2018	NE	38.78	NA	NA	NA	403.18		0.0	
3Q18		7/2/2018	NE	39.54	NA	NA	NA	402.42		0.0	
4Q18		10/1/2018	NE	39.59	NA	NA	NA	402.37		0.0	
1Q19		1/2/2019	NE	39.48	NA	NA	NA	402.48		0.0	
2Q19		4/1/2019	NE	39.72	NA	NA	NA	402.24		0.0	
3Q19	441.98	7/1/2019	NE	37.18	NA	NA	NA	404.80	407.23 - 397.23 (34.75 - 44.75)	0.0	
4Q19		10/1/2019	NE	35.09	NA	NA	NA	406.89		35.5	
1Q20		1/2/2020	NE	35.88	NA	NA	NA	406.10		0.0	
2Q20		4/1/2020	NE	35.89	NA	NA	NA	406.09		0.0	
3Q20		7/6/2020	NE	34.78	NA	NA	NA	407.20		79.9	
4Q20		10/5/2020	NE	34.50	NA	NA	NA	407.48		87.1	*
ROST 4 PZ(F)											
1Q18	442.12	1/2/2018	NE	38.07	NA	NA	NA	404.05	407.59 - 397.59 (34.53 - 44.53)	0.7	
2Q18		4/3/2018	NE	38.97	NA	NA	NA	403.15		0.0	
3Q18		7/2/2018	NE	39.57	NA	NA	NA	402.55		0.0	
4Q18		10/1/2018	NE	39.59	NA	NA	NA	402.53		0.0	
1Q19		1/2/2019	NE	39.51	NA	NA	NA	402.61		0.0	
2Q19		4/1/2019	NE	39.75	NA	NA	NA	402.37		0.0	
3Q19		7/1/2019	NE	37.32	NA	NA	NA	404.80		0.0	
4Q19		10/1/2019	NE	35.29	NA	NA	NA	406.83		0.0	
1Q20		1/2/2020	NE	36.22	NA	NA	NA	405.90		4.7	
2Q20		4/1/2020	NE	36.12	NA	NA	NA	406.00		0.0	
3Q20		7/6/2020	NE	35.02	NA	NA	NA	407.10		1.3	
4Q20		10/5/2020	NE	34.71	NA	NA	NA	407.41		79.3	
ROST 4 PZ(G)											
1Q18	442.13	1/2/2018	NE	38.97	NA	NA	NA	403.16	407.85 - 397.85 (34.28 - 44.28)	77.4	
2Q18		4/2/2018	NE	39.84	NA	NA	NA	402.29		0.2	
3Q18		7/2/2018	NE	40.87	NA	NA	NA	401.26		0.0	
4Q18		10/1/2018	NE	40.94	NA	NA	NA	401.19		0.0	
1Q19		1/3/2019	NE	40.74	NA	NA	NA	401.39		0.0	
2Q19		4/1/2019	NE	40.78	NA	NA	NA	401.35		0.0	
3Q19	442.20	7/1/2019	NE	37.00	NA	NA	NA	405.20	407.92 - 397.92 (34.28 - 44.28)	0.0	
4Q19		10/1/2019	NE	35.57	NA	NA	NA	406.63		0.0	
1Q20		1/2/2020	NE	36.67	NA	NA	NA	405.53		87.2	
2Q20		4/1/2020	NE	36.07	NA	NA	NA	406.13		9.0	
3Q20		7/6/2020	NE	35.16	NA	NA	NA	407.04		27.0	
4Q20		10/5/2020	NE	35.25	NA	NA	NA	406.95		71.9	
S 1											
1Q18	443.90	1/3/2018	40.78	40.85	403.05	403.12	0.07	403.11	Unknown	185	
2Q18		4/4/2018	42.44	42.50	401.40	401.46	0.06	401.45		191	
3Q18		7/3/2018	42.88	42.95	400.95	401.02	0.07	401.01		168	
4Q18		10/2/2018	42.90	43.02	400.88	401.00	0.12	400.98		176	
1Q19		1/3/2019	43.05	43.08	400.82	400.85	0.03	400.84		212	
2Q19		4/1/2019	42.84	42.85	401.05	401.06	0.01	401.06		572	
3Q19	444.06	7/1/2019	40.03	40.05	404.01	404.03	0.02	404.03	Unknown	184	
4Q19		10/1/2019	38.32	38.33	405.73	405.74	0.01	405.74		187	
1Q20		1/2/2020	38.96	38.98	405.08	405.10	0.02	405.10		129	
2Q20		4/2/2020	38.57	38.58	405.48	405.49	0.01	405.49		160	
3Q20		7/7/2020	37.42	37.43	406.63	406.64	0.01	406.64		113	
4Q20		10/6/2020	37.26	37.28	406.78	406.80	0.02	406.80		175	
T 1											
1Q18	445.40	1/2/2018	NE	41.16	NA	NA	NA	404.24	398.40 - 388.40 (47.00 - 57.00)	8.0	*
2Q18		4/2/2018	NE	42.22	NA	NA	NA	403.18		0.0	*
3Q18		7/2/2018	NE	43.16	NA	NA	NA	402.24		0.0	*
4Q18		10/2/2018	NE	43.33	NA	NA	NA	402.07		0.0	*
1Q19		1/2/2019	NE	43.33	NA	NA	NA	402.07		0.0	*
2Q19		4/1/2019	NE	43.44	NA	NA	NA	401.96		0.0	*
3Q19	445.61	7/1/2019	NE	40.38	NA	NA	NA	405.23	398.61 - 388.61 (47.00 - 57.00)	0.0	*
4Q19		10/1/2019	NE	38.74	NA	NA	NA	406.87		0.0	*
1Q20		1/2/2020	NE	39.17	NA	NA	NA	406.44		0.0	*
2Q20		4/1/2020	NE	38.90	NA	NA	NA	406.71		0.0	*
3Q20		7/6/2020	NE	37.62	NA	NA	NA	407.99		0.0	*
4Q20		10/5/2020	NE	37.56	NA	NA	NA	408.05		0.5	*

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												
1Q18	443.21	1/2/2018	NE	38.82	NA	NA	NA	404.39	392.72 - 372.56 (50.49 - 70.64)	0.0	-	
2Q18		4/2/2018	NE	40.07	NA	NA	NA	403.14		0.0	-	
3Q18		7/2/2018	NE	41.40	NA	NA	NA	401.81		0.0	-	
4Q18		10/1/2018	NE	41.69	NA	NA	NA	401.52		0.0	-	
1Q19		1/3/2019	NE	41.83	NA	NA	NA	401.38		0.0	-	
2Q19		4/2/2019	NE	41.72	NA	NA	NA	401.49		0.0	-	
3Q19		7/1/2019	NE	39.59	NA	NA	NA	403.81		0.0	-	
4Q19	443.40	10/1/2019	NE	37.72	NA	NA	NA	405.68	392.90 - 372.76 (50.49 - 70.64)	0.0	-	
1Q20		1/2/2020	NE	37.83	NA	NA	NA	405.57		0.0	-	
2Q20		4/1/2020	NE	37.30	NA	NA	NA	406.10		0.0	-	
3Q20		7/6/2020	NE	35.92	NA	NA	NA	407.48		0.0	-	
4Q20		10/6/2020	NE	35.55	NA	NA	NA	407.85		0.0	-	
T 3												
1Q18	449.03	1/2/2018	45.43	45.44	403.59	403.60	0.01	403.60	403.81 - 388.81 (45.22 - 60.22)	7.6		
2Q18		4/4/2018	NE	46.94	NA	NA	NA	402.09		0.1		
3Q18		7/2/2018	NE	48.85	NA	NA	NA	400.18		0.0		
4Q18		10/1/2018	NE	49.26	NA	NA	NA	399.77		0.0		
1Q19		1/2/2019	NE	49.53	NA	NA	NA	399.50		4.9		
2Q19		4/2/2019	NE	49.24	NA	NA	NA	399.79		0.0		
3Q19		7/1/2019	NE	48.00	NA	NA	NA	401.21		0.0		
4Q19	449.21	10/1/2019	NE	45.99	NA	NA	NA	403.22	403.99 - 388.99 (45.22 - 60.22)	0.0		
1Q20		1/2/2020	NE	45.34	NA	NA	NA	403.87		0.0		
2Q20		4/1/2020	NE	44.65	NA	NA	NA	404.56		0.0	-	
3Q20		7/6/2020	NE	43.06	NA	NA	NA	406.15		0.2	-	
4Q20		10/6/2020	NE	42.48	NA	NA	NA	406.73		0.2	-	
T 4												
1Q18	446.63	1/4/2018	NE	43.21	NA	NA	NA	403.42	398.32 - 383.32 (48.31 - 63.31)	10.4	-	
2Q18		4/4/2018	NE	45.12	NA	NA	NA	401.51		0.0	-	
3Q18		7/3/2018	NE	46.96	NA	NA	NA	399.67		0.0	-	
4Q18		10/2/2018	NE	47.04	NA	NA	NA	399.59		0.1	-	
1Q19		1/2/2019	NE	47.65	NA	NA	NA	398.98		0.0	-	
2Q19		4/2/2019	NE	47.14	NA	NA	NA	399.49		0.0	-	
3Q19		7/1/2019	NE	46.87	NA	NA	NA	399.95		0.0	-	
4Q19	446.82	10/2/2019	NE	44.83	NA	NA	NA	401.99	396.80 - 381.80 (50.02 - 65.02)	0.0	-	
1Q20		1/2/2020	NE	43.47	NA	NA	NA	403.35		0.0	-	
2Q20		4/2/2020	NE	42.06	NA	NA	NA	404.76		0.0	-	
3Q20		7/6/2020	NE	40.80	NA	NA	NA	406.02		0.1	-	
4Q20		10/6/2020	NE	40.07	NA	NA	NA	406.75		0.1	-	
T 5												
1Q18	443.47	1/3/2018	NE	39.45	NA	NA	NA	404.02	395.14 - 378.59 (48.33 - 64.88)	3.0	-	
2Q18		4/4/2018	NM	NM	NA	NA	NA	NA		NM	Unsafe condition at well - Unable to access	
3Q18		7/3/2018	NE	41.59	NA	NA	NA	401.88		2.2	-	
4Q18		10/2/2018	NE	41.87	NA	NA	NA	401.60		5.7	-	
1Q19		1/3/2019	NE	42.11	NA	NA	NA	401.36		17.7	-	
2Q19		4/1/2019	NE	41.84	NA	NA	NA	401.63		4.2	-	
3Q19		7/1/2019	NE	39.64	NA	NA	NA	404.02		12.0	-	
4Q19	443.66	10/1/2019	NE	37.75	NA	NA	NA	405.91	395.33 - 378.78 (48.33 - 64.88)	5.8	-	
1Q20		1/2/2020	NE	37.99	NA	NA	NA	405.67		7.2	-	
2Q20		4/3/2020	NE	37.62	NA	NA	NA	406.04		12.8	-	
3Q20		7/7/2020	NE	36.35	NA	NA	NA	407.31		54.0	-	
4Q20		10/6/2020	NE	36.04	NA	NA	NA	407.62		28.5	-	
T 6												
1Q18	446.61	1/2/2018	NE	44.30	NA	NA	NA	402.31	394.85 - 380.60 (51.76 - 66.01)	2.0	-	
2Q18		4/3/2018	NE	44.81	NA	NA	NA	401.80		0.7	-	
3Q18		7/2/2018	NE	45.61	NA	NA	NA	401.00		0.1	-	
4Q18		10/1/2018	NE	45.58	NA	NA	NA	401.03		0.0	-	
1Q19		1/2/2019	NE	45.42	NA	NA	NA	401.19		17.1	-	
2Q19		4/1/2019	NE	45.24	NA	NA	NA	401.37		394.10 - 379.85 (52.51 - 66.76)	0.0	-
3Q19		7/1/2019	NE	41.12	NA	NA	NA	405.66		1.8	-	
4Q19	446.78	10/1/2019	NE	39.90	NA	NA	NA	406.88	394.27 - 380.02 (52.51 - 66.76)	0.1	-	
1Q20		1/2/2020	NE	41.29	NA	NA	NA	405.49		2.5	-	
2Q20		4/1/2020	NE	41.10	NA	NA	NA	405.68		3.7	-	
3Q20		7/6/2020	NE	39.94	NA	NA	NA	406.84		1.3	-	
4Q20		10/5/2020	NE	40.28	NA	NA	NA	406.50		2.4	-	

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.)	WELL HEAD PID (ppm)	Comments
T 7											
1Q18	444.04	1/4/2018	39.98	39.99	404.05	404.06	0.01	404.06	395.32 - 380.32 (48.72 - 63.72)	2.5	*
2Q18		4/4/2018	NE	41.13	NA	NA	NA	402.91		3.5	*
3Q18		7/2/2018	NE	41.17	NA	NA	NA	402.87		0.0	*
4Q18		10/3/2018	NE	41.08	NA	NA	NA	402.96		0.0	*
1Q19		1/4/2019	NE	40.97	NA	NA	NA	403.07		5.8	*
2Q19		4/2/2019	NE	40.78	NA	NA	NA	403.26		59.6	*
3Q19	444.26	7/2/2019	NE	37.14	NA	NA	NA	407.12	395.54 - 380.54 (48.72 - 63.72)	0.6	*
4Q19		10/2/2019	NE	36.23	NA	NA	NA	408.03		0.9	*
1Q20		1/3/2020	NE	37.33	NA	NA	NA	406.93		69.9	*
2Q20		4/3/2020	NE	36.90	NA	NA	NA	407.36		0.9	*
3Q20		7/7/2020	NE	35.81	NA	NA	NA	408.45		1.8	*
4Q20		10/7/2020	NE	36.20	NA	NA	NA	408.06		1.1	*
T 12											
1Q18	444.80	1/3/2018	NE	42.06	NA	NA	NA	402.74	397.97 - 371.97 (46.83 - 72.83)	6.1	*
2Q18		4/2/2018	NE	43.06	NA	NA	NA	401.74		3.8	*
3Q18		7/2/2018	NE	44.21	NA	NA	NA	400.59		0.1	*
4Q18		10/1/2018	NE	44.18	NA	NA	NA	400.62		1.2	*
1Q19		1/2/2019	NE	44.03	NA	NA	NA	400.77		315	*
2Q19		4/1/2019	NE	44.11	NA	NA	NA	400.69		15.1	*
3Q19	444.99	7/1/2019	NE	40.35	NA	NA	NA	404.64	398.16 - 372.16 (46.83 - 72.83)	1.1	*
4Q19		10/1/2019	NE	38.66	NA	NA	NA	406.33		0.8	*
1Q20		1/2/2020	NE	40.04	NA	NA	NA	404.95		2.2	*
2Q20		4/1/2020	NE	39.10	NA	NA	NA	405.89		10.0	*
3Q20		7/6/2020	NE	38.43	NA	NA	NA	406.56		2.5	*
4Q20		10/5/2020	NE	38.26	NA	NA	NA	406.73		1.5	*
T 13											
1Q18	443.96	1/2/2018	NE	38.96	NA	NA	NA	405.00	396.46 - 370.46 (47.50 - 73.50)	3.7	*
2Q18		4/2/2018	NE	39.93	NA	NA	NA	404.03		0.0	*
3Q18		7/2/2018	NE	40.85	NA	NA	NA	403.11		0.0	*
4Q18		10/1/2018	NE	41.24	NA	NA	NA	402.72		0.1	*
1Q19		1/2/2019	NE	41.25	NA	NA	NA	402.71		0.0	*
2Q19		4/1/2019	NE	41.34	NA	NA	NA	402.62		0.0	*
3Q19	443.76	7/1/2019	NE	38.35	NA	NA	NA	405.41	399.95 - 373.95 (43.81 - 69.81)	0.0	*
4Q19		10/1/2019	NE	36.78	NA	NA	NA	406.98		0.1	*
1Q20		1/2/2020	NE	37.14	NA	NA	NA	406.62		0.0	*
2Q20		4/1/2020	NE	36.87	NA	NA	NA	406.89		0.0	*
3Q20		7/6/2020	NE	35.52	NA	NA	NA	408.24		0.1	*
4Q20		10/5/2020	NE	35.52	NA	NA	NA	408.24		0.0	*
T 15											
1Q18	445.14	1/3/2018	NE	40.36	NA	NA	NA	404.78	397.10 - 371.10 (48.04 - 74.04)	0.0	*
2Q18		4/2/2018	41.62	41.71	403.43	403.52	0.09	403.50		0.0	* Gauging result anomalous
3Q18		6/8/2018	NE	42.98	NA	NA	NA	402.16		0.0	*
4Q18		7/2/2018	NE	43.32	NA	NA	NA	401.82		0.0	*
1Q19		10/1/2018	NE	43.53	NA	NA	NA	401.61		0.0	*
2Q19		1/4/2019	NE	43.78	NA	NA	NA	401.36		0.0	*
3Q19	445.35	4/2/2019	NE	43.76	NA	NA	NA	401.38	396.95 - 370.95 (48.40 - 74.40)	0.0	*
4Q19		7/1/2019	NE	42.13	NA	NA	NA	403.22		0.0	*
1Q20		10/1/2019	NE	40.23	NA	NA	NA	405.12		0.0	*
2Q20		1/2/2020	NE	39.97	NA	NA	NA	405.38		0.0	*
3Q20		4/1/2020	NE	39.25	NA	NA	NA	406.10		0.0	*
4Q20		7/6/2020	NE	37.80	NA	NA	NA	407.55		0.0	*
T 17											
1Q18	446.01	1/3/2018	NE	38.74	NA	NA	NA	407.27	401.91 - 375.91 (44.10 - 70.10)	0.8	*
2Q18		4/3/2018	NE	40.01	NA	NA	NA	406.00		0.0	*
3Q18		7/2/2018	NE	41.25	NA	NA	NA	404.76		0.0	*
4Q18		10/1/2018	NE	41.70	NA	NA	NA	404.31		0.0	*
1Q19		1/2/2019	NE	42.66	NA	NA	NA	403.35		0.0	*
2Q19		4/2/2019	NE	42.32	NA	NA	NA	403.69		0.0	*
3Q19	446.19	7/1/2019	NE	41.39	NA	NA	NA	404.80	401.72 - 375.72 (44.47 - 70.47)	0.0	*
4Q19		10/2/2019	NE	39.98	NA	NA	NA	406.21		0.0	*
1Q20		1/2/2020	NE	39.12	NA	NA	NA	407.07		0.0	*
2Q20		4/2/2020	NE	37.70	NA	NA	NA	408.49		1.0	*
3Q20		7/7/2020	NE	36.15	NA	NA	NA	410.04		0.0	*
4Q20		10/6/2020	NE	35.45	NA	NA	NA	410.74		0.3	*

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 19											
1Q18	446.79	1/4/2018	NE	43.34	NA	NA	NA	403.45	396.02 - 370.02 (50.77 - 76.77)	236	-
2Q18		4/4/2018	NE	45.19	NA	NA	NA	401.60		7.6	-
3Q18		7/3/2018	NE	46.77	NA	NA	NA	400.02		11.1	-
4Q18		10/2/2018	NE	46.97	NA	NA	NA	399.82		22.9	-
1Q19		1/2/2019	NE	47.55	NA	NA	NA	399.24		475	-
2Q19		4/2/2019	NE	47.12	NA	NA	NA	399.67		103	-
3Q19	446.99	7/1/2019	NE	46.81	NA	NA	NA	400.18	396.22 - 370.22 (50.77 - 76.77)	0.9	-
4Q19		10/2/2019	NE	44.74	NA	NA	NA	402.25		5.8	-
1Q20		1/2/2020	NE	43.46	NA	NA	NA	403.53		17.7	-
2Q20		4/2/2020	NE	42.14	NA	NA	NA	404.85		13.5	-
3Q20		7/8/2020	NE	40.88	NA	NA	NA	406.11		54.8	-
4Q20		10/6/2020	NE	40.10	NA	NA	NA	406.89		19.2	-
T 21											
1Q18	443.99	1/4/2018	NE	30.74	NA	NA	NA	413.25	412.03 - 386.03 (31.96 - 57.96)	0.0	-
2Q18		4/4/2018	NE	32.13	NA	NA	NA	411.86		0.0	-
3Q18		7/2/2018	NE	32.04	NA	NA	NA	411.95		0.0	-
4Q18		10/3/2018	NE	32.25	NA	NA	NA	411.74		0.0	-
1Q19		1/4/2019	NE	32.96	NA	NA	NA	411.03		0.0	-
2Q19		4/2/2019	NE	32.84	NA	NA	NA	411.15		0.0	-
3Q19	444.22	7/2/2019	NE	30.50	NA	NA	NA	413.72	412.26 - 386.26 (31.96 - 57.96)	0.0	-
4Q19		10/2/2019	NE	29.31	NA	NA	NA	414.91		0.0	-
1Q20		1/3/2020	NE	29.57	NA	NA	NA	414.65		0.0	-
2Q20		4/3/2020	NE	28.56	NA	NA	NA	415.66		0.0	-
3Q20		7/7/2020	NE	27.48	NA	NA	NA	416.74		0.0	-
4Q20		10/7/2020	NE	27.30	NA	NA	NA	416.92		0.0	-
T 22											
1Q18	442.19	1/4/2018	NE	32.91	NA	NA	NA	409.28	410.64 - 384.94 (31.55 - 57.25)	1.0	-
2Q18		4/4/2018	NE	33.96	NA	NA	NA	408.23		0.0	-
3Q18		7/2/2018	NE	33.76	NA	NA	NA	408.43		0.0	-
4Q18		10/3/2018	NE	33.96	NA	NA	NA	408.23		0.0	-
1Q19		1/4/2019	NE	34.06	NA	NA	NA	408.13		0.0	-
2Q19		4/2/2019	NE	33.83	NA	NA	NA	408.36		0.0	-
3Q19	442.37	7/2/2019	NE	30.31	NA	NA	NA	412.06	410.82 - 385.12 (31.55 - 57.25)	0.0	-
4Q19		10/2/2019	NE	29.90	NA	NA	NA	412.47		0.0	-
1Q20		1/3/2020	NE	30.49	NA	NA	NA	411.88		0.0	-
2Q20		4/3/2020	NE	29.72	NA	NA	NA	412.65		0.0	-
3Q20		7/7/2020	NE	28.73	NA	NA	NA	413.64		0.0	-
4Q20		10/7/2020	NE	29.47	NA	NA	NA	412.90		0.0	-
T 23											
1Q18	432.69	1/3/2018	NE	26.07	NA	NA	NA	406.62	405.46 - 379.46 (27.23 - 53.23)	0.0	-
2Q18		4/4/2018	NM	NM	NA	NA	NA	NA		NM	Unable to locate well due to landscaping
3Q18		7/2/2018	NE	26.63	NA	NA	NA	406.06		0.0	-
4Q18		10/3/2018	NE	26.83	NA	NA	NA	405.86		0.0	-
1Q19		1/4/2019	NE	26.65	NA	NA	NA	406.04		0.0	-
2Q19		4/2/2019	NE	26.26	NA	NA	NA	406.43		0.0	-
3Q19	432.90	7/1/2019	NE	22.41	NA	NA	NA	410.49	405.67 - 379.67 (27.23 - 53.23)	0.0	-
4Q19		10/1/2019	NE	22.19	NA	NA	NA	410.71		0.0	-
1Q20		1/2/2020	NE	23.10	NA	NA	NA	409.80		0.0	-
2Q20		4/2/2020	NE	22.54	NA	NA	NA	410.36		0.0	-
3Q20		7/7/2020	NE	21.43	NA	NA	NA	411.47		0.0	-
4Q20		10/6/2020	NE	22.47	NA	NA	NA	410.43		0.0	-
T 24											
1Q18	443.81	1/2/2018	40.49	40.57	403.24	403.32	0.08	403.30	402.31 - 376.66 (41.50 - 67.15)	7.2	-
2Q18		4/2/2018	41.53	41.62	402.19	402.28	0.09	402.26		0.6	-
3Q18		7/2/2018	42.79	42.87	400.94	401.02	0.08	401.00		0.4	-
4Q18		10/2/2018	42.79	43.08	400.73	401.02	0.29	400.96		0.4	-
1Q19		1/3/2019	42.71	43.54	400.27	401.10	0.83	400.93		31.0	-
2Q19		4/1/2019	42.69	44.05	399.76	401.12	1.36	400.85		16.0	-
3Q19	444.00	7/1/2019	39.75	40.27	403.73	404.25	0.52	404.15	402.50 - 376.85 (41.50 - 67.15)	12.6	-
4Q19		10/1/2019	38.01	38.34	405.66	405.99	0.33	405.92		0.7	-
1Q20		1/2/2020	38.81	38.95	405.05	405.19	0.14	405.16		14.7	-
2Q20		4/2/2020	38.17	38.20	405.80	405.83	0.03	405.82		1.1	-
3Q20		7/6/2020	37.23	37.25	406.75	406.77	0.02	406.77		1.4	-
4Q20		10/5/2020	37.06	37.11	406.89	406.94	0.05	406.93		11.7	-

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 28											
1Q18	444.43	1/3/2018	NE	38.57	NA	NA	NA	405.86	Unknown	0.0	
2Q18		4/2/2018	NE	39.84	NA	NA	NA	404.59		0.0	
3Q18		7/2/2018	NE	41.39	NA	NA	NA	403.04		0.0	
4Q18		10/1/2018	NE	41.88	NA	NA	NA	402.55		0.0	
1Q19		1/2/2019	NE	42.55	NA	NA	NA	401.88		0.0	
2Q19		4/2/2019	NE	42.26	NA	NA	NA	402.17		0.0	
3Q19	444.56	7/1/2019	NE	41.35	NA	NA	NA	403.21	Unknown	0.0	
4Q19		10/2/2019	NE	39.72	NA	NA	NA	404.84		0.0	
1Q20		1/2/2020	NE	38.80	NA	NA	NA	405.76		0.0	
2Q20		4/2/2020	NE	37.69	NA	NA	NA	406.87		0.0	
3Q20		7/8/2020	NE	36.08	NA	NA	NA	408.48		0.0	
4Q20		10/6/2020	NE	35.52	NA	NA	NA	409.04		0.0	
T 37											
1Q18	447.25	1/4/2018	NE	39.08	NA	NA	NA	408.17	398.40 - 378.40 (48.85 - 68.85)	0.1	-
2Q18		4/3/2018	NE	40.33	NA	NA	NA	406.92		0.0	-
3Q18		7/3/2018	NE	41.26	NA	NA	NA	405.99		0.0	-
4Q18		10/2/2018	NE	41.59	NA	NA	NA	405.66		0.1	-
1Q19		1/3/2019	NE	42.52	NA	NA	NA	404.73		0.0	-
2Q19		4/2/2019	NE	42.25	NA	NA	NA	405.00		0.0	-
3Q19	447.44	7/2/2019	NE	41.46	NA	NA	NA	405.98	398.58 - 378.58 (48.85 - 68.85)	0.0	-
4Q19		10/2/2019	NE	39.97	NA	NA	NA	407.47		0.0	-
1Q20		1/2/2020	NE	39.06	NA	NA	NA	408.38		0.0	-
2Q20		4/3/2020	NE	37.78	NA	NA	NA	409.66		0.0	-
3Q20		7/8/2020	NE	36.46	NA	NA	NA	410.98		0.0	-
4Q20		10/6/2020	NE	35.60	NA	NA	NA	411.84		0.0	-
T 38											
1Q18	445.67	1/4/2018	NE	36.13	NA	NA	NA	409.54	396.53 - 376.53 (49.14 - 69.14)	22.5	-
2Q18		4/3/2018	NE	37.21	NA	NA	NA	408.46		0.0	-
3Q18		7/3/2018	NE	37.95	NA	NA	NA	407.72		0.0	-
4Q18		10/2/2018	NE	38.32	NA	NA	NA	407.35		0.0	-
1Q19		1/3/2019	NE	39.25	NA	NA	NA	406.42		0.0	-
2Q19		4/2/2019	NE	38.99	NA	NA	NA	406.68		0.0	-
3Q19	445.89	7/2/2019	NE	37.60	NA	NA	NA	408.29	396.75 - 376.75 (49.14 - 69.14)	0.0	-
4Q19		10/2/2019	NE	36.31	NA	NA	NA	409.58		0.0	-
1Q20		1/2/2020	NE	35.88	NA	NA	NA	410.01		0.0	-
2Q20		4/3/2020	NE	34.61	NA	NA	NA	411.28		0.0	-
3Q20		7/8/2020	NE	33.26	NA	NA	NA	412.63		0.0	-
4Q20		10/6/2020	NE	32.56	NA	NA	NA	413.33		0.0	-
T 62											
1Q18	431.99	1/3/2018	NE	28.34	NA	NA	NA	403.65	412.28 - 382.28 (19.71 - 49.71)	0.0	
2Q18		4/4/2018	NE	29.20	NA	NA	NA	402.79		0.0	
3Q18		7/2/2018	NE	28.77	NA	NA	NA	403.22		0.0	
4Q18		10/2/2018	NE	28.78	NA	NA	NA	403.21		0.0	
1Q19		1/3/2019	NE	28.30	NA	NA	NA	403.69		0.1	
2Q19		4/2/2019	NE	27.45	NA	NA	NA	404.54		0.0	
3Q19	432.16	7/30/2019	NE	21.97	NA	NA	NA	410.19	412.45 - 382.45 (19.71 - 49.71)	0.1	
4Q19		10/2/2019	NE	22.97	NA	NA	NA	409.19		0.0	
1Q20		1/3/2020	NE	24.47	NA	NA	NA	407.69		0.2	
2Q20		4/3/2020	NE	23.71	NA	NA	NA	408.45		0.0	
3Q20		7/7/2020	NE	22.89	NA	NA	NA	409.27		0.0	
4Q20		10/6/2020	NE	24.37	NA	NA	NA	407.79		0.0	
T 63											
1Q18	431.43	1/3/2018	NE	27.82	NA	NA	NA	403.61	411.45 - 381.45 (19.98 - 49.98)	0.0	
2Q18		4/4/2018	NE	28.86	NA	NA	NA	402.57		0.0	
3Q18		7/2/2018	NE	28.83	NA	NA	NA	402.60		0.0	
4Q18		10/2/2018	NE	27.93	NA	NA	NA	403.50		0.0	
1Q19		1/3/2019	NE	27.42	NA	NA	NA	404.01		0.0	
2Q19		4/2/2019	NE	26.69	NA	NA	NA	404.74		0.0	
3Q19	431.55	7/30/2019	NE	20.84	NA	NA	NA	410.71	411.57 - 381.57 (19.98 - 49.98)	0.0	
4Q19		10/2/2019	NE	22.20	NA	NA	NA	409.35		0.0	
1Q20		1/3/2020	NE	23.70	NA	NA	NA	407.85		0.0	
2Q20		4/3/2020	NE	23.13	NA	NA	NA	408.42		0.1	
3Q20		7/7/2020	NE	22.10	NA	NA	NA	409.45		0.1	
4Q20		10/6/2020	NE	24.00	NA	NA	NA	407.55		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 64											
1Q18	428.93	1/3/2018	NE	26.04	NA	NA	NA	402.89	409.12 - 379.12 (19.81 - 49.81)	0.0	
2Q18		4/4/2018	NM	NM	NA	NA	NA	NA		NM	Unsafe condition at well - Unable to access
3Q18		7/2/2018	NE	25.63	NA	NA	NA	403.30		0.0	
4Q18		10/2/2018	NE	25.47	NA	NA	NA	403.46		0.0	
1Q19		1/4/2019	NE	24.88	NA	NA	NA	404.05		0.0	
2Q19		4/3/2019	NE	23.94	NA	NA	NA	404.99		0.0	
3Q19		7/30/2019	NE	17.84	NA	NA	NA	411.26		3.3	*
4Q19	429.10	10/2/2019	NE	19.67	NA	NA	NA	409.43	409.29 - 379.29 (19.81 - 49.81)	3.4	*
1Q20		1/3/2020	NE	21.50	NA	NA	NA	407.60		0.0	
2Q20		4/3/2020	NE	26.64	NA	NA	NA	402.46		13.9	Gauging result anomalous
3Q20		7/7/2020	NE	19.58	NA	NA	NA	409.52		1.1	*
4Q20		10/6/2020	NE	22.07	NA	NA	NA	407.03		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 gravity of 0.80 for the wells in which LNAPL was identified.

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

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

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

6) Table includes comprehensive groundwater monitoring well gauging data for the last 12 quarters from the combined Village of Roxana Interim Groundwater Monitoring Program and the WRB Refining LP Wood River Refinery Program.

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

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

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-01							
1Q18	6.73	18.20	1.197	0.00	0.45	146.6	
2Q18	6.73	17.20	1.263	22.20	0.05	8.9	
3Q18	6.71	21.60	1.147	6.50	0.14	144.8	
4Q18	6.57	19.40	1.060	2.40	0.69	126.4	
1Q19	6.52	17.40	1.119	3.56	0.29	128.3	
2Q19	6.80	18.40	1.066	20.86	0.13	83.3	
3Q19	6.88	19.30	0.810	22.30	0.37	-0.5	
4Q19	7.02	17.60	0.773	24.65	0.75	9.9	
1Q20	7.11	18.00	0.839	11.20	0.20	124.9	
2Q20	6.78	17.60	0.945	21.14	0.23	129.4	
3Q20	6.91	19.60	1.214	16.10	0.09	-183.7	
4Q20	6.90	18.40	1.262	27.83	0.69	129.1	
MW-02							
1Q18	7.02	18.80	1.537	14.10	0.22	-207.8	
2Q18	7.08	17.30	1.553	10.40	0.38	-116.1	
3Q18	7.00	21.10	1.910	16.20	2.20	-175.7	
4Q18	7.12	19.10	1.344	3.90	0.63	-114.3	
1Q19	7.32	17.70	1.344	48.55	0.26	-64.3	
2Q19	7.21	19.80	1.159	49.06	0.00	-88.3	
3Q19	6.62	20.90	1.196	22.04	0.19	-125.2	
4Q19	6.94	19.60	1.181	14.70	0.68	120.1	
1Q20	7.06	18.50	1.456	20.40	0.16	86.1	
2Q20	6.81	19.50	1.143	29.62	0.12	-114.9	
3Q20	7.14	19.80	1.495	7.19	0.00	-185.7	
4Q20	7.12	18.80	1.463	10.87	0.53	-260.6	
MW-03							
1Q18	6.76	17.60	1.205	4.20	0.18	-45.0	
2Q18	6.94	17.60	1.601	7.80	0.47	-138.9	
3Q18	6.85	20.10	1.299	6.60	1.30	-125.9	
4Q18	6.63	19.10	1.534	1.20	0.54	-49.0	
1Q19	6.68	17.00	1.128	0.00	0.95	-92.1	
2Q19	6.93	19.00	1.373	5.49	0.17	-103.2	
3Q19	6.77	20.00	1.280	13.93	0.34	-80.3	
4Q19	6.92	19.00	1.095	10.66	0.80	-151.9	
1Q20	6.73	18.30	1.283	3.60	0.17	198.8	
2Q20	6.79	19.30	1.140	4.16	0.23	-129.1	
3Q20	6.88	20.60	1.100	6.00	0.13	-152.4	
4Q20	6.75	18.00	1.624	19.09	0.60	-137.9	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-04							
1Q18	6.98	17.50	1.106	8.70	0.23	-161.0	
2Q18	6.78	17.70	1.168	6.50	0.01	-58.4	
3Q18	6.76	20.70	1.192	17.60	0.18	-65.2	
4Q18	6.65	19.10	1.316	8.90	0.60	84.0	
1Q19	6.74	18.10	1.358	42.50	0.81	-71.6	
2Q19	6.77	18.50	1.605	25.52	0.02	-74.4	
3Q19	6.76	19.30	1.472	25.19	0.22	-50.6	
4Q19	6.93	18.50	1.508	8.17	0.68	-115.5	
1Q20	6.71	17.30	1.438	8.90	0.30	203.9	
2Q20	6.66	17.70	1.432	18.79	2.18	-106.5	Equipment malfunction. DO results are suspect.
3Q20	8.94	18.90	1.254	33.06	0.10	-90.4	Equipment malfunction. pH results are suspect.
4Q20	6.84	19.10	1.156	39.15	0.56	-125.2	
MW-05							
1Q18	6.68	18.60	1.316	8.80	0.26	-152.7	
2Q18	6.85	16.80	1.145	40.30	0.39	-116.0	
3Q18	6.62	20.70	1.247	9.50	3.40	-117.8	
4Q18	6.38	18.00	0.915	0.40	0.69	142.7	
1Q19	6.70	15.40	1.071	3.92	0.25	-95.6	
2Q19	6.76	18.00	1.296	11.80	0.19	-126.3	
3Q19	6.78	18.70	1.209	9.71	0.33	-6.4	
4Q19	6.85	18.10	1.267	15.60	0.90	-146.5	
1Q20	7.04	18.00	1.377	13.28	1.61	-143.6	
2Q20	6.67	16.20	0.950	23.39	0.25	-82.8	
3Q20	6.87	20.20	1.202	27.65	0.36	-159.3	
4Q20	6.83	18.30	1.373	15.97	0.64	-152.8	
MW-06A							
1Q18	6.26	18.10	1.120	5.20	0.15	11.0	
2Q18	6.41	18.10	1.177	45.50	0.49	-16.2	
3Q18	6.57	20.70	1.993	49.70	2.20	-69.0	
4Q18	6.80	20.50	1.050	111.00	0.57	-83.9	
1Q19	6.59	19.00	1.165	17.90	0.92	-94.8	
2Q19	6.54	18.50	1.292	42.99	0.08	-78.5	
3Q19	6.56	20.70	0.826	34.31	0.22	-121.5	
4Q19	6.77	19.90	0.798	37.42	0.69	-121.5	
1Q20	6.64	18.40	1.122	24.20	0.20	153.0	
2Q20	6.52	17.30	1.040	42.50	0.43	-83.1	
3Q20	6.87	20.30	1.102	31.00	0.37	-125.3	
4Q20	6.88	20.90	1.102	33.33	0.40	-138.0	

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-06B							
1Q18	6.77	18.80	0.877	8.50	0.24	40.0	
2Q18	6.91	18.00	1.033	11.00	0.57	-102.8	
3Q18	7.14	20.60	0.771	1.50	2.20	-117.2	
4Q18	7.06	19.70	0.806	0.00	0.68	-50.7	
1Q19	7.02	19.10	0.897	0.00	0.99	-79.1	
2Q19	7.10	18.90	0.907	5.26	0.03	-85.3	
3Q19	6.86	20.30	0.885	10.14	0.29	-103.1	
4Q19	7.09	19.90	0.786	0.00	0.62	-111.7	
1Q20	6.99	17.00	1.088	1.70	0.25	69.0	
2Q20	6.86	17.80	0.800	3.61	0.40	-56.2	
3Q20	7.15	20.10	0.835	25.84	0.12	-126.9	
4Q20	7.27	20.30	0.760	17.31	0.50	-131.4	
MW-06C							
1Q18	6.65	17.40	0.973	0.60	0.20	45.6	
2Q18	6.74	17.40	1.183	3.20	0.36	-114.8	
3Q18	7.13	20.70	0.841	4.30	3.00	-133.6	
4Q18	6.94	19.70	0.790	5.40	0.67	-63.3	
1Q19	7.10	18.60	0.864	0.00	2.51	-86.9	
2Q19	7.10	18.20	0.910	3.11	0.14	-66.8	
3Q19	6.92	20.10	0.841	1.66	0.31	-164.6	
4Q19	7.18	19.50	0.783	0.00	0.75	-128.4	
1Q20	7.16	18.60	0.948	5.20	0.29	50.1	
2Q20	7.02	18.00	0.640	10.85	0.68	-90.5	
3Q20	7.26	19.90	0.727	32.47	0.15	-147.3	
4Q20	7.37	20.00	0.661	5.83	0.53	-143.7	
MW-06D							
1Q18	6.76	17.50	1.567	3.50	0.18	-16.3	
2Q18	6.92	17.70	1.708	39.10	0.54	-125.4	
3Q18	7.11	20.30	1.179	8.80	2.00	-131.9	
4Q18	7.07	19.10	1.092	26.80	0.69	-74.4	
1Q19	7.07	18.20	1.074	5.10	2.56	-100.1	
2Q19	7.13	17.90	0.998	14.92	0.27	-100.4	
3Q19	6.76	20.20	0.932	8.92	0.41	-124.4	
4Q19	7.13	19.20	0.940	4.45	0.75	-128.9	
1Q20	7.11	18.20	1.209	30.50	0.25	2.8	
2Q20	7.00	16.80	0.900	48.99	0.50	-93.2	
3Q20	7.17	19.60	1.035	27.24	0.05	-151.9	
4Q20	7.23	20.10	0.993	37.79	0.44	-152.3	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
MW-07							
1Q18	6.69	17.10	1.479	27.20	0.38	-100.1	
2Q18	6.57	17.90	1.388	33.90	0.03	-30.4	
3Q18	6.60	21.70	1.622	31.80	0.10	-56.3	
4Q18	6.69	20.90	1.690	14.00	0.69	-28.8	
1Q19	6.72	18.00	1.816	19.40	0.94	-62.5	
2Q19	6.68	19.20	1.668	8.04	0.03	-57.2	
3Q19	6.62	20.10	1.356	34.40	0.25	-34.1	
4Q19	6.66	20.40	1.400	24.55	0.48	-75.4	
1Q20	6.70	18.30	1.623	36.10	1.39	56.0	
2Q20	6.68	18.40	1.560	39.81	1.50	-79.5	Equipment malfunction. DO results are suspect.
3Q20	6.51	19.90	2.544	466.49	0.91	6.2	Equipment malfunction. Conductivity and turbidity results are suspect.
4Q20	6.77	19.20	1.469	48.71	0.49	-71.8	
MW-08							
1Q18	6.74	18.50	1.479	4.80	0.20	-132.2	
2Q18	6.58	18.60	1.509	0.30	0.00	-41.9	
3Q18	6.72	21.80	1.526	3.00	0.14	-71.4	
4Q18	6.78	20.40	1.493	0.50	0.56	-60.7	
1Q19	6.75	19.20	1.444	3.80	0.82	-92.1	
2Q19	6.78	20.10	1.532	6.40	0.09	-100.2	
3Q19	6.78	20.50	1.389	15.20	0.21	-85.4	
4Q19	6.93	19.30	1.637	16.41	0.61	-144.9	
1Q20	6.81	18.00	1.821	7.10	0.25	103.2	
2Q20	6.82	18.50	1.710	3.81	2.08	-139.1	Equipment malfunction. DO results are suspect.
3Q20	6.66	20.00	3.001	605.35	0.55	-80.2	Equipment malfunction. Conductivity and turbidity results are suspect.
4Q20	6.87	18.60	1.567	22.22	0.50	-154.8	
MW-09							
1Q18	6.75	17.10	1.311	26.90	0.24	-89.5	
2Q18	6.66	17.10	1.302	9.20	0.08	-34.3	
3Q18	6.79	20.10	1.279	19.80	0.25	19.8	
4Q18	6.78	18.90	1.194	4.10	0.76	22.3	
1Q19	6.53	16.70	1.325	1.60	0.94	31.6	
2Q19	6.82	18.30	1.279	22.36	0.10	-47.4	
3Q19	6.60	23.60	1.334	35.24	0.54	-80.5	
4Q19	6.72	17.50	1.600	10.96	0.79	-77.3	
1Q20	6.82	17.30	2.101	35.70	0.21	146.0	
2Q20	6.73	16.60	1.733	7.69	0.37	-49.2	
3Q20	6.68	18.50	1.880	46.79	0.08	-79.3	
4Q20	6.82	18.60	2.041	26.52	0.57	-89.5	

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-10							
1Q18	7.03	17.90	1.489	24.70	0.24	-126.2	
2Q18	7.02	18.10	1.932	17.00	0.06	-73.7	
3Q18	6.88	20.40	2.105	31.10	0.12	-36.7	
4Q18	6.92	19.70	1.793	28.20	0.68	17.4	
1Q19	6.92	16.70	1.200	10.20	0.98	-37.8	
2Q19	7.05	19.20	1.400	19.16	0.11	-70.5	
3Q19	7.02	18.90	1.413	31.31	0.28	-84.4	
4Q19	6.93	18.10	1.067	18.33	0.82	-135.6	
1Q20	6.85	17.20	1.331	23.20	0.23	148.6	
2Q20	6.89	17.30	1.139	25.56	0.22	-100.2	
3Q20	7.02	20.10	1.578	24.45	0.04	-128.2	
4Q20	7.15	18.80	1.364	46.11	0.52	-155.4	
MW-11							
1Q18	6.66	16.90	1.652	40.30	0.27	-22.3	
2Q18	6.80	15.30	1.928	31.10	0.56	-40.5	
3Q18	6.68	19.70	2.022	47.70	0.70	-81.3	
4Q18	6.81	17.20	1.446	12.10	0.84	-53.4	
1Q19	6.69	16.20	1.629	0.00	0.97	-25.7	
2Q19	6.80	18.10	1.643	49.82	0.10	-73.7	
3Q19	6.80	20.30	1.330	6.46	0.34	6.9	
4Q19	6.85	17.30	1.288	2.69	0.69	-66.0	
1Q20	6.77	16.20	1.502	3.60	0.19	186.0	
2Q20	6.76	17.10	1.400	6.40	0.25	-66.7	
3Q20	6.77	18.20	1.543	8.61	0.11	-96.6	
4Q20	6.76	17.50	1.787	8.02	0.60	-98.2	
MW-12							
1Q18	6.80	18.10	1.050	9.20	0.25	121.6	
2Q18	6.89	18.20	0.914	3.10	0.19	60.9	
3Q18	6.74	20.30	0.940	0.90	0.17	183.5	
4Q18	6.89	19.40	1.022	6.50	0.72	99.3	
1Q19	6.85	16.50	1.100	0.00	0.96	93.2	
2Q19	6.94	18.60	1.206	5.22	0.15	114.5	
3Q19	6.86	20.40	0.872	16.92	0.36	234.2	
4Q19	6.82	19.40	0.972	5.37	0.65	88.6	
1Q20	6.94	16.90	1.030	24.20	0.19	102.2	
2Q20	6.92	18.50	0.846	17.52	0.11	-29.2	
3Q20	7.04	19.30	0.774	16.13	0.01	152.1	
4Q20	6.95	17.50	1.186	9.15	0.63	55.8	

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-13							
1Q18	6.50	18.70	1.493	3.90	0.14	-3.3	
2Q18	6.45	19.30	1.466	13.60	0.09	-81.3	
3Q18	6.60	22.00	1.490	17.60	0.14	-105.4	
4Q18	6.60	19.60	1.389	15.40	0.61	-33.3	
1Q19	6.60	18.70	1.509	11.93	0.19	-87.7	
2Q19	6.56	18.20	1.284	12.49	0.14	-58.6	
3Q19	6.37	22.40	0.997	21.00	0.14	-121.4	
4Q19	6.59	19.60	1.012	15.84	0.70	-122.6	
1Q20	6.65	18.20	1.667	32.86	1.13	-114.7	
2Q20	6.49	19.60	1.000	19.52	0.07	-110.6	
3Q20	6.68	22.00	1.174	36.71	0.00	-149.1	
4Q20	6.65	19.90	1.566	8.06	0.53	-144.8	
MW-14							
1Q18	6.75	17.30	1.457	4.80	0.29	198.2	
2Q18	6.41	17.10	2.016	5.00	0.43	-57.3	
3Q18	6.59	22.20	1.510	1.00	1.98	-66.2	
4Q18	6.95	17.60	1.138	4.90	0.82	100.3	
1Q19	6.78	16.60	1.108	1.67	0.29	-38.7	
2Q19	6.45	18.40	1.235	7.11	0.24	156.2	
3Q19	6.76	20.80	0.927	17.52	0.36	-115.8	
4Q19	6.84	17.40	0.875	2.43	1.01	-88.9	
1Q20	6.83	17.70	1.660	1.19	1.78	-106.4	
2Q20	6.54	18.00	1.218	6.99	0.15	-45.2	
3Q20	6.84	20.60	1.060	13.09	0.00	-140.2	
4Q20	6.72	18.60	1.022	6.65	0.68	-117.9	
MW-16							
1Q18	6.85	17.90	1.078	31.30	0.49	-51.8	
2Q18	6.51	17.90	1.289	35.40	0.64	-33.6	
3Q18	6.89	20.50	1.060	11.10	0.60	-135.4	
4Q18	6.76	19.50	1.171	10.10	0.58	-50.3	
1Q19	6.53	16.50	1.201	9.20	0.95	-18.7	
2Q19	6.87	17.60	1.312	32.00	0.32	-39.2	
3Q19	6.53	20.60	1.314	25.80	0.37	14.2	
4Q19	6.78	19.10	1.246	46.41	0.82	90.7	
1Q20	6.68	17.40	1.602	21.40	1.00	222.5	
2Q20	6.53	14.60	1.245	6.10	0.52	163.5	
3Q20	6.77	19.20	1.258	24.42	0.12	68.2	
4Q20	6.80	19.00	1.544	21.24	0.65	38.5	

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							
1Q18	6.73	19.60	1.219	6.60	0.25	-125.1	
2Q18	6.64	18.90	1.462	9.90	0.43	-85.4	
3Q18	6.60	21.80	1.398	16.20	1.40	-103.5	
4Q18	6.72	18.60	1.044	1.10	0.86	110.2	
1Q19	6.87	15.10	1.134	5.02	0.47	-87.4	
2Q19	6.66	19.00	1.097	16.18	0.18	117.2	
3Q19	NM	NM	NM	NM	NM	NM	Well inaccessible due to parked vehicle. No sample collected.
4Q19	7.10	19.20	1.374	22.53	0.97	-111.6	
1Q20	7.14	18.80	1.599	12.21	1.84	-92.7	
2Q20	6.67	17.60	1.173	22.73	0.25	53.4	
3Q20	7.05	22.60	1.040	16.92	0.00	-72.0	
4Q20	7.00	18.40	1.414	2.69	0.47	-52.8	
MW-23							
1Q18	6.28	16.40	1.272	39.50	0.15	61.3	
2Q18	6.27	16.90	1.064	49.60	0.00	-13.6	
3Q18	6.69	21.30	1.004	62.00	0.18	-89.1	
4Q18	6.66	19.10	0.958	37.00	0.57	-47.0	
1Q19	6.61	16.10	1.062	49.70	0.83	-78.1	
2Q19	6.75	19.70	1.124	88.40	0.00	-98.8	
3Q19	6.66	21.00	0.982	12.69	0.31	-57.2	
4Q19	6.78	19.70	0.787	70.83	0.58	-118.2	
1Q20	6.79	17.00	1.064	38.80	0.22	7.7	
2Q20	6.67	19.30	0.910	30.31	0.10	-88.1	
3Q20	6.81	19.80	0.820	49.30	0.04	-116.6	
4Q20	6.67	19.00	1.242	39.51	0.56	-117.8	
MW-24							
1Q18	7.05	17.60	1.687	5.80	0.83	134.9	
2Q18	6.80	16.80	2.026	22.80	0.63	45.1	
3Q18	6.69	20.10	1.809	49.80	2.90	126.7	
4Q18	6.61	19.60	2.020	51.60	0.70	79.3	
1Q19	6.69	17.40	1.760	22.80	1.30	178.8	
2Q19	6.93	17.80	1.615	37.50	0.68	-2.1	
3Q19	6.83	19.10	1.278	17.12	0.32	296.1	
4Q19	6.98	18.20	1.857	19.02	1.07	189.1	
1Q20	6.88	16.60	1.345	11.30	0.51	231.0	
2Q20	6.87	17.60	0.971	10.55	0.31	125.6	
3Q20	7.03	19.20	0.854	17.67	0.14	147.0	
4Q20	6.97	18.30	1.011	7.68	0.79	194.2	

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-25							
1Q18	6.94	17.90	1.287	20.40	0.24	-170.4	
2Q18	6.88	18.00	0.919	16.70	0.00	-27.9	
3Q18	7.09	20.40	0.495	19.00	0.14	-64.4	
4Q18	7.27	18.20	0.555	4.40	0.57	-107.0	
1Q19	7.22	16.40	0.970	14.90	0.76	-205.8	
2Q19	7.09	18.70	1.391	41.25	0.00	-105.8	
3Q19	6.87	20.80	1.059	16.74	0.30	-73.4	
4Q19	6.91	19.00	1.034	3.91	0.69	-137.5	
1Q20	6.85	17.40	1.028	9.70	0.24	167.1	
2Q20	6.88	18.20	1.014	17.18	2.02	-128.9	Equipment malfunction. DO results are suspect.
3Q20	6.68	20.60	2.201	526.73	0.36	-83.5	Equipment malfunction. Conductivity and turbidity results are suspect.
4Q20	6.97	20.20	1.257	17.73	0.56	-151.4	
MW-26							
1Q18	6.77	18.40	1.630	18.80	0.43	165.4	
2Q18	6.72	18.80	1.832	14.10	0.09	90.4	
3Q18	6.71	22.10	1.592	4.00	0.40	146.7	
4Q18	6.81	21.00	1.431	3.80	0.73	62.3	
1Q19	6.75	17.40	1.298	7.90	1.04	80.0	
2Q19	6.86	18.90	1.324	9.49	0.10	11.2	
3Q19	6.84	19.80	1.044	9.24	0.29	206.0	
4Q19	6.82	18.90	0.965	36.00	0.81	162.6	
1Q20	6.85	18.40	1.430	15.80	0.38	181.4	
2Q20	6.64	17.60	1.514	8.33	0.70	170.1	
3Q20	6.75	20.30	1.421	5.54	0.38	53.1	
4Q20	6.77	18.50	1.496	10.70	0.81	201.5	
MW-27							
1Q18	6.91	16.80	0.931	49.30	0.50	-43.8	
2Q18	6.90	15.80	1.436	30.70	0.72	-24.1	
3Q18	6.79	21.40	1.204	49.80	13.90	-30.4	Equipment malfunction. DO results are suspect.
4Q18	6.79	19.60	1.021	30.90	1.84	35.7	
1Q19	6.78	16.40	1.033	3.70	1.76	46.2	
2Q19	6.82	17.10	1.031	36.28	1.71	-9.4	
3Q19	6.95	19.10	0.891	5.86	3.36	289.0	
4Q19	6.97	19.40	0.835	41.54	4.62	227.4	
1Q20	6.95	16.50	0.884	10.60	2.75	108.7	
2Q20	7.00	16.00	0.818	24.41	3.88	28.4	
3Q20	7.05	18.30	0.851	41.10	4.53	151.2	
4Q20	6.92	17.80	1.104	5.27	3.36	53.3	

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-28							
1Q18	6.70	17.90	1.343	22.10	0.26	-38.7	
2Q18	6.57	17.30	1.598	14.60	0.13	40.2	
3Q18	6.56	20.80	2.077	0.80	4.00	-11.4	
4Q18	6.71	19.30	1.619	8.10	0.83	-27.8	
1Q19	6.71	17.70	1.730	9.77	0.37	9.0	
2Q19	6.76	18.40	1.779	15.83	0.27	70.9	
3Q19	6.57	23.00	1.475	22.76	0.37	15.4	
4Q19	6.71	18.90	1.647	5.49	0.50	-19.2	
1Q20	6.57	18.20	2.134	30.20	0.19	107.8	
2Q20	6.42	17.00	1.511	27.55	0.26	82.5	
3Q20	6.65	20.30	1.915	43.42	0.10	-94.6	
4Q20	6.83	17.60	1.442	12.26	0.65	-53.7	
P-114R							
1Q18	6.64	20.60	0.990	45.60	0.16	-49.8	
2Q18	6.30	19.60	0.879	33.40	0.12	-60.0	
3Q18	6.67	22.00	0.903	29.60	0.12	-132.6	
4Q18	6.74	20.50	0.784	38.00	0.49	41.0	
1Q19	6.72	19.90	1.105	79.32	0.00	-112.9	
2Q19	6.76	19.80	1.162	44.78	0.00	-76.0	
3Q19	6.36	20.60	1.054	65.60	0.10	-136.2	
4Q19	6.73	22.60	0.863	32.44	0.49	-147.9	
1Q20	7.07	20.40	1.785	41.91	1.12	-107.5	
2Q20	6.62	21.80	1.131	27.18	0.42	-125.9	
3Q20	6.77	23.80	0.930	34.70	0.00	-131.6	
4Q20	6.79	22.20	1.315	48.87	0.43	-163.7	
P-54							
1Q18	6.75	17.40	1.441	13.40	1.64	161.0	
2Q18	6.90	15.90	1.999	26.20	1.72	90.0	
3Q18	6.77	20.60	1.258	13.60	19.70	199.1	Equipment malfunction. DO results are suspect.
4Q18	6.76	19.40	1.253	12.50	1.63	98.2	
1Q19	6.94	16.30	1.137	4.40	3.85	72.3	
2Q19	6.82	18.90	1.292	13.59	1.17	44.7	
3Q19	6.69	20.20	1.188	3.60	1.06	262.7	
4Q19	6.79	17.30	1.181	2.52	3.36	210.4	
1Q20	6.77	15.70	1.126	2.00	1.88	253.3	
2Q20	6.83	18.00	1.155	8.12	2.30	116.1	
3Q20	6.74	19.40	1.084	11.93	0.64	155.9	
4Q20	6.82	17.40	1.307	14.08	4.28	177.1	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-55R							
1Q18	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q18	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q18	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q18	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-56							
1Q18	6.91	19.90	1.466	19.50	0.13	-22.5	
2Q18	6.98	22.30	2.042	48.70	0.24	-131.4	
3Q18	6.92	22.80	1.579	49.90	0.00	-140.9	
4Q18	7.19	20.20	1.198	11.00	0.29	-88.6	
1Q19	6.96	18.40	1.070	33.63	0.25	-64.8	
2Q19	6.81	21.80	1.200	32.03	0.12	-98.6	
3Q19	6.89	25.80	1.540	62.10	0.06	-183.1	
4Q19	7.15	20.20	1.247	24.17	0.86	-140.0	
1Q20	7.04	18.10	1.343	9.87	1.56	-137.6	
2Q20	7.19	18.50	1.025	8.27	0.78	-166.1	
3Q20	7.04	22.20	1.166	6.29	0.10	-138.2	
4Q20	7.08	17.80	1.133	4.10	0.26	-144.0	
P-57							
1Q18	6.73	21.30	1.537	6.73	0.33	-151.2	
2Q18	6.69	20.80	1.689	9.40	0.37	-116.0	
3Q18	6.70	24.70	1.799	1.00	0.70	-131.3	
4Q18	6.57	21.70	1.307	3.80	0.75	60.3	
1Q19	6.66	20.40	1.053	2.63	0.37	-43.7	
2Q19	6.61	22.30	1.017	2.36	0.20	-44.1	
3Q19	6.64	21.90	1.083	6.70	0.30	-146.4	
4Q19	6.89	21.20	0.995	0.00	0.71	-132.0	
1Q20	6.92	20.00	1.335	0.00	1.44	-120.0	
2Q20	6.69	18.40	0.848	4.58	0.32	-16.0	
3Q20	6.83	22.10	0.841	5.06	0.15	-126.1	
4Q20	6.93	19.90	0.994	5.34	0.60	-137.4	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-58							
1Q18	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q18	6.57	22.70	3.147	14.70	0.32	-93.2	
3Q18	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q18	7.00	25.80	2.600	40.60	0.49	-39.4	
1Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q19	6.84	25.30	2.530	43.77	0.00	-80.6	
3Q19	6.65	22.90	3.083	26.95	0.23	-122.0	
4Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-59							
1Q18	6.46	24.40	1.784	10.60	0.20	10.0	
2Q18	7.36	27.70	1.344	11.30	0.38	-106.9	
3Q18	6.56	31.40	1.790	8.00	2.00	-113.7	
4Q18	6.61	27.10	1.648	49.20	0.20	-90.1	
1Q19	6.54	20.60	1.321	1.63	0.40	-45.8	
2Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q19	6.79	24.50	1.168	0.00	0.75	-139.0	
1Q20	6.76	21.10	1.481	0.00	1.51	-98.9	
2Q20	6.72	26.60	1.342	14.72	0.75	-133.4	
3Q20	6.64	23.80	0.906	1.57	0.00	-119.4	
4Q20	6.72	20.70	1.036	3.70	0.61	-131.2	
P-66							
1Q18	6.46	18.90	1.580	7.20	0.33	162.5	
2Q18	6.50	18.80	1.965	5.60	0.35	-103.6	
3Q18	6.49	27.10	1.861	16.50	0.37	-85.4	
4Q18	6.79	18.30	1.501	3.80	0.81	90.4	
1Q19	6.64	18.10	1.546	8.34	0.31	-61.8	
2Q19	6.56	20.70	1.453	8.80	0.14	64.4	
3Q19	6.49	22.80	1.446	6.09	0.25	-135.9	
4Q19	6.63	19.70	0.998	0.00	0.77	-112.4	
1Q20	6.75	18.30	2.269	12.52	2.31	-121.2	
2Q20	6.50	18.00	1.279	11.19	0.24	-59.5	
3Q20	6.86	25.00	1.439	9.77	0.00	-152.6	
4Q20	6.78	19.60	1.701	6.32	0.64	-139.0	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-68							
1Q18	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q18	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q18	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q18	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q19	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
1Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
2Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
3Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
4Q20	NM	NM	NM	NM	NM	NM	LNAPL encountered in well. No sample collected.
P-74							
1Q18	6.42	19.50	0.776	6.30	0.26	166.5	
2Q18	7.85	13.00	0.255	6.30	9.75	28.4	
3Q18	7.09	27.50	0.225	11.90	0.57	31.2	
4Q18	6.29	18.10	0.323	3.30	0.86	62.0	
1Q19	7.55	18.30	0.149	4.62	0.39	-73.5	
2Q19	7.24	19.90	0.165	4.39	0.81	55.6	
3Q19	6.74	22.30	0.221	9.88	0.31	-106.9	
4Q19	6.91	21.80	0.239	3.60	0.80	-84.0	
1Q20	7.03	18.00	0.257	6.48	1.76	-92.8	
2Q20	6.56	17.70	0.168	3.28	0.76	93.5	
3Q20	6.71	22.10	0.153	17.76	0.00	70.7	
4Q20	6.48	19.30	0.354	3.77	0.71	-60.9	
P-93A							
1Q18	6.99	22.40	1.173	6.10	0.36	142.1	
2Q18	6.83	24.00	1.514	12.60	0.51	-3.2	Initial sample
	6.72	23.60	0.965	6.20	0.34	-206.0	Confirmation sample
3Q18	6.78	30.00	1.007	5.20	0.85	-81.2	
4Q18	6.83	22.90	1.158	2.60	0.30	-137.9	
1Q19	6.73	20.70	0.999	1.27	0.46	-49.7	
2Q19	6.62	20.90	0.883	32.66	0.82	-85.2	
3Q19	6.64	22.90	1.079	5.63	0.36	-112.7	
4Q19	6.62	23.40	0.977	21.33	0.87	-79.3	
1Q20	7.07	22.00	1.497	0.00	1.57	-72.7	
2Q20	7.06	21.90	0.877	5.05	0.65	-99.0	
3Q20	6.73	23.30	0.776	1.99	0.08	-86.6	
4Q20	7.17	23.10	0.874	0.90	0.77	-46.7	

SEE LAST PAGE OF TABLE FOR NOTES

TABLE 2
SUMMARY OF GROUNDWATER MONITORING WELL FIELD PARAMETERS

WELL ID & EVENT	pH	Temp (C)	Specific Cond (mS/cm)	Turbidity (NTUs)	DO (mg/L)	ORP (mV)	General Notes
P-93B							
1Q18	6.78	17.30	1.455	44.20	0.35	-125.7	
2Q18	7.07	18.20	1.364	8.80	0.76	-113.2	
3Q18	6.68	23.90	1.448	50.30	0.50	-95.0	
4Q18	6.59	18.50	1.561	28.20	0.44	-63.6	
1Q19	6.37	17.30	1.491	0.69	0.44	-45.9	
2Q19	6.58	16.90	1.155	33.90	0.87	-60.2	
3Q19	6.57	21.20	1.101	4.07	1.08	-115.3	
4Q19	6.70	19.70	1.073	13.56	1.52	-104.9	
1Q20	6.66	17.40	1.557	2.23	2.06	-91.0	
2Q20	6.81	19.70	1.368	30.80	0.93	-115.3	
3Q20	7.02	23.00	1.096	42.12	0.14	-143.3	
4Q20	6.69	19.50	1.359	4.51	0.61	-120.7	
P-93C							
1Q18	6.92	19.40	1.256	14.90	0.38	137.8	
2Q18	7.00	19.00	1.563	42.70	0.46	-81.6	
3Q18	6.74	23.40	1.222	3.30	0.29	-49.3	
4Q18	6.95	19.00	1.362	8.30	0.40	-48.7	
1Q19	6.95	17.60	1.125	2.21	0.29	-80.7	
2Q19	6.36	18.00	1.067	2.36	0.44	-26.8	
3Q19	6.77	21.70	1.175	48.20	0.34	-108.0	
4Q19	6.96	21.90	1.099	4.82	0.81	-118.4	
1Q20	6.89	18.20	1.574	0.00	1.80	-90.2	
2Q20	7.03	18.70	1.025	4.18	0.72	-147.4	
3Q20	6.89	22.30	0.913	0.00	0.02	-110.5	
4Q20	7.03	18.70	0.915	8.50	0.27	-101.3	
P-93D							
1Q18	6.96	17.80	1.513	12.30	0.26	-157.9	
2Q18	7.42	19.00	1.367	10.30	0.83	-106.5	
3Q18	7.37	28.90	1.447	4.50	3.10	-101.1	
4Q18	7.05	17.50	1.441	7.00	0.21	-107.9	
1Q19	6.51	16.60	1.338	0.72	0.47	-42.6	
2Q19	7.16	15.00	1.320	14.01	1.57	29.0	
3Q19	6.73	19.70	1.349	4.14	0.80	-170.8	
4Q19	7.07	19.10	1.157	24.54	0.88	-121.9	
1Q20	7.04	17.00	1.751	0.00	1.90	-99.2	
2Q20	7.12	18.90	1.265	3.18	1.02	-231.3	
3Q20	7.21	23.30	1.137	3.57	0.88	-153.7	
4Q20	6.91	18.20	1.167	0.20	1.16	-103.0	

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
ROST-3-MW							
1Q18	6.15	15.20	1.776	15.00	0.37	239.6	Initial sample
	6.48	18.40	1.631	14.00	0.29	-10.9	Confirmation sample
2Q18	6.56	17.10	1.704	25.10	0.02	-36.0	
3Q18	6.64	21.00	1.562	23.10	0.22	-78.8	
4Q18	6.49	19.10	1.585	12.90	0.61	21.4	
1Q19	6.56	16.50	1.669	0.00	0.98	-34.5	
2Q19	6.87	17.20	1.584	34.01	0.42	24.9	
3Q19	6.70	19.30	1.261	6.69	0.40	-122.2	
4Q19	6.47	17.70	1.627	1.15	0.80	-80.4	
1Q20	6.46	17.40	2.042	10.40	0.23	213.3	
2Q20	6.47	16.80	1.219	8.15	0.13	-68.8	
3Q20	6.88	18.50	1.364	10.23	0.07	-145.6	
4Q20	6.61	16.70	1.274	15.10	0.62	-92.3	
ROST-4-PZ(C)							
1Q18	6.71	16.20	2.188	44.00	0.27	-107.6	
2Q18	6.66	16.90	2.033	15.20	0.39	-84.2	
3Q18	6.75	19.80	2.149	5.20	0.70	-120.8	
4Q18	6.98	17.70	1.121	12.80	0.69	65.2	
1Q19	6.85	14.60	1.390	15.01	0.37	-82.3	
2Q19	7.07	19.10	1.310	18.60	0.16	-28.6	
3Q19	7.17	19.50	1.439	12.94	0.25	-169.4	
4Q19	7.00	18.30	1.681	5.87	0.63	-184.6	
1Q20	6.97	17.90	2.062	0.00	1.70	-108.1	
2Q20	7.11	17.30	1.214	23.58	0.20	-80.0	
3Q20	7.25	21.70	1.275	47.19	0.04	-167.4	
4Q20	7.16	16.90	1.519	34.92	0.64	-144.4	
ROST-4-PZ(E)							
1Q18	6.99	16.60	2.311	19.70	0.39	-32.4	
2Q18	6.91	18.00	2.416	15.20	0.58	16.8	
3Q18	6.65	23.40	2.660	42.60	2.90	-4.0	
4Q18	6.45	18.70	1.518	11.80	0.89	145.0	
1Q19	6.99	18.40	2.258	35.54	0.41	73.9	
2Q19	6.90	19.10	2.064	26.93	0.42	22.0	
3Q19	6.94	21.10	1.820	24.15	0.28	-80.8	
4Q19	7.00	19.00	2.000	2.33	0.73	-137.2	
1Q20	7.01	19.10	2.451	31.42	1.42	-122.6	
2Q20	6.93	18.20	1.892	25.87	0.18	-10.2	
3Q20	6.96	20.30	2.107	10.82	0.14	-140.7	
4Q20	7.06	18.20	1.983	10.26	0.66	-147.3	

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
ROST-4-PZ(G)							
1Q18	6.70	18.50	1.416	7.80	0.24	-119.1	
2Q18	6.38	17.90	2.255	10.40	0.37	-88.8	
3Q18	6.76	21.40	2.357	4.90	1.00	-109.7	
4Q18	6.92	18.70	1.832	9.00	0.69	52.1	
1Q19	6.89	17.90	2.222	4.70	0.31	-67.1	
2Q19	7.03	18.70	1.766	5.68	0.13	-42.2	
3Q19	6.60	19.10	1.749	13.86	0.28	-72.8	
4Q19	6.83	20.90	1.721	50.01	0.47	-238.9	
1Q20	6.77	17.70	1.661	20.60	0.26	212.5	
2Q20	6.47	17.90	1.252	9.14	0.10	-38.5	
3Q20	6.92	20.50	1.636	31.28	0.04	-154.6	
4Q20	6.77	18.40	1.615	30.99	0.61	-135.7	
T-12							
1Q18	6.72	22.40	1.372	6.40	0.18	-37.9	
2Q18	7.95	21.80	1.335	20.60	0.34	-115.8	
3Q18	6.70	22.70	1.977	0.00	0.90	-117.1	
4Q18	6.54	23.00	1.716	3.00	0.32	-70.3	
1Q19	6.82	22.20	1.657	4.93	0.30	-96.1	
2Q19	6.62	23.60	1.693	3.73	0.22	-131.1	
3Q19	6.76	23.30	1.789	5.46	0.24	-161.2	
4Q19	6.94	22.60	1.427	14.65	0.86	-149.9	
1Q20	6.88	19.10	1.905	0.00	1.53	-115.9	
2Q20	7.07	19.50	1.306	12.44	0.84	-153.9	
3Q20	6.84	21.00	1.563	4.33	0.02	-121.6	
4Q20	6.96	18.30	1.667	5.20	0.31	-122.8	

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.

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCE

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		VOCs																											
		Screening Values (mg/L)																											
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Acetone	Benzene	Bromomethane	2-Butanone	t-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	2-Chlorotoluene	Cymene (o-isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane	1,2-Dichloroethane	dis-1,2-Dichloroethene	1,2-Dichloropropane	Ethylenbenzene	Ethyl methacrylate	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	
						6.3 ¹	0.005 ¹	0.0098 ²	4.2 ¹	0.35 ³	0.7 ³	0.7 ³	0.7 ¹	0.100 ¹	0.07 ¹	0.14 ³	0.0002 ¹	0.00005 ¹	0.005 ¹	0.07 ¹	0.005 ¹	0.7 ¹	0.7 ¹	0.07 ¹	0.07 ¹	0.07 ¹	0.14 ¹		
MW-11	MW11-ROX-011018	1/10/2018	41.66 - 51.66	39.00	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001		
	MW11-ROX-040618	4/6/2018		39.98	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW11-ROX-070918	7/9/2018		40.54	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW11-ROX-101118	10/11/2018		40.65	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW11-ROX-011019	1/10/2019		40.45	NE	<0.025	0.00044 J	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001
	MW11-ROX-041119	4/11/2019		40.03	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW11-ROX-070919	7/9/2019		35.95	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000028	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW11-ROX-100419	10/4/2019		35.36	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW11-ROX-010720	1/7/2020		36.45	NE	<0.025	<0.001	<0.001	<0.025 UJ	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000032	<0.000022	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001
	MW11-ROX-040920	4/9/2020		36.02	NE	0.013 J	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW11-ROX-071720	7/17/2020		34.82	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW11-ROX-100920	10/9/2020		35.17	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
MW-12	MW12-ROX-011118	1/11/2018	41.92 - 51.92	39.62	NE	0.028 F1 J	<0.001	<0.001	<0.025 UJ	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW12-ROX-040518	4/5/2018		40.50	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW12-ROX-040518-DUP	4/5/2018		40.50	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW12-ROX-070618	7/6/2018		41.03	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.000021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	MW12-ROX-101018	10/10/2018		40.84	NE	<0.025	<0.001	<0.001	<0.																				

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCE

Screening Values (mg/L)																			VOCs																	
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Acetone	Benzene	Bromomethane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	2-Chlorotoluene	Cymene (p-Isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	1,2-Dichloropropane	Ethylbenzene	Ethyl methacrylate	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene								
MW-22	MW22-ROX-011118	1/11/2018	37.88 - 47.88	39.25	NE	<0.63	0.32	<0.25	<0.63	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.00003	<0.00002	<0.025	<0.025	<0.025	1.5	<0.025	0.05	<0.63	<0.025	0.19									
	MW22-ROX-011118-DUP	1/11/2018		39.25	NE	<0.63	0.32	<0.25	<0.63	<0.25	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.00003	<0.00002	<0.025	<0.025	<0.025	1.6	<0.025	0.059	<0.63	<0.025	0.24									
	MW22-ROX-041018	4/10/2018		40.88	NE	<0.5	0.43	<0.02	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.000029	<0.00002	<0.02	<0.02	<0.02	1.8	<0.02	0.052	<0.5	<0.02	0.16									
	MW22-ROX-071018	7/10/2018		41.11	NE	<0.25	0.056	<0.01	<0.25	<0.01	0.0077 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.00003	<0.00002	<0.01	<0.01	<0.01	1.5	<0.01	0.066	<0.25	<0.01	0.21									
	MW22-ROX-101518	10/15/2018		40.91	NE	<0.63	0.1	<0.025	<0.63	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.00003	0.000022 p J	<0.025	<0.025	<0.025	1.3	<0.025	0.056	<0.63	<0.025	0.14									
	MW22-ROX-010919	1/9/2019		40.31	NE	<0.63	0.22	<0.025	<0.63	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.00003	<0.00002	<0.025	<0.025	<0.025	2	<0.025	0.081	<0.63	<0.025	0.2									
	MW22-ROX-041719	4/17/2019		35.38	NE	0.013 J	0.0035	<0.001	0.0046 J	<0.001	0.0014	0.0012	<0.001	<0.001	<0.001	0.00083 J	<0.000029	<0.00002	<0.001	<0.001	<0.001	0.25	<0.001	0.011	<0.025	<0.001	0.028									
	MW22-ROX-101519	10/15/2019		35.38	NE	0.012 J	0.0039	<0.001	0.0042 J	<0.001	0.0011	0.0009 J	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	0.3	<0.001	0.01	<0.025	<0.001	0.032									
	MW22-ROX-010620	1/6/2020		36.83	NE	<0.025	<0.001	<0.001 JJ	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000032	<0.000021	<0.001	<0.001	<0.001	0.016	<0.001	0.0064 J	<0.025	<0.001	0.0018										
	MW22-ROX-010620-PCP	1/6/2020		36.30	NE	<0.025	0.00092 J	<0.001	<0.025	<0.001	0.00076 J	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	0.053	<0.001	0.0044	<0.025	<0.001	0.012										
	MW22-ROX-041520	4/15/2020		35.11	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	0.011	<0.001	<0.001	<0.025	<0.001	<0.001										
	MW22-ROX-071420	7/14/2020		35.56	NE	<0.025	0.00042 J	<0.001	<0.025	<0.001	0.00073 J	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	0.015	<0.001	0.0041	<0.025	<0.001	0.0069										
MW-23	MW23-ROX-010518	1/5/2018	29.02 - 39.02	28.52	NE	<0.025	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
	MW23-ROX-040918	4/9/2018		29.24	NE	<0.025	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	MW23-ROX-070918	7/9/2018		29.1	NE	0.013 J	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
	MW23-ROX-100918	10/9/2018		29.00	NE	<0.025	<0.001	<0.001	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	MW23-ROX-010919	1/9/2019		28.96	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00088 J	<0.001				
	MW23-ROX-040919	4/9/2019		28.15	NE	<0.025	<0.001	0.0022 J	<0.0086 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	MW23-ROX-071019	7/10/2019		23.01	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	MW23-ROX-100919	10/9/2019		23.39	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	MW23-ROX-010820	1/8/2020		24.92	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.000021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	MW23-ROX-010820-PCP	1/8/2020		24.92	NE																															
	MW23-ROX-040820	4/8/2020		24.30	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00096 J	<0.001			
	MW23-ROX-071420	7/14/2020		23.36	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	MW23-ROX-101320	10/13/2020		36.6	NE	<0.025	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
MW-25	MW25-ROX-010918	1/9/2018	35.59 - 45.59	35.80	NE	<0.025	0.028	<0.001	<0.025	<0.001	<0.001	0.00088 J	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<												

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

Location		Sample ID		Sample Date		VOCs																							
						Acetone	Benzene	Bromomethane	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	2-Chlorotoluene	Cymene (p-isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane	1,2-Dichloroethane	cis-1,2-Dichloroethene	1,2-Dichloropropene	Ethylbenzene	Ethyl methacrylate	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	
						6.3 ¹	0.005 ¹	0.0098 ²	4.2 ¹	0.35 ³	0.7 ³	0.7 ³	0.7 ¹	0.100 ¹	0.07 ¹	0.14 ³	0.0002 ¹	0.00005 ¹	0.005 ¹	0.07 ¹	0.005 ¹	0.7 ¹	0.7 ¹	0.07 ¹	0.0099 ³	0.025 ¹	0.14 ¹		
MW-27	MW27-ROX-011018	1/10/2018	39.79 - 49.79	38.98	NE	0.24	<0.001	<0.001	0.0028 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	MW27-ROX-040618	4/6/2018		40.34	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	MW27-ROX-070918	7/9/2018		41.16	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	MW27-ROX-100918	10/9/2018		41.06	NE	<0.25	<0.001	<0.001	<0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00002	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0052 J	
	MW27-ROX-011119	1/11/2019		41.06	NE	<0.25	0.0014	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000028	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	MW27-ROX-041519	4/15/2019		40.99	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	MW27-ROX-070919	7/9/2019		37.65	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	MW27-ROX-100319	10/3/2019		36.07	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	MW27-ROX-010720	1/7/2020		36.96	NE	<0.25	<0.001	<0.001	<0.025 UJ	<0.025 UJ	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	MW27-ROX-041020	4/10/2020		36.82	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.000021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	MW27-ROX-071020	7/10/2020		35.76	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	MW27-ROX-101320	10/13/2020		35.55	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
MW-28	MW28-ROX-011018	1/10/2018	33.61 - 43.61	38.18	NE	<0.25	0.00044 J	<0.001	0.0029 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0044	
	MW28-ROX-040618	4/6/2018		39.25	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.000021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	MW28-ROX-070918	7/9/2018		40.08	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000028	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0016	
	MW28-ROX-101118	10/11/2018		40.25	NE	<0.25	0.0026	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	
	MW28-ROX-010819	1/8/2019		40.32	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.000021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0084	
	MW28-ROX-040919	4/9/2019		40.42	NE	<0.25	0.00083 J	<0.001	0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0096	
	MW28-ROX-071019	7/10/2019		37.14	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0048	
	MW28-ROX-100419	10/4/2019		35.90	NE	<0.25	0.00047 J	<0.001	0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.035	
	MW28-ROX-011020	1/10/2020		36.55	NE	0.014 J	0.0067	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.0015	<0.001	<0.001	<0.001	<0.001	<0.0023	<0.079	<0.001		
	MW28-ROX-041620	4/16/2020		36.25	NE	<0.25	0.012	<0.001	<0.025	<0.001	0.0011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000002	<0.001	0.0013	<0.001	<0.001	<0.001	0.00095 J	<0.025	0.05	<0.001	
	MW28-ROX-071620	7/16/2020		35.06	NE	<0.25	0.098	<0.001	<0.025	<0.001	0.0017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	0.0017	<0.001	<0.001	<0.001	0.0015	<0.025	0.14	<0.001		
	MW28-ROX-101920	10/19/2020		35.10	NE	<0.25	0.0052	<0.001	<0.025	<0.001	0.0022	<0.00071 J	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.045	0.001
P-54	P54-ROX-011118	1/11/2018	38.00 - 63.00	39.10	NE	<0.25	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	P54-ROX-040618	4/6/2018		40.05	NE	<0.25	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000003	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	P54-ROX-070618	7/6/2018		40.51	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.000002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	P54-ROX-100518	10/5/2018		40.46	NE	<0.25	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<																

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		VOCs																									
		Screening Values (mg/L)																									
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Acetone	Benzene	Bromomethane	2-Butanone	t-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	2-Chlorotoluene	Cyneine (g-isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane	1,2-Dichloroethane	1,2-Dichloropropane	Ethylenbenzene	Ethyl methacrylate	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene
						6.3 ¹	0.005 ¹	0.0098 ²	4.2 ¹	0.35 ³	0.7 ³	0.7 ³	0.7 ¹	0.100 ¹	0.07 ¹	0.14 ³	0.0002 ¹	0.00005 ¹	0.005 ¹	0.07 ¹	0.005 ¹	0.7 ¹	0.7 ¹	0.07 ¹	0.025 ^{0.0049}	0.14 ¹	
P-57	P57-ROX-011818	1/18/2018	44.19 - 54.19	44.86	NE	<2.5	15 J	<0.1	<2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.000029	<0.000019	<0.1	<0.1	0.053 J	<0.1	<0.1	<2.5	<0.1	<0.1	
	P57-ROX-011818-DUP	1/18/2018		44.86	NE	<2.5	20 J	<0.1	<2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.000029	<0.000019	<0.1	<0.1	0.071 J	<0.1	<0.1	<2.5	<0.1	<0.1	
	P57-ROX-041018	4/10/2018		45.45	NE	<1.3	8.8	<0.05	<1.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.00003	<0.00002	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	P57-ROX-071118	7/11/2018		45.76	NE	<1.3	5 J	<0.05	<1.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.00003	<0.00002	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	P57-ROX-071118-DUP	7/11/2018		45.76	NE	<1.3	8.8 J	<0.05	<1.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.00003	<0.00002	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
	P57-ROX-101618	10/16/2018		45.86	NE	<5	34	<0.2	<5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.000029	<0.000019	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	P57-ROX-101618-DUP	10/16/2018		45.86	NE	<5	34	<0.2	<5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.000029	<0.000019	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
	P57-ROX-011419	1/14/2019		45.63	NE	<2.5	28	<0.1	<2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.000031	<0.00002	<0.1	<0.1	0.18	<0.1	<0.1	<2.5	<0.1	<0.1	
	P57-ROX-011419-DUP	1/14/2019		45.63	NE	<2.5	23	<0.1	<2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.000031	<0.00002	<0.1	<0.1	0.14	<0.1	<0.1	<2.5	<0.1	<0.1	
	P57-ROX-041719	4/17/2019		44.89	NE	<1.3	9.8 J	<0.05	<1.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.00003	<0.00002	<0.05	<0.05	0.034 J	<0.05	0.031 J	<1.3	<0.05	<0.05	
	P57-ROX-041719-DUP	4/17/2019		44.89	NE	<1.3	7.4 J	<0.05	<1.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.00003	<0.00002	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
	P57-ROX-071519	7/15/2019		40.82	NE	<0.63	15	<0.025	<0.63	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.00003	<0.00002	<0.025	<0.025	0.023 J	<0.03	<0.025	0.066	<0.025	<0.025	
	P57-ROX-071519-DUP	7/15/2019		40.82	NE	<0.63	16	<0.025	<0.63	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.00003	<0.00002	<0.025	<0.025	0.036	<0.025	0.024 J	<0.063	<0.025	0.068	
	P57-ROX-101519	10/15/2019		40.18	NE	<0.5	2.3	<0.02	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.000028	<0.000019	<0.02	<0.02	0.012 J	<0.02	0.022	<0.5	<0.02	0.075	
	P57-ROX-101519-DUP	10/15/2019		40.18	NE	<0.5	2.3	<0.02	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.000029	<0.00002	<0.02	<0.02	0.002	<0.02	0.033	<0.5	<0.02	0.067	
	P57-ROX-010920	1/9/2020		41.77	NE	<0.13	1.3	<0.005	<0.13	<0.005	<0.0044 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.000032	<0.000022	<0.005	<0.005	0.0054	<0.005	0.014	<0.13	<0.005	0.049	
	P57-ROX-041720	4/17/2020		40.70	NE	<0.25	2.5	<0.1	<0.25	<0.01	<0.01	<0.0072 J	<0.01	<0.01	<0.01	<0.01	<0.000029	<0.000019	<0.01	<0.01	0.0062 J	<0.01	0.019	<0.25	<0.01	0.069	
	P57-ROX-041720-DUP	4/17/2020		40.70	NE	<0.25	2.8	<0.1	<0.25	<0.01	<0.01	<0.008 J	<0.01	<0.01	<0.01	<0.01	<0.000029	<0.000019	<0.01	<0.01	0.0069 J	<0.01	0.021	<0.25	<0.01	0.077	
	P57-ROX-071620	7/16/2020		40.15	NE	<0.25	1.5 J	<0.01	<0.25	<0.01	<0.01	<0.0075 J	<0.01	<0.01	<0.01	<0.01	<0.000029	<0.000019	<0.01	<0.01	0.0052 J	<0.01	0.02	<0.25	<0.01	0.098	
	P57-ROX-071620-DUP	7/16/2020		40.15	NE	&																					

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		VOCs																										
		Screening Values (mg/L)																										
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Acetone	Benzene	Bromomethane	2-Butanone	t-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	2-Chlorotoluene	Cymene (o-isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane	1,2-Dichloroethane	dis-1,2-Dichloroethene	1,2-Dichloropropane	Ethylenbenzene	Ethyl methacrylate	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene
43.07 - 53.07																												
P-93A	P93A-ROX-011118	1/11/2018	42.71		NE	<0.5	2.3 J	<0.02	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00003	<0.00002	<0.02	<0.02	<0.02	<0.02	<0.02	<0.5	<0.02	<0.02		
	P93A-ROX-011118-DUP	1/11/2018	42.71		NE	<0.5	3.4 J	<0.02	<0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.00003	<0.00002	<0.02	<0.02	<0.02	<0.02	<0.02	<0.5	<0.02	<0.02		
	P93A-ROX-041118	4/11/2018	NM		NE	<6.3	57	<0.25	<6.3	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.000032	<0.000021	<0.25	<0.25	<0.25	<0.25	<0.25	<6.3	<0.25	<0.25		
	P93A-ROX-052218	5/22/2018	NM		NE	<5	43	<0.2	<5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.000031	<0.000021	<0.2	<0.2	<0.2	<0.2	<0.2	<5	<0.2	<0.2		
	P93A-ROX-071218	7/12/2018	44.03		NE	<5	28	<0.2	<5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.000029	<0.00002	<0.2	<0.2	<0.2	<0.2	<0.2	<5	<0.2	<0.2		
	P93A-ROX-101618	10/16/2018	44.05		NE	<5	30	<0.2	<5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.000029	<0.00002	<0.2	<0.2	<0.2	<0.2	<0.2	<5	<0.2	<0.2		
	P93A-ROX-011419	1/14/2019	43.78		NE	<1.3	14	<0.05	<1.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.000029	<0.00002	<0.05	<0.05	<0.05	<0.05	<0.05	<1.3	<0.05	<0.05		
	P93A-ROX-041819	4/18/2019	42.98		NE	<2.5	17	<0.1	<2.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.00003	<0.00002	<0.1	<0.1	<0.1	<0.1	<0.1	<2.5	<0.1	<0.1		
	P93A-ROX-071519	7/15/2019	38.92		NE	<0.5 UJ	10	<0.02 UJ	<0.5 UJ	<0.02 UJ	<0.02 UJ	<0.02 UJ	<0.02 UJ	<0.02 UJ	<0.02 UJ	<0.02 UJ	<0.00003 UJ	<0.00002 UJ	<0.2 UJ	<0.02 UJ	<0.02 UJ	<0.02 UJ	<0.02 UJ	<0.5 UJ	<0.02 UJ	<0.02 UJ		
	P93A-ROX-101519	10/15/2019	38.31		NE	<1.3	220	<0.05	<1.3	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.00003	<0.00002	<0.05	<0.05	<0.05	<0.05	<0.05	<1.3	<0.05	<0.05		
	P93A-ROX-010920	1/9/2020	39.89		NE	<13	56	<0.5	<13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.000032	<0.000021	<0.5	<0.5	<0.5	<0.5	<0.5	<13	<0.5	<0.5		
	P93A-ROX-010920-DUP	1/9/2020	39.89		NE	<13	57	<0.5	<13	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.000031	<0.000021	<0.5	<0.5	<0.5	<0.5	<0.5	<13	<0.5	<0.5		
	P93A-ROX-041720	4/17/2020	38.79		NE	<6.3	58	<0.25	<6.3	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25	<0.00003	<0.00002	<0.25	<0.25	<0.25	<0.25	<0.25	<6.3	<0.25	<0.25		
	P93A-ROX-071620	7/16/2020	38.36		NE	<25	150	<1	<25	<1	<1	<1	<1	<1	<1	<1	<0.000031	<0.000021	<1	<1	<1	<1	<1	<25	<1	<1		
	P93A-ROX-102220	10/22/2020	39.09		NE	<0.63	5.8	<0.025	<0.63	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.00003	<0.00002	<0.025	<0.025	<0.025	<0.025	<0.025	<6.3	<0.025	<0.025		
	P93A-ROX-102220-DUP	10/22/2020	39.09		NE	<0.63	7	<0.025	<0.63	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.000031	<0.000021	<0.025	<0.025	<0.025	<0.025	<0.025	<6.3	<0.025	<0.025		
P-93B	P93B-ROX-011518	1/15/2018	74.60 - 76.60		NE	<63	280	<2.5	<63	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<0.000028	<0.000019	<2.5	<2.5	<2.5	<2.5	<2.5	<63	<2.5	<2.5		
	P93B-ROX-041218	4/12/2018	44.42		NE	<63	280	<2.5	<63	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<0.000028	<0.000019	<1	<1	<1	<1	<1	<25	<1	<1		
	P93B-ROX-041218-DUP	4/12/2018	44.42		NE	<25	130	<1	<25	<1	<1	<1	<1	<1	<1	<1	<0.000028	<0.000019	<1	<1	<1	<1	<1	<25	<1	<1		
	P93B-ROX-071218	7/12/2018	45.36		NE	<25	110 J	<1	<25	<1	<1	<1	<1	<1	<1	<1	<0.000031	<0.00002	<1	<1	<1							

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		VOCs																													
		Screening Values (mg/L)		Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Acetone	Benzene	Bromomethane	2-Butanone	t-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	2-Chlorotoluene	Cymene (q-propyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane	1,2-Dichloroethane	dis-1,2-Dichloroethene	1,2-Dichloropropane	Ethylenediamine	Ethyl methacrylate	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene	
Location	Sample ID							6.3 ¹	0.005 ¹	0.0098 ²	4.2 ¹	0.35 ³	0.7 ³	0.7 ³	0.7 ¹	0.100 ¹	0.07 ¹	0.14 ³		0.0002 ¹	0.00005 ¹	0.005 ¹	0.07 ¹	0.005 ¹	0.7 ¹	0.7 ¹	0.07 ¹	0.005 ¹	0.41 ¹	<0.005 ¹	0.13 ¹
P-114R	P114R-ROX-010918	1/9/2018	23.01 - 33.01	26.37	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	P114R-ROX-040618	4/6/2018		26.76	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	P114R-ROX-070918	7/9/2018		26.38	NE	0.013 J	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000032	<0.000021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	P114R-ROX-101118	10/11/2018		26.27	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	P114R-ROX-101118-DUP	10/11/2018		26.27	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.000021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
	P114R-ROX-010719	1/7/2019		25.88	NE	<0.025	0.0082	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
	P114R-ROX-041519	4/15/2019		24.70	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
	P114R-ROX-041519-DUP	4/15/2019		24.70	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	P114R-ROX-070919	7/9/2019		19.48	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000028	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	P114R-ROX-100919	10/9/2019		20.46	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
	P114R-ROX-010620	1/6/2020		22.15	NE	<0.025	<0.001	<0.001 J	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000034	<0.000023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001				
	P114R-ROX-010620-PCP	1/6/2020		22.15	NE																										
	P114R-ROX-040720	4/7/2020		21.49	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	P114R-ROX-040720-RE	4/7/2020		21.49	NE																										
	P114R-ROX-070920	7/9/2020		20.40	NE	0.01 J	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
	P114R-ROX-101420	10/14/2020	23.01 - 33.01	22.27	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
	ROST3MW-ROX-011518	1/15/2018		40.00	NE																										
	ROST3MW-ROX-022618	2/26/201																													

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		VOCs																										
		Screening Values (mg/L)																										
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Acetone	Benzene	Bromomethane	2-Butanone	t-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon disulfide	Chlorobenzene	Chloroform	2-Chlorotoluene	Cymene (o-isopropyltoluene)	1,2-Dibromo-3-chloropropane (DBCP)	1,2-Dibromoethane	1,2-Dichloroethane	dis-1,2-Dichloroethene	1,2-Dichloropropane	Ethyl benzene	Ethyl methacrylate	Isopropylbenzene (Cumene)	4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	Methyl tert-Butyl Ether (MTBE)	Naphthalene
ROST-4-PZ(G)	ROST4PZG-ROX-011118	1/11/2018	34.28 - 44.28	38.95	NE	<0.025	0.00082 J	<0.001	0.0027 J	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001		
	ROST4PZG-ROX-040918	4/9/2018		40.07	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	0.00053 J	<0.001	<0.001	<0.001	<0.000029	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	ROST4PZG-ROX-070918	7/9/2018		40.81	NE	<0.025	0.0037	<0.001	<0.025	<0.001	<0.001	0.00054 J	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	ROST4PZG-ROX-101218	10/12/2018		40.93	NE	<0.025	0.0011	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	ROST4PZG-ROX-010719	1/7/2019		40.49	NE	<0.025	0.00041 J	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	ROST4PZG-ROX-041119	4/11/2019		40.35	NE	<0.025	0.00048 J	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	ROST4PZG-ROX-071219	7/12/2019		36.60	NE	<0.025	<0.001	<0.001	0.005 J	<0.001	<0.001	0.0021	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	ROST4PZG-ROX-100719	10/7/2019		35.69	NE	<0.025	0.0006 J	<0.001	<0.025	<0.001	<0.001	0.0037	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	ROST4PZG-ROX-011320	1/13/2020		37.07	NE	<0.025	0.00055 J	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.00003	<0.00002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	ROST4PZG-ROX-041520	4/15/2020		36.28	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000028	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	ROST4PZG-ROX-041520-DUP	4/15/2020		36.28	NE	<0.025	<0.001	<0.001	<0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000029	<0.000019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
	ROST4PZG-ROX-071320	7/13/2020		35.09	NE	0.066	0.0007 J	<0.001	0.05	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.000021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.015 J	<0.001	<0.001	
	ROST4PZG-ROX-101620	10/16/2020		34.28 - 44.28	35.41	NE	<0.025	0.0018	<0.001	<0.025	<0.001	0.00078 J	<0.001	<0.001	<0.001	<0.001	<0.000031	<0.000021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.025	<0.001	<0.001	
T-12	T12-ROX-011018	1/10/2018	46.83 - 72.83	42.14	NE	<0.25	2	<0.01	0.029 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.00003	<0.00002	<0.01	<0.01	<0.054	<0.01	<0.028	<0.01	0.029	0.084		
	T12-ROX-041218	4/12/2018		43.03	NE	<0.25	1.7	0.012	<0.25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.000028	<0.000019	<0.01	<0.01	0.095	<0.01	<0.018	<0.01	0.016	0.087		
	T12-ROX-071118	7/11/2018		44.12	NE	<0.25	2.1	<0.01	<0.25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.000031	<0.00002	<0.01	<0.01	0.12	<0.01	0.03	<0.01	0.012	0.082		
	T12-ROX-101618	10/16/2018		43.90	NE	<0.25	2.2	<0.01	<0.25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.000029	<0.000019	<0.01	<0.01	0.1	<0.01	0.034	<0.01	0.0086 J	0.11		
	T12-ROX-011019	1/10/2019		44.00	NE	<0.25	2	<0.01	<0.25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.00003	<0.00002	<0.01	<0.01	0.039	<0.01	0.0099 J	<0.25	<0.01	0.07		
	T12-ROX-041719	4/17/2019		43.38	NE	<0.25	1.8	<0.01	<0.25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.000029	<0.00002	<0.01	<0.01	0.048	<0.01	0.014	<0.01	0.025	<0.01	0.061	

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		VOCs												SVOCs														
		1-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylenes	c,Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(g,h,i)perylene	Benz(k)fluoranthene	Benzoc Acid	Bis(2-Chloroethoxy)methane	Bis(2-Etiohexyl)phthalate	Ethy benzyl phthalate	p-Chloraniline	Chrysene (1,2-Benzanthracene)				
Screening Values (mg/L)		0.7 ³	0.005 ¹	1.0 ¹	0.07 ³	0.07 ³	0.002 ¹	10 ¹	10 ¹	0.42 ¹	0.21 ³	2.1 ¹	0.00013 ¹	0.0002 ¹	0.00018 ¹	0.21 ³	0.00017 ¹	28 ¹	0.006 ¹	1.4 ²	0.028 ²	0.012 ¹						
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)																							
MW-06A	MW6A-ROX-010518	1/5/2018	34.83 - 44.83	29.22	NE	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
	MW6A-ROX-040518	4/5/2018		29.83	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	MW6A-ROX-070518	7/5/2018		30.10	NE	<0.001	<0.001	<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	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	
	MW6A-ROX-100418	10/4/2018		30.10	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	MW6A-ROX-010819	1/8/2019		29.77	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	MW6A-ROX-040519	4/5/2019		29.34	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	MW6A-ROX-071119	7/11/2019		24.57	NE	<0.001	<0.001	<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	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	
	MW6A-ROX-101019	10/10/2019		24.39	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025		
	MW6A-ROX-010820	1/8/2020		26.03	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00018 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
	MW6A-ROX-041320	4/13/2020		25.14	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
	MW6A-ROX-071620	7/16/2020		24.35	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00034	<0.00035	<0.00035	<0.00035	<0.00035	<0.00035	<0.00035	<0.00035	<0.00035	<0.00035	<0.00035	<0.00035	<0.00035		
	MW6A-ROX-100820	10/8/2020	33.85 - 43.85	25.23	NE	<0.001	<0.001	0.0009 J	0.0021	<0.001	0.0026 J	0.0012 J	0.0038 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	MW6B-ROX-010518	1/5/2018		29.25	NE	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
	MW6B-ROX-040518	4/5/2018		29.95	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
	MW6B-ROX-070518	7/5/2018		30.15	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022		
	MW6B-ROX-100418	10/4/2018		30.13	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
	MW6B-ROX-010819	1/8/2019		29.83	NE	<0.001																						

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		VOCs																SVOCs									
		1-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylenes	c,Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(g,h,i)perylene	Benz(k)fluoranthene	Benzoc Acid	Bis(2-Chloroethoxy)methane	Bis(2-Ethyhexyl)phthalate	Ethyl benzyl phthalate	Butyl benzyl phthalate	p-Chloraniline	Chrysene (1,2-Benzphenanthracene)		
Screening Values (mg/L)		0.7 ³	0.005 ¹	1.0 ¹	0.07 ³	0.07 ³	0.002 ¹	10 ¹	10 ¹	0.42 ¹	0.21 ³	2.1 ¹	0.00013 ¹	0.0002 ¹	0.00018 ¹	0.21 ³	0.00017 ¹	28 ¹	0.006 ¹	1.4 ²	0.028 ²	0.012 ¹					
MW-11	Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)																					
	MW11-ROX-011018	1/10/2018	41.66 - 51.66	39.00	NE	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
	MW11-ROX-040618	4/6/2018		39.98	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	MW11-ROX-070918	7/9/2018		40.54	NE	<0.001	<0.001	<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	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	
	MW11-ROX-101118	10/11/2018		40.65	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	MW11-ROX-011019	1/10/2019		40.45	NE	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
	MW11-ROX-041119	4/11/2019		40.03	NE	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
	MW11-ROX-070919	7/9/2019		35.95	NE	<0.001	<0.001	<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	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	
	MW11-ROX-100419	10/4/2019		35.36	NE	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
	MW11-ROX-010720	1/7/2020		36.45	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	MW11-ROX-040920	4/9/2020		36.02	NE	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
	MW11-ROX-071720	7/17/2020		34.82	NE	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	MW11-ROX-100920	10/9/2020		41.66 - 51.66	35.17	NE	<0.001	<0.001	0.00093 J	0.0022	0.00058 J	<0.001	0.0029 J	0.0014 J	0.0043 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019
MW-12	Location	Sample ID	Sample Date	41.92 - 51.92	39.00	NE	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
	MW12-ROX-011118	1/1/2018	39.62		NE	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
	MW12-ROX-040518	4/5/2018	40.50		NE	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
	MW12-ROX-040518-DUP	4/5/2018	40.50		NE	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
	MW12-ROX-070618	7/6/2018	41.03		NE	<0.001	<0.001	<0.001	<0.																		

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		VOCs														SVOCs												
		1-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylenes	c,Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(g,h,i)perylene	Benz(k)fluoranthene	Benzotrichloroethane	Bis(2-Chloroethoxy)methane	Bis(2-Ethyhexyl)phthalate	Butyl benzyl phthalate	p-Chloraniline	Chrysene (1,2-Benzphenanthrene)				
Screening Values (mg/L)		0.7 ³	0.005 ¹	1.0 ¹	0.07 ³	0.07 ³	0.002 ¹	10 ¹	10 ¹	0.42 ¹	0.21 ³	2.1 ¹	0.00013 ¹	0.0002 ¹	0.00018 ¹	0.21 ³	0.00017 ¹	28 ¹	0.006 ¹	1.4 ²	0.028 ²	0.012 ¹						
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)																							
MW-22	MW22-ROX-011118	1/11/2018	37.88 - 47.88	39.25	NE	0.1	<0.025	0.19	0.6	0.16	<0.025	3.1	1.3	4.5	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0095 UJ	<0.0095	<0.0096	<0.0096	<0.00019	
	MW22-ROX-011118-DUP	1/11/2018		39.25	NE	0.11	<0.025	0.21	0.68	0.18	<0.025	3.3	1.4	4.8	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0095 UJ	<0.0095	<0.0095	<0.0002 UJ		
	MW22-ROX-041018	4/10/2018		NM	NE	0.078	<0.02	0.28	0.59	0.15	<0.02	3.3	1	4.3	<0.0002 UJ	<0.0002 UJ	<0.0002 UJ	<0.0002 UJ	<0.0002 UJ	<0.0002 UJ	<0.0002 UJ	<0.03 UJ	<0.0099 UJ	<0.0099 UJ	<0.0099 UJ	<0.0002 UJ		
	MW22-ROX-071018	7/10/2018		40.88	NE	0.094	<0.025	0.41	0.6	0.15	<0.025	3.9	0.85	4.8	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.03 UJ	<0.0099 UJ	<0.0099 UJ	<0.0099 UJ	<0.0002 UJ
	MW22-ROX-101518	10/15/2018		41.11	NE	0.12	<0.01	0.13	0.8	0.19	<0.01	2.9	0.3	3.2	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.16	<0.053	<0.053	<0.053	<0.00021
	MW22-ROX-010919	1/9/2019		40.91	NE	0.1	<0.025	0.071	0.6	0.15	<0.025	2.6	0.17	2.8	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.01	<0.0002
	MW22-ROX-041719	4/17/2019		40.31	NE	0.13	<0.025	0.15	0.8	0.21	<0.025	3.7	0.3	4	0.00011 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0099	<0.0099	<0.0099	<0.0002	
	MW22-ROX-101519	10/15/2019		35.38	NE	0.021 J	<0.01	0.089	0.055 J	0.02	<0.01	0.16 J	0.014	0.18 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0095	<0.0095	<0.0095	<0.00019		
	MW22-ROX-101519-DUP	10/15/2019		35.38	NE	0.016 J	<0.001	0.0096	0.071 J	0.017	<0.001	0.29 J	0.02	0.31 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0095	<0.0095	<0.0095	<0.00019		
	MW22-ROX-010620	1/6/2020		36.83	NE	0.00096 J	<0.001	0.00043 J	0.005	0.0006 J	<0.001	0.0089	0.00099 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029 UJ	<0.0096	<0.0096	<0.0096	<0.00019			
	MW22-ROX-010620-PCP	1/6/2020		36.83	NE																							
	MW22-ROX-041520	4/15/2020		36.30	NE	0.0073	<0.001	0.0019	0.04	0.0085	<0.001	0.062	0.0037 J	0.066	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.029	<0.0098	<0.0098	<0.0098	<0.0002		
	MW22-ROX-071420	7/14/2020		35.11	NE	<0.001	<0.001	<0.001	0.0019	<0.001	<0.001	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0097	<0.0097	<0.0097	<0.00019			
	MW22-ROX-101520	10/15/2020		35.56	NE	0.0076	<0.001	0.00062 J	0.042	0.011	<0.001	0.019	0.0016 J	0.02	<0.00019	<0.00019	<0.00019	<0.00019	0.000082 J	<0.00019	0.00016 J	<0.028	<0.0095 UJ	<0.0095	<0.0095	<0.00019		
MW-23	MW23-ROX-010518	1/5/2018	29.02 - 39.02	28.52	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.0095	<0.0095	<0.0095	<0.00019			
	MW23-ROX-040918	4/9/2018		29.24	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.01	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.01	<0.0002			
	MW23-ROX-070918	7/9/2018		29.1	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.01	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.033	<0.011	<0.011	<0.011	<0.0011			
	MW23-ROX-100918	10/9/2018		29.00	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.0003	0.000082 J	0.00004 J	<0.000096	<0.000096	<0.0										

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		VOCs												SVOCs												
		1-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylenes	c,Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(b)fluoranthene	Benz(a)pyrene	Benz(g,h,i)perylene	Benz(k)fluoranthene	Benzacid	Bis(2-Chloroethoxy)methane	Bis(2-Ethyhexyl)phthalate	Ethyl benzyl phthalate	p-Chloroaniline	Chrysene (1,2-Benzphenanthracene)		
Screening Values (mg/L)		0.7 ³	0.005 ¹	1.0 ¹	0.07 ³	0.07 ³	0.002 ¹	10 ¹	10 ¹	0.42 ¹	0.21 ³	2.1 ¹	0.00013 ¹	0.0002 ¹	0.00018 ¹	0.21 ³	0.00017 ¹	28 ¹	0.006 ¹	1.4 ²	0.028 ²	0.012 ¹				
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)																					
MW-27	MW27-ROX-011018	1/10/2018	39.79 - 49.79	38.98	NE	<0.001	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019
	MW27-ROX-040618	4/6/2018		40.34	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002
	MW27-ROX-070918	7/9/2018		41.16	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	0.00029 J	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022	<0.00022
	MW27-ROX-100918	10/9/2018		41.06	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.001	0.00028 J	<0.00096	<0.00096	<0.00096	<0.00096	<0.00096	<0.00096	<0.00096	<0.00096	<0.00096	<0.00096	<0.00096
	MW27-ROX-011119	1/11/2019		41.06	NE	<0.001	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	
	MW27-ROX-041519	4/15/2019		40.99	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	
	MW27-ROX-070919	7/9/2019		37.65	NE	<0.001	<0.001	<0.001	<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	<0.00021	<0.00021	<0.00021	
	MW27-ROX-100319	10/3/2019		36.07	NE	<0.001	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	
	MW27-ROX-010720	1/7/2020		36.96	NE	<0.001	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	
	MW27-ROX-041020	4/10/2020		36.82	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	
	MW27-ROX-071020	7/10/2020		35.76	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	
	MW27-ROX-101320	10/13/2020		35.55	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.0061 J	<0.0018 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
MW-28	MW28-ROX-011018	1/10/2018	33.61 - 43.61	38.18	NE	<0.001	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	
	MW28-ROX-040618	4/6/2018		39.25	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	
	MW28-ROX-070918	7/9/2018		40.08	NE	<0.001	<0.001	<0.001	<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	<0.00021	<0.00021	<0.00021	
	MW28-ROX-101118	10/11/2018		40.25	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	
	MW28-ROX-010819	1/8/2019		40.32	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	
	MW28-ROX-040919	4/9/2019		40.42	NE	<0.001	<0.001	<0.001																		

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		VOCs														SVOCs													
		1-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylenes	c,Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(g,h,i)perylene	Benz(k)fluoranthene	Benzotrichloroethane	Benzotrichloroethylene	Bis(2-Chloroethoxy)methane	Bis(2-Ethyhexyl)phthalate	Ethyl benzyl phthalate	p-Chloraniline	Chrysene (1,2-Benzphenanthracene)				
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	0.7 ³	0.005 ¹	1.0 ¹	0.07 ³	0.07 ³	0.002 ¹	10 ¹	0.42 ¹	0.21 ³	2.1 ¹	0.00013 ¹	0.0002 ¹	0.00018 ¹	0.21 ³	0.00017 ¹	28 ¹	0.006 ¹	1.4 ²	0.028 ²	0.012 ¹				
P-57	P57-ROX-011818	1/18/2018	44.19 - 54.19	44.86	NE	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<1	0.00031	<0.00019	<0.00019	<0.00019	<0.00019	0.000052 J	<0.00019	<0.029	<0.095	<0.0095	<0.0095	<0.00019				
	P57-ROX-011818-DUP	1/18/2018		44.86	NE	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<1	0.0005	0.00016 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.095	<0.0095	<0.0095	<0.00019				
	P57-ROX-041018	4/10/2018		45.45	NE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	<0.25	<0.5	0.00015 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.0002	<0.0002				
	P57-ROX-071118	7/11/2018		45.76	NE	0.036 J	<0.05	<0.05	<0.05	<0.05	<0.25	<0.25	<0.5	0.00022	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.032	<0.011	<0.011	<0.011	<0.00021				
	P57-ROX-071118-DUP	7/11/2018		45.76	NE	0.038 J	<0.05	<0.05	<0.05	<0.05	<0.25	<0.25	<0.5	0.0002 J	<0.00022	0.00009 J	<0.00022	<0.00022	<0.00022	<0.00022	<0.032	<0.011	<0.011	<0.011	<0.00022				
	P57-ROX-101618	10/16/2018		45.86	NE	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<1	<2	0.00023	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.097	<0.0097	<0.0097	<0.00019				
	P57-ROX-101618-DUP	10/16/2018		45.86	NE	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<1	<2	0.00021	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.097	<0.0097	<0.0097	<0.00019				
	P57-ROX-011419	1/14/2019		45.63	NE	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<1	0.00031 J	<0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.01	<0.0002				
	P57-ROX-011419-DUP	1/14/2019		45.63	NE	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<1	0.00038 J	<0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.0099	<0.0099	<0.0099	<0.0002				
	P57-ROX-041719	4/17/2019		44.89	NE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	<0.25	<0.5	0.00046 J	<0.00098	<0.0002	<0.00098	<0.00098	<0.00098	<0.00098	<0.029	<0.098	<0.0098	<0.0098	<0.0002				
	P57-ROX-041719-DUP	4/17/2019		44.89	NE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	<0.25	<0.5	0.00041 J	<0.00099	<0.0002	<0.00099	<0.00099	<0.00099	<0.00099	<0.03	<0.0099	<0.0099	<0.0099	<0.00099				
	P57-ROX-071519	7/15/2019		40.82	NE	0.038	<0.025	0.013 J	<0.025	<0.025	<0.25	<0.13	<0.25	0.00048 J J	<0.00097	<0.00097	<0.00097	<0.00097	<0.00097	<0.00097	<0.029	<0.097	<0.0097 U	<0.0097	<0.00097				
	P57-ROX-071519-DUP	7/15/2019		40.82	NE	0.04	<0.025	0.015 J	<0.025	<0.025	<0.25	<0.13	<0.25	0.00028	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.01	<0.0002				
	P57-ROX-101519	10/15/2019		40.18	NE	0.025	<0.02	0.014 J	<0.02	<0.02	<0.2	<0.1	<0.2	0.00022	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.095	<0.0095	<0.0095	<0.016				
	P57-ROX-101519-DUP	10/15/2019		40.18	NE	0.02	<0.02	0.02	<0.02	<0.02	<0.1	<0.1	<0.2	0.00013 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.096	<0.0096	<0.0096	<0.00019				
	P57-ROX-010920	1/9/2020		41.77	NE	0.015	<0.005	0.0062	<0.005	<0.005	<0.005	<0.025	<0.05	0.00026	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.029	<0.096	<0.0096	<0.0096	<0.00019				
	P57-ROX-041720	4/17/2020		40.70	NE	0.022	<0.01	0.0078 J	<0.01	<0.01	<0.05	<0.05	<0.1	0.00042	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.01	<0.0002				
	P57-ROX-041720-DUP	4/17/2020		40.70	NE	0.026	<0.01	0.0086 J	<0.01	<0.01	<0.05	<0.05	<0.1	0.00037	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.03	<0.01	<0.01	<0.01	<0.0002				
	P57-ROX-071620	7/16/2020		40.15	NE	0.028	<0.01	0.0092 J	0.011	<0.01	<0.05	<0.05	<0.1	0.00041	<0.00019	<0.00019	<0.00019	<0.00019</											

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	VOCs												SVOCs														
						n-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylenes	o-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(e)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(g,h,i)perylene	Benz(o,k)fluoranthene	Benzoc Acid	Bis(2-Chloroethoxy)methane	Bis(2-Ethylhexyl)phthalate	Butyl benzyl phthalate	p-Chloroaniline	Chrysene (1,2-Benzphenanthracene)			
Screening Values (mg/L)																																
						0.7 ³	0.005 ¹	1.0 ¹	0.07 ³	0.002 ¹	10 ¹				10 ¹	0.42 ¹	0.21 ³	0.00013 ¹	0.0002 ¹	0.00018 ¹	0.21 ³	0.00017 ¹	28 ¹		0.006 ¹	1.4 ²	0.028 ²	0.012 ¹				
P-93A	P93A-ROX-011118	1/11/2018	43.07 - 53.07	42.71	NE	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.1	<0.2	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019			
P-93A	P93A-ROX-011118-DUP	1/11/2018			NE	<0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.1	<0.2	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
P-93A	P93A-ROX-041118	4/11/2018			NM	<0.25	<0.25	<0.25	<0.25	<0.25	<1.3	<1.3	<2.5	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
P-93A	P93A-ROX-052218	5/22/2018			NM	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<1	<2	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
P-93A	P93A-ROX-071218	7/12/2018			44.03	NE	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<1	<2	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
P-93A	P93A-ROX-101618	10/16/2018			44.05	NE	<0.2	<0.2	<0.2	<0.2	<0.2	<1	<1	<2	0.00086 J	<0.00019	0.00045 J	<0.00019	0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019
P-93A	P93A-ROX-011419	1/14/2019			43.78	NE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	<0.25	<0.5	0.00043 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
P-93A	P93A-ROX-041819	4/18/2019			42.98	NE	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<1	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
P-93A	P93A-ROX-071519	7/15/2019			38.92	NE	<0.02 UU	<0.02 UU	<0.02 UU	<0.02 UU	<0.02 UU	<1.1 UJ	<1.1 UJ	<2.2 UU	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
P-93A	P93A-ROX-101519	10/15/2019			38.31	NE	<0.05	<0.05	<0.05	<0.05	<0.05	<0.25	<0.25	<0.5	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
P-93A	P93A-ROX-010920	1/9/2020			39.89	NE	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<2.5	<5	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
P-93A	P93A-ROX-010920-DUP	1/9/2020			39.89	NE	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5	<2.5	<5	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
P-93A	P93A-ROX-041720	4/17/2020			38.79	NE	<0.25	<0.25	<0.25	<0.25	<0.25	<1.3	<1.3	<2.5	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
P-93A	P93A-ROX-071620	7/16/2020			38.36	NE	<1	<1	<1	<1	<1	<5	<5	<10	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
P-93A	P93A-ROX-102220	10/22/2020	43.07 - 53.07	39.09	NE	<0.025	<0.025	<0.025	<0.025	<0.025	<0.13	<0.13	<0.25	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
P-93A	P93A-ROX-102220-DUP	10/22/2020			39.09	NE	<0.025	<0.025	<0.025	<0.025	<0.025	<0.13	<0.13	<0.25	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
P-93B	P93B-ROX-011518	1/15/2018	74.40 - 76.60	44.42	NE	<2.5	<2.5	<2.5	<2.5	<2.5	<13	<13	<25	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
P-93B	P93B-ROX-041218	4/12/2018			44.75	NE	<1	<1	<1	<1	<1	<5	<5	<10	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
P-93B	P93B-ROX-041218-DUP	4/12/2018			44.75	NE	<1	<1	<1	<1	<1	<5	<5	<10	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
P-93B	P93B-ROX-071218	7/12/2018			45.36	NE	<1	<1	<1	<1	<1	<5	<5	<10	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
P-93B	P93B-ROX-071218-DUP	7/12/2018			45.36	NE	<1	<1	<1	<1	<1	<5	<5	<10	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
P-93B	P93B-ROX-101518	10/15/2018			45.64	NE	<2 UJ	<2 UJ	<2 UU	<2 UU	<2 UU	<10 UJ	<10 UU																			

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

Screening Values (mg/L)												VOCs												SVOCs											
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	n-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylenes	c-Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(g,h,i)perylene	Benz(k)fluoranthene	Benzoc Acid	Bis(2-Chloroethoxy)methane	Bis(2-Ethyhexyl)phthalate	Ethyl benzyl phthalate	p-Chloraniline	Chrysene (1,2-Benzanthracene)							
P-114R	P114R-ROX-010918	1/9/2018	23.01 - 33.01	26.37	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	0.00014 J	<0.00095	0.00025 J	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095			
	P114R-ROX-040618	4/6/2018		26.76	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	
	P114R-ROX-070918	7/9/2018		26.38	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	0.00026	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
	P114R-ROX-101118	10/11/2018		26.27	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002	0.000055 J	<0.00039	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	P114R-ROX-101118-DUP	10/11/2018		26.27	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	0.0001 J	<0.00019	0.000045 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019
	P114R-ROX-010719	1/7/2019		25.88	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	0.0001 J	<0.00019	0.000045 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019
	P114R-ROX-041519	4/15/2019		24.70	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
	P114R-ROX-041519-DUP	4/15/2019		24.70	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
	P114R-ROX-070919	7/9/2019		19.48	NE	<0.001	<0.001	0.00099 J	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ	<0.00096 UJ		
	P114R-ROX-100919	10/9/2019		20.46	NE	<0.001	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019			
	P114R-ROX-010620	1/6/2020		22.15	NE	<0.001	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019			
	P114R-ROX-010620-PCP	1/6/2020		22.15	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092	<0.00092		
	P114R-ROX-040720	4/7/2020		21.49	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024	<0.00024		
	P114R-ROX-040720-RE	4/7/2020		21.49	NE	<0.001	<0.001	<0.001	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
	P114R-ROX-070920	7/9/2020		20.40	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.0002	<0.0002																			

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

Screening Values (mg/L)												VOCs												SVOCs											
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	1-Propylbenzene	Tetrachloroethene	Toluene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl chloride	m,p-Xylenes	c,Xylenes	Xylenes (total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(b)fluoranthene	Benz(c)perylene	Benz(d,g,h,i)perylene	Benz(k)fluoranthene	Benzoc Acid	Bis(2-Chloroethoxy)methane	Bis(2-Ethyhexyl)phthalate	Butyl benzyl phthalate	p-Chloraniline	Chrysene (1,2-Benzphenanthrene)							
ROST-4-PZ(G)	ROST4PZG-ROX-011118	1/11/2018	34.28 - 44.28	38.95	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	0.000019 J	0.000027 J	0.000038 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
	ROST4PZG-ROX-040918	4/9/2018		40.07	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.002	<0.002	<0.00057 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
	ROST4PZG-ROX-070918	7/9/2018		40.81	NE	<0.001	<0.001	<0.001	<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	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021		
	ROST4PZG-ROX-101218	10/12/2018		40.93	NE	<0.001	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
	ROST4PZG-ROX-010719	1/7/2019		40.49	NE	<0.001	<0.001	<0.001	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019			
	ROST4PZG-ROX-041119	4/11/2019		40.35	NE	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.01	<0.00019	<0.00019	<0.00023 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
	ROST4PZG-ROX-071219	7/12/2019		36.60	NE	<0.001	<0.001	0.0014	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
	ROST4PZG-ROX-100719	10/7/2019		35.69	NE	<0.001	<0.001	0.0049	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
	ROST4PZG-ROX-011320	1/13/2020		37.07	NE	<0.001	<0.001	0.0041	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019			
	ROST4PZG-ROX-041520	4/15/2020		36.28	NE	<0.001	<0.001	0.0025	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019			
	ROST4PZG-ROX-041520-DUP	4/15/2020		36.28	NE	<0.001	<0.001	0.0018	<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	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002			
	ROST4PZG-ROX-071320	7/13/2020		35.09	NE	0.0013	<0.001	0.0015	<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	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019			
	ROST4PZG-ROX-101620	10/16/2020		35.41	NE	0.0079	<0.001	0.0024	0.0022	0.0016	<0.001	0.0089	0.001 J	0.01	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019			
T-12	T12-ROX-011018	1/10/2018	46.83 - 72.83	42.14	NE	0.012	<0.01	0.085	0.041	0.011	<0.01	0.34	0.008 J	0.35	0.00035	<0.00019	0.00092 J	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	
	T12-ROX-041218	4/12/2018		43.03	NE	0.022	<0.01	0.085	0.047	0.0074 J	<0.01	0.34	0.011 J	0.35	0.00026	<0.0002	0.00015 J	<0.0002	<																

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

SVOCs																															
Screening Values (mg/L)																															
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Dibenzofuran	Dibenzanthracene	Dibutyl phthalate	2,4-Dimethylphenol	Dibutyl phthalate	Dibutyl phthalate	1,4-Dioxane	Fluoranthene	Indene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	3 & 4-Methylnaphthalene (m & p-Cresol)	2-Nitroaniline	4-Nitrophenol	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine						
MW-01	MW1-ROX-010518	1/5/2018	48.80 - 58.80	40.06	NE	<0.00019	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.00019	<0.0097	<0.00019	<0.00019	<0.0097	<0.019	<0.0097	<0.0097	<0.019	<0.00019	<0.0097	<0.00019	<0.0097	<0.00019	<0.0097	<0.00019	<0.0097			
	MW1-ROX-040618	4/6/2018		40.82	NE	<0.0002 UJ	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.009	<0.01	<0.00021 J	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01	<0.0002	<0.01	<0.0002	<0.01	<0.0002		
	MW1-ROX-070618	7/6/2018		41.40	NE	<0.00022	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00022	<0.00022	<0.011	<0.00022	<0.00022	<0.022	<0.011	<0.011	<0.011	<0.022	<0.0022	<0.011	<0.0022	<0.011	<0.0022	<0.011	<0.0022	<0.011	<0.0022	
	MW1-ROX-101018	10/10/2018		41.17	NE	<0.00095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00095	<0.00095	<0.0095	<0.00095	<0.00095	<0.0095	<0.0095	<0.024	<0.0095	<0.024	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	
	MW1-ROX-010819	1/8/2019		40.96	NE	<0.0002 UJ	<0.01	<0.01	<0.01	<0.01	<0.0043 J	<0.0002	<0.0002	<0.01	<0.0002 UJ	<0.00002 J	<0.00023 J	<0.01	<0.02	<0.01	<0.01	<0.02	<0.00057 J	<0.01	<0.0002	<0.01	<0.0002	<0.01	<0.0002	<0.01	<0.0002
	MW1-ROX-041119	4/11/2019		40.50	NE	<0.00019 UJ	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.00019	<0.0097	<0.00019	<0.00019	<0.0097	<0.019	<0.0097	<0.0097	<0.0097	<0.019	<0.00019	<0.0097	<0.00019	<0.0097	<0.00019	<0.0097	<0.00019	<0.0097	<0.00019	
	MW1-ROX-071119	7/11/2019		38.16	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.0096	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.0096	<0.019	<0.0096	<0.0096	<0.00019	<0.0096	<0.00019	<0.0096	<0.00019	<0.0096	<0.00019	<0.0096	
	MW1-ROX-101119	10/11/2019		35.72	NE	<0.00019	<0.0097	<0.0097	<0.0097 UJ	<0.0097	<0.0097	<0.00019	<0.0097	<0.00019	<0.0097	<0.00019	<0.0097 UJ	<0.019 UJ	<0.0097 UJ	<0.0097 UJ	<0.019 UJ	<0.0097 UJ	<0.0097 UJ	<0.00019	<0.0097 UJ	<0.00019	<0.0097 UJ	<0.00019	<0.0097 UJ	<0.00019	<0.0097 UJ
	MW1-ROX-010920	1/9/2020		37.09	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.0096	<0.00019	<0.0096	<0.00019	<0.0096	<0.0096	<0.019	<0.0096	<0.0096	<0.019	<0.0096	<0.0096	<0.00019	<0.0096	<0.00019	<0.0096	<0.00019	<0.0096	
	MW1-ROX-040920	4/9/2020		36.54	NE	<0.00019	<0.0099 H UJ	<0.0099 H UJ	<0.0099 H UJ	<0.0099 H UJ	<0.0099 H UJ	<0.00019	<0.0099 H UJ	<0.00019	<0.0099 H UJ	<0.00019	<0.0099 H UJ	<0.02 H UJ	<0.0099 H UJ	<0.0099 H UJ	<0.02 H UJ	<0.0099 H UJ	<0.0099 H UJ	<0.00019	<0.0099 H UJ	<0.00019	<0.0099 H UJ	<0.00019	<0.0099 H UJ		
	MW1-ROX-071320	7/13/2020		35.52	NE	<0.00019	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.00019	<0.0094	<0.00019	<0.0094	<0.00019	<0.0094 UJ	<0.019 UJ	<0.0094 UJ	<0.0094 UJ	<0.019 UJ	<0.0094 UJ	<0.00019	<0.0094 UJ	<0.00019	<0.0094 UJ	<0.00019	<0.0094 UJ			
	MW1-ROX-100920	10/9/2020		36.06	NE	<0.00019	<0.0095	<0.0089 J	<0.0095	<0.0095	<0.0095	<0.00019	<0.0095	<0.00019	<0.0095	<0.00019	<0.0095 UJ	<0.000075 J	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095	<0.00019	<0.0095	<0.00019	<0.0095
MW-02	MW2-ROX-011118	1/11/2018	49.87 - 59.87	41.24	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.0095	<0.00019	<0.0095	<0.019	<0.0068	<0.0095	<0.0095	<0.019	<0.0068	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095	<0.00019	<0.0095	
	MW2-ROX-040918	4/9/2018		42.10	NE	<0.0002	<0.01 UJ	<0.01	<0.013	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002 J	<0.015	<0.031	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01	<0.0002	<0.01	<0.0002	
	MW2-ROX-071018	7/10/2018		42.59	NE	<0.00022	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00022	<0.00022	<0.011	<0.00062 J	<0.0087	<0.0069	<0.011	<0.022	<0.011	<0.011	<0.022	<0.0022	<0.011	<0.0022	<0.011	<0.0022	<0.011	<0.0022		
	MW2-ROX-101218	10/12/2018		42.71	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.00019	<0.0098	<0.0002	<0.0098	<0.0002	<0.0098	<0.0002	<0.0048	<0.003 J	<0.0098	<0.0098	<0.0098								

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		SVOCs																								
		Dibenzod[ah]anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Dim-butyl phthalate	Di-n-octyl phthalate	1,4-Dioxane	Fluoranthene	Indene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Nitrophenol	4-Nitrophenol	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine						
		0.0003 ¹	0.007 ³	5.6 ¹	0.14 ²	0.7 ¹	0.14 ²	0.0077 ¹	0.28 ¹	0.28 ¹		0.00043 ¹	0.49 ³	0.028 ¹	0.35 ¹	0.35 ³	0.105 ³		0.001 ¹	0.21 ³	0.1 ¹	0.21 ¹	0.007 ³			
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)																					
MW-06A	MW6A-ROX-010518	1/5/2018	34.83 - 44.83	29.22	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.0095			
	MW6A-ROX-040518	4/5/2018		29.83	NE	<0.0002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01 UJ	<0.0002	<0.01	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	0.00052 J	<0.01 UJ	
	MW6A-ROX-070518	7/5/2018		30.10	NE	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.00021	<0.00021	<0.01	<0.00021	<0.00021	<0.01	<0.021	<0.01	<0.01	<0.021	<0.00021	<0.01	<0.00021 U	<0.01	
	MW6A-ROX-100418	10/4/2018		30.10	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.00062 J	<0.0002	<0.0099	<0.0002	<0.00059 UJ	<0.00059 UJ	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.00094 J	<0.0099	<0.0007 J	<0.0099
	MW6A-ROX-010819	1/8/2019		29.77	NE	<0.0002 UJ	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002 UJ	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0016 J	<0.01
	MW6A-ROX-040519	4/5/2019		29.34	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.0002	<0.0099	<0.0002	<0.0099	
	MW6A-ROX-071119	7/11/2019		24.57	NE	<0.00021	<0.01	<0.01	<0.01	<0.01	<0.01 UJ	<0.00021	<0.00021	<0.01	<0.00021	<0.00021	<0.01	<0.021	<0.01	<0.01	<0.01	<0.021	<0.00021	<0.01	<0.00021	<0.01 UJ
	MW6A-ROX-101019	10/10/2019		24.39	NE	<0.00025	<0.013	<0.013	<0.013	<0.013	<0.013	<0.00025	<0.00025	<0.013	<0.00025	<0.00025	<0.013	<0.025	<0.013	<0.013	<0.025	<0.00025	<0.013	<0.00025	<0.013	
	MW6A-ROX-010820	1/8/2020		26.03	NE	<0.00019	<0.0096	<0.0096 UJ	<0.0096	<0.0096 UJ	<0.0096	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0096 UU	<0.019 UJ	<0.0096 UU	<0.0096 UU	<0.019 UJ	<0.0096 UU	<0.0096 UU	<0.0096 UU		
	MW6A-ROX-041320	4/13/2020		25.14	NE	<0.0002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01	
	MW6A-ROX-071620	7/16/2020		24.35	NE	<0.00019	<0.0093	<0.0093	<0.0093	<0.0093	<0.0093	<0.00019	<0.00019	<0.0093	<0.00019	<0.00019	<0.0093 J	<0.0093	<0.019	<0.0093	<0.0093	<0.019	<0.00019	<0.0093	<0.0093	
	MW6A-ROX-100820	10/8/2020		25.23	NE	<0.0002	<0.01	<0.01 UJ	<0.01	<0.01	<0.01	<0.01 UJ	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01
MW-06B	MW6B-ROX-010518	1/5/2018	33.85 - 43.85	29.25	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.00019	<0.00019	<0.00028 J	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.0095		
	MW6B-ROX-040518	4/5/2018		29.95	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.00019 UJ	<0.0002	<0.0099	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.0002	<0.0099 UJ	<0.0002	<0.0002	<0.0099
	MW6B-ROX-070518	7/5/2018		30.15	NE	<0.00022	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00022	<0.00022	<0.011	<0.00022	<0.00022	<0.011	<0.022	<0.011	<0.011	<0.022	<0.00022	<0.011	<0.00022	<0.011	
	MW6B-ROX-100418	10/4/2018		30.13	NE	<0.0002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01	
	MW6B-ROX-010819	1/8/2019		29.83	NE	<0.0002 UJ	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002 UJ	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01
	MW6B-ROX-040519	4/5/2019		29.40	NE	<0.0002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0044 J	<0.01	<0.0002	<0.01	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01
	MW6B-ROX-071119	7/11/2019		24.62	NE	<0.00021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.00021	<0.00021	<0.01	<0.00021	<0.00021	<0.01	<0.021	<0.01	<0.01	<0.021	<0.00021	<0.01 UJ	<0.00021	<0.01 UJ	
	MW6B-ROX-101019	10/10/2019		24.43	NE	<0.00025	<0.013	<0.013	<0.013	<0.013	<0.013	<0.00025	<0.00025	<0.013	<0.00025	<0.00025	<0.013	<0.025	<0.013	<0.013	<0.025	<0.00025	<0.013	<0.00025	<0.013	
	MW6B-ROX-010820	1/8/2020		26.09	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.00019	<0.0096	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.0096	<0.022 J	<0.00019	<0.0096	<0.00019	<0.0096	
	MW6B-ROX-010820-PCP	1/8/2020		26.09	NE																					
	MW6B-ROX-041320	4/13/2020		25.19	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.0002	<0.0099	<0.0002	<0.0099	
	MW6B-ROX-071620	7/16/2020		24.40	NE	<0.00019	<0.0093	<0.0093	<0.0093	<0.0093	<0.0093	<0.00019	<0.00019	<0.0093	<0.00019	<0.00019	<0.0093	<0.019	<0.0093	<0.0093	<0.019	<0.00019	<0.0093	<0.00019	<0.0093	
	MW6B-ROX-100820	10/8/2020		25.28	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.0095	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095	
MW-06C	MW6C-ROX-010818	1/8/2018	84.95 - 89.95	29.05	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.0095	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095	
	MW6C-ROX-040518	4/5/2018		29.74	NE	<0.0002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01 UJ	
	MW6C-ROX-070518	7/5/2018		29.93	NE	<0.00021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.00021	<0.00021	<0.01	<0.00021	<0.00021	<0.01	<0.021	<0.01	<0.01	<0.021	<0.00021	<0.01	<0.00021		

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		SVOCs																												
		Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	D _n -butyl phthalate	D _n -octyl phthalate	1,4-Dioxane	Fluoranthene		Indene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	3 & 4-Methylphenol (m & p-Cresol)	2-Nitroaniline	2-Nitrophenol	4-Nitrophenol	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine							
		Screening Values (mg/L)	0.0003 ¹	0.007 ³	5.6 ¹	0.14 ²	0.7 ¹	0.14 ²	0.0077 ¹	0.28 ¹	0.28 ¹	0.00043 ¹	0.49 ³	0.028 ¹	0.35 ¹	0.35 ³	0.105 ³	0.001 ¹	0.21 ³	0.1 ¹	0.21 ¹	0.007 ³								
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)																									
						<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095 U	<0.0095	<0.00019	0.00013 J	0.0019 J	<0.00019	0.0027	0.0038	0.0031 J	<0.019	<0.0095	<0.0095 H UJ	<0.019 H UJ	0.00021	0.077	<0.00019	<0.0095			
	MW7-ROX-010918	1/9/2018	42.92 - 52.92	40.67	NE	<0.0002	<0.0099 UJ	<0.0099	<0.0099 UJ	<0.0099	<0.0099	<0.002	<0.002	0.0025 J	<0.0002	0.0018	0.0027	<0.0099 UJ	<0.02 UJ	<0.0099	<0.0099 UJ	<0.0099 UJ	<0.02 UJ	0.00082 J	0.013 J	<0.0002	<0.0099 UJ			
	MW7-ROX-040918	4/9/2018		41.38	NE	<0.0002	<0.01 UJ	<0.01	0.0056 J	<0.01	<0.01	<0.002	<0.002	0.0025 J	<0.0002	0.0023	0.0029	0.003 J	0.0034 J	<0.01	<0.01	<0.01	<0.02	<0.002	0.0011 J	0.087 J	<0.0002	<0.01 UJ		
	MW7-ROX-040918-DUP	4/9/2018		41.38	NE	<0.0002	<0.01 UJ	<0.01	0.0056 J	<0.01	<0.01	<0.002	<0.002	0.0025 J	<0.0002	0.0023	0.0029	<0.01	0.0026 J	<0.011	<0.011	<0.011	<0.02	0.0022	0.0013 J	0.18	<0.0022	<0.011		
	MW7-ROX-071018	7/10/2018		41.64	NE	<0.00022	<0.011	<0.011	<0.011	<0.011	<0.00022	0.000089 J	0.0018 J	<0.00022	0.0021	0.0022	0.0033	<0.0098	0.0028 J	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	0.00015 J	0.18	<0.0002	<0.0098		
	MW7-ROX-071018-DUP	7/10/2018		41.64	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	0.0002 J	<0.0002	0.0022	0.0033	<0.0098	0.0028 J	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	0.00015 J	0.18	<0.0002	<0.0098		
	MW7-ROX-100818	10/8/2018		41.69	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	0.0014	<0.0098	<0.0002	0.0014	0.0017 J	<0.00019 UJ	0.0017	0.0024	<0.0095	0.0017 J	<0.0095	<0.0095	<0.0095	<0.0095	0.00029	0.061	<0.00019	<0.0095
	MW7-ROX-010719	1/7/2019		41.25	NE	<0.00019 UJ	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	0.00014 J	<0.00019 UJ	<0.00019	0.00017	0.0024	<0.0095	0.0017 J	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	0.00029	0.061	<0.00019	<0.0095	
	MW7-ROX-040819	4/8/2019		40.94	NE	<0.00095 UJ	<0.0095	0.0063 J	<0.0095	<0.0095	<0.0095	<0.00019	0.000099 J	<0.000095 UJ	0.0018	0.0027	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.0095	<0.0095	<0.0095	<0.0095	0.00021	0.13	<0.00019	<0.0095	
	MW7-ROX-040819-DUP	4/8/2019		40.94	NE	<0.00095 UJ	<0.0095	0.0067 J	<0.0095	<0.0095	<0.0095	<0.00019	0.00019	<0.00095 UJ	0.0017	0.0026	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.0095	<0.0095	<0.0095	<0.0095	0.00026	0.16	<0.00019	<0.0095	
	MW7-ROX-070819	7/8/2019		36.58	NE	<0.00019	<0.0096	0.0046 J	<0.0096	<0.0096	<0.0096	<0.00019	0.0034 J	<0.00019	0.0022	0.0035	<0.0096	0.0027 J	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	0.00019	0.08 J	<0.00019	<0.0096	
	MW7-ROX-070819-DUP	7/8/2019		36.58	NE	<0.00019	<0.0096	0.0044 J	<0.0096	<0.0096	<0.0096	<0.00019	0.0038 J	<0.00019	0.0027	0.0042	<0.0096	0.0028 J	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	0.00019	0.049 J	<0.00019	<0.0096	
	MW7-ROX-100819	10/8/2019		36.10	NE	<0.00019	<0.0096	0.0045 J	<0.0096	<0.0096	<0.0096	<0.00019	0.0022 J	<0.00019	0.0017 J	0.0026 J	<0.0096	0.0024 J	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	0.00019	0.14	<0.00019	<0.0096	
	MW7-ROX-100819-DUP	10/8/2019		36.10	NE	<0.00019	<0.0096	0.0046	<0.0096	<0.0096	<0.0096	<0.00019	0.0022 J	<0.00019	0.0012 J	0.0012 J	<0.0096	0.0012 J	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	0.00019	0.07	<0.00019	<0.0096	
	MW7-ROX-010620	1/6/2020		37.60	NE	<0.00019	<0.0096	0.0046	<0.0096	<0.0096	<0.0096	<0.00019	0.0022 J	<0.00019	0.00096	<0.00019	0.0025	<0.0096	0.0012 J	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	0.00019	0.096	<0.00019	<0.0096	
	MW7-ROX-010620-DUP	1/6/2020		37.60	NE	<0.00019	<0.0096	0.0046	<0.0096	<0.0096	<0.0096	<0.00019	0.0022 J	<0.00019	0.00096	<0.00019	0.0025	&												

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

SVOCs																													
Screening Values (mg/L)																													
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	D <p>n</p> -butyl phthalate	D <p>h</p> -octyl phthalate	1,4-Dioxane	Fluoranthene	Fluorene	Indene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	3 & 4-Methylenepheno(m & p-Cresol)	2-Nitroaniline	2-Nitrophenol	4-Nitrophenol	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine		
MW-11	MW11-ROX-011018	1/10/2018	41.66 - 51.66	39.00	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019		
	MW11-ROX-040618	4/6/2018		39.98	NE	<0.0002 UJ	<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	<0.0098	<0.02	<0.0002	<0.0098	<0.0002	<0.0098	<0.0002	<0.0098	
	MW11-ROX-070918	7/9/2018		40.54	NE	<0.00021	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00021	<0.00021	<0.011	<0.00021	<0.00021	<0.00021	<0.011	<0.021	<0.011	<0.011	<0.021	<0.00021	<0.011	<0.00021	<0.011	<0.00021	<0.011	
	MW11-ROX-101118	10/1/2018		40.65	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.0098	<0.02	<0.0002	<0.0098 UJ	<0.0002	<0.0098 UJ	<0.0002	<0.0098 UJ	
	MW11-ROX-011019	1/10/2019		40.45	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.0095	<0.00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095	<0.00019	<0.0095	
	MW11-ROX-041119	4/11/2019		40.03	NE	<0.00019 UJ	<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	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094 J	<0.0094	<0.00019	
	MW11-ROX-070919	7/9/2019		35.95	NE	0.000053 J	<0.01	<0.01	<0.01	<0.01	<0.00021	<0.00021	0.000053 J	<0.00021	0.000027 J	<0.01	<0.021	<0.01	<0.01	<0.021	<0.00021	<0.01	<0.00021	<0.01	<0.00021	<0.01	<0.00021	<0.01	<0.00021
	MW11-ROX-100419	10/4/2019		35.36	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.00019	<0.0096	<0.00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096	<0.00019	<0.0096	
	MW11-ROX-010720	1/7/2020		36.45	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.0098	<0.02	<0.0002	<0.0098	<0.0002	<0.0098	<0.0002	<0.0098		
	MW11-ROX-040920	4/9/2020		36.02	NE	<0.00019 UJ	<0.0099 H UJ	<0.0099 H UJ	<0.0099 H UJ	<0.0099 H UJ	<0.0099 H UJ	<0.00019	<0.00019	<0.0099 H UJ	<0.00019	<0.00019	<0.0099 H UJ	<0.02 H UJ	<0.0099 H UJ	<0.0099 H UJ	<0.02 H UJ	<0.00019	<0.0099 H UJ	<0.00019	<0.0099 H UJ	<0.00019	<0.0099 H UJ		
	MW11-ROX-071720	7/17/2020		34.82	NE	<0.0002	<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	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01	<0.0002	<0.01	<0.0002	
	MW11-ROX-100920	10/9/2020		35.17	NE	<0.00019	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.00019	<0.00019	<0.0094	<0.00019	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.0094	<0.0094 UJ	<0.019	<0.00019	<0.0094	<0.00019	<0.0094		
MW-12	MW12-ROX-011118	1/11/2018	41.92 - 51.92	39.62	NE	<0.00019	<0.0094	<0.0094	<0.0094	<0.0094	<0.0094	<0.00019	<0.00019	<0.0094	<0.00019	<0.00019	<0.0094	<0.019	<0.0094	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094 J	<0.0094	<0.00019		
	MW12-ROX-040518	4/5/2018		40.50	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.0002	<0.0099	<0.0002	<0.0099	<0.0002	<0.0099		
	MW12-ROX-040518-DUP	4/5/2018		40.50	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.0002	<0.0099	<0.0002	<0.0099	<0.0002	<0.0099		
	MW12-ROX-070618	7/6/2018		41.03	NE	<0.00021	<0.011	<0.011	<0.011	<0.011	<0.011 UJ	<0.00021	<0.00021	<0.011	<0.00021	<0.00021	<0.011	<0.021	<0.011	<0.011	<0.021	<0.011	<0.00021	<0.011	<0.00021	<0.011	<0.00021		
	MW12-ROX-101018	10/10/2018		40.84	NE	<0.000095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.000095	<0.000095	<0.0095	<0.000095	<0.000095	<0.0095	<0.0095	<0.024	<0.00095	<0.00095	<0.024	<0.00095	<0.00095	<0.00095	<0.00095	<0.00095		
	MW12-ROX-010919	1/9/2019		40.78	NE	0.00045	<0.01	<0.01	<0.01	<0.01	<0.00014 J	<0.000052 J	<0.01</td																

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		SVOCs																									
		Screening Values (mg/L)																									
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	D <p>n</p> -butyl phthalate	D <p>h</p> -octyl phthalate	1,4-Dioxane	Fluoranthene	Fluorene	Indene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	3 & 4-Methylenphenol (m & p-Cresol)	2-Nitroaniline	4-Nitrophenol	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine	
MW-22	MW22-ROX-011118	1/11/2018	37.88 - 47.88	39.25	NE	<0.00019	<0.0096	<0.0096	0.0049 J	<0.0096	<0.0096	<0.0096 UJ	<0.00019	<0.00019	<0.00019	0.012 J	0.02 J	<0.0096	0.0043 J	<0.0096	<0.0095	<0.0095	<0.019	<0.00019	<0.0096	<0.00019	<0.0096 UJ
	MW22-ROX-011118-DUP	1/11/2018		39.25	NE	<0.00019	<0.0095	<0.0095	0.0063 J	<0.0095	<0.0095	<0.0095 UJ	<0.00019	<0.00019	<0.00019	0.016 J	0.026 J	<0.0095	0.006 J	<0.0095	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.0095	<0.0095 UJ
	MW22-ROX-041018	4/10/2018		NM	NE	<0.0002 UJ	<0.0099 UJ	<0.0099 UJ	0.014 J	<0.0099 UJ	<0.0099 UJ	<0.0002 UJ	0.02 J	<0.0002 UJ	0.028 J	0.04 J	<0.0099 UJ	0.011 J	<0.0099 UJ	<0.0099 UJ	<0.0099 UJ	<0.02 UJ	<0.0002 UJ	<0.0099 UJ	<0.0002 UJ	<0.0099 UJ	
	MW22-ROX-071018	7/10/2018		40.88	NE	<0.00022	<0.011	<0.011	0.014	<0.011	<0.011	<0.00022	0.031	<0.00022	0.024	<0.011	<0.0099 J	<0.011	<0.011	<0.011	<0.022	<0.00022	<0.011	<0.00022	<0.011	<0.011	
	MW22-ROX-101518	10/15/2018		41.11	NE	<0.00021	<0.053	<0.053	<0.053	<0.053	<0.053	<0.00021	0.019 J	<0.00021	0.019	0.028	<0.053	<0.11	<0.053	<0.053 UJ	<0.11	0.00016 J	<0.053	0.000026 J	<0.053	0.000026 J	<0.053
	MW22-ROX-010919	1/9/2019		40.91	NE	<0.0002	<0.01	<0.01	0.0059 J	<0.01	<0.01	<0.0002	0.013 J	<0.0002	0.015	0.022	<0.01	0.0013 J	<0.01	<0.01	<0.02	0.00012 J	<0.01	<0.0002	<0.01	<0.0002	<0.01
	MW22-ROX-041719	4/17/2019		40.31	NE	<0.0002	<0.099	<0.099	0.0068 J	<0.099	<0.099	<0.0002	<0.0002	0.012	<0.0002	0.027	<0.0099	0.015 J	<0.0099	<0.0099	<0.0099	<0.0099	<0.02	<0.0002	<0.0099	<0.0002	<0.0099
	MW22-ROX-101519	10/15/2019		35.38	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	0.0021 JJ	<0.00019	0.0022	0.0025	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW22-ROX-101519-DUP	10/15/2019		35.38	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	0.0023 JJ	<0.00019	0.0019	0.0021	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095
	MW22-ROX-010620	1/6/2020		36.83	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.0096	<0.00019	<0.0096	<0.00038	0.0003	<0.0096	<0.0096	<0.0096	<0.0096 UJ	0.0023 J *	<0.00019	<0.0096	<0.00019	<0.0096	
	MW22-ROX-010620-PCP	1/6/2020		36.83	NE	<0.0002	<0.098	<0.098	<0.098	<0.098	<0.098	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.02	<0.0098	<0.0098	<0.0098	<0.02	<0.0002	<0.0098	<0.0002	<0.0098		
	MW22-ROX-041520	4/15/2020		36.30	NE	<0.0002	<0.098	<0.098	<0.098	<0.098	<0.098	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.02	<0.0098	<0.0098	<0.0098	<0.02	<0.0002	<0.0098	<0.0002	<0.0098		
	MW22-ROX-071420	7/14/2020		35.11	NE	<0.00019	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.00019	<0.0097	<0.00019	<0.0097	<0.0097	<0.019	<0.0097	<0.0097	<0.0097	<0.019	<0.00019	<0.0097	<0.00019	<0.0097		
	MW22-ROX-101520	10/15/2020		35.56	NE	0.00018 J	<0.0095	<0.0095 U	<0.0095	<0.0095	0.00037 J	<0.0095 UJ	<0.00019	<0.0095	0.00017 J	0.00051	<0.0095	<0.019	<0.0095 UJ	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095	<0.0095 UJ
MW-23	MW23-ROX-010518	1/5/2018	29.02 - 39.02	28.52	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.0095	<0.00019	<0.0095	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095	
	MW23-ROX-040918	4/9/2018		29.24	NE	<0.0002	<0.01 UJ	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01	<0.0002	<0.01 UJ
	MW23-ROX-070918	7/9/2018		29.1	NE	<0.00011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00011	<0.011	<0.00011	<0.011	<0.00011	<0.011	<0.022	<0.011	<0.011	<0.022	<0.00011	<0.011	<0.00011	<0.011	<0.00011	
	MW23-ROX-100918	10/9/2018		29.00	NE	<0.000096	<0.0095	<0.0095	<0.0095	<0.0095 UJ	<0.0095 UJ	<0.00095	<0.00096	0.0001	<0.00095	<0.00096	0.000055 J	0.000087 J	<0.0095	<0.0095	<0.024	<0.0095	<0.024	<0.0095	<0.0095	<0.0095	
	MW23-ROX-010919	1/9/2019		28.96	NE	<0.0002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.0002	<0.01	<0.02	<0.01	<0.01	<0.02</						

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		SVOCs																										
		Screening Values (mg/L)																										
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	D _n -butyl phthalate	D _n -octyl phthalate	1,4-Dioxane	Fluoranthene	Fluorene	Indene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	3 & 4-Methylenophenol (m & p-Cresol)	2-Nitroaniline	2-Nitrophenol	4-Nitrophenol	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine	
MW-27	MW27-ROX-011018	1/10/2018	39.79 - 49.79	38.98	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095			
	MW27-ROX-040618	4/6/2018		40.34	NE	<0.0002 UJ	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	<0.0098	<0.0002	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.0098	<0.02	<0.0002	<0.0098	<0.0002	<0.0098			
	MW27-ROX-070918	7/9/2018		41.16	NE	<0.00022	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00022	<0.00025 J	<0.011	<0.00022	<0.00058 J	<0.00081 J	<0.011	<0.022	<0.011	<0.011	<0.022	<0.0022	<0.011	<0.0022	<0.011		
	MW27-ROX-100918	10/9/2018		41.06	NE	<0.000096	<0.0095	<0.0095	<0.0095	<0.0095 UJ	<0.0095 UJ	<0.000096	<0.000027 J	<0.0095	<0.000096	<0.000025 J	<0.000043 J	<0.0095	<0.0095	<0.024	<0.0095	<0.0095	<0.024	<0.0024 UJ	<0.00058 J	<0.0095	<0.00096	<0.0095
	MW27-ROX-011119	1/11/2019		41.06	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.0095	<0.00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.0019	<0.0095	<0.00019	<0.0095	<0.0095		
	MW27-ROX-041519	4/15/2019		40.99	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0099	<0.0002	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.0002	<0.0099	<0.0002	<0.0099			
	MW27-ROX-070919	7/9/2019		37.65	NE	<0.00021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.01	<0.021	<0.01	<0.01	<0.021	<0.0021	<0.01	<0.0021	<0.01			
	MW27-ROX-100319	10/3/2019		36.07	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.0096	<0.00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096			
	MW27-ROX-010720	1/7/2020		36.96	NE	<0.00019	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.00019	<0.0097	<0.00019	<0.0097	<0.00019	<0.0097	<0.019	<0.0097	<0.0097	<0.019	<0.00019	<0.0097	<0.00019	<0.0097			
	MW27-ROX-041020	4/10/2020		36.82	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0099	<0.0002	<0.0099	<0.0002	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.0002	<0.0099	<0.0002	<0.0099			
	MW27-ROX-071020	7/10/2020		35.76	NE	<0.0002	<0.0093 H UJ	<0.0093 H UJ	<0.0093 H UJ	<0.0093 H UJ	<0.0093 H UJ	<0.0002	<0.0092	<0.0002	<0.0092	<0.0002	<0.0093 H UJ	<0.019 H UJ	<0.0093 H UJ	<0.019 H UJ	<0.0002	<0.0093 H UJ	<0.0002	<0.0093 H UJ				
	MW27-ROX-101320	10/13/2020		35.55	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095 UJ	<0.00019	<0.0095	<0.00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095			
MW-28	MW28-ROX-011018	1/10/2018	33.61 - 43.61	38.18	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.0095	<0.00019	<0.00019	<0.000066 J	<0.00003 J	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095		
	MW28-ROX-040618	4/6/2018		39.25	NE	<0.0002 UJ	<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	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01		
	MW28-ROX-070918	7/9/2018		40.08	NE	<0.00021	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00021	<0.00021	<0.011	<0.00021	<0.00021	<0.011	<0.021	<0.011	<0.011	<0.021	<0.00021	<0.011	<0.00021	<0.011			
	MW28-ROX-101118	10/11/2018		40.25	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	<0.0098	<0.0002	<0.0098	<0.000039 J	<0.0002	<0.0098	<0.02	<0.0098	<0.0098	<0.02	<0.0002	<0.0098 UJ	<0.0002	<0.0098		
	MW28-ROX-010819	1/8/2019		40.32	NE	<0.0002 UJ	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0099	<0.0002 UU	<0.00068 J	<0.0002	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.0002	<0.0099	<0.0002	<0.0099			
	MW28-ROX-040919	4/9/2019		40.42	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.0095	<0.00019	<0.00019	<0.000053 J	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095		
	MW28-ROX-071019	7/10/2019		37.14	NE	<0.0002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	<0.00038 J	<0.00026 J	<0.01	<0.02	<0.01	<0.01	<0.02	<0.0002	<0.01	<0.0002	<0.01		

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

						SVOCs																							
						Dibenzofuran	Dibenzothiophene	Dinitrophenol	2,4-Dimethylphenol	Dinitrobenzene	Dinitroethane	Dinitrophenol	1,4-Dioxane	Fluoranthene	Fluorene	Indene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	3 & 4-Methylenephene (m & p-Cresol)	2-Nitroaniline	2-Nitrophenol	4-Nitrophenol	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine	
						0.0003 ¹	0.0007 ³	5.6 ¹	0.14 ²	0.7 ¹	0.14 ²	0.0077 ¹	0.28 ¹	0.28 ¹		0.00043 ¹	0.49 ³	0.028 ¹	0.35 ¹	0.35 ³	0.105 ³		0.001 ¹	0.21 ³	0.1 ¹	0.21 ¹	0.007 ³		
P-57	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)																								
	P57-ROX-011818	1/18/2018	44.19 - 54.19	44.86	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	0.00049	<0.0095	<0.00019	0.024	0.032 J	<0.0095	<0.019	<0.0095	<0.0095 UJ	<0.0095	<0.019	0.00035	0.12	<0.00019	<0.0095 UJ	
	P57-ROX-011818-DUP	1/18/2018		44.86	NE	<0.00019	0.00068 J *	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	0.00076	0.0018 J	<0.00019	0.03	0.041 J	<0.0095	<0.019	<0.0095	<0.0095 UJ	<0.0095	<0.019	0.00035	0.14	<0.00019	<0.0095 UJ	
	P57-ROX-041018	4/10/2018		45.45	NE	<0.0002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	0.00032	<0.01 UJ	<0.0002	0.031	0.039	<0.01	<0.02	<0.01	<0.01	<0.02	0.00041	0.06	<0.0002	<0.01 UJ		
	P57-ROX-071118	7/11/2018		45.76	NE	<0.00021	0.00056 J	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00021	0.00048 J	<0.011	<0.00021	0.032	0.042	<0.011	<0.021	<0.011	<0.011 UJ	<0.021	0.00037	0.039	<0.00021	<0.011 UJ		
	P57-ROX-071118-DUP	7/11/2018		45.76	NE	<0.00022	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00022	0.00022 UJ	<0.011	<0.00022	0.032	0.043	<0.011	<0.022	<0.011	<0.011 UJ	<0.022	0.00039	0.057	<0.00022	<0.011 UJ		
	P57-ROX-101618	10/16/2018		45.86	NE	<0.00019	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.00019	0.00033	<0.0097	<0.00019	0.021 J	0.027	<0.0097	<0.019	<0.0097	<0.0097 UJ	<0.019	0.00036	0.023	<0.00019	<0.0097		
	P57-ROX-101618-DUP	10/16/2018		45.86	NE	<0.00019	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.00019	0.00043	<0.0097	<0.00019	0.027 J	0.034	<0.0097	<0.019	<0.0097	<0.0097 UJ	<0.019	0.00059	0.035	<0.00019	<0.0097		
	P57-ROX-011419	1/14/2019		45.63	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	0.00056	<0.0099	<0.0002	0.019	0.024	<0.0099	<0.02	<0.0099	<0.0099 UJ	<0.0099	<0.02	0.00049	0.058	<0.0002	<0.0099	
	P57-ROX-011419-DUP	1/14/2019		45.63	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	0.00059	<0.0099	<0.0002	0.019	0.024	<0.0099	<0.02	<0.0099	<0.0099 UJ	<0.0099	<0.02	0.00049	0.058	<0.0002	<0.0099	
	P57-ROX-041719	4/17/2019		44.89	NE	<0.00098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	0.00071 J	<0.0098	<0.00098	0.022	0.028	<0.0098	<0.02	<0.0098	<0.0098 UJ	<0.0098	<0.02	0.00046	0.078	<0.0002	0.00029 JJ	<0.0098
	P57-ROX-041719-DUP	4/17/2019		44.89	NE	<0.00099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	0.00061 J	<0.0099	<0.00099	0.021	0.028	<0.0099	<0.02	<0.0099	<0.0099 UJ	<0.0099	<0.02	0.00046	0.081	<0.0002	<0.0099	
	P57-ROX-071519	7/15/2019		40.82	NE	<0.00097	0.00059 J	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.00097	0.00092 J J	<0.0097	<0.00097	0.034	0.045	<0.0097	<0.019	<0.0097	<0.0097 UJ	<0.019	0.00058 J	0.37	<0.00097	<0.0097		
	P57-ROX-071519-DUP	7/15/2019		40.82	NE	<0.0002	0.00057 J	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	0.00052	<0.01	<0.0002	0.033	0.047	<0.01	<0.02	<0.01	<0.01	<0.02	0.0005	0.31	<0.0002	<0.01		
	P57-ROX-101519	10/15/2019		40.18	NE	<0.00019	0.00066 J	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	0.00037	<0.0095 UJ	<0.00019	0.028	0.03	<0.0095	<0.019	<0.0095	<0.0095 UJ	<0.0095	<0.019	0.00029	0.079*	<0.00019	<0.0095	
	P57-ROX-101519-DUP	10/15/2019		40.18	NE	<0.00019	0.00056 J	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	0.00039	<0.0096 UJ	<0.00019	0.024	0.026	<0.0096	<0.019	<0.0096	<0.0096 UJ	<0.0096	<0.019	0.00025	0.071*	<0.00019	<0.0096	
	P57-ROX-010920	1/9/2020		41.77	NE	<0.00019	0.00062 J	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	0.0004	<0.00019	0.028	0.033	<0.0096	<0.019	<0.0096	<0.0096 UJ	<0.019	0.00034	0.033	<0.00019	<0.0096			
	P57-ROX-041720	4/1																											

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		SVOCs																									
		Screening Values (mg/L)																									
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Dibenz(a,h)anthracene	Dibenzoturan	Diethyl phthalate	2,4-Dimethylphenol	D _n -butyl phthalate	D _n -octyl phthalate	1,4-Dioxane	Fluoranthene	Fluorene	Indene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	3 & 4-Methylenepheno (m & p-Cresol)	2-Nitroaniline	2-Nitrophenol	4-Nitrophenol	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
P-93A	P93A-ROX-011118	1/11/2018	43.07 - 53.07	42.71	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096 UJ	<0.00019	<0.00019	0.00002 J	0.000025 J	<0.0096	<0.019	<0.0096	<0.0096	<0.019	<0.00019	0.012	<0.00019	<0.0096 UJ		
	P93A-ROX-011118-DUP	1/11/2018		42.71	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096 UJ	<0.00019	<0.00019	0.000027 J	0.000023 J	<0.0096	<0.019	<0.0096	0.0019 J	0.0023 J	<0.019	<0.00019	0.0035 J	<0.00019	<0.0096 UJ	
	P93A-ROX-041118	4/11/2018		NM	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0099	<0.0002	0.00092	0.00047	<0.0099	<0.02	<0.0099	<0.0099	<0.02	0.000049 J	0.07	<0.0002	<0.0099	
	P93A-ROX-052218	5/22/2018		NM	NE																						
	P93A-ROX-071218	7/12/2018		44.03	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	0.000029 J	<0.0098	<0.0002	0.00033	0.00006 J	<0.0098	<0.02	<0.0098	<0.0098	<0.0098	<0.02	<0.0002	0.047	<0.0002	<0.0098
	P93A-ROX-101618	10/16/2018		44.05	NE	<0.00019	<0.0097	<0.0097	<0.0097	0.002 J	<0.0097	0.000039 J	0.000095 J	<0.0097	<0.00019	0.0026	0.00075	<0.0097	<0.019	<0.0097	<0.0097 UJ	<0.019	0.000086 J	0.088	<0.00019	<0.0097	
	P93A-ROX-011149	1/14/2019		43.78	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	0.00007 J	<0.0099	<0.0002	0.0015	0.00026	<0.0099	<0.02	<0.0099	<0.0099 UJ	<0.0099	<0.02	0.00007 J	0.071	<0.0002	<0.0099
	P93A-ROX-041819	4/18/2019		42.98	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	0.000079 J	<0.0099	<0.0002	0.0026	0.00026	<0.0099	<0.02	<0.0099	<0.0099	<0.02	0.000059 J	0.091	<0.0002	<0.0099	
	P93A-ROX-071519	7/15/2019		38.92	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.00019	<0.0096	<0.00019	0.00075	0.00012 J	<0.0096	<0.019	<0.0096	<0.0096	<0.019	<0.00019	0.048	<0.00019	<0.0096	
	P93A-ROX-101519	10/15/2019		38.31	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019 U	<0.00019	<0.0095	<0.00019 U	0.0023	0.00053	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019 U	0.059	<0.00019 U	<0.0095	
	P93A-ROX-010920	1/9/2020		39.89	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.00019	<0.0096	<0.00019	0.00066	0.0003	<0.0096	<0.019	<0.0096	<0.0096	<0.019	<0.00019	0.028	<0.00019	<0.0096	
	P93A-ROX-010920-DUP	1/9/2020		39.89	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.00019	<0.0096	<0.00019	0.00076	0.00016 J	<0.0096	<0.019	<0.0096	<0.0096	<0.019	<0.00019	0.023	<0.00019	<0.0096	
	P93A-ROX-041720	4/17/2020		38.79	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	0.0011	0.00068 J	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.0002	0.022	<0.0002	<0.0099	
	P93A-ROX-071620	7/16/2020		38.36	NE	<0.0002	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0002	<0.0002	<0.01	<0.0002	0.0014	0.00015 J	<0.01	<0.02	<0.01	<0.01	<0.02	<0.00072 J	0.047	<0.0002	<0.01	
	P93A-ROX-102220	10/22/2020		39.09	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.0095	<0.00019	0.00052	0.0003	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	0.012	<0.00019	<0.0095	
	P93A-ROX-102220-DUP	10/22/2020		39.09	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.0095	<0.00019	0.00038	0.00041	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	0.0083 J *1	<0.00019	<0.0095	
P-93B	P93B-ROX-011518	1/15/2018	74.88 - 76.88	44.42	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.0095	<0.00019	0.00019 U	<0.00019 U	<0.0095	0.0013 J	<0.0095	<0.0095	<0.0095	<0.019	<0.00019	0.058	<0.00019	<0.0095 UJ
	P93B-ROX-041218	4/12/2018		44.75	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099 UJ	0.000041 J	0.000028 J	<0.0092	<0.019	<0.0099	<0.0099	<0.019	<0.0002	<0.0002	0.36	<0.0002	<0.0099	
	P93B-ROX-041218-DUP	4/12/2018		44.75	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098 UJ	<0.0002	0.000045 J	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	<0.0002	0.35	<0.0002	<0.0098	
	P93B-ROX-071218	7/12/2018		45.36	NE	<0.00019	<0.0097	<0.00																			

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

SVOCs																										
Screening Values (mg/L)																										
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	Dibutyl phthalate	Di-n-octyl phthalate	1,4-Dioxane	Fluoranthene	Fluorene	Indene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	3 & 4-Methylenepheno(m & p-Cresol)	2-Nitroaniline	4-Nitrophenol	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine
P-114R	P114R-ROX-010918	1/9/2018	23.01 - 33.01	26.37	NE	<0.00095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00095	0.00028 J	<0.0095	<0.00095	0.000095 J	0.0001 J	<0.0095	<0.0095	<0.0095 H UJ	<0.019 H UJ	<0.00095	<0.0095	<0.0095		
	P114R-ROX-040618	4/6/2018		26.76	NE	<0.0002 UJ	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0002	<0.0002	<0.0099	<0.0002	<0.0002	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.0002	<0.0002	<0.0099		
	P114R-ROX-070918	7/9/2018		26.38	NE	<0.00019	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0097	<0.019	<0.0097	<0.0097	<0.019	<0.00017 J	<0.0097	<0.00019	
	P114R-ROX-101118	10/11/2018		26.27	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.0098	<0.02	<0.0002	<0.0098 UU	<0.0002	<0.0098 UU	
	P114R-ROX-101118-DUP	10/11/2018		26.27	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	<0.0002	<0.0098	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.0098	<0.02	<0.0002	<0.0098 UU	<0.00039	<0.0098 UU	
	P114R-ROX-010719	1/7/2019		25.88	NE	<0.00019 UJ	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095	
	P114R-ROX-041519	4/15/2019		24.70	NE	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.00016 J	<0.0002	<0.001	<0.0002	<0.0002	<0.01	<0.02	<0.00043 J	<0.01	<0.01	<0.02	<0.00043 J	<0.01	<0.001	
	P114R-ROX-041519-DUP	4/15/2019		24.70	NE	<0.00099	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.00057 J	<0.0002	<0.0099	<0.00099	<0.00042 J	<0.00091 J	<0.0099	<0.02	<0.0099	<0.0099	<0.02	<0.00031 J	<0.0099	<0.00053 J	<0.0099
	P114R-ROX-070919	7/9/2019		19.48	NE	<0.00096 UJ	<0.048	<0.048	<0.048	<0.048	<0.048	<0.00096 UJ	<0.00096 UJ	<0.048	<0.00096 UJ	<0.00096 UJ	<0.048	<0.0054 J	<0.048	<0.048	<0.048	<0.048	<0.0096 UJ	<0.048	<0.0096 UJ	<0.048
	P114R-ROX-100919	10/9/2019		20.46	NE	<0.00019	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.00019	<0.00019	<0.0097	<0.00019	<0.00041 J	<0.00019	<0.0097	<0.019	<0.0097	<0.0097	<0.019	<0.00019	<0.0097	<0.00012 J	<0.0097
	P114R-ROX-010620	1/6/2020		22.15	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.0095	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095 J *	<0.00019	<0.0095	
	P114R-ROX-010620-PCP	1/6/2020		22.15	NE																					
	P114R-ROX-040720	4/7/2020		21.49	NE	0.00087 J	<0.046	<0.046	<0.046	<0.046	<0.046	<0.00092	<0.00092	<0.046	0.0006 J	<0.00092	<0.00092	<0.046	<0.092	<0.046	<0.046	<0.046	<0.092	<0.00092	<0.046	<0.00092
	P114R-ROX-040720-RE	4/7/2020		21.49	NE	<0.0012 UJ	<0.024	<0.019 H UJ	<0.024	<0.019 H UJ	0.0035 J	<0.024	<0.00024	<0.00024	<0.024	<0.024	<0.048	<0.024	<0.024	<0.024	<0.039 H UJ	<0.00024	<0.024	<0.012 UJ	<0.024	
	P114R-ROX-070920	7/9/2020		20.40	NE	<0.0002	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.0002	<0.0098	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.0098	<0.02	<0.0002	<0.0098	<0.0002	<0.0098 UU	<0.0002	
	P114R-ROX-101420	10/14/2020		22.27	NE	<0.00021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.01	<0.021	<0.01	<0.01	<0.021	<0.00021	<0.01	<0.00021	<0.0095 H UJ	
	ROST3MW-ROX-011518	1/15/2018		40.00	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	0.00018 J J	0.000035 J	0.000061 J	<0.0095	<0.00019	0.0011 B	<0.00019	0.0011 B	<0.00019	<0.0095	<0.0095	<0.0095	<0.019	<0.00058 J	<0.0095
ROST-3-MW	ROST3MW-ROX-022618	2/26/2018	37.81 - 47.81	40.00	NE																					
	ROST3MW-ROX-040618	4/6/2018		39.98	NE	<0.0002 UJ	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098	<0.00087 J	<0.0098	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.0098	<0.02	<0.00067 J	<0.0098	<0.0002	<0.0098		
	ROST3MW-ROX-070518	7/5/2018		40.74	NE	<0.00021	<0.01	<0.01	<0.01	<0.01	<0.01	<0.00021	<0.01	<0.00021	0.00043 B	<0.00021	<0.01	<0.021	<0.01	<0.01	<0.021	<0.00054 J	<0.01	<0.00021	<0.01	
	ROST3MW-ROX-100918	10/9/2018		40.72																						

TABLE 3
SUMMARY OF GROUNDWATER MONITORING WELL ANALYTICAL DETECTIONS AND EXCEEDANCES

		SVOCs																											
		Screening Values (mg/L)																											
Location	Sample ID	Sample Date	Screened Interval (ft btoc)	Depth to Water (ft btoc)	Product Thickness (ft)	Dibenz(a,h)anthracene	Dibenzofuran	Diethyl phthalate	2,4-Dimethylphenol	D <i>n</i> -butyl phthalate	D <i>n</i> -octyl phthalate	1,4-Dioxane	Fluoranthene	Fluorene	Indene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	2-Nitrophenol (m & p-Cresol)	3 & 4-Methyphenol (m & p-Cresol)	2-Nitroaniline	4-Nitrophenol	Pentachlorophenol	Phenanthrene	Phenol	Pyrene	Pyridine		
ROST-4-PZ(G)	ROST4PZG-ROX-011118	1/11/2018	34.28 - 44.28	38.95	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095 UJ	<0.00019	0.000038 J	<0.0095	<0.00019	0.00009 J	0.00011 J	<0.0095	<0.019	<0.0095	<0.0095	<0.019	0.00012 J	<0.0095	<0.00019	<0.0095 UJ		
	ROST4PZG-ROX-040918	4/9/2018		40.07	NE	<0.0002	<0.0098 UJ	<0.0098	<0.0098	<0.0098	<0.0098	<0.0098 UJ	<0.0098	0.000026 J	<0.0002	<0.0098	<0.0002	<0.0002	<0.0098	<0.02	<0.0098	<0.0001 J	<0.0098	0.000032 J	<0.0098 UJ				
	ROST4PZG-ROX-070918	7/9/2018		40.81	NE	<0.00021	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.00021	<0.011	<0.021	<0.011	<0.011	<0.011	<0.021	<0.00087 J	<0.011	<0.00021	<0.011		
	ROST4PZG-ROX-101218	10/12/2018		40.93	NE	<0.00019	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097	<0.0097 UJ	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0097	<0.019	<0.0097	<0.0097	<0.019	<0.0097	<0.0097 JU	<0.00019	<0.0097 UJ		
	ROST4PZG-ROX-010719	1/7/2019		40.49	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0095	<0.0095	<0.0095	<0.019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095		
	ROST4PZG-ROX-041119	4/11/2019		40.35	NE	<0.00019 UJ	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	0.00006 J	<0.0095	<0.00019 UJ	0.000022 J	0.000025 J	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00058 J	<0.0095	<0.00019	<0.0095		
	ROST4PZG-ROX-071219	7/12/2019		36.60	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.00019	0.000038 J	<0.0096	<0.00019	<0.00019	<0.00019	<0.0096	0.0015 J	<0.0096	<0.0096	<0.019	<0.00031 J	<0.0096	<0.00019	<0.0096		
	ROST4PZG-ROX-100719	10/7/2019		35.69	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095			
	ROST4PZG-ROX-011320	1/13/2020		37.07	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0095	<0.019	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095			
	ROST4PZG-ROX-041520	4/15/2020		36.28	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0096	<0.019	<0.0096	<0.0096	<0.019	<0.00019	<0.0096	<0.00019	<0.0096			
	ROST4PZG-ROX-041520-DUP	4/15/2020		36.28	NE	<0.0002	0.0013 J H	<0.0095 H UJ	<0.0095 H UJ	<0.0095 H UJ	<0.0095 H UJ	<0.0002	<0.0002	<0.00019	<0.00019	<0.00019	<0.00019	<0.0095 H UJ	<0.019 H UJ	<0.0095 H UJ	<0.0095 H UJ	<0.019 H UJ	<0.0002	<0.0095 H UJ	<0.0002	<0.0095 UJ			
	ROST4PZG-ROX-071320	7/13/2020		35.09	NE	<0.00019	<0.0094	0.00048 J	<0.0094	<0.0094	<0.0094	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0094	0.075	<0.0094	<0.0094	<0.019	<0.00019	<0.0094	<0.00019	<0.0094			
	ROST4PZG-ROX-101620	10/16/2020		35.41	NE	<0.00019	<0.0095	<0.0095	<0.0095	<0.0095	<0.0095	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0095	0.034	<0.0095	<0.0095	<0.019	<0.00019	<0.0095	<0.00019	<0.0095			
T-12	T12-ROX-011018	1/10/2018	46.83 - 72.83	42.14	NE	<0.00019	<0.0096	<0.0096	<0.0096	<0.0096	<0.0096	<0.00019	0.00002 J	<0.0096	<0.00019	0.021	0.033	<0.0096	<0.0096	<0.0096	<0.019	<0.00062	0.08	0.000038 J	<0.0096				
	T12-ROX-041218	4/12/2018		43.03	NE	<0.0002	<0.0099	<0.0099	<0.0099	<0.0099	<0.0099	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.00019	<0.0099	0.03	0.036	<0.0099	<0.02	<0.0099	<0.0099	<0.02	0.0008	0.037	<0.0002	<0.0099
	T12-ROX-071118	7/11/2018		44.12	NE	<0.00022	<0.011	<0.011	<0.011	<0.011	<0.011	<0.00022	<0.00028	<0.011	<0.00022	0.022	0.034	<0.011	<0.022	<0.011	<0.011	<0.011 UJ	<0.022	0.00054	0.053	0.000033 J	<0.011 UJ		
	T12-ROX-101618	10/16/2018		43.90	NE	<0.00019	<0.0097	<0.0097	<0.0097	0.003 J	<0.0017 J	<0.0097	0.000057 J	0.00046	<0.0097	<0.00019	0.022	0.031	<0.019	<0.0097	<0.0097	<0.0097	<0.0097 UJ	0.0018 J	0.00065	0.032	0.000054 J	<0.0097	
	T12-ROX-011019	1/10/2019		44.00	NE	<0.00019	<0.0095	<0.0095	<0.0095	0.0037 J	<0.0095	<0.0095	<0.00019	<0.00019	<0.00019	<0.00019	<0.0095	0.022	0.032	<0.019	<0.0095	<0.0095	<0.019	<0.00					

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:

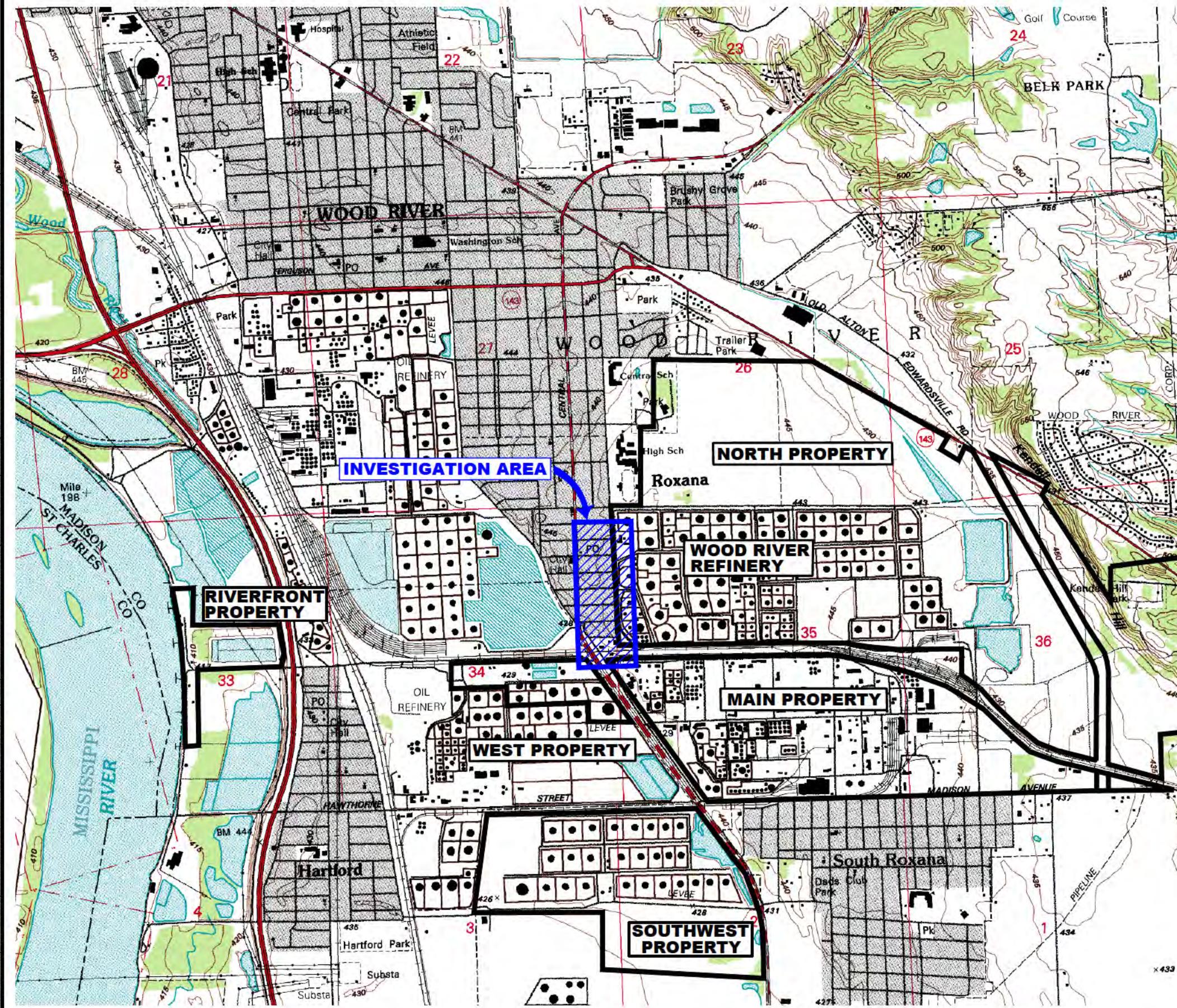
Plan View Model Output – The data input for the plan view model was not limited by depth and was modeled in two dimensions (2D). Regardless of sample depth, benzene concentrations were modeled on a flat horizontal plane.

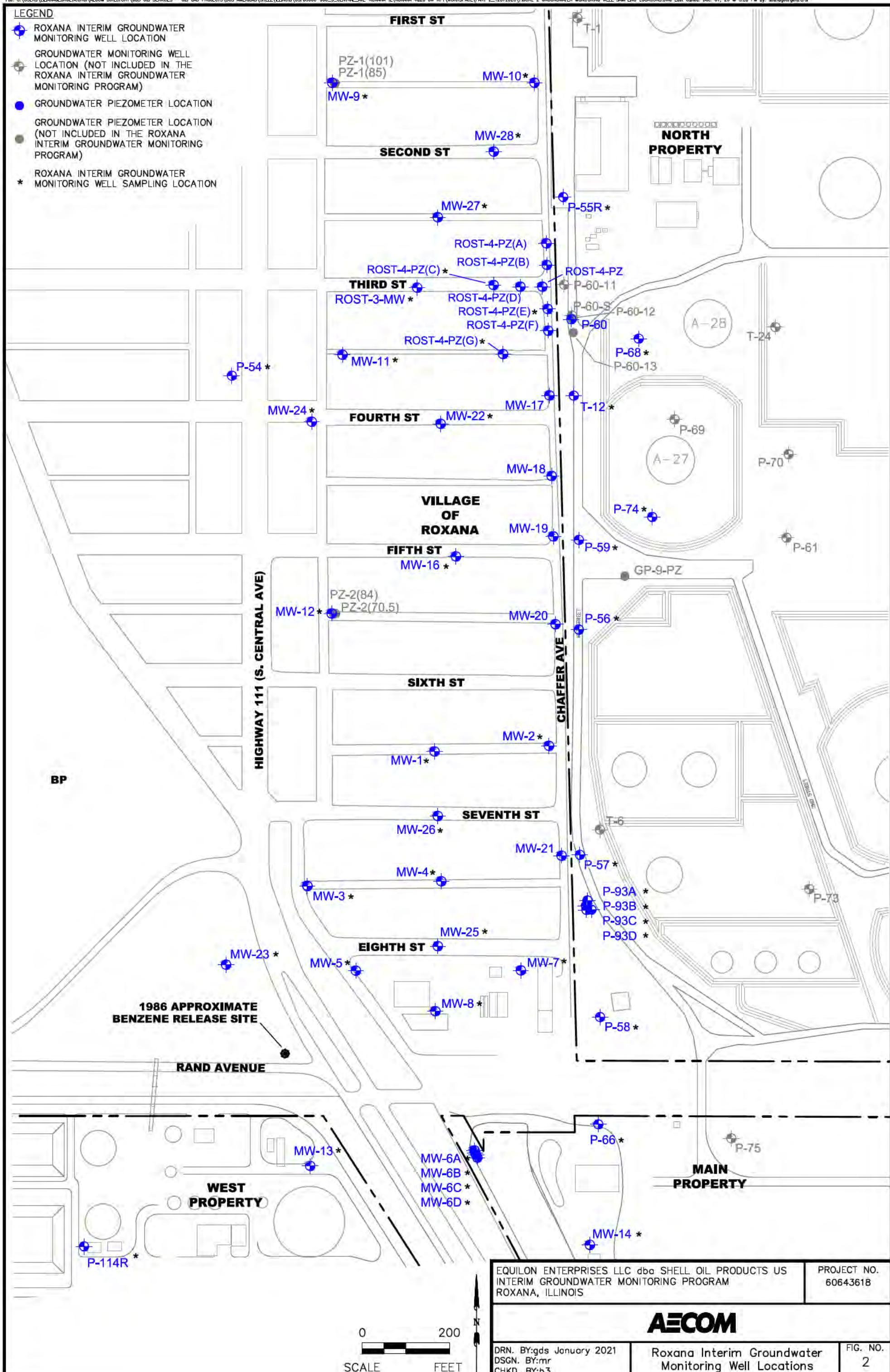
Inward Kriging / Boundary Cut-off – This method of Kriging limits the horizontal extent of data modeling to the extent of the data on the x/y plane in a convex hull.

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.

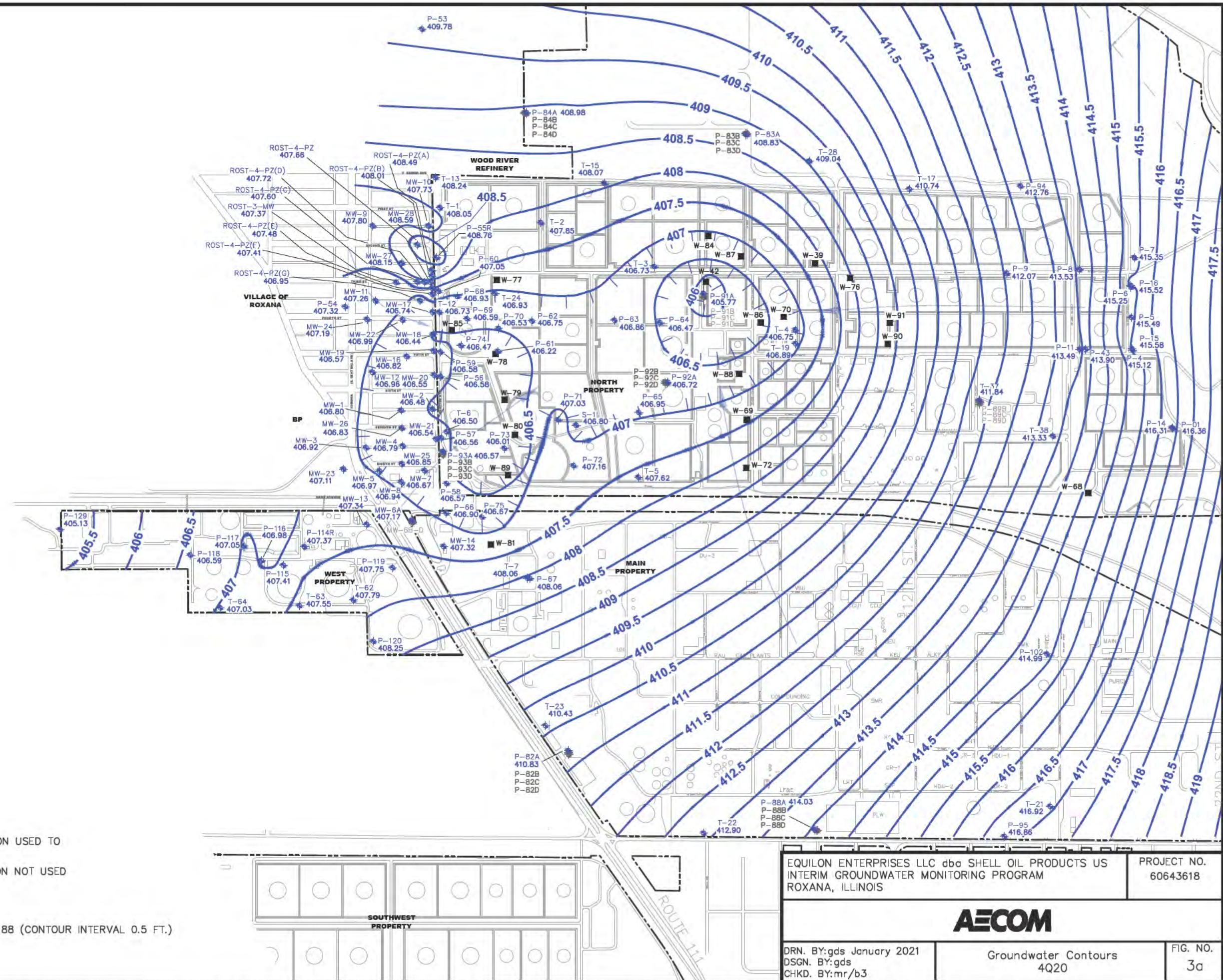


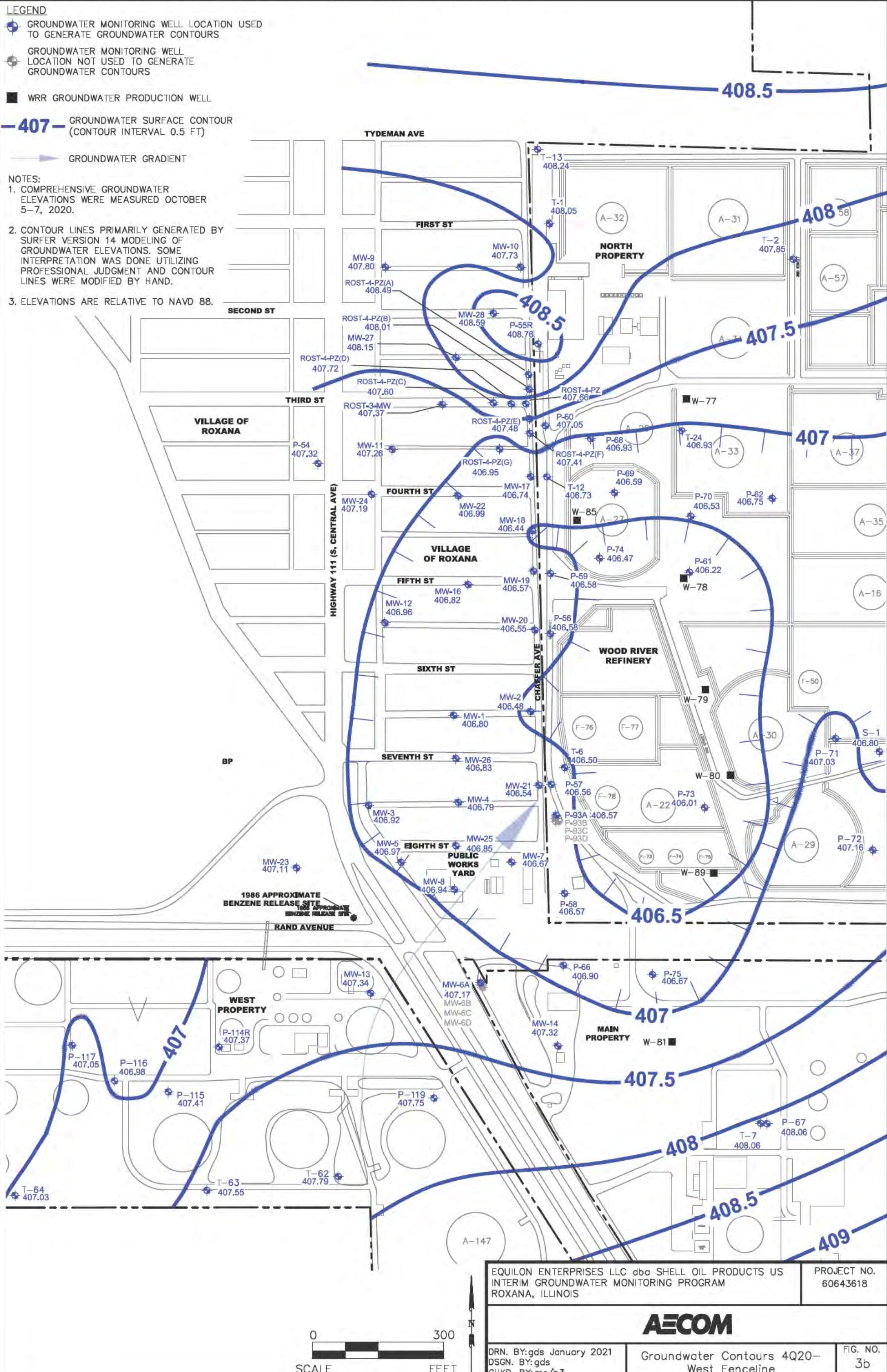


NOTES:
1. CONTOUR LINES PRIMARILY GENERATED BY SURFER VERSION 14 MODELING OF GROUNDWATER ELEVATIONS. SOME INTERPRETATION WAS DONE UTILIZING PROFESSIONAL JUDGMENT AND CONTOUR LINES WERE MODIFIED BY HAND.

2. ELEVATIONS ARE RELATIVE TO NAVD 88.

3. COMPREHENSIVE GROUNDWATER ELEVATIONS WERE MEASURED OCTOBER 5-7, 2020.





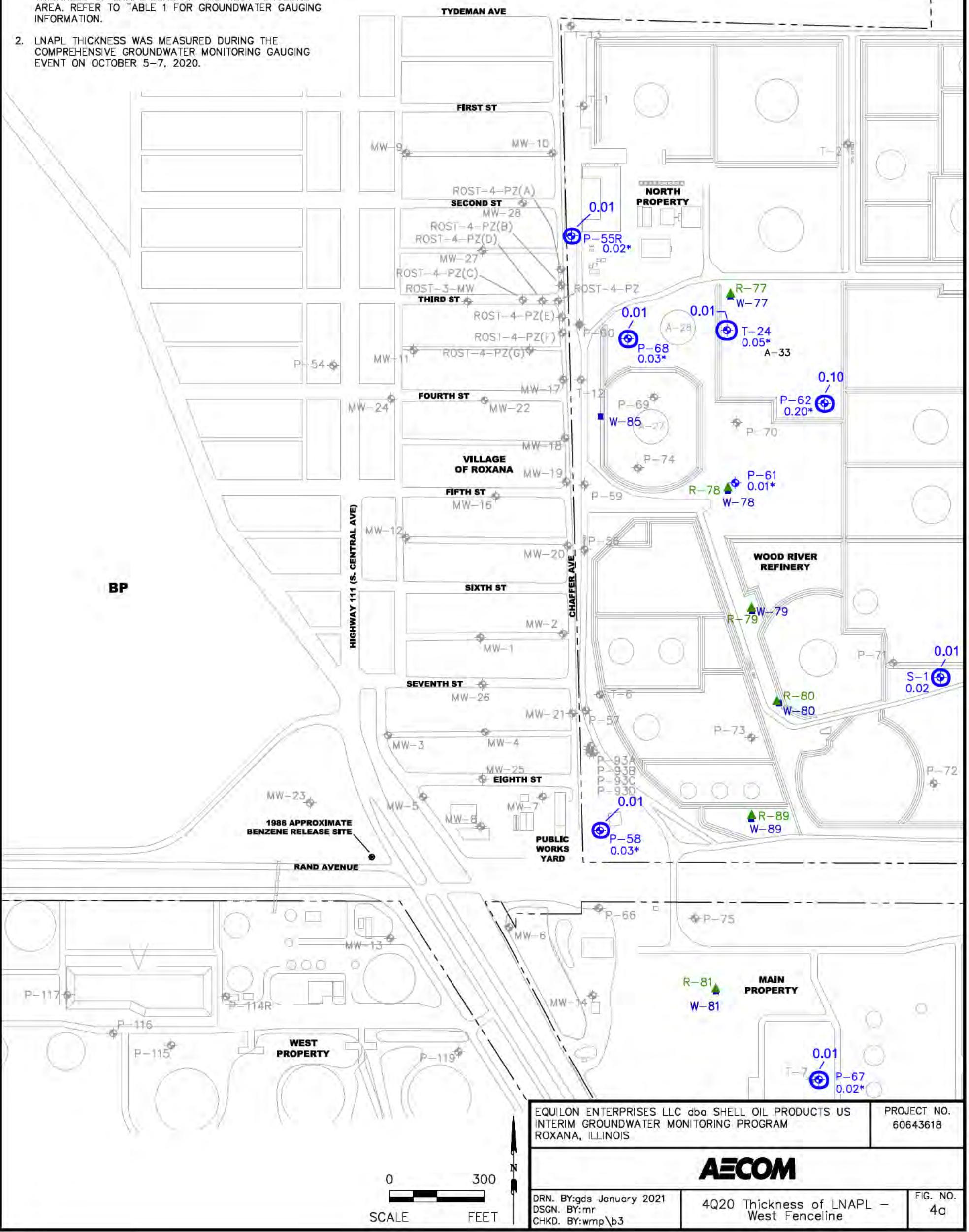
LEGEND

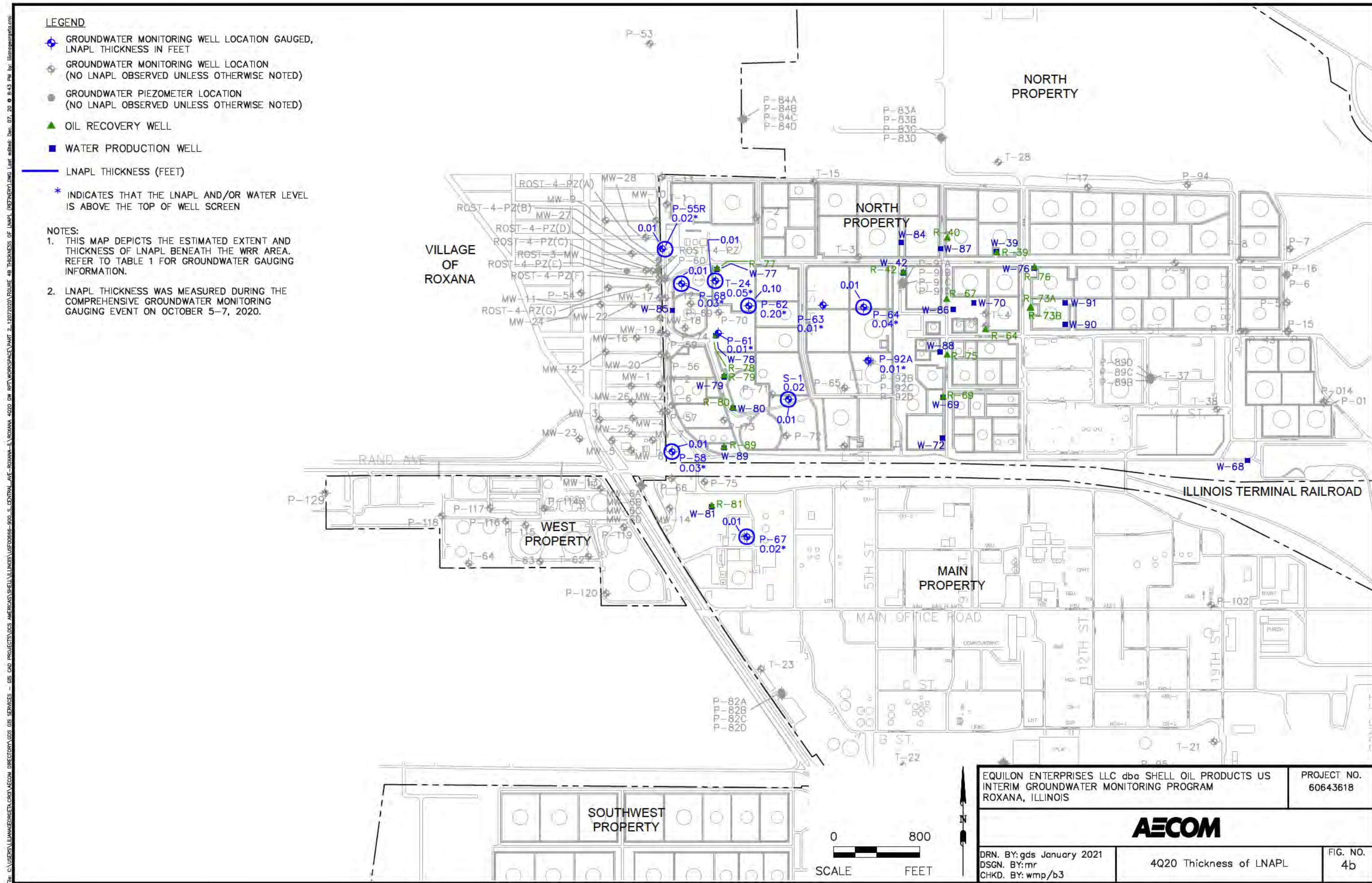
- GROUNDWATER MONITORING WELL LOCATION GAUGED, LNAPL THICKNESS IN FEET
- GROUNDWATER MONITORING WELL LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- GROUNDWATER PIEZOMETER LOCATION (NO LNAPL OBSERVED UNLESS OTHERWISE NOTED)
- ▲ OIL RECOVERY WELL
- WATER PRODUCTION WELL
- LNAPL THICKNESS (FEET)

* 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 FENCING AREA. REFER TO TABLE 1 FOR GROUNDWATER GAUGING INFORMATION.
2. LNAPL THICKNESS WAS MEASURED DURING THE COMPREHENSIVE GROUNDWATER MONITORING GAUGING EVENT ON OCTOBER 5–7, 2020.



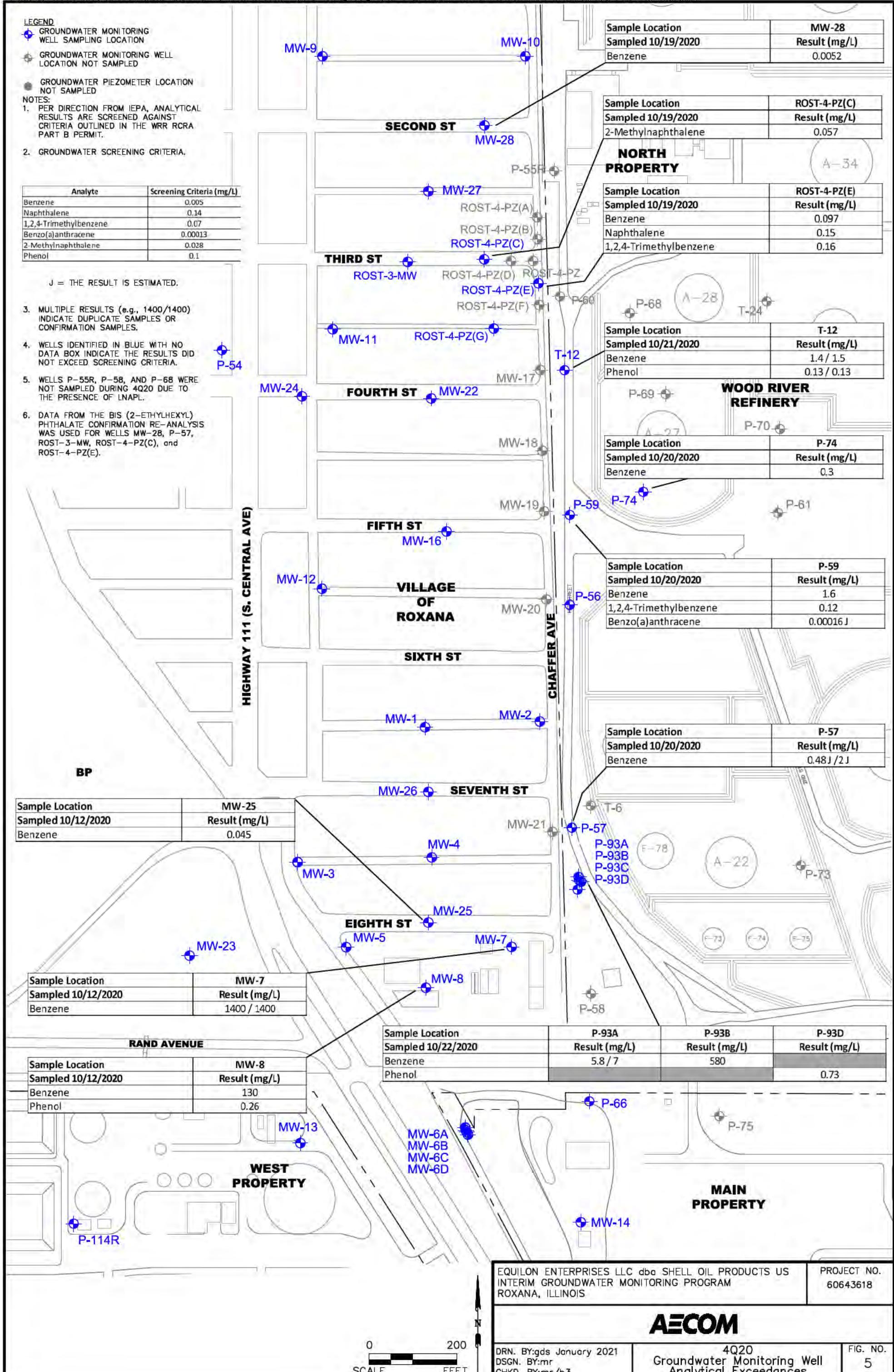


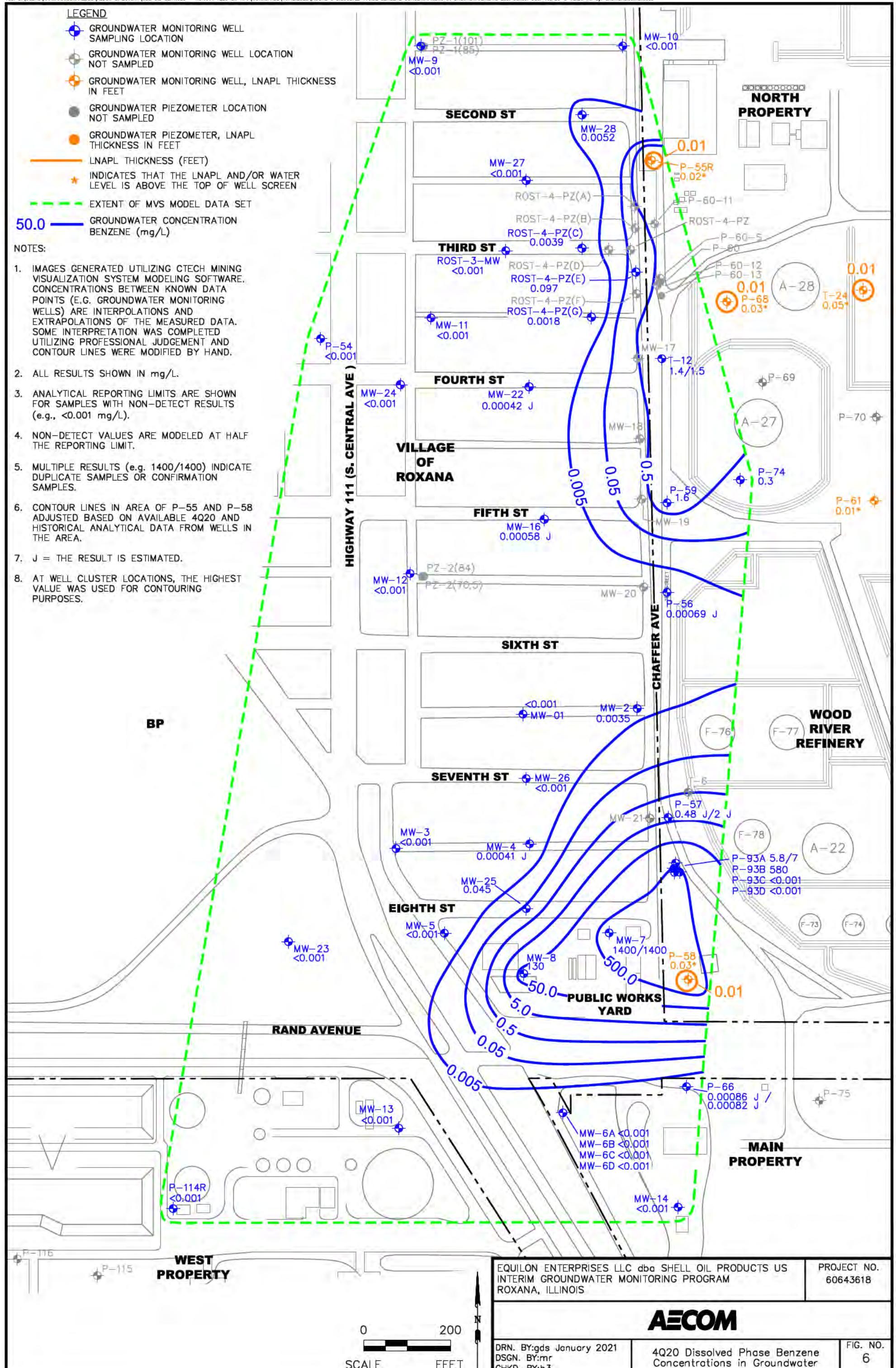
Analyte	Screening Criteria (mg/L)
Benzene	0.005
Naphthalene	0.14
1,2,4-Trimethylbenzene	0.07
Benzo(a)anthracene	0.00013
2-Methylnaphthalene	0.028
Phenol	0.1

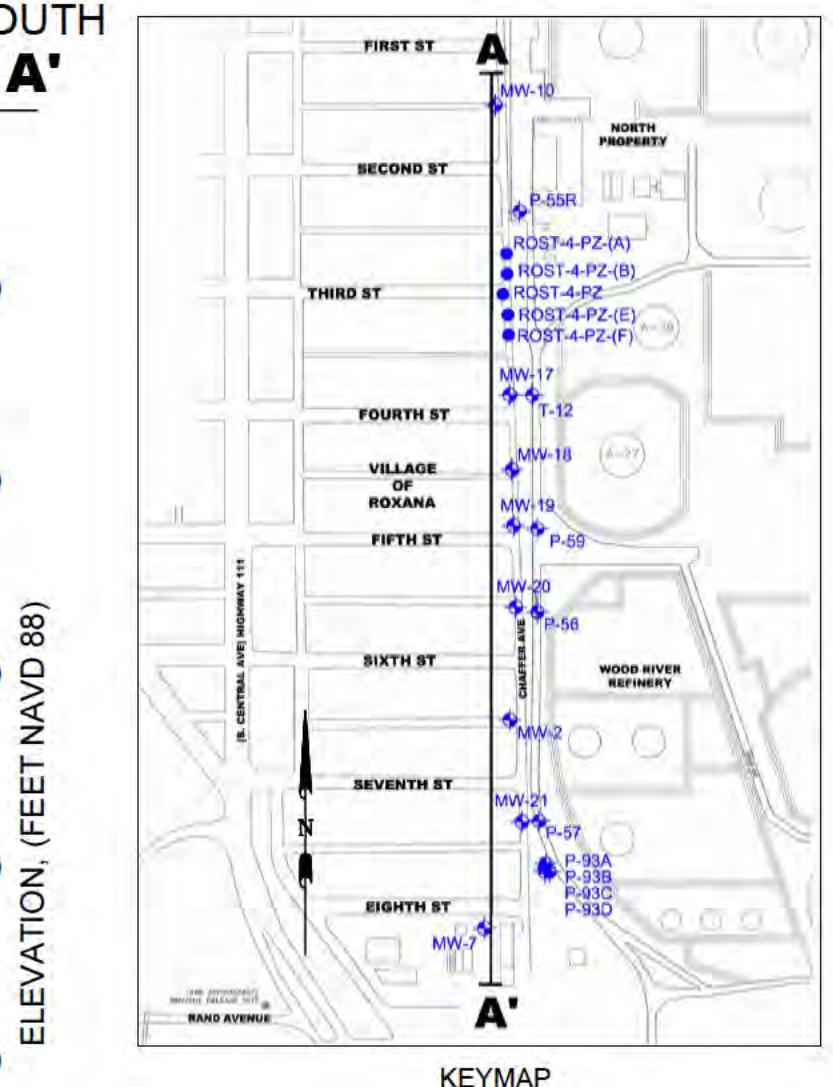
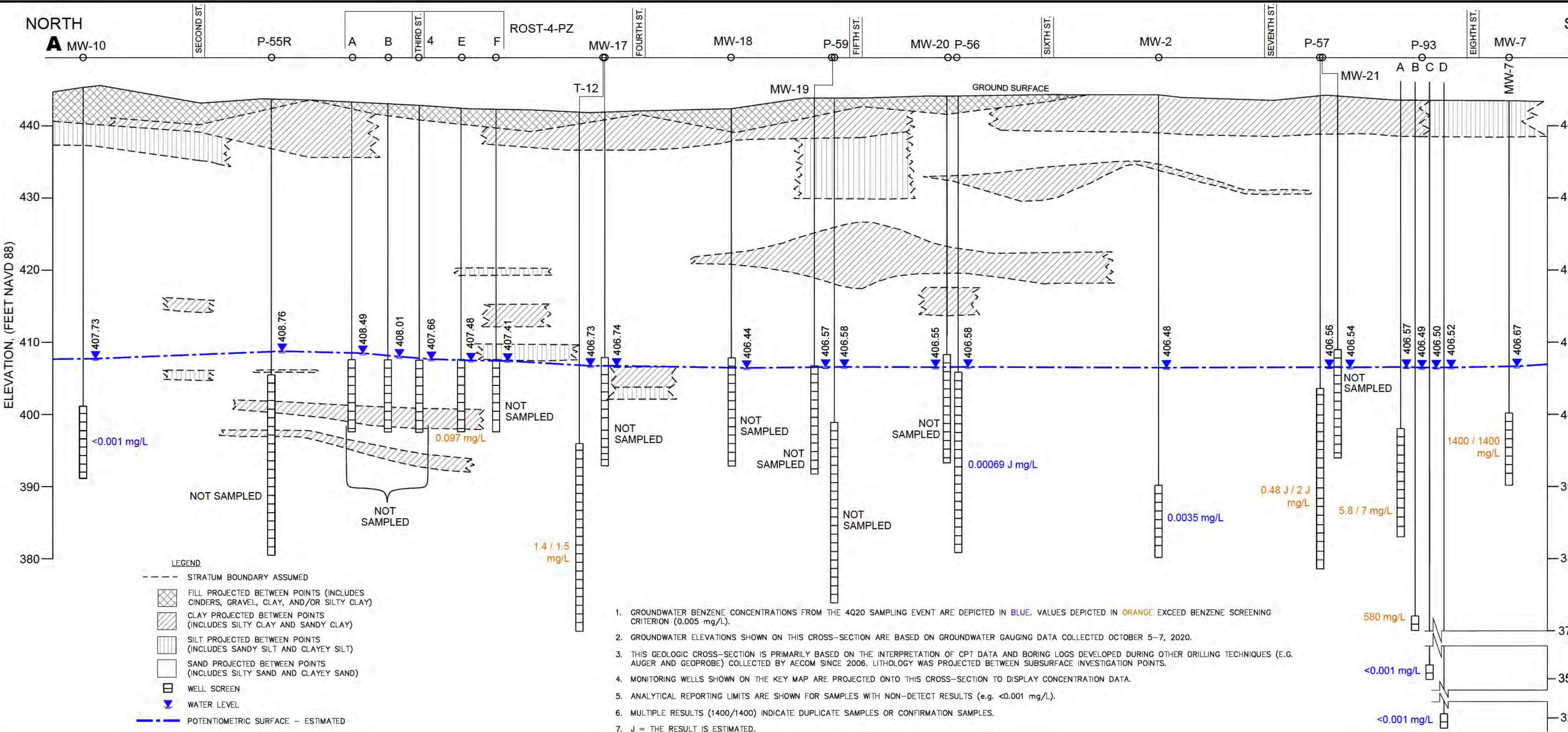
J = THE RESULT IS ESTIMATED.

3. MULTIPLE RESULTS (e.g., 1400/1400) INDICATE DUPLICATE SAMPLES OR CONFIRMATION SAMPLES.
 4. WELLS IDENTIFIED IN BLUE WITH NO DATA BOX INDICATE THE RESULTS DID NOT EXCEED SCREENING CRITERIA.
 5. WELLS P-55R, P-58, AND P-68 WERE NOT SAMPLED DURING 4Q20 DUE TO THE PRESENCE OF LNAPL.
 6. DATA FROM THE BIS (2-ETHYLHEXYL) PHTHALATE CONFIRMATION RE-ANALYSIS WAS USED FOR WELLS MW-28, P-57, ROST-3-MW, ROST-4-PZ(C), and ROST-4-PZ(E).

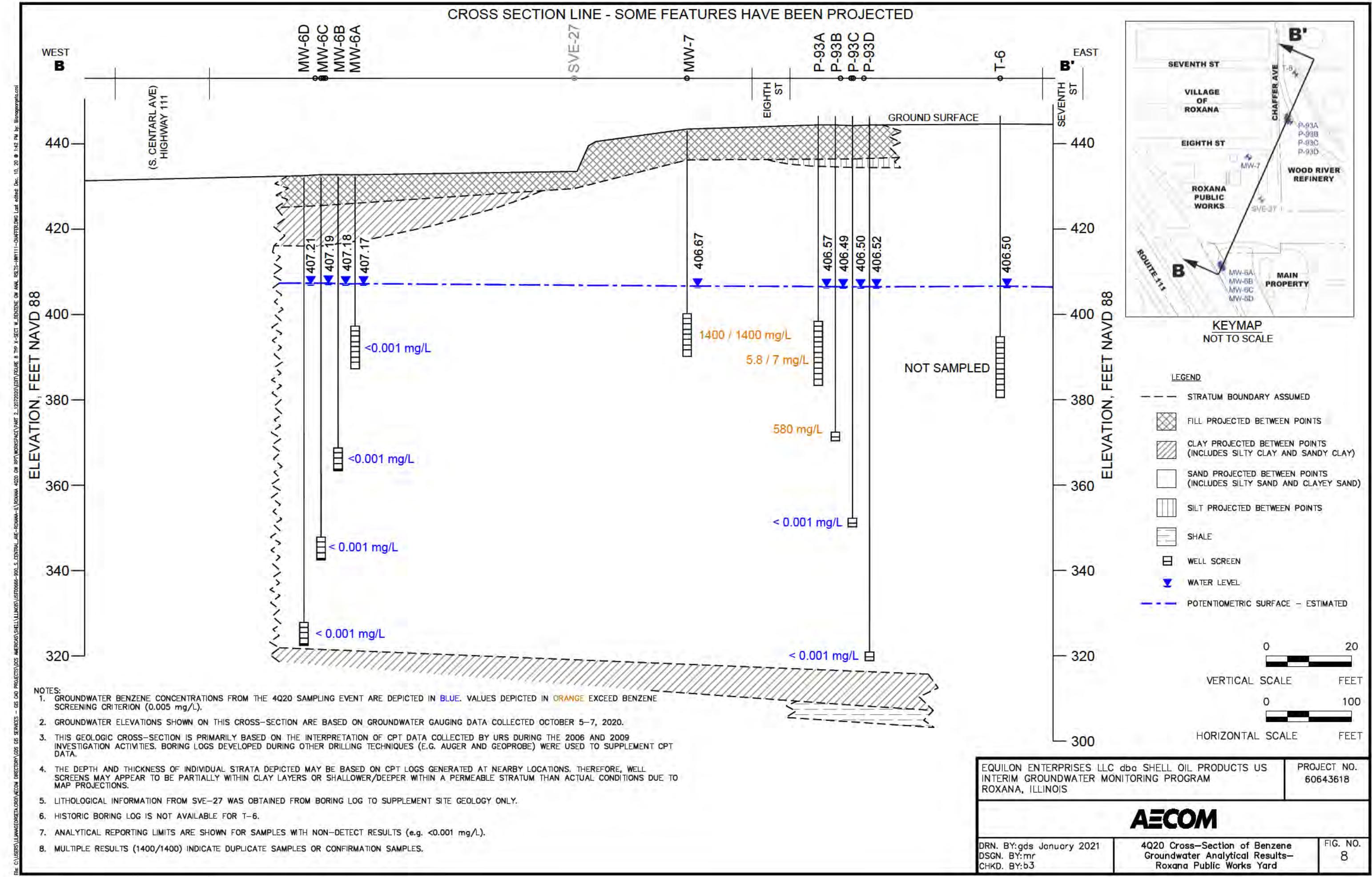
HIGHWAY 111 (S. CENTRAL AVE)







EQUILON ENTERPRISES LLC dba SHELL OIL PRODUCTS US INTERIM GROUNDWATER MONITORING PROGRAM ROXANA, ILLINOIS	PROJECT NO. 60643618
AECOM	
DRN. BY:gds January 2021	4Q20 Cross-Section of Benzene Groundwater Analytical Results— Chaffer Avenue
DSGN. BY:mr CHKD. BY:b3	FIG. NO. 7



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 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).

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.

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).

Appendix B

Low Flow Groundwater Sampling Data Sheets

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q20 GW

PROJECT NUMBER: 60643618 - 9-03-02

FIELD PERSONNEL:

M. D'ANGELO T. Jones

DATE: 10/9/20

WEATHER: sunny 60°

MONITORING WELL ID: MW-1

SAMPLE ID: MW1 - ROX - 100920

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤ 10 FT & WATER ABOVE TOP OF SCREEN - PUMP INTAKE AT MIDPOINT OF SCREEN: 53.8 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): 36.06 ft	IF SCREEN ≤ 10 FT & WATER WITHIN SCREEN - PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: _____ ft btoc	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NE ft		Wellbore PID/FID Reading: 0.0 ppm
Depth to Top of Screen (btoc): 48.80 ft	IF SCREEN & WATER COLUMN > 10 FT - PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHICHEVER IS DEEPER): _____ ft btoc	
Screen Length: 10 ft		
Water Column Height (not including NAPL): 23.07 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: (+/-0.2 mg/L or +/-5% or +/-2 uS/cm) Monitor Temp. (+/-10%) Monitor pH (+/-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	0847	36.05	clear	slight	18.0	1.14	1.262 1.260 uS/cm	6.88	190.9	20.29
500	0848	36.04			18.2	0.90	1.267 1.265 uS/cm	6.88	183.7	21.43
1000	0849	36.04			18.3	0.82	1.269 1.267 uS/cm	6.88	176.0	22.67
1500	0850	36.04			18.3	0.78	1.269 1.267 uS/cm	6.81	169.9	23.48
2000	0851				18.3	0.76	1.268 1.266 uS/cm	6.81	163	24.15
2500	0852				18.3	0.73	1.267 1.265 uS/cm	6.91	154.4	23.53
3000	0853				18.3	0.73	1.265 1.263 uS/cm	6.10	147.2	27.30
3500	0854				18.9	0.71	1.265 1.263 uS/cm	6.90	140.1	24.61
4000	0855				18.4	0.70	1.264 1.262 uS/cm	6.90	133.9	26.69
4500	0856				18.7	0.69	1.262 1.260 uS/cm	6.90	129.1	27.83
							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: 0847

Elapsed Time (min): 9

Water Quality Meter ID & SN: YSI ProDSS - 045716 44004

Stop Time: 0856

Average Purge Rate (mL/min): 300

Date Calibrated: 10/9/20

SAMPLING DATA

Sample Date: 10/9/20

Sample Time: 0900

Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow

Sample Flow Rate (mL/min): 300

QA/QC Samples: MS/MSD

VOA Vials, No Headspace Initials: MD 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 4Q20 GW

PROJECT NUMBER: 60643618 - 9-03-02

FIELD PERSONNEL:

DATE: 13/9/20

WEATHER: Sunny 75°

MONITORING WELL ID: MW-10

SAMPLE ID: MW10-R0X-100920

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	Volume of Flow Through Cell : 320* mL
Total Well Depth (btoc): 54.76 ft		Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Depth to Water (btoc): 59.80 ft	IF SCREEN ≤ 10 FT & WATER WITHIN SCREEN - PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT:	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): 115 ft		Wellbore PID/FID Reading: 0.0 ppm
Depth to Top of Screen (btoc): 44.43 ft	IF SCREEN & WATER COLUMN > 10 FT - PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): _____ ft btoc	
Screen Length: 10 ft		
Water Column Height (not including NAPL): 17.50 ft	IF SCREEN > 10 FT & WATER COLUMN HEIGHT < 10 FT - PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: _____ ft btoc	
	IF SCREEN AND/OR WATER COLUMN HEIGHT < 4 FT - PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER): _____ ft btoc	

PURGE DATA

Pump Type: **Stainless Steel Submersible Pump** (over 4 readings) Monitor Temp. +/-10% +/-2 uS/cm +/-0.2 mg/L +/-20 mV Readings (<50)

Start Time: 147

Elapsed Time (min): 5

Water Quality Meter ID & SN: YSI ProDSS - 045716 44084

Stop Time: 152

Average Purge Rate (mL/min): 300

Date Calibrated: 10/9/20

SAMPLING DATA

Sampling Date: 10/9/20

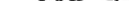
Sample Time: 1200

Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow

Sample Flow Rate (mL/min): 70

QA/QC Samples: 1/1

VOA Vials, No Headspace  Initials: 

100

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 4Q206W PROJECT NUMBER: 60643618-9-02-03 FIELD PERSONNEL: T. Jones J. Mayer

DATE: 10/15/20 WEATHER: 50° overcast some rain

MONITORING WELL ID: MW-22 SAMPLE ID: MW22-R0X-101520

INITIAL DATA

Well Diameter): <u>2</u> in	IF SCREEN ≤ 10 FT & WATER ABOVE TOP OF SCREEN - PUMP INTAKE AT MIDPOINT OF SCREEN: <u>43.43</u> ft btoc	Volume of Flow Through Cell : <u>320*</u> mL
Total Well Depth (btoc): <u>48.68</u> ft		Minimum Purge Volume = (3 x Flow Cell Volume): <u>960</u> mL
Depth to Water (btoc): <u>35.56</u> ft	IF SCREEN ≤ 10 FT & WATER WITHIN SCREEN - PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: <u>—</u> ft btoc	Ambient PID/FID Reading: <u>0.0</u> ppm
Depth to LNAPL/DNAPL (btoc): <u>NE</u> ft		Wellbore PID/FID Reading: <u>0.0</u> ppm
Depth to Top of Screen (btoc): <u>38.43</u> ft	IF SCREEN & WATER COLUMN > 10 FT - PUMP INTAKE AT 5 FT BELOW TOP OF SCREEN OR TOP OF WATER (WHIEVER IS DEEPER): <u>—</u> ft btoc	
Screen Length: <u>10</u> ft		
Water Column Height (not including NAPL): <u>13.12</u> ft	IF SCREEN > 10 FT & WATER COLUMN HEIGHT < 10 FT - PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT: <u>—</u> 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): <u>—</u> ft btoc	

PURGE DATA

Pump Type: **Stainless Steel Submersible Pump** (over 4 readings) Monitor Temp. +/-10% +/-2 μ s/cm +/-0.2 mg/L +/-20 mV Readings (<50)

Start Time: 0958 Elapsed Time (min): 22 Water Quality Meter ID & SN: YSI ProDSS 045716/04400
Stop Time: 1020 Average Purge Rate (mL/min): 300 Date Calibrated: 10/15/20

SAMPLING DATA

Sample Date: 01/13/20 Sample Time: 02:55 Lab Analysis: VOC, SVOC, PAH

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

VOA Vials. No Headspace Initials: J M

COMMENTS:

* Flow through cell volume calculated as: Volume = cup (410 mL) - sonde (90 mL) = 320 mL
ORP was dropping rapidly. Waited for stabilization.

Total Burge Volume: 6603 ml

Total Burse Volume: 6.603 ml

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q20 GW

PROJECT NUMBER: 60643618 - 9-03-02

FIELD PERSONNEL:

DATE: 10/22/20

WEATHER: sunny 68°

MONITORING WELL ID: P-93A

SAMPLE ID: P93A-Rox-102220

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):	59.01 ft	Ambient PID/FID Reading:	0.0 ppm		
Depth to LNAPL/DNAPL (btoc):	18 ft	Wellbore PID/FID Reading:	0.0 ppm		
Depth to Top of Screen (btoc):	43.07 ft				
Screen Length:	10 ft				
Water Column Height (not including NAPL):	13.98 ft				

PURGE DATA

Pump Type: Stainless Steel Submersible Pump STABLE: +/-0.2 mg/L or +/-5% or 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	0959	39.10	clear	slight H2O	22.6	2.15	0.850 mS/cm uS/cm	7.28	-17.4	0.46
300	1000	39.10			22.5	1.85	0.857 mS/cm uS/cm	7.21	-27.7	0.24
600	1001	39.10			22.6	1.91	0.859 mS/cm uS/cm	7.19	-32.3	0.51
900	1002				22.6	1.46	0.866 mS/cm uS/cm	7.18	-36.5	0.79
1200	1003				22.8	1.19	0.866 mS/cm uS/cm	7.17	-39.6	0.39
1500	1004				23.0	1.05	0.8696 mS/cm uS/cm	7.17	-42.2	0.45
1800	1005				22.9	0.91	0.869 mS/cm uS/cm	7.17	-43.5	0.56
2100	1006				23.0	0.84	0.869 mS/cm uS/cm	7.17	-45.1	0.69
2400	1007				23.1	0.79	0.871 mS/cm uS/cm	7.17	-46.0	0.77
2700	1008				23.1	0.77	0.874 mS/cm uS/cm	7.17	-46.7	0.90

Start Time: 0959
Stop Time: 1008

Elapsed Time (min): 9
Average Purge Rate (mL/min): 300

Water Quality Meter ID & SN: YSI ProDSS - 43917 + 41669
Date Calibrated: 10/22/20

SAMPLING DATA

Sample Date: 10/22/20

Sample Time: 1010

Lab Analysis: VOC, SVOC, PAH

Sample Method: Stainless Steel Submersible Pump / Low Flow

Sample Flow Rate (mL/min): 300

QA/QC Samples: DUP

VOA Vials, No Headspace Initials: MD BH

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 4Q20 GW

PROJECT NUMBER: 60643618 - 9-03-02

FIELD PERSONNEL

DATE: 10/22/20

WEATHER: Sunny 65°

MONITORING WELL ID: P-93E

SAMPLE ID: P93B-120X-102220

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 Minimum Purge Volume = (3 x Flow Cell Volume): 960 mL
Total Well Depth (btoc): 76.78 ft		
Depth to Water (btoc): 40.46 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): 76 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): 36.32 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): 75.78 ft btoc	

PURGE DATA

Pump Type: Dedicated Well Wizard SS Submersible (over 4 readings) Monitor Temp. +/-10% +/- 2 uS/cm +/-0.2 mg/L +/-20 mV Readings (<50)

Start Time: 09:00

Elapsed Time (min): 7

Water Quality Meter ID & SN: YSI ProDSS - 43917 + 41669

Stop Time: 0922

Average Purge Rate (mL/min): 300

Date Calibrated: 10/22/20

SAMPLING DATA

Sample Date: 10/22/20

Sample Time: 0425

Lab Analysis: VOC, SVOC, PAH

Sample Method: Bladder Pump / Low Flow

Sample Flow Rate (mL/min): 300

QA/QC Samples: JA

VOA Vials, No Headspace Initials: WJD BKA

COMMENTS:

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

Estimated Total Purge Volume: 21 (cc) mL

LOW FLOW GROUNDWATER SAMPLING DATA SHEET

PROJECT NAME: Roxana 4Q20 GW

PROJECT NUMBER: 60643618 - 9-03-02

FIELD PERSONNEL:

DATE: 10/22/20

WEATHER: sunny 65°

M.D'Angelo B.Howell

MONITORING WELL ID: P-93D

SAMPLE ID: P93D-Rox-102220

INITIAL DATA

Well Diameter: 2 in	IF SCREEN ≤ 10 FT & WATER ABOVE TOP OF SCREEN - PUMP INTAKE AT MIDPOINT OF SCREEN:	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): 40.03 ft	IF SCREEN ≤ 10 FT & WATER WITHIN SCREEN - PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT:	Ambient PID/FID Reading: 0.0 ppm
Depth to LNAPL/DNAPL (btoc): NG ft		Wellbore PID/FID Reading: 0.0 ppm
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):	
Screen Length: 2 ft		ft btoc
Water Column Height (not including NAPL): 87.28 ft	IF SCREEN > 10 FT & WATER COLUMN HEIGHT < 10 FT - PUMP INTAKE AT MIDPOINT OF WATER COLUMN HEIGHT:	ft btoc
	IF SCREEN AND/OR WATER COLUMN HEIGHT < 4 FT - PUMP INTAKE AT 1 FT BELOW TOP OF SCREEN OR WATER (WHICHEVER IS DEEPER):	ft btoc

PURGE DATA

Pump Type: Dedicated Well Wizard

STABLE: +/-0.2 mg/L or +/-5% or +/-10% Monitor Temp. +/-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	0834	NM	clear	none	19.8	5.62	1.182 mS/cm uS/cm	7.05	-38.3	1.42
300	0835				19.3	4.82	1.180 mS/cm uS/cm	7.01	-75.0	2.64
600	0836				18.8	3.62	1.170 mS/cm uS/cm	6.96	-92.5	10.00
900	0837				18.6	2.61	1.164 mS/cm uS/cm	6.92	-99.5	1.93
1200	0838				18.5	2.06	1.162 mS/cm uS/cm	6.90	-99.1	1.01
1500	0839				18.4	1.73	1.165 mS/cm uS/cm	6.89	-97.5	0.23
1800	0840				18.3	1.50	1.167 mS/cm uS/cm	6.89	-98.1	14.00
2100	0841				18.3	1.36	1.167 mS/cm uS/cm	6.89	-99.9	0.31
2400	0842				18.3	1.26	1.168 mS/cm uS/cm	6.90	-101.3	2.80
2700	0843				18.3	1.19	1.168 mS/cm uS/cm	6.91	-101.9	8.00
3000	0844				18.2	1.16	1.167 mS/cm uS/cm	6.91	-103.0	0.20
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			
							mS/cm uS/cm			

Start Time: 0834

Elapsed Time (min): 10

Water Quality Meter ID & SN: YSI ProDSS - 43917 + 41669

Stop Time: 0844

Average Purge Rate (mL/min): 300

Date Calibrated: 10/22/20

SAMPLING DATA

Sample Date: 10/22/20

Sample Time: 0850

Lab Analysis: VOC, SVOC, PAH

Sample Method: Bladder Pump / Low Flow

Sample Flow Rate (mL/min): 300

QA/QC Samples: NA

VOA Vials, No Headspace Initials: MD BH

COMMENTS:

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

Estimated Total Purge Volume: 3000 mL

Appendix C

Data Review Forms and Laboratory Analytical Reports

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194217-1-Rev. 1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/10/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-100820-8260	TB-ROX-100820-8011
MW6A-ROX-100820-EB	MW6A-ROX-100820
MW6B-ROX-100820	MW6C-ROX-100820
MW6D-ROX-100820	

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 bis(2-ethylhexyl) phthalate was detected in the method blank; although not indicated in the laboratory case narrative, diethyl phthalate was detected in the equipment blank. Several VOC LCS recoveries, and the SVOC LCS/LCSD recoveries and RPD for benzenethiol, were outside evaluation criteria. The SVOC surrogate recovery for phenol-d₅ was outside criteria in the SVOC LCSD. The continuing calibration verification for 4-nitrophenol, and the initial calibration verification for 1,4-dioxane were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review. Additionally, after laboratory review the laboratory report was revised on October 30, 2020 to report the most representative phthalate analysis run.

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

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

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

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-506479/1-A	SVOCs	bis(2-Ethylhexyl) phthalate	5.01 µg/L
MW6A-ROX-100820-EB	SVOCs	Diethyl phthalate	0.40 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
MW6A-ROX-100820	SVOCs	Diethyl phthalate	-	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS 400-507394/1002	VOCs	n-Butylbenzene	148	NA	67-130
LCS 400-507394/1002	VOCs	p-Isopropyltoluene	132	NA	67-130
LCS/LCSD 400-506479/3-A/4-A	SVOCs	Benzenethiol	5/3	57	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; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW6A-ROX-100820	SVOCs	Benzenethiol	UJ
MW6B-ROX-100820	SVOCs	Benzenethiol	UJ
MW6C-ROX-100820	SVOCs	Benzenethiol	UJ
MW6D-ROX-100820	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
LCSD 400-506479/4-A	SVOCs	Phenol-d ₅	10	17-127

LCSDs are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification for 4-nitrophenol, and the initial calibration verification for 1,4-dioxane were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW6A-ROX-100820	SVOCs	4-Nitrophenol	UJ
MW6A-ROX-100820	SVOCs	1,4-Dioxane	UJ
MW6B-ROX-100820	SVOCs	4-Nitrophenol	UJ
MW6B-ROX-100820	SVOCs	1,4-Dioxane	UJ
MW6C-ROX-100820	SVOCs	4-Nitrophenol	UJ
MW6C-ROX-100820	SVOCs	1,4-Dioxane	UJ
MW6D-ROX-100820	SVOCs	4-Nitrophenol	UJ
MW6D-ROX-100820	SVOCs	1,4-Dioxane	UJ



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 400-194217-1
Client Project/Site: ROXANA QUARTERLY GW
Revision: 1

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

Attn: Elizabeth Kunkel

Authorized for release by:
10/30/2020 11:13:34 AM

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

LINKS

Review your project
results through

Total Access

Have a Question?

Ask
The
Expert

Visit us at:

www.eurofinsus.com/Env

Reviewed 11/10/2020
1/2

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.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	8
Definitions	31
Surrogate Summary	32
Method Summary	34
Chronicle	35
QC Association	39
QC Sample Results	41
Chain of Custody	50
Receipt Checklists	51
Certification Summary	52

Case Narrative

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

Job ID: 400-194217-1

Job ID: 400-194217-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-194217-1

Comments

Revised Report

Report revised to report alternative results for Bis(2-ethylhexyl) phthalate and di-n-butyl phthalate.

Supersedes report dated 10-23-2020.

Receipt

The samples were received on 10/9/2020 9:10 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.0° C, 1.9° C and 3.0° C.

GC/MS VOA

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-507394 recovered outside control limits for the following analytes: n-Butylbenzene and p-Isopropyltoluene. 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-100820-8260 (400-194217-1), MW6A-ROX-100820-EB (400-194217-3), MW6A-ROX-100820 (400-194217-4), MW6B-ROX-100820 (400-194217-5), MW6C-ROX-100820 (400-194217-6) and MW6D-ROX-100820 (400-194217-7). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-490802 was outside method criteria for the following analyte: 2-Chloroethyl vinyl ether. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

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

GC/MS Semi VOA

Method 8270D: The method blank for preparation batch 400-506479 and analytical batch 400-506784 contained Bis(2-ethylhexyl) phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-506479 and 400-506479 and analytical batch 400-506784 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 400-506479 and analytical batch 400-506784 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-506479 and analytical batch 400-506784 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 400-506784 recovered above the upper control limit for Benzenethiol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been 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: (LCSD 400-506479/4-A). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-507157 recovered outside acceptance criteria, low biased, for 4-Nitrophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated

Case Narrative

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

Job ID: 400-194217-1

Job ID: 400-194217-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

samples were non-detect for this analyte, the data have been reported.

Method 8270D: The initial calibration verification (ICV) analyzed in batch 400-504644 was outside method criteria for the following analyte(s): 1,4-Dioxane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

GC Semi VOA

No analytical or quality issues were noted, other than those described 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: 400-194217-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194217-1	TB-ROX-100820-8260 ✓	Water	10/08/20 00:00	10/09/20 09:10	
400-194217-2	TB-ROX-100820-8011 ✓	Water	10/08/20 00:00	10/09/20 09:10	
400-194217-3	MW6A-ROX-100820-EB ✓	Water	10/08/20 09:00	10/09/20 09:10	
400-194217-4	MW6A-ROX-100820 ✓	Water	10/08/20 10:40	10/09/20 09:10	
400-194217-5	MW6B-ROX-100820 ✓	Water	10/08/20 11:24	10/09/20 09:10	
400-194217-6	MW6C-ROX-100820 ✓	Water	10/08/20 11:58	10/09/20 09:10	
400-194217-7	MW6D-ROX-100820 ✓	Water	10/08/20 13:05	10/09/20 09:10	

Eurofins TestAmerica, Pensacola

Detection Summary

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

Job ID: 400-194217-1

Client Sample ID: TB-ROX-100820-8260

Lab Sample ID: 400-194217-1

No Detections.

Client Sample ID: TB-ROX-100820-8011

Lab Sample ID: 400-194217-2

No Detections.

Client Sample ID: MW6A-ROX-100820-EB

Lab Sample ID: 400-194217-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diethyl phthalate	0.40	J	9.7	0.23	ug/L	1	8270D		Total/NA

Client Sample ID: MW6A-ROX-100820

Lab Sample ID: 400-194217-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.72	J	1.0	0.50	ug/L	1	8260B		Total/NA
Methyl tert-butyl ether	0.92	J	1.0	0.74	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	2.6	J	5.0	1.6	ug/L	1	8260B		Total/NA
o-Xylene	1.2	J	5.0	0.60	ug/L	1	8260B		Total/NA
Toluene	0.90	J	1.0	0.41	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	2.1		1.0	0.82	ug/L	1	8260B		Total/NA
Xylenes, Total	3.8	J	10	1.6	ug/L	1	8260B		Total/NA
Diethyl phthalate	-0.84	J	10	0.24	ug/L	1	8270D		Total/NA

Client Sample ID: MW6B-ROX-100820

Lab Sample ID: 400-194217-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.5		1.0	0.50	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	4.7	J	5.0	1.6	ug/L	1	8260B		Total/NA
o-Xylene	2.2	J	5.0	0.60	ug/L	1	8260B		Total/NA
Toluene	2.0		1.0	0.41	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	2.6		1.0	0.82	ug/L	1	8260B		Total/NA
1,3,5-Trimethylbenzene	0.64	J	1.0	0.56	ug/L	1	8260B		Total/NA
Xylenes, Total	6.9	J	10	1.6	ug/L	1	8260B		Total/NA
1-Methylnaphthalene	0.10	J	0.19	0.070	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	0.086	J	0.19	0.057	ug/L	1	8270D LL		Total/NA

Client Sample ID: MW6C-ROX-100820

Lab Sample ID: 400-194217-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.4		1.0	0.50	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	4.4	J	5.0	1.6	ug/L	1	8260B		Total/NA
o-Xylene	2.0	J	5.0	0.60	ug/L	1	8260B		Total/NA
Toluene	2.0		1.0	0.41	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	2.2		1.0	0.82	ug/L	1	8260B		Total/NA
Xylenes, Total	6.3	J	10	1.6	ug/L	1	8260B		Total/NA
2-Methylnaphthalene	0.073	J	0.19	0.057	ug/L	1	8270D LL		Total/NA
Diethyl phthalate	0.41	J	9.5	0.23	ug/L	1	8270D		Total/NA

Client Sample ID: MW6D-ROX-100820

Lab Sample ID: 400-194217-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.2		1.0	0.50	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	3.9	J	5.0	1.6	ug/L	1	8260B		Total/NA
o-Xylene	2.0	J	5.0	0.60	ug/L	1	8260B		Total/NA
Toluene	1.7		1.0	0.41	ug/L	1	8260B		Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

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

Job ID: 400-194217-1

Client Sample ID: MW6D-ROX-100820 (Continued)

Lab Sample ID: 400-194217-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	2.5		1.0	0.82	ug/L	1	8260B		Total/NA
1,3,5-Trimethylbenzene	0.63	J	1.0	0.56	ug/L	1	8260B		Total/NA
Xylenes, Total	5.9	J	10	1.6	ug/L	1	8260B		Total/NA
2-Methylnaphthalene	0.10	J	0.19	0.057	ug/L	1	8270D LL		Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: TB-ROX-100820-8260

Date Collected: 10/08/20 00:00

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/20/20 14:18	1
Acrolein	ND		20	10	ug/L			10/20/20 14:18	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/20 14:18	1
Benzene	ND		1.0	0.38	ug/L			10/20/20 14:18	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/20 14:18	1
Bromochloromethane	ND		1.0	0.52	ug/L			10/20/20 14:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/20 14:18	1
Bromoform	ND		5.0	0.71	ug/L			10/20/20 14:18	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/20 14:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/20 14:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/20 14:18	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/20/20 14:18	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/20/20 14:18	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/20/20 14:18	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/20 14:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/20 14:18	1
Chloroform	ND		1.0	0.60	ug/L			10/20/20 14:18	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/20/20 14:18	1
Chloromethane	ND		1.0	0.83	ug/L			10/20/20 14:18	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 14:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 14:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/20 14:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/20 14:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/20 14:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/20 14:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 14:18	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 14:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 14:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 14:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 14:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 14:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/20 14:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/20 14:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/20 14:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/20 14:18	1
2-Hexanone	ND		25	3.1	ug/L			10/20/20 14:18	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/20 14:18	1
Methylene bromide	ND		5.0	0.59	ug/L			10/20/20 14:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/20 14:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/20 14:18	1
Methyl teri-butyl ether	ND		1.0	0.74	ug/L			10/20/20 14:18	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/20/20 14:18	1
Naphthalene	ND		1.0	1.0	ug/L			10/20/20 14:18	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/20/20 14:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/20 14:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/20 14:18	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/20 14:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/20 14:18	1
p-Isopropyltoluene	ND *		1.0	0.71	ug/L			10/20/20 14:18	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: TB-ROX-100820-8260

Lab Sample ID: 400-194217-1

Date Collected: 10/08/20 00:00

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/20 14:18	1
Styrene	ND		1.0	1.0	ug/L			10/20/20 14:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/20 14:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/20/20 14:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/20 14:18	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/20/20 14:18	1
Toluene	ND		1.0	0.41	ug/L			10/20/20 14:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 14:18	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 14:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/20/20 14:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/20 14:18	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/20/20 14:18	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/20/20 14:18	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/20/20 14:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/20 14:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/20 14:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/20 14:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/20 14:18	1
Vinyl acetate	ND		25	2.0	ug/L			10/20/20 14:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/20 14:18	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/20 14:18	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96			78 - 118				10/20/20 14:18	1
Dibromofluoromethane	97			81 - 121				10/20/20 14:18	1
Toluene-d8 (Surr)	107			80 - 120				10/20/20 14:18	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: TB-ROX-100820-8011

Lab Sample ID: 400-194217-2

Date Collected: 10/08/20 00:00

Matrix: Water

Date Received: 10/09/20 09:10

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.0057	ug/L		10/12/20 09:23	10/13/20 03:15	1
1,2-Dibromoethane	ND		0.021	0.0052	ug/L		10/12/20 09:23	10/13/20 03:15	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	114		51 - 149				10/12/20 09:23	10/13/20 03:15	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6A-ROX-100820-EB

Lab Sample ID: 400-194217-3

Date Collected: 10/08/20 09:00

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/20/20 15:06	1
Acrolein	ND		20	10	ug/L			10/20/20 15:06	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/20 15:06	1
Benzene	ND		1.0	0.38	ug/L			10/20/20 15:06	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/20 15:06	1
Bromoform	ND		1.0	0.52	ug/L			10/20/20 15:06	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/20/20 15:06	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/20/20 15:06	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/20 15:06	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/20 15:06	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/20 15:06	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/20/20 15:06	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/20/20 15:06	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/20/20 15:06	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/20 15:06	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/20 15:06	1
Chloroform	ND		1.0	0.60	ug/L			10/20/20 15:06	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/20/20 15:06	1
Chloromethane	ND		1.0	0.83	ug/L			10/20/20 15:06	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 15:06	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 15:06	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/20 15:06	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/20 15:06	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/20 15:06	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/20 15:06	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 15:06	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 15:06	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 15:06	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 15:06	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 15:06	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 15:06	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/20 15:06	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/20 15:06	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/20 15:06	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/20 15:06	1
2-Hexanone	ND		25	3.1	ug/L			10/20/20 15:06	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/20 15:06	1
Methylene bromide	ND		5.0	0.59	ug/L			10/20/20 15:06	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/20 15:06	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/20 15:06	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/20/20 15:06	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/20/20 15:06	1
Naphthalene	ND		1.0	1.0	ug/L			10/20/20 15:06	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/20/20 15:06	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/20 15:06	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/20 15:06	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/20 15:06	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/20 15:06	1
p-Isopropyltoluene	ND *		1.0	0.71	ug/L			10/20/20 15:06	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6A-ROX-100820-EB

Lab Sample ID: 400-194217-3

Date Collected: 10/08/20 09:00

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/20 15:06	1
Styrene	ND		1.0	1.0	ug/L			10/20/20 15:06	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/20 15:06	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/20/20 15:06	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/20 15:06	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/20/20 15:06	1
Toluene	ND		1.0	0.41	ug/L			10/20/20 15:06	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/20/20 15:06	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 15:06	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/20/20 15:06	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/20 15:06	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/20/20 15:06	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/20/20 15:06	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/20/20 15:06	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/20 15:06	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/20 15:06	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/20 15:06	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/20 15:06	1
Vinyl acetate	ND		25	2.0	ug/L			10/20/20 15:06	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/20 15:06	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/20 15:06	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		78 - 118					10/20/20 15:06	1
Dibromofluoromethane	93		81 - 121					10/20/20 15:06	1
Toluene-d8 (Surr)	107		80 - 120					10/20/20 15:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		10/12/20 14:35	10/17/20 01:09	1
Acenaphthylene	ND		0.19	0.044	ug/L		10/12/20 14:35	10/17/20 01:09	1
Anthracene	ND		0.19	0.031	ug/L		10/12/20 14:35	10/17/20 01:09	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/12/20 14:35	10/17/20 01:09	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		10/12/20 14:35	10/17/20 01:09	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		10/12/20 14:35	10/17/20 01:09	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		10/12/20 14:35	10/17/20 01:09	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		10/12/20 14:35	10/17/20 01:09	1
Chrysene	ND		0.19	0.072	ug/L		10/12/20 14:35	10/17/20 01:09	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/12/20 14:35	10/17/20 01:09	1
Fluoranthene	ND		0.19	0.066	ug/L		10/12/20 14:35	10/17/20 01:09	1
Fluorene	ND		0.19	0.11	ug/L		10/12/20 14:35	10/17/20 01:09	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		10/12/20 14:35	10/17/20 01:09	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		10/12/20 14:35	10/17/20 01:09	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		10/12/20 14:35	10/17/20 01:09	1
Phenanthrene	ND		0.19	0.035	ug/L		10/12/20 14:35	10/17/20 01:09	1
Pyrene	ND		0.19	0.039	ug/L		10/12/20 14:35	10/17/20 01:09	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		15 - 122				10/12/20 14:35	10/17/20 01:09	1
Nitrobenzene-d5	87		19 - 130				10/12/20 14:35	10/17/20 01:09	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6A-ROX-100820-EB

Lab Sample ID: 400-194217-3

Date Collected: 10/08/20 09:00

Matrix: Water

Date Received: 10/09/20 09:10

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	112		33 - 138	10/12/20 14:35	10/17/20 01:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L				1
Benzenethiol	ND	**1	9.7	1.6	ug/L				1
Benzoic acid	ND		29	7.1	ug/L				1
Benzyl alcohol	ND		9.7	1.9	ug/L				1
Bis(2-chloroethyl)ether	ND		9.7	0.15	ug/L				1
Bis(2-chloroethyl)ether	ND		9.7	2.6	ug/L				1
bis (2-chloroisopropyl) ether	ND		9.7	0.15	ug/L				1
Bis(2-ethylhexyl) phthalate	ND		9.7	4.8	ug/L				1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L				1
Butyl benzyl phthalate	ND		9.7	0.18	ug/L				1
4-Chloroaniline	ND		9.7	3.3	ug/L				1
4-Chloro-3-methylphenol	ND		9.7	3.7	ug/L				1
2-Chloronaphthalene	ND		9.7	0.14	ug/L				1
2-Chlorophenol	ND		9.7	2.1	ug/L				1
4-Chlorophenyl phenyl ether	ND		9.7	1.9	ug/L				1
Dibenz[a,h]acridine	ND		9.7	0.97	ug/L				1
Dibenzofuran	ND		9.7	0.16	ug/L				1
3,3'-Dichlorobenzidine	ND		9.7	2.5	ug/L				1
2,4-Dichlorophenol	ND		9.7	2.9	ug/L				1
Diethyl phthalate	0.40 J		9.7	0.23	ug/L				1
2,4-Dimethylphenol	ND		9.7	3.4	ug/L				1
Dimethyl phthalate	ND		9.7	0.16	ug/L				1
Di-n-butyl phthalate	ND		9.7	2.6	ug/L				1
4,6-Dinitro-ortho-cresol	ND		9.7	1.5	ug/L				1
2,4-Dinitrophenol	ND		29	3.3	ug/L				1
2,4-Dinitrotoluene	ND		9.7	1.8	ug/L				1
2,6-Dinitrotoluene	ND		9.7	1.8	ug/L				1
Di-n-octyl phthalate	ND		9.7	0.16	ug/L				1
1,4-Dioxane	ND		9.7	0.97	ug/L				1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.97	ug/L				1
Hexachlorobenzene	ND		9.7	0.16	ug/L				1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L				1
Hexachloroethane	ND		9.7	4.1	ug/L				1
Indene	ND		9.7	0.97	ug/L				1
Isophorone	ND		9.7	0.14	ug/L				1
2-Methylphenol	ND		9.7	1.7	ug/L				1
3 & 4 Methylphenol	ND		19	0.38	ug/L				1
2-Nitroaniline	ND		9.7	2.1	ug/L				1
3-Nitroaniline	ND		9.7	1.7	ug/L				1
4-Nitroaniline	ND		9.7	1.5	ug/L				1
Nitrobenzene	ND		9.7	0.13	ug/L				1
2-Nitrophenol	ND		9.7	5.0	ug/L				1
4-Nitrophenol	ND		9.7	2.0	ug/L				1
N-Nitrosodimethylamine	ND		9.7	3.4	ug/L				1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6A-ROX-100820-EB

Lab Sample ID: 400-194217-3

Date Collected: 10/08/20 09:00

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L	10/12/20	14:35	10/14/20 22:33	1
N-Nitrosodiphenylamine	ND		9.7	0.17	ug/L	10/12/20	14:35	10/14/20 22:33	1
Pentachlorophenol	ND		19	1.4	ug/L	10/12/20	14:35	10/14/20 22:33	1
Phenol	ND		9.7	2.5	ug/L	10/12/20	14:35	10/14/20 22:33	1
Pyridine	ND		9.7	3.1	ug/L	10/12/20	14:35	10/14/20 22:33	1
Quinoline	ND		9.7	4.4	ug/L	10/12/20	14:35	10/14/20 22:33	1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L	10/12/20	14:35	10/14/20 22:33	1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L	10/12/20	14:35	10/14/20 22:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		46 - 124				10/12/20 14:35	10/14/20 22:33	1
2-Fluorophenol	42		13 - 113				10/12/20 14:35	10/14/20 22:33	1
Nitrobenzene-d5	78		36 - 126				10/12/20 14:35	10/14/20 22:33	1
Phenol-d5	73		17 - 127				10/12/20 14:35	10/14/20 22:33	1
Terphenyl-d14	103		44 - 149				10/12/20 14:35	10/14/20 22:33	1
2,4,6-Tribromophenol	83		26 - 150				10/12/20 14:35	10/14/20 22:33	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L	10/12/20	09:23	10/13/20 03:35	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L	10/12/20	09:23	10/13/20 03:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	111		51 - 149				10/12/20 09:23	10/13/20 03:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6A-ROX-100820
Date Collected: 10/08/20 10:40
Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/20/20 15:34	1
Acrolein	ND		20	10	ug/L			10/20/20 15:34	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/20 15:34	1
Benzene	ND		1.0	0.38	ug/L			10/20/20 15:34	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/20 15:34	1
Bromoform	ND		1.0	0.52	ug/L			10/20/20 15:34	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/20/20 15:34	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/20 15:34	1
Bromoform	ND		5.0	0.71	ug/L			10/20/20 15:34	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/20 15:34	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/20 15:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/20 15:34	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/20/20 15:34	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/20/20 15:34	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/20/20 15:34	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/20 15:34	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/20 15:34	1
Chloroform	ND		1.0	0.60	ug/L			10/20/20 15:34	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/20/20 15:34	1
Chloromethane	ND		1.0	0.83	ug/L			10/20/20 15:34	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 15:34	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 15:34	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/20 15:34	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/20 15:34	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/20 15:34	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/20 15:34	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 15:34	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 15:34	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 15:34	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 15:34	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 15:34	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 15:34	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/20 15:34	1
Ethylbenzene	0.72	J	1.0	0.50	ug/L			10/20/20 15:34	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/20 15:34	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/20 15:34	1
2-Hexanone	ND		25	3.1	ug/L			10/20/20 15:34	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/20 15:34	1
Methylene bromide	ND		5.0	0.59	ug/L			10/20/20 15:34	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/20 15:34	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/20 15:34	1
Methyl tert-butyl ether	0.92	J	1.0	0.74	ug/L			10/20/20 15:34	1
m-Xylene & p-Xylene	2.6	J	5.0	1.6	ug/L			10/20/20 15:34	1
Naphthalene	ND		1.0	1.0	ug/L			10/20/20 15:34	1
n-Butylbenzene	ND	*	1.0	0.76	ug/L			10/20/20 15:34	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/20 15:34	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/20 15:34	1
o-Xylene	1.2	J	5.0	0.60	ug/L			10/20/20 15:34	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/20 15:34	1
p-Isopropyltoluene	ND	*	1.0	0.71	ug/L			10/20/20 15:34	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6A-ROX-100820

Date Collected: 10/08/20 10:40

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/20 15:34	1
Styrene	ND		1.0	1.0	ug/L			10/20/20 15:34	1
Isobutylbenzene	ND		1.0	0.63	ug/L			10/20/20 15:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/20/20 15:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/20 15:34	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/20/20 15:34	1
Toluene	0.90	J	1.0	0.41	ug/L			10/20/20 15:34	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 15:34	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 15:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/20/20 15:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/20 15:34	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/20/20 15:34	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/20/20 15:34	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/20/20 15:34	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/20 15:34	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/20 15:34	1
1,2,4-Trimethylbenzene	2.1		1.0	0.82	ug/L			10/20/20 15:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/20 15:34	1
Vinyl acetate	ND		25	2.0	ug/L			10/20/20 15:34	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/20 15:34	1
Xylenes, Total	3.8	J	10	1.6	ug/L			10/20/20 15:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		78 - 118		10/20/20 15:34	1
Dibromofluoromethane	95		81 - 121		10/20/20 15:34	1
Toluene-d8 (Surr)	108		80 - 120		10/20/20 15:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		10/12/20 14:35	10/17/20 01:27	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/12/20 14:35	10/17/20 01:27	1
Anthracene	ND		0.20	0.032	ug/L		10/12/20 14:35	10/17/20 01:27	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		10/12/20 14:35	10/17/20 01:27	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		10/12/20 14:35	10/17/20 01:27	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		10/12/20 14:35	10/17/20 01:27	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		10/12/20 14:35	10/17/20 01:27	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		10/12/20 14:35	10/17/20 01:27	1
Chrysene	ND		0.20	0.074	ug/L		10/12/20 14:35	10/17/20 01:27	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		10/12/20 14:35	10/17/20 01:27	1
Fluoranthene	ND		0.20	0.068	ug/L		10/12/20 14:35	10/17/20 01:27	1
Fluorene	ND		0.20	0.11	ug/L		10/12/20 14:35	10/17/20 01:27	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		10/12/20 14:35	10/17/20 01:27	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		10/12/20 14:35	10/17/20 01:27	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		10/12/20 14:35	10/17/20 01:27	1
Phenanthrene	ND		0.20	0.036	ug/L		10/12/20 14:35	10/17/20 01:27	1
Pyrene	ND		0.20	0.040	ug/L		10/12/20 14:35	10/17/20 01:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	88		15 - 122		10/12/20 14:35	10/17/20 01:27
Nitrobenzene-d5	91		19 - 130		10/12/20 14:35	10/17/20 01:27

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6A-ROX-100820
Date Collected: 10/08/20 10:40
Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	112		33 - 138	10/12/20 14:35	10/17/20 01:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/12/20 14:35	10/14/20 22:53	1
Benzenethiol	ND	*** WS	10	1.7	ug/L		10/12/20 14:35	10/14/20 22:53	1
Benzoic acid	ND		30	7.3	ug/L		10/12/20 14:35	10/14/20 22:53	1
Benzyl alcohol	ND		10	2.0	ug/L		10/12/20 14:35	10/14/20 22:53	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/12/20 14:35	10/14/20 22:53	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/12/20 14:35	10/14/20 22:53	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/12/20 14:35	10/14/20 22:53	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/12/20 14:35	10/15/20 16:29	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/12/20 14:35	10/14/20 22:53	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/12/20 14:35	10/14/20 22:53	1
4-Chloroaniline	ND		10	3.4	ug/L		10/12/20 14:35	10/14/20 22:53	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/12/20 14:35	10/14/20 22:53	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/12/20 14:35	10/14/20 22:53	1
2-Chlorophenol	ND		10	2.2	ug/L		10/12/20 14:35	10/14/20 22:53	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/12/20 14:35	10/14/20 22:53	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/12/20 14:35	10/14/20 22:53	1
Dibenzofuran	ND		10	0.17	ug/L		10/12/20 14:35	10/14/20 22:53	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/12/20 14:35	10/14/20 22:53	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/12/20 14:35	10/14/20 22:53	1
Diethyl phthalate	0.81	J 4	10	0.24	ug/L		10/12/20 14:35	10/14/20 22:53	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/12/20 14:35	10/14/20 22:53	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/12/20 14:35	10/14/20 22:53	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/12/20 14:35	10/16/20 22:25	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/12/20 14:35	10/15/20 16:29	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/12/20 14:35	10/14/20 22:53	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/12/20 14:35	10/14/20 22:53	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/12/20 14:35	10/14/20 22:53	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/12/20 14:35	10/14/20 22:53	1
1,4-Dioxane	ND	WS	10	1.0	ug/L		10/12/20 14:35	10/14/20 22:53	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/12/20 14:35	10/14/20 22:53	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/12/20 14:35	10/14/20 22:53	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/12/20 14:35	10/14/20 22:53	1
Hexachloroethane	ND		10	4.2	ug/L		10/12/20 14:35	10/14/20 22:53	1
Indene	ND		10	1.0	ug/L		10/12/20 14:35	10/14/20 22:53	1
Isophorone	ND		10	0.14	ug/L		10/12/20 14:35	10/14/20 22:53	1
2-Methylphenol	ND		10	1.8	ug/L		10/12/20 14:35	10/14/20 22:53	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/12/20 14:35	10/14/20 22:53	1
2-Nitroaniline	ND		10	2.2	ug/L		10/12/20 14:35	10/14/20 22:53	1
3-Nitroaniline	ND		10	1.8	ug/L		10/12/20 14:35	10/14/20 22:53	1
4-Nitroaniline	ND		10	1.5	ug/L		10/12/20 14:35	10/14/20 22:53	1
Nitrobenzene	ND		10	0.13	ug/L		10/12/20 14:35	10/14/20 22:53	1
2-Nitrophenol	ND		10	5.2	ug/L		10/12/20 14:35	10/14/20 22:53	1
4-Nitrophenol	ND	WS	10	2.1	ug/L		10/12/20 14:35	10/16/20 22:25	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/12/20 14:35	10/14/20 22:53	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6A-ROX-100820

Lab Sample ID: 400-194217-4

Date Collected: 10/08/20 10:40

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/12/20 14:35	10/14/20 22:53	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/12/20 14:35	10/14/20 22:53	1
Pentachlorophenol	ND		20	1.4	ug/L		10/12/20 14:35	10/14/20 22:53	1
Phenol	ND		10	2.6	ug/L		10/12/20 14:35	10/14/20 22:53	1
Pyridine	ND		10	3.2	ug/L		10/12/20 14:35	10/14/20 22:53	1
Quinoline	ND		10	4.5	ug/L		10/12/20 14:35	10/14/20 22:53	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/12/20 14:35	10/14/20 22:53	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/12/20 14:35	10/14/20 22:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		46 - 124				10/12/20 14:35	10/14/20 22:53	1
2-Fluorophenol	47		13 - 113				10/12/20 14:35	10/14/20 22:53	1
Nitrobenzene-d5	75		36 - 126				10/12/20 14:35	10/14/20 22:53	1
Phenol-d5	72		17 - 127				10/12/20 14:35	10/14/20 22:53	1
Terphenyl-d14	101		44 - 149				10/12/20 14:35	10/14/20 22:53	1
2,4,6-Tribromophenol	89		26 - 150				10/12/20 14:35	10/14/20 22:53	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/12/20 09:23	10/13/20 04:15	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/12/20 09:23	10/13/20 04:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		51 - 149				10/12/20 09:23	10/13/20 04:15	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6B-ROX-100820
Date Collected: 10/08/20 11:24
Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/20/20 15:57	1
Acrolein	ND		20	10	ug/L			10/20/20 15:57	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/20 15:57	1
Benzene	ND		1.0	0.38	ug/L			10/20/20 15:57	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/20 15:57	1
Bromo(chloromethane)	ND		1.0	0.52	ug/L			10/20/20 15:57	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/20 15:57	1
Bromoform	ND		5.0	0.71	ug/L			10/20/20 15:57	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/20 15:57	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/20 15:57	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/20 15:57	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/20/20 15:57	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/20/20 15:57	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/20/20 15:57	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/20 15:57	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/20 15:57	1
Chloroform	ND		1.0	0.60	ug/L			10/20/20 15:57	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/20/20 15:57	1
Chloromethane	ND		1.0	0.83	ug/L			10/20/20 15:57	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 15:57	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 15:57	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/20 15:57	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/20 15:57	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/20 15:57	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/20 15:57	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 15:57	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 15:57	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 15:57	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 15:57	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 15:57	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 15:57	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/20 15:57	1
Ethylbenzene	1.5		1.0	0.50	ug/L			10/20/20 15:57	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/20 15:57	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/20 15:57	1
2-Hexanone	ND		25	3.1	ug/L			10/20/20 15:57	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/20 15:57	1
Methylene bromide	ND		5.0	0.59	ug/L			10/20/20 15:57	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/20 15:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/20 15:57	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/20/20 15:57	1
m-Xylene & p-Xylene	4.7 J		5.0	1.6	ug/L			10/20/20 15:57	1
Naphthalene	ND		1.0	1.0	ug/L			10/20/20 15:57	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/20/20 15:57	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/20 15:57	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/20 15:57	1
o-Xylene	2.2 J		5.0	0.60	ug/L			10/20/20 15:57	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/20 15:57	1
p-Isopropyltoluene	ND *		1.0	0.71	ug/L			10/20/20 15:57	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6B-ROX-100820

Lab Sample ID: 400-194217-5

Date Collected: 10/08/20 11:24

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/20 15:57	1
Styrene	ND		1.0	1.0	ug/L			10/20/20 15:57	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/20 15:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/20/20 15:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/20 15:57	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/20/20 15:57	1
Toluene	2.0		1.0	0.41	ug/L			10/20/20 15:57	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 15:57	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 15:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/20/20 15:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/20 15:57	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/20/20 15:57	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/20/20 15:57	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/20/20 15:57	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/20 15:57	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/20 15:57	1
1,2,4-Trimethylbenzene	2.6		1.0	0.82	ug/L			10/20/20 15:57	1
1,3,5-Trimethylbenzene	0.64 J		1.0	0.56	ug/L			10/20/20 15:57	1
Vinyl acetate	ND		25	2.0	ug/L			10/20/20 15:57	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/20 15:57	1
Xylenes, Total	6.9 J		10	1.6	ug/L			10/20/20 15:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		78 - 118					10/20/20 15:57	1
Dibromofluoromethane	97		81 - 121					10/20/20 15:57	1
Toluene-d8 (Sur)	107		80 - 120					10/20/20 15:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/12/20 14:35	10/17/20 01:45	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/12/20 14:35	10/17/20 01:45	1
Anthracene	ND		0.19	0.030	ug/L		10/12/20 14:35	10/17/20 01:45	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/12/20 14:35	10/17/20 01:45	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/12/20 14:35	10/17/20 01:45	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/12/20 14:35	10/17/20 01:45	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/12/20 14:35	10/17/20 01:45	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		10/12/20 14:35	10/17/20 01:45	1
Chrysene	ND		0.19	0.070	ug/L		10/12/20 14:35	10/17/20 01:45	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/12/20 14:35	10/17/20 01:45	1
Fluoranthene	ND		0.19	0.065	ug/L		10/12/20 14:35	10/17/20 01:45	1
Fluorene	ND		0.19	0.10	ug/L		10/12/20 14:35	10/17/20 01:45	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/12/20 14:35	10/17/20 01:45	1
1-Methylnaphthalene	0.10 J		0.19	0.070	ug/L		10/12/20 14:35	10/17/20 01:45	1
2-Methylnaphthalene	0.086 J		0.19	0.057	ug/L		10/12/20 14:35	10/17/20 01:45	1
Phenanthrene	ND		0.19	0.034	ug/L		10/12/20 14:35	10/17/20 01:45	1
Pyrene	ND		0.19	0.038	ug/L		10/12/20 14:35	10/17/20 01:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	95		15 - 122				10/12/20 14:35	10/17/20 01:45	1
Nitrobenzene-d5	88		19 - 130				10/12/20 14:35	10/17/20 01:45	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6B-ROX-100820

Lab Sample ID: 400-194217-5

Date Collected: 10/08/20 11:24

Matrix: Water

Date Received: 10/09/20 09:10

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

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	117		33 - 138		10/12/20 14:35	10/17/20 01:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L				1
Benzenethiol	ND	**1 WJ	9.5	1.6	ug/L				1
Benzoic acid	ND		28	6.9	ug/L				1
Benzyl alcohol	ND		9.5	1.9	ug/L				1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L				1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L				1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L				1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L				1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L				1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L				1
4-Chloroaniline	ND		9.5	3.2	ug/L				1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L				1
2-Chloronaphthalene	ND		9.5	0.13	ug/L				1
2-Chlorophenol	ND		9.5	2.1	ug/L				1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L				1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L				1
Dibenzofuran	ND		9.5	0.16	ug/L				1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L				1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L				1
Diethyl phthalate	ND		9.5	0.23	ug/L				1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L				1
Dimethyl phthalate	ND		9.5	0.16	ug/L				1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L				1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L				1
2,4-Dinitrophenol	ND		28	3.2	ug/L				1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L				1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L				1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L				1
1,4-Dioxane	ND	WJ	9.5	0.95	ug/L				1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L				1
Hexachlorobenzene	ND		9.5	0.16	ug/L				1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L				1
Hexachloroethane	ND		9.5	4.0	ug/L				1
Indene	ND		9.5	0.95	ug/L				1
Isophorone	ND		9.5	0.13	ug/L				1
2-Methylphenol	ND		9.5	1.7	ug/L				1
3 & 4 Methylphenol	ND		19	0.37	ug/L				1
2-Nitroaniline	ND		9.5	2.1	ug/L				1
3-Nitroaniline	ND		9.5	1.7	ug/L				1
4-Nitroaniline	ND		9.5	1.4	ug/L				1
Nitrobenzene	ND		9.5	0.12	ug/L				1
2-Nitrophenol	ND		9.5	4.9	ug/L				1
4-Nitrophenol	ND	WJ	9.5	2.0	ug/L				1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L				1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6B-ROX-100820

Lab Sample ID: 400-194217-5

Date Collected: 10/08/20 11:24

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/12/20 14:35	10/14/20 23:14	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/12/20 14:35	10/14/20 23:14	1
Pentachlorophenol	ND		19	1.3	ug/L		10/12/20 14:35	10/14/20 23:14	1
Phenol	ND		9.5	2.5	ug/L		10/12/20 14:35	10/14/20 23:14	1
Pyridine	ND		9.5	3.0	ug/L		10/12/20 14:35	10/14/20 23:14	1
Quinoline	ND		9.5	4.3	ug/L		10/12/20 14:35	10/14/20 23:14	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/12/20 14:35	10/14/20 23:14	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/12/20 14:35	10/14/20 23:14	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		70		46 - 124			10/12/20 14:35	10/14/20 23:14	1
2-Fluorophenol		36		13 - 113			10/12/20 14:35	10/14/20 23:14	1
Nitrobenzene-d5		73		36 - 126			10/12/20 14:35	10/14/20 23:14	1
Phenol-d5		66		17 - 127			10/12/20 14:35	10/14/20 23:14	1
Terphenyl-d14		100		44 - 149			10/12/20 14:35	10/14/20 23:14	1
2,4,6-Tribromophenol		87		26 - 150			10/12/20 14:35	10/14/20 23:14	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/12/20 09:23	10/13/20 04:35	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/12/20 09:23	10/13/20 04:35	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromo Fluorobenzene		88		51 - 149			10/12/20 09:23	10/13/20 04:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6C-ROX-100820

Date Collected: 10/08/20 11:58

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/20/20 16:24	1
Acrolein	ND		20	10	ug/L			10/20/20 16:24	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/20 16:24	1
Benzene	ND		1.0	0.38	ug/L			10/20/20 16:24	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/20 16:24	1
Bromoform	ND		1.0	0.52	ug/L			10/20/20 16:24	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/20/20 16:24	1
Bromodichloromethane	ND		5.0	0.71	ug/L			10/20/20 16:24	1
Bromoform	ND		1.0	0.98	ug/L			10/20/20 16:24	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/20 16:24	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/20 16:24	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/20/20 16:24	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/20/20 16:24	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/20/20 16:24	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/20 16:24	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/20 16:24	1
Chloroform	ND		1.0	0.60	ug/L			10/20/20 16:24	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/20/20 16:24	1
Chloromethane	ND		1.0	0.83	ug/L			10/20/20 16:24	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 16:24	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 16:24	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/20 16:24	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/20 16:24	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/20 16:24	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/20 16:24	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 16:24	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 16:24	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 16:24	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 16:24	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 16:24	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 16:24	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/20 16:24	1
Ethylbenzene	1.4		1.0	0.50	ug/L			10/20/20 16:24	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/20 16:24	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/20 16:24	1
2-Hexanone	ND		25	3.1	ug/L			10/20/20 16:24	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/20 16:24	1
Methylene bromide	ND		5.0	0.59	ug/L			10/20/20 16:24	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/20 16:24	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/20 16:24	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/20/20 16:24	1
m-Xylene & p-Xylene	4.4 J		5.0	1.6	ug/L			10/20/20 16:24	1
Naphthalene	ND		1.0	1.0	ug/L			10/20/20 16:24	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/20/20 16:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/20 16:24	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/20 16:24	1
o-Xylene	2.0 J		5.0	0.60	ug/L			10/20/20 16:24	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/20 16:24	1
p-Isopropyltoluene	ND *		1.0	0.71	ug/L			10/20/20 16:24	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6C-ROX-100820

Lab Sample ID: 400-194217-6

Date Collected: 10/08/20 11:58

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/20 16:24	1
Styrene	ND		1.0	1.0	ug/L			10/20/20 16:24	1
Isobutylbenzene	ND		1.0	0.63	ug/L			10/20/20 16:24	1
1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/20/20 16:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/20 16:24	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/20/20 16:24	1
Toluene	2.0		1.0	0.41	ug/L			10/20/20 16:24	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 16:24	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 16:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/20/20 16:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/20 16:24	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/20/20 16:24	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/20/20 16:24	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/20/20 16:24	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/20 16:24	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/20 16:24	1
1,2,4-Trimethylbenzene	2.2		1.0	0.82	ug/L			10/20/20 16:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/20 16:24	1
Vinyl acetate	ND		25	2.0	ug/L			10/20/20 16:24	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/20 16:24	1
Xylenes, Total	6.3 J		10	1.6	ug/L			10/20/20 16:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78 - 118					10/20/20 16:24	1
Dibromofluoromethane	98		81 - 121					10/20/20 16:24	1
Toluene-d8 (Sur)	108		80 - 120					10/20/20 16:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L			10/12/20 14:35	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/12/20 14:35	1
Anthracene	ND		0.19	0.030	ug/L			10/12/20 14:35	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/12/20 14:35	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/12/20 14:35	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/12/20 14:35	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/12/20 14:35	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L			10/12/20 14:35	1
Chrysene	ND		0.19	0.070	ug/L			10/12/20 14:35	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L			10/12/20 14:35	1
Fluoranthene	ND		0.19	0.065	ug/L			10/12/20 14:35	1
Fluorene	ND		0.19	0.10	ug/L			10/12/20 14:35	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/12/20 14:35	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L			10/12/20 14:35	1
2-Methylnaphthalene	0.073 J		0.19	0.057	ug/L			10/12/20 14:35	1
Phenanthrene	ND		0.19	0.034	ug/L			10/12/20 14:35	1
Pyrene	ND		0.19	0.038	ug/L			10/12/20 14:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		15 - 122					10/12/20 14:35	1
Nitrobenzene-d5	82		19 - 130					10/12/20 14:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6C-ROX-100820

Lab Sample ID: 400-194217-6

Date Collected: 10/08/20 11:58

Matrix: Water

Date Received: 10/09/20 09:10

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

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	104		33 - 138		10/12/20 14:35	10/17/20 02:55	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		10/12/20 14:35	10/14/20 23:35	1
Benzenethiol	ND	**1 <i>UJ</i>	9.5	1.6	ug/L		10/12/20 14:35	10/14/20 23:35	1
Benzoic acid	ND		29	6.9	ug/L		10/12/20 14:35	10/14/20 23:35	1
Benzyl alcohol	ND		9.5	1.9	ug/L		10/12/20 14:35	10/14/20 23:35	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		10/12/20 14:35	10/14/20 23:35	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/12/20 14:35	10/14/20 23:35	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/12/20 14:35	10/14/20 23:35	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		10/12/20 14:35	10/15/20 17:22	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/12/20 14:35	10/14/20 23:35	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/12/20 14:35	10/14/20 23:35	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/12/20 14:35	10/14/20 23:35	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/12/20 14:35	10/14/20 23:35	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/12/20 14:35	10/14/20 23:35	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/12/20 14:35	10/14/20 23:35	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/12/20 14:35	10/14/20 23:35	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/12/20 14:35	10/14/20 23:35	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/12/20 14:35	10/14/20 23:35	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		10/12/20 14:35	10/14/20 23:35	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		10/12/20 14:35	10/14/20 23:35	1
Diethyl phthalate	0.41	J	9.5	0.23	ug/L		10/12/20 14:35	10/14/20 23:35	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/12/20 14:35	10/14/20 23:35	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/12/20 14:35	10/14/20 23:35	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/12/20 14:35	10/16/20 23:07	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		10/12/20 14:35	10/15/20 17:22	1
2,4-Dinitropheno	ND		29	3.2	ug/L		10/12/20 14:35	10/14/20 23:35	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/12/20 14:35	10/14/20 23:35	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/12/20 14:35	10/14/20 23:35	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/12/20 14:35	10/14/20 23:35	1
1,4-Dioxane	ND	<i>UJ</i>	9.5	0.95	ug/L		10/12/20 14:35	10/14/20 23:35	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/12/20 14:35	10/14/20 23:35	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/12/20 14:35	10/14/20 23:35	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		10/12/20 14:35	10/14/20 23:35	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/12/20 14:35	10/14/20 23:35	1
Indene	ND		9.5	0.95	ug/L		10/12/20 14:35	10/14/20 23:35	1
Isophorone	ND		9.5	0.13	ug/L		10/12/20 14:35	10/14/20 23:35	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/12/20 14:35	10/14/20 23:35	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/12/20 14:35	10/14/20 23:35	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/12/20 14:35	10/14/20 23:35	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/12/20 14:35	10/14/20 23:35	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/12/20 14:35	10/14/20 23:35	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/12/20 14:35	10/14/20 23:35	1
2-Nitrophenol	ND		9.5	4.9	ug/L		10/12/20 14:35	10/14/20 23:35	1
4-Nitrophenol	ND	<i>UJ</i>	9.5	2.0	ug/L		10/12/20 14:35	10/16/20 23:07	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/12/20 14:35	10/14/20 23:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6C-ROX-100820

Lab Sample ID: 400-194217-6

Date Collected: 10/08/20 11:58

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/12/20 14:35	10/14/20 23:35	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/12/20 14:35	10/14/20 23:35	1
Pentachlorophenol	ND		19	1.3	ug/L		10/12/20 14:35	10/14/20 23:35	1
Phenol	ND		9.5	2.5	ug/L		10/12/20 14:35	10/14/20 23:35	1
Pyridine	ND		9.5	3.0	ug/L		10/12/20 14:35	10/14/20 23:35	1
Quinoline	ND		9.5	4.3	ug/L		10/12/20 14:35	10/14/20 23:35	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/12/20 14:35	10/14/20 23:35	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/12/20 14:35	10/14/20 23:35	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		68		46 - 124			10/12/20 14:35	10/14/20 23:35	1
2-Fluorophenol		45		13 - 113			10/12/20 14:35	10/14/20 23:35	1
Nitrobenzene-d5		70		36 - 126			10/12/20 14:35	10/14/20 23:35	1
Phenol-d5		65		17 - 127			10/12/20 14:35	10/14/20 23:35	1
Terphenyl-d14		92		44 - 149			10/12/20 14:35	10/14/20 23:35	1
2,4,6-Tribromophenol		79		26 - 150			10/12/20 14:35	10/14/20 23:35	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/12/20 09:23	10/13/20 04:55	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/12/20 09:23	10/13/20 04:55	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene		86		51 - 149			10/12/20 09:23	10/13/20 04:55	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6D-ROX-100820

Date Collected: 10/08/20 13:05

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-7

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/20/20 16:52	1
Acrolein	ND		20	10	ug/L			10/20/20 16:52	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/20 16:52	1
Benzene	ND		1.0	0.38	ug/L			10/20/20 16:52	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/20 16:52	1
Bromoform	ND		1.0	0.52	ug/L			10/20/20 16:52	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/20/20 16:52	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/20/20 16:52	1
Bromoform	ND		5.0	0.98	ug/L			10/20/20 16:52	1
Bromomethane	ND		1.0	0.50	ug/L			10/20/20 16:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/20 16:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/20 16:52	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/20/20 16:52	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/20/20 16:52	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/20/20 16:52	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/20 16:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/20 16:52	1
Chloroform	ND		1.0	0.60	ug/L			10/20/20 16:52	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/20/20 16:52	1
Chloromethane	ND		1.0	0.83	ug/L			10/20/20 16:52	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 16:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 16:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/20 16:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/20 16:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/20 16:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/20 16:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 16:52	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 16:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 16:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 16:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 16:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 16:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/20 16:52	1
Ethylbenzene	1.2		1.0	0.50	ug/L			10/20/20 16:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/20 16:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/20 16:52	1
2-Hexanone	ND		25	3.1	ug/L			10/20/20 16:52	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/20 16:52	1
Methylene bromide	ND		5.0	0.59	ug/L			10/20/20 16:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/20 16:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/20 16:52	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/20/20 16:52	1
m-Xylene & p-Xylene	3.9 J		5.0	1.6	ug/L			10/20/20 16:52	1
Naphthalene	ND		1.0	1.0	ug/L			10/20/20 16:52	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/20/20 16:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/20 16:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/20 16:52	1
o-Xylene	2.0 J		5.0	0.60	ug/L			10/20/20 16:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/20 16:52	1
p-Isopropyltoluene	ND *		1.0	0.71	ug/L			10/20/20 16:52	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6D-ROX-100820

Lab Sample ID: 400-194217-7

Date Collected: 10/08/20 13:05

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/20 16:52	1
Styrene	ND		1.0	1.0	ug/L			10/20/20 16:52	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/20 16:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/20/20 16:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/20 16:52	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/20/20 16:52	1
Toluene	1.7		1.0	0.41	ug/L			10/20/20 16:52	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/20/20 16:52	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 16:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/20/20 16:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/20 16:52	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/20/20 16:52	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/20/20 16:52	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/20/20 16:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/20 16:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/20 16:52	1
1,2,4-Trimethylbenzene	2.5		1.0	0.82	ug/L			10/20/20 16:52	1
1,3,5-Trimethylbenzene	0.63 J		1.0	0.56	ug/L			10/20/20 16:52	1
Vinyl acetate	ND		25	2.0	ug/L			10/20/20 16:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/20 16:52	1
Xylenes, Total	5.9 J		10	1.6	ug/L			10/20/20 16:52	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78 - 118					10/20/20 16:52	1
Dibromofluoromethane	95		81 - 121					10/20/20 16:52	1
Toluene-d8 (Surr)	107		80 - 120					10/20/20 16:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L			10/12/20 14:35	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/12/20 14:35	1
Anthracene	ND		0.19	0.030	ug/L			10/12/20 14:35	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/12/20 14:35	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/12/20 14:35	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/12/20 14:35	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/12/20 14:35	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L			10/12/20 14:35	1
Chrysene	ND		0.19	0.070	ug/L			10/12/20 14:35	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/12/20 14:35	1
Fluoranthene	ND		0.19	0.064	ug/L			10/12/20 14:35	1
Fluorene	ND		0.19	0.10	ug/L			10/12/20 14:35	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/12/20 14:35	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L			10/12/20 14:35	1
2-Methylnaphthalene	0.10 J		0.19	0.057	ug/L			10/12/20 14:35	1
Phenanthrene	ND		0.19	0.034	ug/L			10/12/20 14:35	1
Pyrene	ND		0.19	0.038	ug/L			10/12/20 14:35	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	79		15 - 122					10/12/20 14:35	1
Nitrobenzene-d5	80		19 - 130					10/12/20 14:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6D-ROX-100820

Lab Sample ID: 400-194217-7

Date Collected: 10/08/20 13:05

Matrix: Water

Date Received: 10/09/20 09:10

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	102		33 - 138	10/12/20 14:35	10/17/20 03:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		10/12/20 14:35	10/14/20 23:55	1
Benzenethiol	ND	**1 <i>WJ</i>	9.5	1.6	ug/L		10/12/20 14:35	10/14/20 23:55	1
Benzoic acid	ND		28	6.9	ug/L		10/12/20 14:35	10/14/20 23:55	1
Benzyl alcohol	ND		9.5	1.9	ug/L		10/12/20 14:35	10/14/20 23:55	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		10/12/20 14:35	10/14/20 23:55	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/12/20 14:35	10/14/20 23:55	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/12/20 14:35	10/14/20 23:55	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		10/12/20 14:35	10/15/20 17:49	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/12/20 14:35	10/14/20 23:55	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/12/20 14:35	10/14/20 23:55	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/12/20 14:35	10/14/20 23:55	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/12/20 14:35	10/14/20 23:55	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/12/20 14:35	10/14/20 23:55	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/12/20 14:35	10/14/20 23:55	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/12/20 14:35	10/14/20 23:55	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/12/20 14:35	10/14/20 23:55	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/12/20 14:35	10/14/20 23:55	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		10/12/20 14:35	10/14/20 23:55	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		10/12/20 14:35	10/14/20 23:55	1
Dielhyl phthalate	ND		9.5	0.23	ug/L		10/12/20 14:35	10/15/20 17:49	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/12/20 14:35	10/14/20 23:55	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/12/20 14:35	10/14/20 23:55	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/12/20 14:35	10/16/20 23:28	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		10/12/20 14:35	10/15/20 17:49	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/12/20 14:35	10/14/20 23:55	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/12/20 14:35	10/14/20 23:55	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/12/20 14:35	10/14/20 23:55	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/12/20 14:35	10/14/20 23:55	1
1,4-Dioxane	ND <i>WJ</i>		9.5	0.95	ug/L		10/12/20 14:35	10/14/20 23:55	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/12/20 14:35	10/14/20 23:55	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/12/20 14:35	10/14/20 23:55	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		10/12/20 14:35	10/14/20 23:55	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/12/20 14:35	10/14/20 23:55	1
Indene	ND		9.5	0.95	ug/L		10/12/20 14:35	10/14/20 23:55	1
Isophorone	ND		9.5	0.13	ug/L		10/12/20 14:35	10/14/20 23:55	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/12/20 14:35	10/14/20 23:55	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/12/20 14:35	10/14/20 23:55	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/12/20 14:35	10/14/20 23:55	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/12/20 14:35	10/14/20 23:55	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/12/20 14:35	10/14/20 23:55	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/12/20 14:35	10/14/20 23:55	1
2-Nitrophenol	ND <i>WJ</i>		9.5	4.9	ug/L		10/12/20 14:35	10/14/20 23:55	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/12/20 14:35	10/16/20 23:28	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/12/20 14:35	10/14/20 23:55	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194217-1

Client Sample ID: MW6D-ROX-100820

Lab Sample ID: 400-194217-7

Date Collected: 10/08/20 13:05

Matrix: Water

Date Received: 10/09/20 09:10

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/12/20 14:35	10/14/20 23:55	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/12/20 14:35	10/14/20 23:55	1
Pentachlorophenol	ND		19	1.3	ug/L		10/12/20 14:35	10/14/20 23:55	1
Phenol	ND		9.5	2.5	ug/L		10/12/20 14:35	10/14/20 23:55	1
Pyridine	ND		9.5	3.0	ug/L		10/12/20 14:35	10/14/20 23:55	1
Quinoline	ND		9.5	4.3	ug/L		10/12/20 14:35	10/14/20 23:55	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/12/20 14:35	10/14/20 23:55	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/12/20 14:35	10/14/20 23:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		46 - 124	10/12/20 14:35	10/14/20 23:55	1
2-Fluorophenol	32		13 - 113	10/12/20 14:35	10/14/20 23:55	1
Nitrobenzene-d5	73		36 - 126	10/12/20 14:35	10/14/20 23:55	1
Phenol-d5	63		17 - 127	10/12/20 14:35	10/14/20 23:55	1
Terphenyl-d14	96		44 - 149	10/12/20 14:35	10/14/20 23:55	1
2,4,6-Tribromophenol	79		26 - 150	10/12/20 14:35	10/14/20 23:55	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/12/20 09:23	10/13/20 05:15	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/12/20 09:23	10/13/20 05:15	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	85		51 - 149	10/12/20 09:23	10/13/20 05:15	1			

Eurofins TestAmerica, Pensacola

Definitions/Glossary

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

Job ID: 400-194217-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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 or LCSD is outside acceptance limits.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	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: 400-194217-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194217-1	TB-ROX-100820-B260	96	97	107
400-194217-3	MW6A-ROX-100820-EB	95	93	107
400-194217-4	MW6A-ROX-100820	100	95	108
400-194217-5	MW6B-ROX-100820	95	97	107
400-194217-6	MW6C-ROX-100820	97	98	108
400-194217-7	MW6D-ROX-100820	97	95	107
LCS 400-507394/1002	Lab Control Sample	103	96	110
MB 400-507394/4	Method Blank	100	95	106

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194217-3	MW6A-ROX-100820-EB	77	42	78	73	103	83
400-194217-4	MW6A-ROX-100820	75	47	75	72	101	89
400-194217-5	MW6B-ROX-100820	70	36	73	66	100	87
400-194217-6	MW6C-ROX-100820	68	45	70	65	92	79
400-194217-7	MW6D-ROX-100820	69	32	73	63	96	79
LCS 400-506479/2-A	Lab Control Sample	73	49	80	73	98	92
LCS 400-506479/3-A	Lab Control Sample	72	48	72	71	98	62
LCSD 400-506479/4-A	Lab Control Sample Dup	76	14	73	10 X	105	39
MB 400-506479/1-A	Method Blank	74	34	76	67	103	57

Surrogate Legend

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzened-5

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194217-3	MW6A-ROX-100820-EB	85	87	112
400-194217-4	MW6A-ROX-100820	88	91	112
400-194217-5	MW6B-ROX-100820	95	88	117
400-194217-6	MW6C-ROX-100820	84	82	104
400-194217-7	MW6D-ROX-100820	79	80	102
LCS 400-506479/2-A	Lab Control Sample	86	90	109
MB 400-506479/1-A	Method Blank	85	85	103

Eurofins TestAmerica, Pensacola

Surrogate Summary

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

Job ID: 400-194217-1

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB2 (51-149)	
400-194217-2	TB-ROX-100820-8011	114	
400-194217-3	MW6A-ROX-100820-EB	111	
400-194217-4	MW6A-ROX-100820	97	
400-194217-5	MW6B-ROX-100820	88	
400-194217-6	MW6C-ROX-100820	86	
400-194217-7	MW6D-ROX-100820	85	
LCS 400-506393/2-A	Lab Control Sample	98	
LCSD 400-506393/3-A	Lab Control Sample Dup	101	
MB 400-506393/1-A	Method Blank	100	

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-194217-1

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

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, 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: 400-194217-1

Client Sample ID: TB-ROX-100820-8260

Date Collected: 10/08/20 00:00

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-1

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	507394	10/20/20 14:18	WPD	TAL PEN

Client Sample ID: TB-ROX-100820-8011

Date Collected: 10/08/20 00:00

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			33.8 mL	35 mL	506393	10/12/20 09:23	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506471	10/13/20 03:15	DHJ	TAL PEN

Client Sample ID: MW6A-ROX-100820-EB

Date Collected: 10/08/20 09:00

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-3

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	507394	10/20/20 15:06	WPD	TAL PEN
Total/NA	Prep	3520C			258.6 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 22:04	S1B	TAL PEN
Total/NA	Prep	3520C			258.6 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 22:33	S1B	TAL PEN
Total/NA	Prep	3520C			258.6 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 16:02	S1B	TAL PEN
Total/NA	Prep	3520C			258.6 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507154	10/17/20 01:09	KJA	TAL PEN
Total/NA	Prep	8011			35.1 mL	35 mL	506393	10/12/20 09:23	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506471	10/13/20 03:35	DHJ	TAL PEN

Client Sample ID: MW6A-ROX-100820

Date Collected: 10/08/20 10:40

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-4

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	507394	10/20/20 15:34	WPD	TAL PEN
Total/NA	Prep	3520C			248.6 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 22:25	S1B	TAL PEN
Total/NA	Prep	3520C			248.6 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 22:53	S1B	TAL PEN
Total/NA	Prep	3520C			248.6 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 16:29	S1B	TAL PEN
Total/NA	Prep	3520C			248.6 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507154	10/17/20 01:27	KJA	TAL PEN
Total/NA	Prep	8011			35 mL	35 mL	506393	10/12/20 09:23	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506471	10/13/20 04:15	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194217-1

Client Sample ID: MW6B-ROX-100820

Date Collected: 10/08/20 11:24

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-5

Matrix: Water

Prep Type	Batch	Batch	Dil	Initial	Final	Batch	Prepared	or Analyzed	Analyst	Lab
	Type	Method	Run	Factor	Amount	Number				
Total/NA	Analysis	8260B		1	5 mL	5 mL	507394	10/20/20 15:57	WPD	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 22:46	S1B	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 23:14	S1B	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 16:55	S1B	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507154	10/17/20 01:45	KJA	TAL PEN
Total/NA	Prep	8011			34.9 mL	35 mL	506393	10/12/20 09:23	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506471	10/13/20 04:35	DHJ	TAL PEN

Client Sample ID: MW6C-ROX-100820

Date Collected: 10/08/20 11:58

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-6

Matrix: Water

Prep Type	Batch	Batch	Dil	Initial	Final	Batch	Prepared	or Analyzed	Analyst	Lab
	Type	Method	Run	Factor	Amount	Number				
Total/NA	Analysis	8260B		1	5 mL	5 mL	507394	10/20/20 16:24	WPD	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 23:07	S1B	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 23:35	S1B	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 17:22	S1B	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507169	10/17/20 02:55	PP1	TAL PEN
Total/NA	Prep	8011			34.7 mL	35 mL	506393	10/12/20 09:23	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506471	10/13/20 04:55	DHJ	TAL PEN

Client Sample ID: MW6D-ROX-100820

Date Collected: 10/08/20 13:05

Date Received: 10/09/20 09:10

Lab Sample ID: 400-194217-7

Matrix: Water

Prep Type	Batch	Batch	Dil	Initial	Final	Batch	Prepared	or Analyzed	Analyst	Lab
	Type	Method	Run	Factor	Amount	Number				
Total/NA	Analysis	8260B		1	5 mL	5 mL	507394	10/20/20 16:52	WPD	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 23:28	S1B	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 23:55	S1B	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 17:49	S1B	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507169	10/17/20 03:12	PP1	TAL PEN
Total/NA	Prep	8011			34.7 mL	35 mL	506393	10/12/20 09:23	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506471	10/13/20 05:15	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194217-1

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

Lab Sample ID: MB 400-506393/1-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	506393	10/12/20 09:23	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506471	10/12/20 20:53	DHJ	TAL PEN

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

Lab Sample ID: MB 400-506479/1-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	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 20:17	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 19:05	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 13:49	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507154	10/16/20 22:49	KJA	TAL PEN

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

Lab Sample ID: MB 400-507394/4
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	507394	10/20/20 08:19	WPD	TAL PEN

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

Lab Sample ID: LCS 400-506393/2-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	506393	10/12/20 09:23	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506471	10/12/20 21:13	DHJ	TAL PEN

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

Lab Sample ID: LCS 400-506479/2-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	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 20:08	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507154	10/16/20 23:07	KJA	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194217-1

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-506479/3-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	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 19:26	S1B	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507394/1002

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	507394	10/20/20 07:25	WPD	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-506393/3-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	506393	10/12/20 09:23	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506471	10/12/20 21:34	DHJ	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-506479/4-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	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 19:47	S1B	TAL PEN

Laboratory References:

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

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194217-1

GC/MS VOA

Analysis Batch: 507394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194217-1	TB-ROX-100820-8260	Total/NA	Water	8260B	
400-194217-3	MW6A-ROX-100820-EB	Total/NA	Water	8260B	
400-194217-4	MW6A-ROX-100820	Total/NA	Water	8260B	
400-194217-5	MW6B-ROX-100820	Total/NA	Water	8260B	
400-194217-6	MW6C-ROX-100820	Total/NA	Water	8260B	
400-194217-7	MW6D-ROX-100820	Total/NA	Water	8260B	
MB 400-507394/4	Method Blank	Total/NA	Water	8260B	
LCS 400-507394/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 506479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194217-3	MW6A-ROX-100820-EB	Total/NA	Water	3520C	
400-194217-4	MW6A-ROX-100820	Total/NA	Water	3520C	
400-194217-5	MW6B-ROX-100820	Total/NA	Water	3520C	
400-194217-6	MW6C-ROX-100820	Total/NA	Water	3520C	
400-194217-7	MW6D-ROX-100820	Total/NA	Water	3520C	
MB 400-506479/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-506479/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-506479/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-506479/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 506784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194217-3	MW6A-ROX-100820-EB	Total/NA	Water	8270D	506479
400-194217-4	MW6A-ROX-100820	Total/NA	Water	8270D	506479
400-194217-5	MW6B-ROX-100820	Total/NA	Water	8270D	506479
400-194217-6	MW6C-ROX-100820	Total/NA	Water	8270D	506479
400-194217-7	MW6D-ROX-100820	Total/NA	Water	8270D	506479
MB 400-506479/1-A	Method Blank	Total/NA	Water	8270D	506479
LCS 400-506479/2-A	Lab Control Sample	Total/NA	Water	8270D	506479
LCS 400-506479/3-A	Lab Control Sample	Total/NA	Water	8270D	506479
LCSD 400-506479/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	506479

Analysis Batch: 506928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194217-3	MW6A-ROX-100820-EB	Total/NA	Water	8270D	506479
400-194217-4	MW6A-ROX-100820	Total/NA	Water	8270D	506479
400-194217-5	MW6B-ROX-100820	Total/NA	Water	8270D	506479
400-194217-6	MW6C-ROX-100820	Total/NA	Water	8270D	506479
400-194217-7	MW6D-ROX-100820	Total/NA	Water	8270D	506479
MB 400-506479/1-A	Method Blank	Total/NA	Water	8270D	506479

Analysis Batch: 507154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194217-3	MW6A-ROX-100820-EB	Total/NA	Water	8270D LL	506479
400-194217-4	MW6A-ROX-100820	Total/NA	Water	8270D LL	506479
400-194217-5	MW6B-ROX-100820	Total/NA	Water	8270D LL	506479
MB 400-506479/1-A	Method Blank	Total/NA	Water	8270D LL	506479
LCS 400-506479/2-A	Lab Control Sample	Total/NA	Water	8270D LL	506479

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194217-1

GC/MS Semi VOA

Analysis Batch: 507157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194217-3	MW6A-ROX-100820-EB	Total/NA	Water	8270D	506479
400-194217-4	MW6A-ROX-100820	Total/NA	Water	8270D	506479
400-194217-5	MW6B-ROX-100820	Total/NA	Water	8270D	506479
400-194217-6	MW6C-ROX-100820	Total/NA	Water	8270D	506479
400-194217-7	MW6D-ROX-100820	Total/NA	Water	8270D	506479
MB 400-506479/1-A	Method Blank	Total/NA	Water	8270D	506479

Analysis Batch: 507169

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194217-6	MW6C-ROX-100820	Total/NA	Water	8270D LL	506479
400-194217-7	MW6D-ROX-100820	Total/NA	Water	8270D LL	506479

GC Semi VOA

Prep Batch: 506393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194217-2	TB-ROX-100820-8011	Total/NA	Water	8011	
400-194217-3	MW6A-ROX-100820-EB	Total/NA	Water	8011	
400-194217-4	MW6A-ROX-100820	Total/NA	Water	8011	
400-194217-5	MW6B-ROX-100820	Total/NA	Water	8011	
400-194217-6	MW6C-ROX-100820	Total/NA	Water	8011	
400-194217-7	MW6D-ROX-100820	Total/NA	Water	8011	
MB 400-506393/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-506393/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-506393/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 506471

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194217-2	TB-ROX-100820-8011	Total/NA	Water	8011	506393
400-194217-3	MW6A-ROX-100820-EB	Total/NA	Water	8011	506393
400-194217-4	MW6A-ROX-100820	Total/NA	Water	8011	506393
400-194217-5	MW6B-ROX-100820	Total/NA	Water	8011	506393
400-194217-6	MW6C-ROX-100820	Total/NA	Water	8011	506393
400-194217-7	MW6D-ROX-100820	Total/NA	Water	8011	506393
MB 400-506393/1-A	Method Blank	Total/NA	Water	8011	506393
LCS 400-506393/2-A	Lab Control Sample	Total/NA	Water	8011	506393
LCSD 400-506393/3-A	Lab Control Sample Dup	Total/NA	Water	8011	506393

QC Sample Results

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

Job ID: 400-194217-1

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

Lab Sample ID: MB 400-507394/4

Matrix: Water

Analysis Batch: 507394

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			10/20/20 08:19	1
Acrolein	ND		20	10	ug/L			10/20/20 08:19	1
Acrylonitrile	ND		10	2.8	ug/L			10/20/20 08:19	1
Benzene	ND		1.0	0.38	ug/L			10/20/20 08:19	1
Bromobenzene	ND		1.0	0.54	ug/L			10/20/20 08:19	1
Bromochloromethane	ND		1.0	0.52	ug/L			10/20/20 08:19	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/20/20 08:19	1
Bromoform	ND		5.0	0.71	ug/L			10/20/20 08:19	1
Bromomethane	ND		1.0	0.98	ug/L			10/20/20 08:19	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/20/20 08:19	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/20/20 08:19	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/20/20 08:19	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/20/20 08:19	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/20/20 08:19	1
Chloroethane	ND		1.0	0.76	ug/L			10/20/20 08:19	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/20/20 08:19	1
Chloroform	ND		1.0	0.60	ug/L			10/20/20 08:19	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/20/20 08:19	1
Chloromethane	ND		1.0	0.83	ug/L			10/20/20 08:19	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 08:19	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 08:19	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/20/20 08:19	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/20/20 08:19	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/20/20 08:19	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/20/20 08:19	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 08:19	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/20/20 08:19	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 08:19	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 08:19	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 08:19	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/20/20 08:19	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/20/20 08:19	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/20/20 08:19	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/20/20 08:19	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/20/20 08:19	1
2-Hexanone	ND		25	3.1	ug/L			10/20/20 08:19	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/20/20 08:19	1
Methylene bromide	ND		5.0	0.59	ug/L			10/20/20 08:19	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/20/20 08:19	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/20/20 08:19	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/20/20 08:19	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/20/20 08:19	1
Naphthalene	ND		1.0	1.0	ug/L			10/20/20 08:19	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/20/20 08:19	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/20/20 08:19	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/20/20 08:19	1
o-Xylene	ND		5.0	0.60	ug/L			10/20/20 08:19	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/20/20 08:19	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194217-1

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

Lab Sample ID: MB 400-507394/4

Matrix: Water

Analysis Batch: 507394

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			10/20/20 08:19	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/20/20 08:19	1
Styrene	ND		1.0	1.0	ug/L			10/20/20 08:19	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/20/20 08:19	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/20/20 08:19	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/20/20 08:19	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/20/20 08:19	1
Toluene	ND		1.0	0.41	ug/L			10/20/20 08:19	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/20/20 08:19	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/20/20 08:19	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/20/20 08:19	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/20/20 08:19	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/20/20 08:19	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/20/20 08:19	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/20/20 08:19	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/20/20 08:19	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/20/20 08:19	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/20/20 08:19	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/20/20 08:19	1
Vinyl acetate	ND		25	2.0	ug/L			10/20/20 08:19	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/20/20 08:19	1
Xylenes, Total	ND		10	1.6	ug/L			10/20/20 08:19	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		78 - 118		10/20/20 08:19	1
Dibromofluoromethane	95		81 - 121		10/20/20 08:19	1
Toluene-d8 (Surr)	106		80 - 120		10/20/20 08:19	1

Lab Sample ID: LCS 400-507394/1002

Matrix: Water

Analysis Batch: 507394

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Acetone	200	253		ug/L		126	43 - 160
Acrolein	500	505		ug/L		101	38 - 160
Acrylonitrile	500	499		ug/L		100	64 - 142
Benzene	50.0	51.0		ug/L		102	70 - 130
Bromobenzene	50.0	52.7		ug/L		105	70 - 132
Bromoform	50.0	48.9		ug/L		98	70 - 130
Bromochloromethane	50.0	50.9		ug/L		102	67 - 133
Bromodichloromethane	50.0	51.2		ug/L		102	57 - 140
Bromomethane	50.0	55.9		ug/L		112	10 - 160
2-Butanone (MEK)	200	242		ug/L		121	61 - 145
Carbon disulfide	50.0	46.1		ug/L		92	61 - 137
Carbon tetrachloride	50.0	44.3		ug/L		89	61 - 137
Chlorobenzene	50.0	57.2		ug/L		114	70 - 130
Dibromochloromethane	50.0	50.0		ug/L		100	67 - 135
Chloroethane	50.0	57.3		ug/L		115	55 - 141

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194217-1

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

Lab Sample ID: LCS 400-507394/1002

Matrix: Water

Analysis Batch: 507394

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	16.1		ug/L		32		10 - 160
Chloroform	50.0	49.5		ug/L		99		69 - 130
1-Chlorohexane	50.0	61.8		ug/L		124		69 - 130
Chloromethane	50.0	45.2		ug/L		90		58 - 137
cis-1,2-Dichloroethene	50.0	51.0		ug/L		102		68 - 130
cis-1,3-Dichloropropene	50.0	55.9		ug/L		112		69 - 132
1,2-Dichlorobenzene	50.0	54.7		ug/L		109		67 - 130
1,3-Dichlorobenzene	50.0	57.9		ug/L		116		70 - 130
1,4-Dichlorobenzene	50.0	57.5		ug/L		115		70 - 130
Dichlorodifluoromethane	50.0	41.5		ug/L		83		41 - 146
1,1-Dichloroethane	50.0	50.8		ug/L		102		70 - 130
1,2-Dichloroethane	50.0	48.2		ug/L		96		69 - 130
1,1-Dichloroethene	50.0	47.0		ug/L		94		63 - 134
1,2-Dichloropropane	50.0	51.9		ug/L		104		70 - 130
1,3-Dichloropropane	50.0	61.5		ug/L		123		70 - 130
2,2-Dichloropropane	50.0	48.5		ug/L		97		52 - 135
1,1-Dichloropropene	50.0	52.1		ug/L		104		70 - 130
Ethylbenzene	50.0	57.7		ug/L		115		70 - 130
Ethyl methacrylate	50.0	62.0		ug/L		124		68 - 130
Hexachlorobutadiene	50.0	51.2		ug/L		102		53 - 140
2-Hexanone	200	258		ug/L		129		65 - 137
Isopropylbenzene	50.0	58.6		ug/L		117		70 - 130
Methylene bromide	50.0	48.3		ug/L		97		70 - 130
Methylene Chloride	50.0	50.6		ug/L		101		66 - 135
4-Methyl-2-pentanone (MIBK)	200	230		ug/L		115		69 - 138
Methyl tert-butyl ether	50.0	54.5		ug/L		109		66 - 130
m-Xylene & p-Xylene	50.0	56.0		ug/L		112		70 - 130
Naphthalene	50.0	54.3		ug/L		109		47 - 149
n-Butylbenzene	50.0	73.8 *		ug/L		148		67 - 130
N-Propylbenzene	50.0	60.0		ug/L		120		70 - 130
o-Chlorotoluene	50.0	60.1		ug/L		120		70 - 130
o-Xylene	50.0	55.6		ug/L		111		70 - 130
p-Chlorotoluene	50.0	59.2		ug/L		118		70 - 130
p-Isopropyltoluene	50.0	66.2 *		ug/L		132		65 - 130
sec-Butylbenzene	50.0	62.2		ug/L		124		66 - 130
Styrene	50.0	55.5		ug/L		111		70 - 130
tert-Butylbenzene	50.0	57.6		ug/L		115		64 - 139
1,1,1,2-Tetrachloroethane	50.0	53.6		ug/L		107		67 - 131
1,1,2,2-Tetrachloroethane	50.0	61.1		ug/L		122		70 - 131
Tetrachloroethene	50.0	50.3		ug/L		101		65 - 130
Toluene	50.0	55.8		ug/L		112		70 - 130
trans-1,2-Dichloroethene	50.0	48.9		ug/L		98		70 - 130
trans-1,3-Dichloropropene	50.0	60.0		ug/L		120		63 - 130
1,2,3-Trichlorobenzene	50.0	49.1		ug/L		98		60 - 138
1,2,4-Trichlorobenzene	50.0	51.8		ug/L		104		60 - 140
1,1,1-Trichloroethane	50.0	45.9		ug/L		92		68 - 130
1,1,2-Trichloroethane	50.0	58.1		ug/L		116		70 - 130
Trichloroethene	50.0	48.4		ug/L		97		70 - 130
Trichlorofluoromethane	50.0	48.4		ug/L		97		65 - 138

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194217-1

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

Lab Sample ID: LCS 400-507394/1002

Matrix: Water

Analysis Batch: 507394

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

Analyte	Spike Added	LCS			%Rec.	Limits
		Result	Qualifier	Unit		
1,2,3-Trichloropropane	50.0	60.0		ug/L	120	70 - 130
1,2,4-Trimethylbenzene	50.0	57.9		ug/L	116	70 - 130
1,3,5-Trimethylbenzene	50.0	57.1		ug/L	114	69 - 130
Vinyl acetate	100	128		ug/L	128	26 - 160
Vinyl chloride	50.0	51.8		ug/L	104	59 - 136
Xylenes, Total	100	112		ug/L	112	70 - 130
Surrogate	%Recovery	LCS	LCS	Limits		
		%Recovery	Qualifier			
4-Bromofluorobenzene	103			78 - 118		
Dibromofluoromethane	96			81 - 121		
Toluene-d8 (Surr)	110			80 - 120		

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

Lab Sample ID: MB 400-506479/1-A

Matrix: Water

Analysis Batch: 506784

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
							10/12/20 14:35	10/14/20 19:05	
Aniline	ND		10	3.8	ug/L				1
Benzenethiol	ND		10	1.7	ug/L				1
Benzoic acid	ND		30	7.3	ug/L				1
Benzyl alcohol	ND		10	2.0	ug/L				1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L				1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L				1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L				1
Bis(2-ethylhexyl) phthalate	5.01	J	10	5.0	ug/L				1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L				1
Butyl benzyl phthalate	ND		10	0.19	ug/L				1
4-Chloroaniline	ND		10	3.4	ug/L				1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L				1
2-Chloronaphthalene	ND		10	0.14	ug/L				1
2-Chlorophenol	ND		10	2.2	ug/L				1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L				1
Dibenzo[a,h]acridine	ND		10	1.0	ug/L				1
Dibenzofuran	ND		10	0.17	ug/L				1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L				1
2,4-Dichlorophenol	ND		10	3.0	ug/L				1
Diethyl phthalate	ND		10	0.24	ug/L				1
2,4-Dimethylphenol	ND		10	3.5	ug/L				1
Dimethyl phthalate	ND		10	0.17	ug/L				1
Di-n-butyl phthalate	ND		10	2.7	ug/L				1
2,4-Dinitrophenol	ND		30	3.4	ug/L				1
2,4-Dinitrotoluene	ND		10	1.9	ug/L				1
2,6-Dinitrotoluene	ND		10	1.9	ug/L				1
Di-n-octyl phthalate	ND		10	0.17	ug/L				1
1,4-Dioxane	ND		10	1.0	ug/L				1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L				1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194217-1

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

Lab Sample ID: MB 400-506479/1-A

Matrix: Water

Analysis Batch: 506784

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene	ND		10	0.17	ug/L		10/12/20 14:35	10/14/20 19:05	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/12/20 14:35	10/14/20 19:05	1
Hexachloroethane	ND		10	4.2	ug/L		10/12/20 14:35	10/14/20 19:05	1
Indene	ND		10	1.0	ug/L		10/12/20 14:35	10/14/20 19:05	1
Isophorone	ND		10	0.14	ug/L		10/12/20 14:35	10/14/20 19:05	1
2-Methylphenol	ND		10	1.8	ug/L		10/12/20 14:35	10/14/20 19:05	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/12/20 14:35	10/14/20 19:05	1
2-Nitroaniline	ND		10	2.2	ug/L		10/12/20 14:35	10/14/20 19:05	1
3-Nitroaniline	ND		10	1.8	ug/L		10/12/20 14:35	10/14/20 19:05	1
4-Nitroaniline	ND		10	1.5	ug/L		10/12/20 14:35	10/14/20 19:05	1
Nitrobenzene	ND		10	0.13	ug/L		10/12/20 14:35	10/14/20 19:05	1
2-Nitrophenol	ND		10	5.2	ug/L		10/12/20 14:35	10/14/20 19:05	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/12/20 14:35	10/14/20 19:05	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/12/20 14:35	10/14/20 19:05	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/12/20 14:35	10/14/20 19:05	1
Pentachlorophenol	ND		20	1.4	ug/L		10/12/20 14:35	10/14/20 19:05	1
Phenol	ND		10	2.6	ug/L		10/12/20 14:35	10/14/20 19:05	1
Pyridine	ND		10	3.2	ug/L		10/12/20 14:35	10/14/20 19:05	1
Quinoline	ND		10	4.5	ug/L		10/12/20 14:35	10/14/20 19:05	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/12/20 14:35	10/14/20 19:05	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/12/20 14:35	10/14/20 19:05	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		46-124		10/12/20 14:35	10/14/20 19:05
2-Fluorophenol	34		13-113		10/12/20 14:35	10/14/20 19:05
Nitrobenzene-d5	76		36-126		10/12/20 14:35	10/14/20 19:05
Phenol-d5	67		17-127		10/12/20 14:35	10/14/20 19:05
Terphenyl-d14	103		44-149		10/12/20 14:35	10/14/20 19:05
2,4,6-Tribromophenol	57		26-150		10/12/20 14:35	10/14/20 19:05

Lab Sample ID: MB 400-506479/1-A

Matrix: Water

Analysis Batch: 506928

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/12/20 14:35	10/15/20 13:49	1

Lab Sample ID: MB 400-506479/1-A

Matrix: Water

Analysis Batch: 507157

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		10	2.1	ug/L		10/12/20 14:35	10/16/20 20:17	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194217-1

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

Lab Sample ID: LCS 400-506479/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 506784

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Aniline	120	90.9		ug/L	76	21 - 120	
Benzoic acid	466	376		ug/L	81	10 - 144	
Benzyl alcohol	120	104		ug/L	87	28 - 120	
Bis(2-chloroethoxy)methane	120	86.7		ug/L	72	47 - 120	
Bis(2-chloroethyl)ether	120	89.4		ug/L	74	44 - 120	
bis (2-chloroisopropyl) ether	120	91.2		ug/L	76	33 - 121	
Bis(2-ethylhexyl) phthalate	120	101		ug/L	84	52 - 147	
4-Bromophenyl phenyl ether	120	105		ug/L	87	54 - 122	
Butyl benzyl phthalate	120	114		ug/L	96	54 - 133	
4-Chloroaniline	120	73.7		ug/L	61	26 - 120	
4-Chloro-3-methylphenol	120	108		ug/L	90	48 - 131	
2-Chloronaphthalene	120	93.1		ug/L	78	52 - 121	
2-Chlorophénol	120	82.4		ug/L	69	40 - 120	
4-Chlorophenyl phenyl ether	120	101		ug/L	84	56 - 125	
Dibenz[a,h]acridine	120	104		ug/L	87	31 - 150	
Dibenzofuran	120	97.2		ug/L	81	56 - 122	
3,3'-Dichlorobenzidine	160	193		ug/L	120	36 - 132	
2,4-Dichlorophenol	120	94.1		ug/L	78	49 - 120	
Diethyl phthalate	120	103		ug/L	86	50 - 137	
2,4-Dimethylphenol	120	87.9		ug/L	73	48 - 120	
Dimethyl phthalate	120	101		ug/L	84	57 - 124	
Di-n-butyl phthalate	120	103		ug/L	86	58 - 126	
4,6-Dinitro-ortho-cresol	240	208		ug/L	87	23 - 148	
2,4-Dinitropheno	240	248		ug/L	103	10 - 150	
2,4-Dinitrotoluene	120	107		ug/L	89	54 - 142	
2,6-Dinitrotoluene	120	101		ug/L	84	55 - 130	
Di-n-octyl phthalate	120	115		ug/L	95	57 - 138	
1,4-Dioxane	120	67.1		ug/L	56	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	120	97.6		ug/L	81	45 - 124	
Hexachlorobenzene	120	108		ug/L	90	52 - 129	
Hexachlorocyclopentadiene	120	70.0		ug/L	58	10 - 134	
Hexachloroethane	120	77.5		ug/L	65	20 - 120	
Indene	120	102		ug/L	85	49 - 120	
Isophorone	120	95.5		ug/L	80	48 - 120	
2-Methylphenol	120	98.1		ug/L	80	46 - 124	
3 & 4 Methylphenol	120	90.6		ug/L	75	45 - 120	
2-Nitroaniline	120	95.0		ug/L	79	51 - 145	
3-Nitroaniline	120	99.8		ug/L	83	37 - 127	
4-Nitroaniline	120	116		ug/L	96	36 - 137	
Nitrobenzene	120	87.6		ug/L	73	45 - 120	
2-Nitrophenol	120	79.5		ug/L	66	40 - 124	
4-Nitrophenol	240	187		ug/L	78	23 - 146	
N-Nitrosodimethylamine	120	104		ug/L	87	29 - 137	
N-Nitrosodi-n-propylamine	120	94.8		ug/L	79	45 - 120	
N-Nitrosodiphenylamine	119	103		ug/L	86	54 - 120	
Pentachlorophenol	240	220		ug/L	92	31 - 130	
Phenol	120	83.7		ug/L	70	11 - 120	
Pyridine	240	142		ug/L	59	16 - 120	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194217-1

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

Lab Sample ID: LCS 400-506479/2-A

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506479

%Rec.

Limits

Matrix: Water
Analysis Batch: 506784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Quinoline	120	111		ug/L		93	49 - 130
2,4,5-Trichlorophenol	120	102		ug/L		85	51 - 136
2,4,6-Trichlorophenol	120	99.8		ug/L		83	50 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	73		46 - 124
2-Fluorophenol	49		13 - 113
Nitrobenzene-d5	80		36 - 126
Phenol-d5	73		17 - 127
Terphenyl-d14	98		44 - 149
2,4,6-Tribromophenol	92		26 - 150

Lab Sample ID: LCS 400-506479/3-A

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506479

Matrix: Water
Analysis Batch: 506784

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene-thiol	120	6.31	J *	ug/L		5	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	72		46 - 124
2-Fluorophenol	48		13 - 113
Nitrobenzene-d5	72		36 - 126
Phenol-d5	71		17 - 127
Terphenyl-d14	98		44 - 149
2,4,6-Tribromophenol	62		26 - 150

Lab Sample ID: LCSD 400-506479/4-A

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 506479

Matrix: Water
Analysis Batch: 506784

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD
Benzene-thiol	120	3.52	J * 11	ug/L		3	10 - 120

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	76		46 - 124
2-Fluorophenol	14		13 - 113
Nitrobenzene-d5	73		36 - 126
Phenol-d5	10 X		17 - 127
Terphenyl-d14	105		44 - 149
2,4,6-Tribromophenol	39		26 - 150

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194217-1

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

Lab Sample ID: MB 400-506479/1-A

Matrix: Water

Analysis Batch: 507154

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		10/12/20 14:35	10/16/20 22:49	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/12/20 14:35	10/16/20 22:49	1
Anthracene	ND		0.20	0.032	ug/L		10/12/20 14:35	10/16/20 22:49	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		10/12/20 14:35	10/16/20 22:49	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		10/12/20 14:35	10/16/20 22:49	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		10/12/20 14:35	10/16/20 22:49	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		10/12/20 14:35	10/16/20 22:49	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		10/12/20 14:35	10/16/20 22:49	1
Chrysene	ND		0.20	0.074	ug/L		10/12/20 14:35	10/16/20 22:49	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		10/12/20 14:35	10/16/20 22:49	1
Fluoranthene	ND		0.20	0.068	ug/L		10/12/20 14:35	10/16/20 22:49	1
Fluorene	ND		0.20	0.11	ug/L		10/12/20 14:35	10/16/20 22:49	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		10/12/20 14:35	10/16/20 22:49	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		10/12/20 14:35	10/16/20 22:49	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		10/12/20 14:35	10/16/20 22:49	1
Phenanthrene	ND		0.20	0.036	ug/L		10/12/20 14:35	10/16/20 22:49	1
Pyrene	ND		0.20	0.040	ug/L		10/12/20 14:35	10/16/20 22:49	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		15 - 122				10/12/20 14:35	10/16/20 22:49	1
Nitrobenzene-d5	85		19 - 130				10/12/20 14:35	10/16/20 22:49	1
Terphenyl-d14	103		33 - 138				10/12/20 14:35	10/16/20 22:49	1

Lab Sample ID: LCS 400-506479/2-A

Matrix: Water

Analysis Batch: 507154

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506479

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Acenaphthene	120	100		ug/L		84	41 - 120
Acenaphthylene	120	102		ug/L		85	44 - 120
Anthracene	120	116		ug/L		96	49 - 120
Benzo[a]anthracene	120	118		ug/L		98	61 - 135
Benzo[a]pyrene	120	111		ug/L		92	52 - 120
Benzo[b]fluoranthene	120	106		ug/L		88	53 - 134
Benzo[g,h,i]perylene	120	99.1		ug/L		83	47 - 133
Benzo[k]fluoranthene	120	105		ug/L		87	57 - 134
Chrysene	120	116		ug/L		97	55 - 122
Dibenz(a,h)anthracene	120	108		ug/L		90	48 - 146
Fluoranthene	120	110		ug/L		92	54 - 128
Fluorene	120	109		ug/L		91	45 - 125
Indeno[1,2,3-cd]pyrene	120	109		ug/L		91	43 - 142
1-Methylnaphthalene	120	96.0		ug/L		80	41 - 120
2-Methylnaphthalene	120	94.0		ug/L		78	32 - 124
Phenanthrene	120	109		ug/L		91	48 - 120
Pyrene	120	113		ug/L		95	48 - 132
Surrogate	%Recovery	Qualifer	Limits				
2-Fluorobiphenyl	86		15 - 122				

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194217-1

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

Lab Sample ID: LCS 400-506479/2-A
Matrix: Water
Analysis Batch: 507154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506479

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
Nitrobenzene-d5	90		19 - 130
Terphenyl-d14	109		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-506393/1-A
Matrix: Water
Analysis Batch: 506471

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506393

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Surrogate	%Recovery	Qualifier	Limits						
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/12/20 09:23	10/12/20 20:53	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/12/20 09:23	10/12/20 20:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		51 - 149				10/12/20 09:23	10/12/20 20:53	1

Lab Sample ID: LCS 400-506393/2-A
Matrix: Water
Analysis Batch: 506471

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506393

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
Surrogate	Added	Result	Qualifier	Unit			
1,2-Dibromo-3-Chloropropane	0.101	0.110		ug/L		110	60 - 140
1,2-Dibromoethane	0.101	0.106		ug/L		105	60 - 140
Surrogate	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene	98		51 - 149				

Lab Sample ID: LCSD 400-506393/3-A
Matrix: Water
Analysis Batch: 506471

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 506393

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	RPD
Surrogate	Added	Result	Qualifier	Unit			
1,2-Dibromo-3-Chloropropane	0.101	0.115		ug/L		115	60 - 140
1,2-Dibromoethane	0.101	0.116		ug/L		115	60 - 140
Surrogate	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene	101		51 - 149				

Eurofins TestAmerica, Pensacola



AECOM

Shell Oil Products US Chain Of Custody Record

Study Seal: 1339580, 1339581, 1339582, 1339583, 1339584, 1339585 / 1-9, 3-0, 0-08c
1R 8-

10/30/2020 (Rev. 1)

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194217-1

Login Number: 194217

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Whitley, Adrian

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	1339585, 1339581, 1339583
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	1.9, 3.0, 0.0°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: 400-194217-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-20
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LA000307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194266-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/10/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-100920-8260	TB-ROX-100920-8011
MW1-ROX-100920	MW11-ROX-100920
MW9-ROX-100920	MW10-ROX-100920

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 bis(2-ethylhexyl) phthalate was detected in the method blank. The VOC LCS recovery for n-butylbenzene, and the SVOC LCS/LCSD recoveries and RPD for benzenethiol, were outside evaluation criteria. The SVOC surrogate recovery for phenol-d₅ was outside criteria in the SVOC LCSD. MS/MSD recoveries for 2-chloroethyl vinyl ether and 1,4-dioxane were outside evaluation criteria in sample MW1-ROX-100920. The continuing calibration verification for 4-nitrophenol, and the initial calibration verification for 1,4-dioxane were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

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

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

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

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-506479/1-A	SVOCs	bis(2-Ethylhexyl) phthalate	5.01 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
MW1-ROX-100920	SVOCs	bis(2-Ethylhexyl) phthalate	-	U
MW11-ROX-100920	SVOCs	bis(2-Ethylhexyl) phthalate	-	U
MW9-ROX-100920	SVOCs	bis(2-Ethylhexyl) phthalate	-	U
MW10-ROX-100920	SVOCs	bis(2-Ethylhexyl) phthalate	-	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS 400-507573/1002	VOCs	n-Butylbenzene	140	NA	67-130
LCS/LCSD 400-506479/3-A/4-A	SVOCs	Benzenethiol	5/3	57	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; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW1-ROX-100920	SVOCs	Benzenethiol	UJ
MW11-ROX-100920	SVOCs	Benzenethiol	UJ
MW9-ROX-100920	SVOCs	Benzenethiol	UJ
MW10-ROX-100920	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
LCSD 400-506479/4-A	SVOCs	Phenol-d ₅	10	17-127

LCSDs 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 MW1-ROX-100920 was spiked and analyzed for VOCs, SVOCS, PAHs, and VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW1-ROX-100920	VOCs	2-Chloroethyl vinyl ether	7/0	NC	10-150/50
MW1-ROX-100920	SVOCS	1,4-Dioxane	33/40	22	50-150/40

Analytical data that required qualification based on MS/MSD data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
MW1-ROX-100920	VOCs	2-Chloroethyl vinyl ether	UJ
MW1-ROX-100920	SVOCS	1,4-Dioxane	UJ

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verification for 4-nitrophenol, and the initial calibration verification for 1,4-dioxane were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW1-ROX-100920	SVOCS	4-Nitrophenol	UJ

Sample ID	Parameter	Analyte	Qualification
MW11-ROX-100920	SVOCs	4-Nitrophenol	UJ
MW11-ROX-100920	SVOCs	1,4-Dioxane	UJ
MW9-ROX-100920	SVOCs	4-Nitrophenol	UJ
MW9-ROX-100920	SVOCs	1,4-Dioxane	UJ
MW10-ROX-100920	SVOCs	4-Nitrophenol	UJ
MW10-ROX-100920	SVOCs	1,4-Dioxane	UJ



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 400-194266-1
Client Project/Site: ROXANA QUARTERLY GW

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

Attn: Elizabeth Kunkel

Authorized for release by:
10/23/2020 6:38:38 PM

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

LINKS

Review your project
results through

TotalAccess

Have a Question?

Ask
The
Expert

Visit us at:

www.eurofinsus.com/Env

Reviewed 11/10/2020
MR

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

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

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

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	8
Definitions	27
Surrogate Summary	28
Method Summary	30
Chronicle	31
QC Association	35
QC Sample Results	37
Chain of Custody	54
Receipt Checklists	55
Certification Summary	56

Case Narrative

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

Job ID: 400-194266-1

Job ID: 400-194266-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-194266-1

Comments

No additional comments.

Receipt

The samples were received on 10/10/2020 9:31 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.5° C, 1.7° C and 2.3° C.

GC/MS VOA

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-507573 recovered outside control limits for the following analyte: n-Butylbenzene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-507573 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 400-507573 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-100920-8260 (400-194266-1), MW1-ROX-100920 (400-194266-3), MW11-ROX-100920 (400-194266-4), MW9-ROX-100920 (400-194266-5) and MW10-ROX-100920 (400-194266-6). 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 initial calibration verification (ICV) analyzed in batch 400-490802 was outside method criteria for the following analyte(s): 2-Chloroethyl vinyl ether. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

GC/MS Semi VOA

Method 8270D: The method blank for preparation batch 400-506479 and analytical batch 400-506784 contained Bis(2-ethylhexyl) phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-506479 and 400-506479 and analytical batch 400-506784 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 400-506479 and analytical batch 400-506784 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-506479 and analytical batch 400-506784 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 400-506784 recovered above the upper control limit for Benzenethiol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been 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

Case Narrative

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

Job ID: 400-194266-1

Job ID: 400-194266-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

outside limits: (LCSD 400-506479/4-A). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-507157 recovered outside acceptance criteria, low biased, for 4-Nitrophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The initial calibration verification (ICV) analyzed in batch 400-504644 was outside method criteria for the following analyte(s): 1,4-Dioxane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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 400-506666 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.

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: 400-194266-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194266-1	TB-ROX-100920-8260 ✓	Water	10/09/20 00:00	10/10/20 09:31	
400-194266-2	TB-ROX-100920-8011 ✓	Water	10/09/20 00:00	10/10/20 09:31	
400-194266-3	MW1-ROX-100920 ✓	Water	10/09/20 09:00	10/10/20 09:31	
400-194266-4	MW11-ROX-100920 ✓	Water	10/09/20 10:00	10/10/20 09:31	
400-194266-5	MW9-ROX-100920 ✓	Water	10/09/20 11:10	10/10/20 09:31	
400-194266-6	MW10-ROX-100920 ✓	Water	10/09/20 12:00	10/10/20 09:31	

Detection Summary

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

Job ID: 400-194266-1

Client Sample ID: TB-ROX-100920-8260

Lab Sample ID: 400-194266-1

No Detections.

Client Sample ID: TB-ROX-100920-8011

Lab Sample ID: 400-194266-2

No Detections.

Client Sample ID: MW1-ROX-100920

Lab Sample ID: 400-194266-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1.1		1.0	0.50	ug/L	1	8260B	Total/NA	
m-Xylene & p-Xylene	3.6	J	5.0	1.6	ug/L	1	8260B	Total/NA	
o-Xylene	1.7	J	5.0	0.60	ug/L	1	8260B	Total/NA	
Toluene	1.4		1.0	0.41	ug/L	1	8260B	Total/NA	
1,2,4-Trimethylbenzene	2.1		1.0	0.82	ug/L	1	8260B	Total/NA	
Xylenes, Total	5.3	J	10	1.6	ug/L	1	8260B	Total/NA	
2-Methylnaphthalene	0.075	J	0.19	0.057	ug/L	1	8270D LL	Total/NA	
Bis(2-ethylhexyl) phthalate	5.6	J B	4	9.5	4.8	ug/L	1	8270D	Total/NA
Diethyl phthalate	0.89	J	9.5	0.23	ug/L	1	8270D	Total/NA	
Di-n-butyl phthalate	3.4	J	9.5	2.6	ug/L	1	8270D	Total/NA	

Client Sample ID: MW11-ROX-100920

Lab Sample ID: 400-194266-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.82	J	1.0	0.50	ug/L	1	8260B	Total/NA	
m-Xylene & p-Xylene	2.9	J	5.0	1.6	ug/L	1	8260B	Total/NA	
o-Xylene	1.4	J	5.0	0.60	ug/L	1	8260B	Total/NA	
Toluene	0.93	J	1.0	0.41	ug/L	1	8260B	Total/NA	
1,2,4-Trimethylbenzene	2.2		1.0	0.82	ug/L	1	8260B	Total/NA	
1,3,5-Trimethylbenzene	0.58	J	1.0	0.56	ug/L	1	8260B	Total/NA	
Xylenes, Total	4.3	J	10	1.6	ug/L	1	8260B	Total/NA	
1-Methylnaphthalene	0.078	J	0.19	0.070	ug/L	1	8270D LL	Total/NA	
2-Methylnaphthalene	0.14	J	0.19	0.057	ug/L	1	8270D LL	Total/NA	
Bis(2-ethylhexyl) phthalate	5.4	J B	4	9.4	4.7	ug/L	1	8270D	Total/NA
Di-n-butyl phthalate	2.8	J	9.4	2.5	ug/L	1	8270D	Total/NA	

Client Sample ID: MW9-ROX-100920

Lab Sample ID: 400-194266-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Xylene	0.75	J	5.0	0.60	ug/L	1	8260B	Total/NA	
Toluene	0.60	J	1.0	0.41	ug/L	1	8260B	Total/NA	
1,2,4-Trimethylbenzene	1.1		1.0	0.82	ug/L	1	8260B	Total/NA	
Xylenes, Total	2.2	J	10	1.6	ug/L	1	8260B	Total/NA	
1-Methylnaphthalene	0.077	J	0.19	0.071	ug/L	1	8270D LL	Total/NA	
2-Methylnaphthalene	0.10	J	0.19	0.057	ug/L	1	8270D LL	Total/NA	
Bis(2-ethylhexyl) phthalate	6.2	J B	4	9.6	4.8	ug/L	1	8270D	Total/NA
Diethyl phthalate	0.62	J	9.6	0.23	ug/L	1	8270D	Total/NA	
Di-n-butyl phthalate	3.2	J	9.6	2.6	ug/L	1	8270D	Total/NA	

Client Sample ID: MW10-ROX-100920

Lab Sample ID: 400-194266-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	12	J	25	10	ug/L	1	8260B	Total/NA	
o-Xylene	0.70	J	5.0	0.60	ug/L	1	8260B	Total/NA	
Toluene	0.51	J	1.0	0.41	ug/L	1	8260B	Total/NA	
1,2,4-Trimethylbenzene	1.1		1.0	0.82	ug/L	1	8260B	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

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

Job ID: 400-194266-1

Client Sample ID: MW10-ROX-100920 (Continued)

Lab Sample ID: 400-194266-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Xylenes, Total	2.2	J	10	1.6	ug/L	1	8260B	Total/NA	
Bis(2-ethylhexyl) phthalate	6.3	J B	4	9.5	4.7 ug/L	1	8270D	Total/NA	
Diethyl phthalate	0.24	J	9.5	0.23	ug/L	1	8270D	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: TB-ROX-100920-8260
Date Collected: 10/09/20 00:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 15:54	1
Acrolein	ND		20	10	ug/L			10/21/20 15:54	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 15:54	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 15:54	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 15:54	1
Bromoform	ND		1.0	0.52	ug/L			10/21/20 15:54	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Bromoform	ND		5.0	0.71	ug/L			10/21/20 15:54	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 15:54	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 15:54	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 15:54	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 15:54	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 15:54	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 15:54	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 15:54	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 15:54	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 15:54	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 15:54	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 15:54	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 15:54	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 15:54	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 15:54	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 15:54	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 15:54	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 15:54	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 15:54	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 15:54	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 15:54	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 15:54	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 15:54	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 15:54	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 15:54	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 15:54	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 15:54	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/21/20 15:54	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 15:54	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 15:54	1
n-Butylbenzene	ND	*	1.0	0.76	ug/L			10/21/20 15:54	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 15:54	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 15:54	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/20 15:54	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 15:54	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 15:54	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: TB-ROX-100920-8260
Date Collected: 10/09/20 00:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 15:54	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 15:54	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 15:54	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 15:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 15:54	1
Toluene	ND		1.0	0.41	ug/L			10/21/20 15:54	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/21/20 15:54	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 15:54	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 15:54	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 15:54	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 15:54	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 15:54	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 15:54	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 15:54	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 15:54	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 15:54	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 15:54	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 15:54	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/20 15:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromoanisole	98		78 - 118				10/21/20 15:54	1	
Dibromofluoromethane	94		81 - 121				10/21/20 15:54	1	
Toluene-d8 (Surrogate)	106		80 - 120				10/21/20 15:54	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: TB-ROX-100920-8011

Lab Sample ID: 400-194266-2

Date Collected: 10/09/20 00:00

Matrix: Water

Date Received: 10/10/20 09:31

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.032	0.0059	ug/L		10/13/20 11:03	10/13/20 21:51	1
1,2-Dibromoethane	ND		0.021	0.0053	ug/L		10/13/20 11:03	10/13/20 21:51	1
Surrogate									
4-Bromofluorobenzene	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	111		51 - 149				10/13/20 11:03	10/13/20 21:51	1

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW1-ROX-100920

Date Collected: 10/09/20 09:00

Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-3

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 11:44	1
Acrolein	ND		20	10	ug/L			10/21/20 11:44	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 11:44	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 11:44	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 11:44	1
Bromoform	ND		1.0	0.52	ug/L			10/21/20 11:44	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/21/20 11:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/20 11:44	1
Bromoform	ND		5.0	0.71	ug/L			10/21/20 11:44	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 11:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 11:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 11:44	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 11:44	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 11:44	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 11:44	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 11:44	1
2-Chloroethyl vinyl ether	ND	F1 WJ	5.0	2.0	ug/L			10/21/20 11:44	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 11:44	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 11:44	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 11:44	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 11:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 11:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 11:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 11:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 11:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 11:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 11:44	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 11:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 11:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 11:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 11:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 11:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 11:44	1
Ethylbenzene	1.1		1.0	0.50	ug/L			10/21/20 11:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 11:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 11:44	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 11:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 11:44	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 11:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 11:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 11:44	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/21/20 11:44	1
m-Xylene & p-Xylene	3.6 J		5.0	1.6	ug/L			10/21/20 11:44	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 11:44	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/21/20 11:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 11:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 11:44	1
o-Xylene	1.7 J		5.0	0.60	ug/L			10/21/20 11:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 11:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 11:44	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW1-ROX-100920
Date Collected: 10/09/20 09:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 11:44	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 11:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 11:44	1
1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 11:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 11:44	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 11:44	1
Toluene	1.4		1.0	0.41	ug/L			10/21/20 11:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 11:44	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 11:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 11:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 11:44	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 11:44	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 11:44	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 11:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 11:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 11:44	1
1,2,4-Trimethylbenzene	2.1		1.0	0.82	ug/L			10/21/20 11:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 11:44	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 11:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 11:44	1
Xylenes, Total	5.3	J	10	1.6	ug/L			10/21/20 11:44	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118					10/21/20 11:44	1
Dibromofluoromethane	94		81 - 121					10/21/20 11:44	1
Toluene-d8 (Surr)	108		80 - 120					10/21/20 11:44	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L			10/12/20 14:35	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/12/20 14:35	1
Anthracene	ND		0.19	0.030	ug/L			10/12/20 14:35	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/12/20 14:35	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/12/20 14:35	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/12/20 14:35	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/12/20 14:35	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L			10/12/20 14:35	1
Chrysene	ND		0.19	0.070	ug/L			10/12/20 14:35	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L			10/12/20 14:35	1
Fluoranthene	ND		0.19	0.065	ug/L			10/12/20 14:35	1
Fluorene	ND		0.19	0.10	ug/L			10/12/20 14:35	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/12/20 14:35	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L			10/12/20 14:35	1
2-Methylnaphthalene	0.075	J	0.19	0.057	ug/L			10/12/20 14:35	1
Phenanthrene	ND		0.19	0.034	ug/L			10/12/20 14:35	1
Pyrene	ND		0.19	0.038	ug/L			10/12/20 14:35	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	94		15 - 122					10/12/20 14:35	1
Nitrobenzene-d5	92		19 - 130					10/12/20 14:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW1-ROX-100920
Date Collected: 10/09/20 09:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	111		33 - 138		10/12/20 14:35	10/16/20 23:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L				1
Benzenethiol	ND	**1 UJ	9.5	1.6	ug/L	10/12/20 14:35	10/14/20 21:10		1
Benzoic acid	ND		29	6.9	ug/L	10/12/20 14:35	10/14/20 21:10		1
Benzyl alcohol	ND		9.5	1.9	ug/L	10/12/20 14:35	10/14/20 21:10		1
Bis(2-chloroethyl)methane	ND		9.5	0.15	ug/L	10/12/20 14:35	10/14/20 21:10		1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L	10/12/20 14:35	10/14/20 21:10		1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L	10/12/20 14:35	10/14/20 21:10		1
Bis(2-ethylhexyl) phthalate	5.6 J B U		9.5	4.8	ug/L	10/12/20 14:35	10/14/20 21:10		1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L	10/12/20 14:35	10/14/20 21:10		1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L	10/12/20 14:35	10/14/20 21:10		1
4-Chloroaniline	ND		9.5	3.2	ug/L	10/12/20 14:35	10/14/20 21:10		1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L	10/12/20 14:35	10/14/20 21:10		1
2-Chloronaphthalene	ND F1		9.5	0.13	ug/L	10/12/20 14:35	10/14/20 21:10		1
2-Chlorophenol	ND		9.5	2.1	ug/L	10/12/20 14:35	10/14/20 21:10		1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L	10/12/20 14:35	10/14/20 21:10		1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L	10/12/20 14:35	10/14/20 21:10		1
Dibenzofuran	ND		9.5	0.16	ug/L	10/12/20 14:35	10/14/20 21:10		1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L	10/12/20 14:35	10/14/20 21:10		1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L	10/12/20 14:35	10/14/20 21:10		1
Diethyl phthalate	0.89 J		9.5	0.23	ug/L	10/12/20 14:35	10/14/20 21:10		1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L	10/12/20 14:35	10/14/20 21:10		1
Dimethyl phthalate	ND		9.5	0.16	ug/L	10/12/20 14:35	10/14/20 21:10		1
Di-n-butyl phthalate	3.4 J		9.5	2.6	ug/L	10/12/20 14:35	10/14/20 21:10		1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L	10/12/20 14:35	10/15/20 14:16		1
2,4-Dinitrophenol	ND		29	3.2	ug/L	10/12/20 14:35	10/14/20 21:10		1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L	10/12/20 14:35	10/14/20 21:10		1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L	10/12/20 14:35	10/14/20 21:10		1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L	10/12/20 14:35	10/14/20 21:10		1
1,4-Dioxane	ND F1 UJ		9.5	0.95	ug/L	10/12/20 14:35	10/14/20 21:10		1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L	10/12/20 14:35	10/14/20 21:10		1
Hexachlorobenzene	ND		9.5	0.16	ug/L	10/12/20 14:35	10/14/20 21:10		1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L	10/12/20 14:35	10/14/20 21:10		1
Hexachloroethane	ND		9.5	4.0	ug/L	10/12/20 14:35	10/14/20 21:10		1
Indene	ND		9.5	0.95	ug/L	10/12/20 14:35	10/14/20 21:10		1
Isophorone	ND		9.5	0.13	ug/L	10/12/20 14:35	10/14/20 21:10		1
2-Methylphenol	ND		9.5	1.7	ug/L	10/12/20 14:35	10/14/20 21:10		1
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/12/20 14:35	10/14/20 21:10		1
2-Nitroaniline	ND		9.5	2.1	ug/L	10/12/20 14:35	10/14/20 21:10		1
3-Nitroaniline	ND		9.5	1.7	ug/L	10/12/20 14:35	10/14/20 21:10		1
4-Nitroaniline	ND		9.5	1.4	ug/L	10/12/20 14:35	10/14/20 21:10		1
Nitrobenzene	ND		9.5	0.12	ug/L	10/12/20 14:35	10/14/20 21:10		1
2-Nitrophenol	ND		9.5	4.9	ug/L	10/12/20 14:35	10/14/20 21:10		1
4-Nitrophenol	ND UJ		9.5	2.0	ug/L	10/12/20 14:35	10/16/20 20:39		1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L	10/12/20 14:35	10/14/20 21:10		1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW1-ROX-100920
Date Collected: 10/09/20 09:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/12/20 14:35	10/14/20 21:10	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/12/20 14:35	10/14/20 21:10	1
Pentachlorophenol	ND		19	1.3	ug/L		10/12/20 14:35	10/14/20 21:10	1
Phenol	ND		9.5	2.5	ug/L		10/12/20 14:35	10/14/20 21:10	1
Pyridine	ND		9.5	3.0	ug/L		10/12/20 14:35	10/14/20 21:10	1
Quinoline	ND		9.5	4.3	ug/L		10/12/20 14:35	10/14/20 21:10	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/12/20 14:35	10/14/20 21:10	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/12/20 14:35	10/14/20 21:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		46 - 124				10/12/20 14:35	10/14/20 21:10	1
2-Fluorophenol	46		13 - 113				10/12/20 14:35	10/14/20 21:10	1
Nitrobenzene-d5	79		36 - 126				10/12/20 14:35	10/14/20 21:10	1
Phenol-d5	60		17 - 127				10/12/20 14:35	10/14/20 21:10	1
Terphenyl-d14	100		44 - 149				10/12/20 14:35	10/14/20 21:10	1
2,4,6-Tribromophenol	69		26 - 150				10/12/20 14:35	10/14/20 21:10	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.0053	ug/L		10/13/20 11:03	10/13/20 22:11	1
1,2-Dibromoethane	ND		0.019	0.0048	ug/L		10/13/20 11:03	10/13/20 22:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		51 - 149				10/13/20 11:03	10/13/20 22:11	1

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW11-ROX-100920

Lab Sample ID: 400-194266-4

Date Collected: 10/09/20 10:00

Matrix: Water

Date Received: 10/10/20 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 17:12	1
Acrolein	ND		20	10	ug/L			10/21/20 17:12	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 17:12	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 17:12	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 17:12	1
Bromoform	ND		1.0	0.52	ug/L			10/21/20 17:12	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/21/20 17:12	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/21/20 17:12	1
Bromoform	ND		5.0	0.71	ug/L			10/21/20 17:12	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 17:12	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 17:12	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 17:12	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 17:12	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 17:12	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 17:12	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 17:12	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 17:12	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 17:12	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 17:12	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 17:12	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 17:12	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 17:12	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 17:12	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 17:12	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 17:12	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 17:12	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 17:12	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 17:12	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 17:12	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 17:12	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 17:12	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 17:12	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 17:12	1
Ethylbenzene	0.82	J	1.0	0.50	ug/L			10/21/20 17:12	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 17:12	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 17:12	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 17:12	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 17:12	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 17:12	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 17:12	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 17:12	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/21/20 17:12	1
m-Xylene & p-Xylene	2.9	J	5.0	1.6	ug/L			10/21/20 17:12	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 17:12	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/21/20 17:12	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 17:12	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 17:12	1
o-Xylene	1.4	J	5.0	0.60	ug/L			10/21/20 17:12	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 17:12	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 17:12	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW11-ROX-100920

Lab Sample ID: 400-194266-4

Date Collected: 10/09/20 10:00

Matrix: Water

Date Received: 10/10/20 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 17:12	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 17:12	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 17:12	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 17:12	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 17:12	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 17:12	1
Toluene	0.93	J	1.0	0.41	ug/L			10/21/20 17:12	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/21/20 17:12	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 17:12	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 17:12	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 17:12	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 17:12	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 17:12	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 17:12	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 17:12	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 17:12	1
1,2,4-Trimethylbenzene	2.2		1.0	0.82	ug/L			10/21/20 17:12	1
1,3,5-Trimethylbenzene	0.58	J	1.0	0.56	ug/L			10/21/20 17:12	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 17:12	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 17:12	1
Xylenes, Total	4.3	J	10	1.6	ug/L			10/21/20 17:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		78 - 118					10/21/20 17:12	1
Dibromofluoromethane	97		81 - 121					10/21/20 17:12	1
Toluene-d8 (Surr)	105		80 - 120					10/21/20 17:12	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L			10/12/20 14:35	1
Acenaphthylene	ND		0.19	0.042	ug/L			10/12/20 14:35	1
Anthracene	ND		0.19	0.030	ug/L			10/12/20 14:35	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L			10/12/20 14:35	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/12/20 14:35	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/12/20 14:35	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/12/20 14:35	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L			10/12/20 14:35	1
Chrysene	ND		0.19	0.070	ug/L			10/12/20 14:35	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/12/20 14:35	1
Fluoranthene	ND		0.19	0.064	ug/L			10/12/20 14:35	1
Fluorene	ND		0.19	0.10	ug/L			10/12/20 14:35	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/12/20 14:35	1
1-Methylnaphthalene	0.078	J	0.19	0.070	ug/L			10/12/20 14:35	1
2-Methylnaphthalene	0.14	J	0.19	0.057	ug/L			10/12/20 14:35	1
Phenanthrene	ND		0.19	0.034	ug/L			10/12/20 14:35	1
Pyrene	ND		0.19	0.038	ug/L			10/12/20 14:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	97		15 - 122					10/12/20 14:35	1
Nitrobenzene-d5	90		19 - 130					10/12/20 14:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW11-ROX-100920
Date Collected: 10/09/20 10:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	112		33 - 138		10/12/20 14:35	10/17/20 00:17	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L				
Benzenethiol	ND	**1 US	9.4	1.6	ug/L	10/12/20 14:35	10/14/20 21:30		1
Benzoic acid	ND		28	6.9	ug/L	10/12/20 14:35	10/14/20 21:30		1
Benzyl alcohol	ND		9.4	1.9	ug/L	10/12/20 14:35	10/14/20 21:30		1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L	10/12/20 14:35	10/14/20 21:30		1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L	10/12/20 14:35	10/14/20 21:30		1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L	10/12/20 14:35	10/14/20 21:30		1
Bis(2-ethylhexyl) phthalate	5.4	JB U	9.4	4.7	ug/L	10/12/20 14:35	10/14/20 21:30		1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L	10/12/20 14:35	10/14/20 21:30		1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L	10/12/20 14:35	10/14/20 21:30		1
4-Chloroaniline	ND		9.4	3.2	ug/L	10/12/20 14:35	10/14/20 21:30		1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L	10/12/20 14:35	10/14/20 21:30		1
2-Chloronaphthalene	ND		9.4	0.13	ug/L	10/12/20 14:35	10/14/20 21:30		1
2-Chlorophenol	ND		9.4	2.1	ug/L	10/12/20 14:35	10/14/20 21:30		1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L	10/12/20 14:35	10/14/20 21:30		1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L	10/12/20 14:35	10/14/20 21:30		1
Dibenzofuran	ND		9.4	0.16	ug/L	10/12/20 14:35	10/14/20 21:30		1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L	10/12/20 14:35	10/14/20 21:30		1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L	10/12/20 14:35	10/14/20 21:30		1
Diethyl phthalate	ND		9.4	0.23	ug/L	10/12/20 14:35	10/14/20 21:30		1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L	10/12/20 14:35	10/14/20 21:30		1
Dimethyl phthalate	ND		9.4	0.16	ug/L	10/12/20 14:35	10/14/20 21:30		1
Di-n-butyl phthalate	2.8	J	9.4	2.5	ug/L	10/12/20 14:35	10/14/20 21:30		1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L	10/12/20 14:35	10/15/20 14:42		1
2,4-Dinitrophenol	ND		28	3.2	ug/L	10/12/20 14:35	10/14/20 21:30		1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L	10/12/20 14:35	10/14/20 21:30		1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L	10/12/20 14:35	10/14/20 21:30		1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L	10/12/20 14:35	10/14/20 21:30		1
1,4-Dioxane	ND	UJ	9.4	0.94	ug/L	10/12/20 14:35	10/14/20 21:30		1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L	10/12/20 14:35	10/14/20 21:30		1
Hexachlorobenzene	ND		9.4	0.16	ug/L	10/12/20 14:35	10/14/20 21:30		1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L	10/12/20 14:35	10/14/20 21:30		1
Hexachloroethane	ND		9.4	4.0	ug/L	10/12/20 14:35	10/14/20 21:30		1
Indene	ND		9.4	0.94	ug/L	10/12/20 14:35	10/14/20 21:30		1
Isophorone	ND		9.4	0.13	ug/L	10/12/20 14:35	10/14/20 21:30		1
2-Methylphenol	ND		9.4	1.7	ug/L	10/12/20 14:35	10/14/20 21:30		1
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/12/20 14:35	10/14/20 21:30		1
2-Nitroaniline	ND		9.4	2.1	ug/L	10/12/20 14:35	10/14/20 21:30		1
3-Nitroaniline	ND		9.4	1.7	ug/L	10/12/20 14:35	10/14/20 21:30		1
4-Nitroaniline	ND		9.4	1.4	ug/L	10/12/20 14:35	10/14/20 21:30		1
Nitrobenzene	ND		9.4	0.12	ug/L	10/12/20 14:35	10/14/20 21:30		1
2-Nitrophenol	ND		9.4	4.9	ug/L	10/12/20 14:35	10/14/20 21:30		1
4-Nitrophenol	ND	UJ	9.4	2.0	ug/L	10/12/20 14:35	10/16/20 21:00		1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L	10/12/20 14:35	10/14/20 21:30		1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW11-ROX-100920

Lab Sample ID: 400-194266-4

Date Collected: 10/09/20 10:00

Matrix: Water

Date Received: 10/10/20 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/12/20 14:35	10/14/20 21:30	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/12/20 14:35	10/14/20 21:30	1
Pentachlorophenol	ND		19	1.3	ug/L		10/12/20 14:35	10/14/20 21:30	1
Phenol	ND		9.4	2.5	ug/L		10/12/20 14:35	10/14/20 21:30	1
Pyridine	ND		9.4	3.0	ug/L		10/12/20 14:35	10/14/20 21:30	1
Quinoline	ND		9.4	4.2	ug/L		10/12/20 14:35	10/14/20 21:30	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/12/20 14:35	10/14/20 21:30	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/12/20 14:35	10/14/20 21:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		46 - 124				10/12/20 14:35	10/14/20 21:30	1
2-Fluorophenol	58		13 - 113				10/12/20 14:35	10/14/20 21:30	1
Nitrobenzene-d5	78		36 - 126				10/12/20 14:35	10/14/20 21:30	1
Phenol-d5	78		17 - 127				10/12/20 14:35	10/14/20 21:30	1
Terphenyl-d14	105		44 - 149				10/12/20 14:35	10/14/20 21:30	1
2,4,6-Tribromophenol	82		26 - 150				10/12/20 14:35	10/14/20 21:30	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/13/20 11:03	10/13/20 23:11	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/13/20 11:03	10/13/20 23:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	113		51 - 149				10/13/20 11:03	10/13/20 23:11	1

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW9-ROX-100920
Date Collected: 10/09/20 11:10
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 17:40	1
Acrolein	ND		20	10	ug/L			10/21/20 17:40	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 17:40	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 17:40	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 17:40	1
Bromochloromethane	ND		1.0	0.52	ug/L			10/21/20 17:40	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/20 17:40	1
Bromoform	ND		5.0	0.71	ug/L			10/21/20 17:40	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 17:40	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 17:40	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 17:40	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 17:40	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 17:40	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 17:40	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 17:40	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 17:40	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 17:40	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 17:40	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 17:40	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 17:40	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 17:40	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 17:40	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 17:40	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 17:40	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 17:40	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 17:40	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 17:40	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 17:40	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 17:40	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 17:40	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 17:40	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 17:40	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 17:40	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 17:40	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 17:40	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 17:40	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 17:40	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 17:40	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 17:40	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 17:40	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/21/20 17:40	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 17:40	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 17:40	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/21/20 17:40	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 17:40	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 17:40	1
o-Xylene	0.75 J		5.0	0.60	ug/L			10/21/20 17:40	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 17:40	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 17:40	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW9-ROX-100920

Lab Sample ID: 400-194266-5

Date Collected: 10/09/20 11:10

Matrix: Water

Date Received: 10/10/20 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 17:40	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 17:40	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 17:40	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 17:40	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 17:40	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 17:40	1
Toluene	0.60	J	1.0	0.41	ug/L			10/21/20 17:40	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 17:40	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 17:40	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 17:40	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 17:40	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 17:40	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 17:40	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 17:40	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 17:40	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 17:40	1
1,2,4-Trimethylbenzene	1.1		1.0	0.82	ug/L			10/21/20 17:40	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 17:40	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 17:40	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 17:40	1
Xylenes, Total	2.2	J	10	1.6	ug/L			10/21/20 17:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		78 - 118					10/21/20 17:40	1
Dibromofluoromethane	95		81 - 121					10/21/20 17:40	1
Toluene-d8 (Surr)	105		80 - 120					10/21/20 17:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L			10/12/20 14:35	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/12/20 14:35	1
Anthracene	ND		0.19	0.031	ug/L			10/12/20 14:35	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/12/20 14:35	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/12/20 14:35	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L			10/12/20 14:35	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/12/20 14:35	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L			10/12/20 14:35	1
Chrysene	ND		0.19	0.071	ug/L			10/12/20 14:35	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L			10/12/20 14:35	1
Fluoranthene	ND		0.19	0.065	ug/L			10/12/20 14:35	1
Fluorene	ND		0.19	0.11	ug/L			10/12/20 14:35	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/12/20 14:35	1
1-Methylnaphthalene	0.077	J	0.19	0.071	ug/L			10/12/20 14:35	1
2-Methylnaphthalene	0.10	J	0.19	0.057	ug/L			10/12/20 14:35	1
Phenanthrene	ND		0.19	0.034	ug/L			10/12/20 14:35	1
Pyrene	ND		0.19	0.038	ug/L			10/12/20 14:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	98		15 - 122					10/12/20 14:35	1
Nitrobenzene-d5	97		19 - 130					10/12/20 14:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW9-ROX-100920
Date Collected: 10/09/20 11:10
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	108		33 - 138	10/12/20 14:35	10/17/20 00:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Benzenethiol	ND **1	WJ	9.6	1.6	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Benzoic acid	ND		29	7.0	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Benzyl alcohol	ND		9.6	1.9	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Bis(2-chloroethyl)methane	ND		9.6	0.15	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L	10/12/20 14:35	10/14/20 21:51	1	
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Bis(2-ethylhexyl) phthalate	6.2- JB	WJ	9.6	4.8	ug/L	10/12/20 14:35	10/14/20 21:51	1	
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Butyl benzyl phthalate	ND		9.6	0.18	ug/L	10/12/20 14:35	10/14/20 21:51	1	
4-Chloroaniline	ND		9.6	3.3	ug/L	10/12/20 14:35	10/14/20 21:51	1	
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L	10/12/20 14:35	10/14/20 21:51	1	
2-Chloronaphthalene	ND		9.6	0.13	ug/L	10/12/20 14:35	10/14/20 21:51	1	
2-Chlorophenol	ND		9.6	2.1	ug/L	10/12/20 14:35	10/14/20 21:51	1	
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Dibenzofuran	ND		9.6	0.16	ug/L	10/12/20 14:35	10/14/20 21:51	1	
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L	10/12/20 14:35	10/14/20 21:51	1	
2,4-Dichlorophenol	ND		9.6	2.9	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Diethyl phthalate	0.62 J		9.6	0.23	ug/L	10/12/20 14:35	10/14/20 21:51	1	
2,4-Dimethylphenol	ND		9.6	3.3	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Dimethyl phthalate	ND		9.6	0.16	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Di-n-butyl phthalate	3.2 J		9.6	2.6	ug/L	10/12/20 14:35	10/14/20 21:51	1	
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L	10/12/20 14:35	10/15/20 15:09	1	
2,4-Dinitrophenol	ND		29	3.3	ug/L	10/12/20 14:35	10/14/20 21:51	1	
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L	10/12/20 14:35	10/14/20 21:51	1	
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Di-n-octyl phthalate	ND		9.6	0.16	ug/L	10/12/20 14:35	10/14/20 21:51	1	
1,4-Dioxane	ND WJ		9.6	0.96	ug/L	10/12/20 14:35	10/14/20 21:51	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Hexachlorobenzene	ND		9.6	0.16	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Hexachlorocyclopentadiene	ND		19	2.5	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Hexachloroelthane	ND		9.6	4.0	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Indene	ND		9.6	0.96	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Isophorone	ND		9.6	0.13	ug/L	10/12/20 14:35	10/14/20 21:51	1	
2-Methylphenol	ND		9.6	1.7	ug/L	10/12/20 14:35	10/14/20 21:51	1	
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/12/20 14:35	10/14/20 21:51	1	
2-Nitroaniline	ND		9.6	2.1	ug/L	10/12/20 14:35	10/14/20 21:51	1	
3-Nitroaniline	ND		9.6	1.7	ug/L	10/12/20 14:35	10/14/20 21:51	1	
4-Nitroaniline	ND		9.6	1.4	ug/L	10/12/20 14:35	10/14/20 21:51	1	
Nitrobenzene	ND		9.6	0.12	ug/L	10/12/20 14:35	10/14/20 21:51	1	
2-Nitrophenol	ND		9.6	5.0	ug/L	10/12/20 14:35	10/14/20 21:51	1	
4-Nitrophenol	ND WJ		9.6	2.0	ug/L	10/12/20 14:35	10/16/20 21:21	1	
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L	10/12/20 14:35	10/14/20 21:51	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW9-ROX-100920

Date Collected: 10/09/20 11:10

Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		10/12/20 14:35	10/14/20 21:51	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		10/12/20 14:35	10/14/20 21:51	1
Pentachlorophenol	ND		19	1.3	ug/L		10/12/20 14:35	10/14/20 21:51	1
Phenol	ND		9.6	2.5	ug/L		10/12/20 14:35	10/14/20 21:51	1
Pyridine	ND		9.6	3.1	ug/L		10/12/20 14:35	10/14/20 21:51	1
Quinoline	ND		9.6	4.3	ug/L		10/12/20 14:35	10/14/20 21:51	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		10/12/20 14:35	10/14/20 21:51	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		10/12/20 14:35	10/14/20 21:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		46 - 124				10/12/20 14:35	10/14/20 21:51	1
2-Fluorophenol	66		13 - 113				10/12/20 14:35	10/14/20 21:51	1
Nitrobenzene-d5	85		36 - 126				10/12/20 14:35	10/14/20 21:51	1
Phenal-d5	87		17 - 127				10/12/20 14:35	10/14/20 21:51	1
Terphenyl-d14	108		44 - 149				10/12/20 14:35	10/14/20 21:51	1
2,4,6-Tribromophenol	94		26 - 150				10/12/20 14:35	10/14/20 21:51	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.0057	ug/L		10/13/20 11:03	10/13/20 23:31	1
1,2-Dibromoethane	ND		0.021	0.0051	ug/L		10/13/20 11:03	10/13/20 23:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109		51 - 149				10/13/20 11:03	10/13/20 23:31	1

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW10-ROX-100920
Date Collected: 10/09/20 12:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	12	J	25	10	ug/L			10/21/20 18:08	1
Acrolein	ND		20	10	ug/L			10/21/20 18:08	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 18:08	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 18:08	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 18:08	1
Bromoform	ND		1.0	0.52	ug/L			10/21/20 18:08	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Bromoform	ND		5.0	0.71	ug/L			10/21/20 18:08	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 18:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 18:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 18:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 18:08	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 18:08	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 18:08	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 18:08	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 18:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 18:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 18:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 18:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 18:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 18:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 18:08	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 18:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 18:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 18:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 18:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 18:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 18:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 18:08	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 18:08	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 18:08	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 18:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 18:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 18:08	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/21/20 18:08	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 18:08	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 18:08	1
n-Butylbenzene	ND	*	1.0	0.76	ug/L			10/21/20 18:08	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 18:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 18:08	1
o-Xylene	0.70	J	5.0	0.60	ug/L			10/21/20 18:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 18:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 18:08	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW10-ROX-100920

Lab Sample ID: 400-194266-6

Date Collected: 10/09/20 12:00

Matrix: Water

Date Received: 10/10/20 09:31

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 18:08	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 18:08	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 18:08	1
1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 18:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 18:08	1
Toluene	0.51	J	1.0	0.41	ug/L			10/21/20 18:08	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/21/20 18:08	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 18:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 18:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 18:08	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 18:08	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 18:08	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 18:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 18:08	1
1,2,4-Trimethylbenzene	1.1		1.0	0.82	ug/L			10/21/20 18:08	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 18:08	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 18:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 18:08	1
Xylenes, Total	2.2	J	10	1.6	ug/L			10/21/20 18:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		78 - 118					10/21/20 18:08	1
Dibromofluoromethane	100		81 - 121					10/21/20 18:08	1
Toluene-d8 (Surr)	101		80 - 120					10/21/20 18:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L			10/12/20 14:35	10/17/20 00:52
Acenaphthylene	ND		0.19	0.043	ug/L			10/12/20 14:35	10/17/20 00:52
Anthracene	ND		0.19	0.030	ug/L			10/12/20 14:35	10/17/20 00:52
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/12/20 14:35	10/17/20 00:52
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/12/20 14:35	10/17/20 00:52
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/12/20 14:35	10/17/20 00:52
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/12/20 14:35	10/17/20 00:52
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L			10/12/20 14:35	10/17/20 00:52
Chrysene	ND		0.19	0.070	ug/L			10/12/20 14:35	10/17/20 00:52
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/12/20 14:35	10/17/20 00:52
Fluoranthene	ND		0.19	0.064	ug/L			10/12/20 14:35	10/17/20 00:52
Fluorene	ND		0.19	0.10	ug/L			10/12/20 14:35	10/17/20 00:52
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/12/20 14:35	10/17/20 00:52
1-Methylnaphthalene	ND		0.19	0.070	ug/L			10/12/20 14:35	10/17/20 00:52
2-Methylnaphthalene	ND		0.19	0.057	ug/L			10/12/20 14:35	10/17/20 00:52
Phenanthrene	ND		0.19	0.034	ug/L			10/12/20 14:35	10/17/20 00:52
Pyrene	ND		0.19	0.038	ug/L			10/12/20 14:35	10/17/20 00:52
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	80		15 - 122					10/12/20 14:35	10/17/20 00:52
Nitrobenzene-d5	81		19 - 130					10/12/20 14:35	10/17/20 00:52

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW10-ROX-100920

Lab Sample ID: 400-194266-6

Date Collected: 10/09/20 12:00

Matrix: Water

Date Received: 10/10/20 09:31

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

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	98		33 - 138		10/12/20 14:35	10/17/20 00:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L				1
Benzenethiol	ND	**1 WJ	9.5	1.6	ug/L	10/12/20 14:35	10/14/20 22:12		1
Benzoic acid	ND		28	6.9	ug/L	10/12/20 14:35	10/14/20 22:12		1
Benzyl alcohol	ND		9.5	1.9	ug/L	10/12/20 14:35	10/14/20 22:12		1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L	10/12/20 14:35	10/14/20 22:12		1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L	10/12/20 14:35	10/14/20 22:12		1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L	10/12/20 14:35	10/14/20 22:12		1
Bis(2-ethylhexyl) phthalate	ND	J B 4	9.5	4.7	ug/L	10/12/20 14:35	10/14/20 22:12		1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L	10/12/20 14:35	10/14/20 22:12		1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L	10/12/20 14:35	10/14/20 22:12		1
4-Chloroaniline	ND		9.5	3.2	ug/L	10/12/20 14:35	10/14/20 22:12		1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L	10/12/20 14:35	10/14/20 22:12		1
2-Chloronaphthalene	ND		9.5	0.13	ug/L	10/12/20 14:35	10/14/20 22:12		1
2-Chlorophenol	ND		9.5	2.1	ug/L	10/12/20 14:35	10/14/20 22:12		1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L	10/12/20 14:35	10/14/20 22:12		1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L	10/12/20 14:35	10/14/20 22:12		1
Dibenzofuran	ND		9.5	0.16	ug/L	10/12/20 14:35	10/14/20 22:12		1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L	10/12/20 14:35	10/14/20 22:12		1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L	10/12/20 14:35	10/14/20 22:12		1
Diethyl phthalate	0.24	J	9.5	0.23	ug/L	10/12/20 14:35	10/14/20 22:12		1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L	10/12/20 14:35	10/14/20 22:12		1
Dimethyl phthalate	ND		9.5	0.16	ug/L	10/12/20 14:35	10/14/20 22:12		1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L	10/12/20 14:35	10/14/20 22:12		1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L	10/12/20 14:35	10/15/20 15:35		1
2,4-Dinitrophenol	ND		28	3.2	ug/L	10/12/20 14:35	10/14/20 22:12		1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L	10/12/20 14:35	10/14/20 22:12		1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L	10/12/20 14:35	10/14/20 22:12		1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L	10/12/20 14:35	10/14/20 22:12		1
1,4-Dioxane	ND	WJ	9.5	0.95	ug/L	10/12/20 14:35	10/14/20 22:12		1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L	10/12/20 14:35	10/14/20 22:12		1
Hexachlorobenzene	ND		9.5	0.16	ug/L	10/12/20 14:35	10/14/20 22:12		1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L	10/12/20 14:35	10/14/20 22:12		1
Hexachloroethane	ND		9.5	4.0	ug/L	10/12/20 14:35	10/14/20 22:12		1
Indene	ND		9.5	0.95	ug/L	10/12/20 14:35	10/14/20 22:12		1
Isophorone	ND		9.5	0.13	ug/L	10/12/20 14:35	10/14/20 22:12		1
2-Methylphenol	ND		9.5	1.7	ug/L	10/12/20 14:35	10/14/20 22:12		1
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/12/20 14:35	10/14/20 22:12		1
2-Nitroaniline	ND		9.5	2.1	ug/L	10/12/20 14:35	10/14/20 22:12		1
3-Nitroaniline	ND		9.5	1.7	ug/L	10/12/20 14:35	10/14/20 22:12		1
4-Nitroaniline	ND		9.5	1.4	ug/L	10/12/20 14:35	10/14/20 22:12		1
Nitrobenzene	ND		9.5	0.12	ug/L	10/12/20 14:35	10/14/20 22:12		1
2-Nitrophenol	ND		9.5	4.9	ug/L	10/12/20 14:35	10/14/20 22:12		1
4-Nitrophenol	ND	WJ	9.5	2.0	ug/L	10/12/20 14:35	10/16/20 21:42		1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L	10/12/20 14:35	10/14/20 22:12		1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194266-1

Client Sample ID: MW10-ROX-100920
Date Collected: 10/09/20 12:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/12/20 14:35	10/14/20 22:12	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/12/20 14:35	10/14/20 22:12	1
Pentachlorophenol	ND		19	1.3	ug/L		10/12/20 14:35	10/14/20 22:12	1
Phenol	ND		9.5	2.5	ug/L		10/12/20 14:35	10/14/20 22:12	1
Pyridine	ND		9.5	3.0	ug/L		10/12/20 14:35	10/14/20 22:12	1
Quinoline	ND		9.5	4.3	ug/L		10/12/20 14:35	10/14/20 22:12	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/12/20 14:35	10/14/20 22:12	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/12/20 14:35	10/14/20 22:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		46 - 124				10/12/20 14:35	10/14/20 22:12	1
2-Fluorophenol	41		13 - 113				10/12/20 14:35	10/14/20 22:12	1
Nitrobenzene-d5	71		36 - 126				10/12/20 14:35	10/14/20 22:12	1
Phenol-d5	66		17 - 127				10/12/20 14:35	10/14/20 22:12	1
Terphenyl-d14	94		44 - 149				10/12/20 14:35	10/14/20 22:12	1
2,4,6-Tribromophenol	73		26 - 150				10/12/20 14:35	10/14/20 22:12	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0056	ug/L		10/13/20 11:03	10/13/20 23:51	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/13/20 11:03	10/13/20 23:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	119		51 - 149				10/13/20 11:03	10/13/20 23:51	1

Definitions/Glossary

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

Job ID: 400-194266-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
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 or LCSD is outside acceptance limits.
*1	LCS/LCSD RPD exceeds control limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	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: 400-194266-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194266-1	TB-ROX-100920-8260	96	94	106
400-194266-3	MW1-ROX-100920	99	94	108
400-194266-3 MS	MW1-ROX-100920	99	94	108
400-194266-3 MSD	MW1-ROX-100920	100	97	109
400-194266-4	MW11-ROX-100920	95	97	105
400-194266-5	MW9-ROX-100920	94	95	105
400-194266-6	MW10-ROX-100920	96	100	101
LCS 400-507573/1002	Lab Control Sample	98	95	106
MB 400-507573/4	Method Blank	96	93	105

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromoefluoromethane

TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194266-3	MW1-ROX-100920	77	46	79	60	100	69
400-194266-3 MS	MW1-ROX-100920	75	32	81	64	100	84
400-194266-3 MSD	MW1-ROX-100920	68	35	77	60	90	76
400-194266-4	MW11-ROX-100920	76	58	78	78	105	82
400-194266-5	MW9-ROX-100920	84	66	85	87	108	94
400-194266-6	MW10-ROX-100920	71	41	71	66	94	73
LCS 400-506479/2-A	Lab Control Sample	73	49	80	73	98	92
LCS 400-506479/3-A	Lab Control Sample	72	48	72	71	98	82
LCSD 400-506479/4-A	Lab Control Sample Dup	76	14	73	10 X	105	39
MB 400-506479/1-A	Method Blank	74	34	76	67	103	57

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194266-3	MW1-ROX-100920	94	92	111
400-194266-3 MS	MW1-ROX-100920	85	86	107
400-194266-3 MSD	MW1-ROX-100920	79	85	98
400-194266-4	MW11-ROX-100920	97	90	112
400-194266-5	MW9-ROX-100920	98	97	108

Eurofins TestAmerica, Pensacola

Surrogate Summary

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

Job ID: 400-194266-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194266-6	MW10-ROX-100920	80	81	98
LCS 400-506479/2-A	Lab Control Sample	86	90	109
MB 400-506479/1-A	Method Blank	85	85	103

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB2 (51-149)	
400-194266-2	TB-ROX-100920-8011	111	
400-194266-3	MW1-ROX-100920	110	
400-194266-3 MS	MW1-ROX-100920	118	
400-194266-3 MSD	MW1-ROX-100920	109	
400-194266-4	MW11-ROX-100920	113	
400-194266-5	MW9-ROX-100920	109	
400-194266-6	MW10-ROX-100920	119	
LCS 400-506570/2-A	Lab Control Sample	113	
LCSD 400-506570/3-A	Lab Control Sample Dup	115	
MB 400-506570/1-A	Method Blank	115	

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-194266-1

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

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

9

Lab Chronicle

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

Job ID: 400-194266-1

Client Sample ID: TB-ROX-100920-8260
Date Collected: 10/09/20 00:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-1
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	507573	10/21/20 15:54	WPD	TAL PEN

Client Sample ID: TB-ROX-100920-8011
Date Collected: 10/09/20 00:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-2
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			32.9 mL	35 mL	506570	10/13/20 11:03	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506666	10/13/20 21:51	DHJ	TAL PEN

Client Sample ID: MW1-ROX-100920
Date Collected: 10/09/20 09:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-3
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	507573	10/21/20 11:44	WPD	TAL PEN
Total/NA	Prep	3520C			263 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 20:39	S1B	TAL PEN
Total/NA	Prep	3520C			263 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 21:10	S1B	TAL PEN
Total/NA	Prep	3520C			263 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 14:16	S1B	TAL PEN
Total/NA	Prep	3520C			263 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507154	10/16/20 23:59	KJA	TAL PEN
Total/NA	Prep	8011			36.5 mL	35 mL	506570	10/13/20 11:03	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506666	10/13/20 22:11	DHJ	TAL PEN

Client Sample ID: MW11-ROX-100920
Date Collected: 10/09/20 10:00
Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-4
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	507573	10/21/20 17:12	WPD	TAL PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 21:00	S1B	TAL PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 21:30	S1B	TAL PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 14:42	S1B	TAL PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507154	10/17/20 00:17	KJA	TAL PEN
Total/NA	Prep	8011			35.3 mL	35 mL	506570	10/13/20 11:03	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506666	10/13/20 23:11	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194266-1

Client Sample ID: MW9-ROX-100920

Date Collected: 10/09/20 11:10

Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-5

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	507573	10/21/20 17:40	WPD	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 21:21	S1B	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 21:51	S1B	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 15:09	S1B	TAL PEN
Total/NA	Prep	3520C			261.4 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507154	10/17/20 00:34	KJA	TAL PEN
Total/NA	Prep	8011			34 mL	35 mL	506570	10/13/20 11:03	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506666	10/13/20 23:31	DHJ	TAL PEN

Client Sample ID: MW10-ROX-100920

Date Collected: 10/09/20 12:00

Date Received: 10/10/20 09:31

Lab Sample ID: 400-194266-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	507573	10/21/20 18:08	WPD	TAL PEN
Total/NA	Prep	3520C			263.8 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 21:42	S1B	TAL PEN
Total/NA	Prep	3520C			263.8 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 22:12	S1B	TAL PEN
Total/NA	Prep	3520C			263.8 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 15:35	S1B	TAL PEN
Total/NA	Prep	3520C			263.8 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507154	10/17/20 00:52	KJA	TAL PEN
Total/NA	Prep	8011			34.5 mL	35 mL	506570	10/13/20 11:03	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506666	10/13/20 23:51	DHJ	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-506479/1-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	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507157	10/16/20 20:17	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 19:05	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506928	10/15/20 13:49	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507154	10/16/20 22:49	KJA	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194266-1

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

Lab Sample ID: MB 400-506570/1-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	506570	10/13/20 11:03	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506666	10/13/20 17:09	DHJ	TAL PEN

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

Lab Sample ID: MB 400-507573/4
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	507573	10/21/20 09:25	WPD	TAL PEN

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

Lab Sample ID: LCS 400-506479/2-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	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 20:08	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507154	10/16/20 23:07	KJA	TAL PEN

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

Lab Sample ID: LCS 400-506479/3-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	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 19:26	S1B	TAL PEN

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

Lab Sample ID: LCS 400-506570/2-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	506570	10/13/20 11:03	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506666	10/13/20 17:29	DHJ	TAL PEN

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

Lab Sample ID: LCS 400-507573/1002
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	507573	10/21/20 08:29	WPD	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194266-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-506479/4-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	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 19:47	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-506570/3-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	506570	10/13/20 11:03	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506666	10/13/20 17:49	DHJ	TAL PEN

Client Sample ID: MW1-ROX-100920

Lab Sample ID: 400-194266-3 MS

Date Collected: 10/09/20 09:00
Date Received: 10/10/20 09:31

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	507573	10/21/20 13:46	WPD	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1	0.4 mL	1.0 mL	506784	10/14/20 20:28	S1B	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507154	10/16/20 23:24	KJA	TAL PEN
Total/NA	Prep	8011			35.7 mL	35 mL	506570	10/13/20 11:03	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506666	10/13/20 22:31	DHJ	TAL PEN

Client Sample ID: MW1-ROX-100920

Lab Sample ID: 400-194266-3 MSD

Date Collected: 10/09/20 09:00
Date Received: 10/10/20 09:31

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	507573	10/21/20 14:10	WPD	TAL PEN
Total/NA	Prep	3520C			260.4 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D		1			506784	10/14/20 20:49	S1B	TAL PEN
Total/NA	Prep	3520C			260.4 mL	1 mL	506479	10/12/20 14:35	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507154	10/16/20 23:42	KJA	TAL PEN
Total/NA	Prep	8011			34.7 mL	35 mL	506570	10/13/20 11:03	DHJ	TAL PEN
Total/NA	Analysis	8011		1			506666	10/13/20 22:51	DHJ	TAL PEN

Laboratory References:

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

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194266-1

GC/MS VOA

Analysis Batch: 507573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194266-1	TB-ROX-100920-8260	Total/NA	Water	8260B	
400-194266-3	MW1-ROX-100920	Total/NA	Water	8260B	
400-194266-4	MW11-ROX-100920	Total/NA	Water	8260B	
400-194266-5	MW9-ROX-100920	Total/NA	Water	8260B	
400-194266-6	MW10-ROX-100920	Total/NA	Water	8260B	
MB 400-507573/4	Method Blank	Total/NA	Water	8260B	
LCS 400-507573/1002	Lab Control Sample	Total/NA	Water	8260B	
400-194266-3 MS	MW1-ROX-100920	Total/NA	Water	8260B	
400-194266-3 MSD	MW1-ROX-100920	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 506479

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194266-3	MW1-ROX-100920	Total/NA	Water	3520C	
400-194266-4	MW11-ROX-100920	Total/NA	Water	3520C	
400-194266-5	MW9-ROX-100920	Total/NA	Water	3520C	
400-194266-6	MW10-ROX-100920	Total/NA	Water	3520C	
MB 400-506479/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-506479/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-506479/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-506479/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-194266-3 MS	MW1-ROX-100920	Total/NA	Water	3520C	
400-194266-3 MSD	MW1-ROX-100920	Total/NA	Water	3520C	

Analysis Batch: 506784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194266-3	MW1-ROX-100920	Total/NA	Water	8270D	506479
400-194266-4	MW11-ROX-100920	Total/NA	Water	8270D	506479
400-194266-5	MW9-ROX-100920	Total/NA	Water	8270D	506479
400-194266-6	MW10-ROX-100920	Total/NA	Water	8270D	506479
MB 400-506479/1-A	Method Blank	Total/NA	Water	8270D	506479
LCS 400-506479/2-A	Lab Control Sample	Total/NA	Water	8270D	506479
LCS 400-506479/3-A	Lab Control Sample	Total/NA	Water	8270D	506479
LCSD 400-506479/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	506479
400-194266-3 MS	MW1-ROX-100920	Total/NA	Water	8270D	506479
400-194266-3 MSD	MW1-ROX-100920	Total/NA	Water	8270D	506479

Analysis Batch: 506928

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194266-3	MW1-ROX-100920	Total/NA	Water	8270D	506479
400-194266-4	MW11-ROX-100920	Total/NA	Water	8270D	506479
400-194266-5	MW9-ROX-100920	Total/NA	Water	8270D	506479
400-194266-6	MW10-ROX-100920	Total/NA	Water	8270D	506479
MB 400-506479/1-A	Method Blank	Total/NA	Water	8270D	506479

Analysis Batch: 507154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194266-3	MW1-ROX-100920	Total/NA	Water	8270D LL	506479
400-194266-4	MW11-ROX-100920	Total/NA	Water	8270D LL	506479
400-194266-5	MW9-ROX-100920	Total/NA	Water	8270D LL	506479

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194266-1

GC/MS Semi VOA (Continued)

Analysis Batch: 507154 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194266-6	MW10-ROX-100920	Total/NA	Water	8270D LL	506479
MB 400-506479/1-A	Method Blank	Total/NA	Water	8270D LL	506479
LCS 400-506479/2-A	Lab Control Sample	Total/NA	Water	8270D LL	506479
400-194266-3 MS	MW1-ROX-100920	Total/NA	Water	8270D LL	506479
400-194266-3 MSD	MW1-ROX-100920	Total/NA	Water	8270D LL	506479

Analysis Batch: 507157

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194266-3	MW1-ROX-100920	Total/NA	Water	8270D	506479
400-194266-4	MW11-ROX-100920	Total/NA	Water	8270D	506479
400-194266-5	MW9-ROX-100920	Total/NA	Water	8270D	506479
400-194266-6	MW10-ROX-100920	Total/NA	Water	8270D	506479
MB 400-506479/1-A	Method Blank	Total/NA	Water	8270D	506479

GC Semi VOA

Prep Batch: 506570

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194266-2	TB-ROX-100920-8011	Total/NA	Water	8011	
400-194266-3	MW1-ROX-100920	Total/NA	Water	8011	
400-194266-4	MW11-ROX-100920	Total/NA	Water	8011	
400-194266-5	MW9-ROX-100920	Total/NA	Water	8011	
400-194266-6	MW10-ROX-100920	Total/NA	Water	8011	
MB 400-506570/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-506570/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-506570/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-194266-3 MS	MW1-ROX-100920	Total/NA	Water	8011	
400-194266-3 MSD	MW1-ROX-100920	Total/NA	Water	8011	

Analysis Batch: 506666

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194266-2	TB-ROX-100920-8011	Total/NA	Water	8011	506570
400-194266-3	MW1-ROX-100920	Total/NA	Water	8011	506570
400-194266-4	MW11-ROX-100920	Total/NA	Water	8011	506570
400-194266-5	MW9-ROX-100920	Total/NA	Water	8011	506570
400-194266-6	MW10-ROX-100920	Total/NA	Water	8011	506570
MB 400-506570/1-A	Method Blank	Total/NA	Water	8011	506570
LCS 400-506570/2-A	Lab Control Sample	Total/NA	Water	8011	506570
LCSD 400-506570/3-A	Lab Control Sample Dup	Total/NA	Water	8011	506570
400-194266-3 MS	MW1-ROX-100920	Total/NA	Water	8011	506570
400-194266-3 MSD	MW1-ROX-100920	Total/NA	Water	8011	506570

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: MB 400-507573/4

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507573

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone		ND			25	10	ug/L			10/21/20 09:25	1
Acrolein		ND			20	10	ug/L			10/21/20 09:25	1
Acrylonitrile		ND			10	2.8	ug/L			10/21/20 09:25	1
Benzene		ND			1.0	0.38	ug/L			10/21/20 09:25	1
Bromobenzene		ND			1.0	0.54	ug/L			10/21/20 09:25	1
Bromochloromethane		ND			1.0	0.52	ug/L			10/21/20 09:25	1
Bromodichloromethane		ND			1.0	0.50	ug/L			10/21/20 09:25	1
Bromoform		ND			5.0	0.71	ug/L			10/21/20 09:25	1
Bromomethane		ND			1.0	0.98	ug/L			10/21/20 09:25	1
2-Butanone (MEK)		ND			25	2.6	ug/L			10/21/20 09:25	1
Carbon disulfide		ND			1.0	0.50	ug/L			10/21/20 09:25	1
Carbon tetrachloride		ND			1.0	0.50	ug/L			10/21/20 09:25	1
Chlorobenzene		ND			1.0	0.50	ug/L			10/21/20 09:25	1
Dibromochloromethane		ND			1.0	0.50	ug/L			10/21/20 09:25	1
Chloroethane		ND			1.0	0.76	ug/L			10/21/20 09:25	1
2-Chloroethyl vinyl ether		ND			5.0	2.0	ug/L			10/21/20 09:25	1
Chloroform		ND			1.0	0.60	ug/L			10/21/20 09:25	1
1-Chlorohexane		ND			1.0	0.70	ug/L			10/21/20 09:25	1
Chloromethane		ND			1.0	0.83	ug/L			10/21/20 09:25	1
cis-1,2-Dichloroethene		ND			1.0	0.50	ug/L			10/21/20 09:25	1
cis-1,3-Dichloropropene		ND			5.0	0.50	ug/L			10/21/20 09:25	1
1,2-Dichlorobenzene		ND			1.0	0.50	ug/L			10/21/20 09:25	1
1,3-Dichlorobenzene		ND			1.0	0.54	ug/L			10/21/20 09:25	1
1,4-Dichlorobenzene		ND			1.0	0.64	ug/L			10/21/20 09:25	1
Dichlorodifluoromethane		ND			1.0	0.85	ug/L			10/21/20 09:25	1
1,1-Dichloroethane		ND			1.0	0.50	ug/L			10/21/20 09:25	1
1,2-Dichloroethane		ND			1.0	0.50	ug/L			10/21/20 09:25	1
1,1-Dichloroethene		ND			1.0	0.50	ug/L			10/21/20 09:25	1
1,2-Dichloropropane		ND			1.0	0.50	ug/L			10/21/20 09:25	1
1,3-Dichloropropane		ND			1.0	0.50	ug/L			10/21/20 09:25	1
2,2-Dichloropropane		ND			1.0	0.50	ug/L			10/21/20 09:25	1
1,1-Dichloropropene		ND			1.0	0.50	ug/L			10/21/20 09:25	1
Ethylbenzene		ND			1.0	0.50	ug/L			10/21/20 09:25	1
Ethyl methacrylate		ND			1.0	0.60	ug/L			10/21/20 09:25	1
Hexachlorobutadiene		ND			5.0	0.90	ug/L			10/21/20 09:25	1
2-Hexanone		ND			25	3.1	ug/L			10/21/20 09:25	1
Isopropylbenzene		ND			1.0	0.53	ug/L			10/21/20 09:25	1
Methylene bromide		ND			5.0	0.59	ug/L			10/21/20 09:25	1
Methylene Chloride		ND			5.0	3.0	ug/L			10/21/20 09:25	1
4-Methyl-2-pentanone (MIBK)		ND			25	1.8	ug/L			10/21/20 09:25	1
Methyl tert-butyl ether		ND			1.0	0.74	ug/L			10/21/20 09:25	1
m-Xylene & p-Xylene		ND			5.0	1.6	ug/L			10/21/20 09:25	1
Naphthalene		ND			1.0	1.0	ug/L			10/21/20 09:25	1
n-Butylbenzene		ND			1.0	0.76	ug/L			10/21/20 09:25	1
N-Propylbenzene		ND			1.0	0.69	ug/L			10/21/20 09:25	1
o-Chlorotoluene		ND			1.0	0.57	ug/L			10/21/20 09:25	1
o-Xylene		ND			5.0	0.60	ug/L			10/21/20 09:25	1
p-Chlorotoluene		ND			1.0	0.56	ug/L			10/21/20 09:25	1

12

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: MB 400-507573/4

Matrix: Water

Analysis Batch: 507573

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

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 09:25	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 09:25	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 09:25	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 09:25	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 09:25	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 09:25	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 09:25	1
Toluene	ND		1.0	0.41	ug/L			10/21/20 09:25	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 09:25	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 09:25	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 09:25	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 09:25	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 09:25	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 09:25	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 09:25	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 09:25	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 09:25	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 09:25	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 09:25	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 09:25	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 09:25	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/20 09:25	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	96		78-118		10/21/20 09:25	1
Dibromofluoromethane	93		81-121		10/21/20 09:25	1
Toluene-d8 (Surr)	105		80-120		10/21/20 09:25	1

Lab Sample ID: LCS 400-507573/1002

Matrix: Water

Analysis Batch: 507573

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

Analyte	Spike Added	LCS			D	%Rec	Limits
		Result	Qualifier	Unit			
Acetone	200	251		ug/L	126	43-160	
Acrolein	500	477		ug/L	95	38-160	
Acrylonitrile	500	492		ug/L	98	64-142	
Benzene	50.0	52.0		ug/L	104	70-130	
Bromobenzene	50.0	51.9		ug/L	104	70-132	
Bromochloromethane	50.0	48.9		ug/L	98	70-130	
Bromodichloromethane	50.0	50.6		ug/L	101	67-133	
Bromoform	50.0	49.3		ug/L	99	57-140	
Bromomethane	50.0	50.8		ug/L	102	10-160	
2-Butanone (MEK)	200	263		ug/L	132	61-145	
Carbon disulfide	50.0	46.0		ug/L	92	61-137	
Carbon tetrachloride	50.0	44.4		ug/L	89	61-137	
Chlorobenzene	50.0	54.9		ug/L	110	70-130	
Dibromochloromethane	50.0	48.3		ug/L	97	67-135	
Chloroethane	50.0	51.2		ug/L	102	55-141	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: LCS 400-507573/1002

Matrix: Water

Analysis Batch: 507573

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	16.5		ug/L	33	10 - 160	
Chloroform	50.0	50.3		ug/L	101	69 - 130	
1-Chlorohexane	50.0	58.0		ug/L	116	69 - 130	
Chloromethane	50.0	41.2		ug/L	82	58 - 137	
cis-1,2-Dichloroethene	50.0	51.1		ug/L	102	68 - 130	
cis-1,3-Dichloropropene	50.0	56.9		ug/L	114	69 - 132	
1,2-Dichlorobenzene	50.0	52.9		ug/L	106	67 - 130	
1,3-Dichlorobenzene	50.0	55.1		ug/L	110	70 - 130	
1,4-Dichlorobenzene	50.0	55.1		ug/L	110	70 - 130	
Dichlorodifluoromethane	50.0	36.8		ug/L	74	41 - 146	
1,1-Dichloroethane	50.0	51.6		ug/L	103	70 - 130	
1,2-Dichloroethane	50.0	48.6		ug/L	97	69 - 130	
1,1-Dichloroethene	50.0	47.4		ug/L	95	63 - 134	
1,2-Dichloropropane	50.0	52.3		ug/L	105	70 - 130	
1,3-Dichloropropane	50.0	60.7		ug/L	121	70 - 130	
2,2-Dichloropropane	50.0	49.7		ug/L	99	52 - 135	
1,1-Dichloropropene	50.0	52.2		ug/L	104	70 - 130	
Ethylbenzene	50.0	56.3		ug/L	113	70 - 130	
Ethyl methacrylate	50.0	60.3		ug/L	121	68 - 130	
Hexachlorobutadiene	50.0	48.3		ug/L	97	53 - 140	
2-Hexanone	200	254		ug/L	127	65 - 137	
Isopropylbenzene	50.0	56.7		ug/L	113	70 - 130	
Methylene bromide	50.0	49.9		ug/L	100	70 - 130	
Methylene Chloride	50.0	51.8		ug/L	104	66 - 135	
4-Methyl-2-pentanone (MIBK)	200	236		ug/L	118	69 - 138	
Methyl tert-butyl ether	50.0	55.8		ug/L	112	66 - 130	
m-Xylene & p-Xylene	50.0	54.7		ug/L	109	70 - 130	
Naphthalene	50.0	51.0		ug/L	102	47 - 149	
n-Butylbenzene	50.0	69.8 *		ug/L	140	67 - 130	
N-Propylbenzene	50.0	58.6		ug/L	117	70 - 130	
o-Chlorotoluene	50.0	57.6		ug/L	115	70 - 130	
o-Xylene	50.0	53.8		ug/L	108	70 - 130	
p-Chlorotoluene	50.0	57.7		ug/L	115	70 - 130	
p-Isopropyltoluene	50.0	63.8		ug/L	128	65 - 130	
sec-Butylbenzene	50.0	59.2		ug/L	118	66 - 130	
Styrene	50.0	52.9		ug/L	106	70 - 130	
tert-Butylbenzene	50.0	56.2		ug/L	112	64 - 139	
1,1,1,2-Tetrachloroethane	50.0	51.4		ug/L	103	67 - 131	
1,1,2,2-Tetrachloroelthane	50.0	58.5		ug/L	117	70 - 131	
Tetrachloroethene	50.0	49.1		ug/L	98	65 - 130	
Toluene	50.0	53.4		ug/L	107	70 - 130	
trans-1,2-Dichloroethene	50.0	49.4		ug/L	99	70 - 130	
trans-1,3-Dichloropropene	50.0	58.7		ug/L	117	63 - 130	
1,2,3-Trichlorobenzene	50.0	46.3		ug/L	93	60 - 138	
1,2,4-Trichlorobenzene	50.0	48.3		ug/L	97	60 - 140	
1,1,1-Trichloroethane	50.0	46.6		ug/L	93	68 - 130	
1,1,2-Trichloroethane	50.0	54.7		ug/L	109	70 - 130	
Trichloroethene	50.0	48.2		ug/L	96	70 - 130	
Trichlorofluoromethane	50.0	44.0		ug/L	88	65 - 138	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: LCS 400-507573/1002

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507573

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
1,2,3-Trichloropropane	50.0	53.9		ug/L		108	70 - 130
1,2,4-Trimethylbenzene	50.0	56.1		ug/L		112	70 - 130
1,3,5-Trimethylbenzene	50.0	55.5		ug/L		111	69 - 130
Vinyl acetate	100	118		ug/L		118	26 - 160
Vinyl chloride	50.0	47.0		ug/L		94	59 - 136
Xylenes, Total	100	108		ug/L		108	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	98		78 - 118				
Dibromofluoromethane	95		81 - 121				
Toluene-d8 (Sur)	106		80 - 120				

Lab Sample ID: 400-194266-3 MS

Client Sample ID: MW1-ROX-100920

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507573

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acetone	ND		200	209		ug/L		105	43 - 150
Acrolein	ND		500	501		ug/L		100	38 - 150
Acrylonitrile	ND		500	492		ug/L		98	62 - 149
Benzene	ND		50.0	51.1		ug/L		102	56 - 142
Bromobenzene	ND		50.0	47.5		ug/L		95	59 - 136
Bromoform	ND		50.0	50.2		ug/L		100	64 - 140
Bromochloromethane	ND		50.0	48.6		ug/L		97	59 - 143
Bromodichloromethane	ND		50.0	44.9		ug/L		90	50 - 140
Bromomethane	ND		50.0	49.6		ug/L		99	10 - 150
2-Butanone (MEK)	ND		200	245		ug/L		122	55 - 150
Carbon disulfide	ND		50.0	45.0		ug/L		90	48 - 150
Carbon tetrachloride	ND		50.0	43.2		ug/L		86	55 - 145
Chlorobenzene	ND		50.0	50.3		ug/L		101	64 - 130
Dibromochloromethane	ND		50.0	45.6		ug/L		91	56 - 143
Chloroethane	ND		50.0	50.3		ug/L		101	50 - 150
2-Chloroethyl vinyl ether	ND F1		50.0	3.43 J F1		ug/L	7	10 - 150	
Chloroform	ND		50.0	48.8		ug/L		98	60 - 141
1-Chlorohexane	ND		50.0	54.1		ug/L		108	56 - 136
Chloromethane	ND		50.0	41.6		ug/L		83	49 - 148
cis-1,2-Dichloroethene	ND		50.0	49.9		ug/L		100	59 - 143
cis-1,3-Dichloropropene	ND		50.0	55.7		ug/L		111	57 - 140
1,2-Dichlorobenzene	ND		50.0	48.3		ug/L		97	52 - 137
1,3-Dichlorobenzene	ND		50.0	49.2		ug/L		98	54 - 135
1,4-Dichlorobenzene	ND		50.0	48.2		ug/L		96	53 - 135
Dichlorodifluoromethane	ND		50.0	36.6		ug/L		73	16 - 150
1,1-Dichloroethane	ND		50.0	51.0		ug/L		102	61 - 144
1,2-Dichloroethane	ND		50.0	48.0		ug/L		96	60 - 141
1,1-Dichloroethene	ND		50.0	46.5		ug/L		93	54 - 147
1,2-Dichloropropane	ND		50.0	51.2		ug/L		102	66 - 137
1,3-Dichloropropane	ND		50.0	58.0		ug/L		116	66 - 133
2,2-Dichloropropane	ND		50.0	46.8		ug/L		94	42 - 144

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: 400-194266-3 MS

Client Sample ID: MW1-ROX-100920

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507573

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1-Dichloropropene	ND		50.0	50.0		ug/L	100	65 - 136	
Ethylbenzene	1.1		50.0	53.1		ug/L	104	58 - 131	
Ethyl methacrylate	ND		50.0	58.6		ug/L	117	64 - 130	
Hexachlorobutadiene	ND		50.0	39.6		ug/L	79	31 - 149	
2-Hexanone	ND		200	236		ug/L	118	65 - 140	
Isopropylbenzene	ND		50.0	51.1		ug/L	102	56 - 133	
Methylene bromide	ND		50.0	48.6		ug/L	97	63 - 138	
Methylene Chloride	ND		50.0	51.7		ug/L	103	60 - 146	
4-Methyl-2-pentanone (MIBK)	ND		200	230		ug/L	115	63 - 146	
Methyl tert-butyl ether	ND		50.0	55.9		ug/L	112	59 - 137	
m-Xylene & p-Xylene	3.6 J		50.0	54.0		ug/L	101	57 - 130	
Naphthalene	ND		50.0	49.1		ug/L	98	25 - 150	
n-Butylbenzene	ND *		50.0	59.3		ug/L	119	41 - 142	
N-Propylbenzene	ND		50.0	52.2		ug/L	104	51 - 138	
o-Chlorotoluene	ND		50.0	51.8		ug/L	104	53 - 134	
o-Xylene	1.7 J		50.0	51.2		ug/L	99	61 - 130	
p-Chlorotoluene	ND		50.0	51.0		ug/L	102	54 - 133	
p-Isopropyltoluene	ND		50.0	54.7		ug/L	109	48 - 139	
sec-Butylbenzene	ND		50.0	52.4		ug/L	105	50 - 138	
Styrene	ND		50.0	49.1		ug/L	98	58 - 131	
tert-Butylbenzene	ND		50.0	49.9		ug/L	100	54 - 146	
1,1,1,2-Tetrachloroethane	ND		50.0	48.1		ug/L	96	59 - 137	
1,1,2,2-Tetrachloroethane	ND		50.0	55.7		ug/L	111	66 - 135	
Tetrachloroethene	ND		50.0	42.1		ug/L	84	52 - 133	
Toluene	1.4		50.0	52.6		ug/L	102	65 - 130	
trans-1,2-Dichloroethene	ND		50.0	49.1		ug/L	98	61 - 143	
trans-1,3-Dichloropropene	ND		50.0	55.9		ug/L	112	53 - 133	
1,2,3-Trichlorobenzene	ND		50.0	41.7		ug/L	83	43 - 145	
1,2,4-Trichlorobenzene	ND		50.0	42.1		ug/L	84	39 - 148	
1,1,1-Trichloroethane	ND		50.0	45.2		ug/L	90	57 - 142	
1,1,2-Trichloroethane	ND		50.0	53.1		ug/L	106	66 - 131	
Trichloroethene	ND		50.0	45.9		ug/L	92	64 - 136	
Trichlorofluoromethane	ND		50.0	44.0		ug/L	88	54 - 150	
1,2,3-Trichloropropane	ND		50.0	51.1		ug/L	102	65 - 133	
1,2,4-Trimethylbenzene	2.1		50.0	51.6		ug/L	99	50 - 139	
1,3,5-Trimethylbenzene	ND		50.0	50.0		ug/L	100	52 - 135	
Vinyl acetate	ND		100	120		ug/L	120	26 - 150	
Vinyl chloride	ND		50.0	47.4		ug/L	95	46 - 150	
Xylenes, Total	5.3 J		100	105		ug/L	100	59 - 130	
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene	99		78 - 118						
Dibromofluoromethane	94		81 - 121						
Toluene-d8 (Surr)	108		80 - 120						

12

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: 400-194266-3 MSD

Matrix: Water

Analysis Batch: 507573

Client Sample ID: MW1-ROX-100920

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Acetone	ND		200	214		ug/L	107	43 - 150	2	30	
Acrolein	ND		500	535		ug/L	107	38 - 150	7	31	
Acrylonitrile	ND		500	510		ug/L	102	62 - 149	4	30	
Benzene	ND		50.0	52.8		ug/L	106	56 - 142	3	30	
Bromobenzene	ND		50.0	47.4		ug/L	95	59 - 136	0	30	
Bromochloromethane	ND		50.0	51.3		ug/L	103	64 - 140	2	30	
Bromodichloromethane	ND		50.0	49.8		ug/L	100	59 - 143	2	30	
Bromoform	ND		50.0	48.0		ug/L	96	50 - 140	7	30	
Bromomethane	ND		50.0	65.7		ug/L	131	10 - 150	28	50	
2-Butanone (MEK)	ND		200	249		ug/L	125	55 - 150	2	30	
Carbon disulfide	ND		50.0	47.3		ug/L	95	48 - 150	5	30	
Carbon tetrachloride	ND		50.0	43.7		ug/L	87	55 - 145	1	30	
Chlorobenzene	ND		50.0	53.4		ug/L	107	64 - 130	6	30	
Dibromochloromethane	ND		50.0	49.1		ug/L	98	56 - 143	7	30	
Chloroethane	ND		50.0	59.9		ug/L	120	50 - 150	18	30	
2-Chloroethyl vinyl ether	ND F1		50.0	ND F1		ug/L	0	10 - 150	NC	50	
Chloroform	ND		50.0	50.7		ug/L	101	60 - 141	4	30	
1-Chlorohexane	ND		50.0	57.1		ug/L	114	56 - 136	6	30	
Chloromethane	ND		50.0	47.4		ug/L	95	49 - 148	13	31	
cis-1,2-Dichloroethene	ND		50.0	53.4		ug/L	107	59 - 143	7	30	
cis-1,3-Dichloropropene	ND		50.0	57.5		ug/L	115	57 - 140	3	30	
1,2-Dichlorobenzene	ND		50.0	47.6		ug/L	95	52 - 137	1	30	
1,3-Dichlorobenzene	ND		50.0	47.4		ug/L	95	54 - 135	4	30	
1,4-Dichlorobenzene	ND		50.0	47.0		ug/L	94	53 - 135	3	30	
Dichlorodifluoromethane	ND		50.0	40.5		ug/L	81	16 - 150	10	31	
1,1-Dichloroethane	ND		50.0	52.2		ug/L	104	61 - 144	2	30	
1,2-Dichloroethane	ND		50.0	49.4		ug/L	99	60 - 141	3	30	
1,1-Dichloroethene	ND		50.0	47.6		ug/L	95	54 - 147	3	30	
1,2-Dichloropropane	ND		50.0	52.8		ug/L	106	66 - 137	3	30	
1,3-Dichloropropane	ND		50.0	61.7		ug/L	123	66 - 133	6	30	
2,2-Dichloropropane	ND		50.0	50.0		ug/L	100	42 - 144	7	31	
1,1-Dichloropropene	ND		50.0	51.7		ug/L	103	65 - 136	3	30	
Ethylbenzene	1.1		50.0	55.0		ug/L	108	58 - 131	4	30	
Ethyl methacrylate	ND		50.0	62.5		ug/L	125	64 - 130	6	30	
Hexachlorobutadiene	ND		50.0	39.7		ug/L	79	31 - 149	0	36	
2-Hexanone	ND		200	248		ug/L	124	65 - 140	5	30	
Isopropylbenzene	ND		50.0	53.7		ug/L	107	56 - 133	5	30	
Methylene bromide	ND		50.0	50.9		ug/L	102	63 - 138	5	30	
Methylene Chloride	ND		50.0	51.9		ug/L	104	60 - 146	0	32	
4-Methyl-2-pentanone (MIBK)	ND		200	238		ug/L	119	63 - 146	4	30	
Methyl tert-butyl ether	ND		50.0	58.7		ug/L	117	59 - 137	5	30	
m-Xylene & p-Xylene	3.6 J		50.0	54.9		ug/L	103	57 - 130	2	30	
Naphthalene	ND		50.0	49.5		ug/L	99	25 - 150	1	30	
n-Butylbenzene	ND *		50.0	56.9		ug/L	114	41 - 142	4	31	
N-Propylbenzene	ND		50.0	51.6		ug/L	103	51 - 138	1	30	
o-Chlorotoluene	ND		50.0	51.8		ug/L	104	53 - 134	0	30	
o-Xylene	1.7 J		50.0	52.5		ug/L	102	61 - 130	3	30	
p-Chlorotoluene	ND		50.0	50.2		ug/L	100	54 - 133	2	30	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: 400-194266-3 MSD

Matrix: Water

Analysis Batch: 507573

Client Sample ID: MW1-ROX-100920

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
p-Isopropyltoluene	ND		50.0	53.3		ug/L	107	48 - 139	2	30	
sec-Butylbenzene	ND		50.0	51.5		ug/L	103	50 - 138	2	30	
Styrene	ND		50.0	50.3		ug/L	101	58 - 131	2	30	
tert-Butylbenzene	ND		50.0	49.4		ug/L	99	54 - 146	1	30	
1,1,1,2-Tetrachloroethane	ND		50.0	49.8		ug/L	100	59 - 137	3	30	
1,1,2,2-Tetrachloroethane	ND		50.0	56.9		ug/L	114	66 - 135	2	30	
Tetrachloroethylene	ND		50.0	43.3		ug/L	87	52 - 133	3	30	
Toluene	1.4		50.0	53.7		ug/L	105	65 - 130	2	30	
trans-1,2-Dichloroethene	ND		50.0	49.9		ug/L	100	61 - 143	2	30	
trans-1,3-Dichloropropene	ND		50.0	56.6		ug/L	113	53 - 133	1	30	
1,2,3-Trichlorobenzene	ND		50.0	40.7		ug/L	81	43 - 145	2	30	
1,2,4-Trichlorobenzene	ND		50.0	40.6		ug/L	81	39 - 148	4	30	
1,1,1-Trichloroethane	ND		50.0	46.2		ug/L	92	57 - 142	2	30	
1,1,2-Trichloroethane	ND		50.0	55.8		ug/L	112	66 - 131	5	30	
Trichloroethylene	ND		50.0	47.5		ug/L	95	64 - 136	3	30	
Trichlorofluoromethane	ND		50.0	51.3		ug/L	103	54 - 150	15	30	
1,2,3-Trichloropropane	ND		50.0	55.7		ug/L	111	65 - 133	8	30	
1,2,4-Trimethylbenzene	2.1		50.0	50.4		ug/L	97	50 - 139	2	30	
1,3,5-Trimethylbenzene	ND		50.0	49.0		ug/L	98	52 - 135	2	30	
Vinyl acetate	ND		100	132		ug/L	132	26 - 150	10	33	
Vinyl chloride	ND		50.0	53.3		ug/L	107	46 - 150	12	30	
Xylenes, Total	5.3 J		100	107		ug/L	102	59 - 130	2	30	

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	100		78 - 118
Dibromofluoromethane	97		81 - 121
Toluene-d8 (Surf)	109		80 - 120

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

Lab Sample ID: MB 400-506479/1-A

Matrix: Water

Analysis Batch: 506784

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506479

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L	10/12/20 14:35	10/14/20 19:05		1
Benzenethiol	ND		10	1.7	ug/L	10/12/20 14:35	10/14/20 19:05		1
Benzoic acid	ND		30	7.3	ug/L	10/12/20 14:35	10/14/20 19:05		1
Benzyl alcohol	ND		10	2.0	ug/L	10/12/20 14:35	10/14/20 19:05		1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L	10/12/20 14:35	10/14/20 19:05		1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L	10/12/20 14:35	10/14/20 19:05		1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L	10/12/20 14:35	10/14/20 19:05		1
Bis(2-ethylhexyl) phthalate	5.01 J		10	5.0	ug/L	10/12/20 14:35	10/14/20 19:05		1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L	10/12/20 14:35	10/14/20 19:05		1
Butyl benzyl phthalate	ND		10	0.19	ug/L	10/12/20 14:35	10/14/20 19:05		1
4-Chloroaniline	ND		10	3.4	ug/L	10/12/20 14:35	10/14/20 19:05		1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L	10/12/20 14:35	10/14/20 19:05		1
2-Chloronaphthalene	ND		10	0.14	ug/L	10/12/20 14:35	10/14/20 19:05		1
2-Chlorophenol	ND		10	2.2	ug/L	10/12/20 14:35	10/14/20 19:05		1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: MB 400-506479/1-A

Matrix: Water

Analysis Batch: 506784

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506479

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		ND		10	2.0	ug/L		10/12/20 14:35	10/14/20 19:05	1
Dibenz[a,h]acridine	ND		ND		10	1.0	ug/L		10/12/20 14:35	10/14/20 19:05	1
Dibenzo furan	ND		ND		10	0.17	ug/L		10/12/20 14:35	10/14/20 19:05	1
3,3'-Dichlorobenzidine	ND		ND		10	2.6	ug/L		10/12/20 14:35	10/14/20 19:05	1
2,4-Dichlorophenol	ND		ND		10	3.0	ug/L		10/12/20 14:35	10/14/20 19:05	1
Diethyl phthalate	ND		ND		10	0.24	ug/L		10/12/20 14:35	10/14/20 19:05	1
2,4-Dimethylphenol	ND		ND		10	3.5	ug/L		10/12/20 14:35	10/14/20 19:05	1
Dimethyl phthalate	ND		ND		10	0.17	ug/L		10/12/20 14:35	10/14/20 19:05	1
Di-n-butyl phthalate	ND		ND		10	2.7	ug/L		10/12/20 14:35	10/14/20 19:05	1
2,4-Dinitrophenol	ND		ND		30	3.4	ug/L		10/12/20 14:35	10/14/20 19:05	1
2,4-Dinitrotoluene	ND		ND		10	1.9	ug/L		10/12/20 14:35	10/14/20 19:05	1
2,6-Dinitrotoluene	ND		ND		10	1.9	ug/L		10/12/20 14:35	10/14/20 19:05	1
Di-n-octyl phthalate	ND		ND		10	0.17	ug/L		10/12/20 14:35	10/14/20 19:05	1
1,4-Dioxane	ND		ND		10	1.0	ug/L		10/12/20 14:35	10/14/20 19:05	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		ND		10	1.0	ug/L		10/12/20 14:35	10/14/20 19:05	1
Hexachlorobenzene	ND		ND		10	0.17	ug/L		10/12/20 14:35	10/14/20 19:05	1
Hexachlorocyclopentadiene	ND		ND		20	2.6	ug/L		10/12/20 14:35	10/14/20 19:05	1
Hexachloroethane	ND		ND		10	4.2	ug/L		10/12/20 14:35	10/14/20 19:05	1
Indene	ND		ND		10	1.0	ug/L		10/12/20 14:35	10/14/20 19:05	1
Isophorone	ND		ND		10	0.14	ug/L		10/12/20 14:35	10/14/20 19:05	1
2-Methylphenol	ND		ND		10	1.8	ug/L		10/12/20 14:35	10/14/20 19:05	1
3 & 4 Methylphenol	ND		ND		20	0.39	ug/L		10/12/20 14:35	10/14/20 19:05	1
2-Nitroaniline	ND		ND		10	2.2	ug/L		10/12/20 14:35	10/14/20 19:05	1
3-Nitroaniline	ND		ND		10	1.8	ug/L		10/12/20 14:35	10/14/20 19:05	1
4-Nitroaniline	ND		ND		10	1.5	ug/L		10/12/20 14:35	10/14/20 19:05	1
Nitrobenzene	ND		ND		10	0.13	ug/L		10/12/20 14:35	10/14/20 19:05	1
2-Nitrophenol	ND		ND		10	5.2	ug/L		10/12/20 14:35	10/14/20 19:05	1
N-Nitrosodimethylamine	ND		ND		10	3.5	ug/L		10/12/20 14:35	10/14/20 19:05	1
N-Nitrosodi-n-propylamine	ND		ND		10	3.3	ug/L		10/12/20 14:35	10/14/20 19:05	1
N-Nitrosodiphenylamine	ND		ND		10	0.18	ug/L		10/12/20 14:35	10/14/20 19:05	1
Pentachlorophenol	ND		ND		20	1.4	ug/L		10/12/20 14:35	10/14/20 19:05	1
Phenol	ND		ND		10	2.6	ug/L		10/12/20 14:35	10/14/20 19:05	1
Pyridine	ND		ND		10	3.2	ug/L		10/12/20 14:35	10/14/20 19:05	1
Quinoline	ND		ND		10	4.5	ug/L		10/12/20 14:35	10/14/20 19:05	1
2,4,5-Trichlorophenol	ND		ND		10	3.7	ug/L		10/12/20 14:35	10/14/20 19:05	1
2,4,6-Trichlorophenol	ND		ND		10	3.5	ug/L		10/12/20 14:35	10/14/20 19:05	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl			74		46 - 124			
2-Fluorophenol			34		13 - 113			
Nitrobenzene-d5			76		36 - 126			
Phenol-d5			67		17 - 127			
Terphenyl-d14			103		44 - 149			
2,4,6-Tribromophenol			57		26 - 150			

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: MB 400-506479/1-A

Matrix: Water

Analysis Batch: 506928

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506479

MB	MB					D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier	RL	MDL	Unit				
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/12/20 14:35	10/15/20 13:49	1

Lab Sample ID: MB 400-506479/1-A

Matrix: Water

Analysis Batch: 507157

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506479

MB	MB					D	Prepared	Analyzed	Dil Fac
Analyte	Result	Qualifier	RL	MDL	Unit				
4-Nitrophenol	ND		10	2.1	ug/L		10/12/20 14:35	10/16/20 20:17	1

Lab Sample ID: LCS 400-506479/2-A

Matrix: Water

Analysis Batch: 506784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506479

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aniline	120	90.9		ug/L	76	21 - 120	
Benzoic acid	466	376		ug/L	81	10 - 144	
Benzyl alcohol	120	104		ug/L	87	28 - 120	
Bis(2-chloroethoxy)methane	120	86.7		ug/L	72	47 - 120	
Bis(2-chloroethyl)ether	120	89.4		ug/L	74	44 - 120	
bis (2-chloroisopropyl) ether	120	91.2		ug/L	76	33 - 121	
Bis(2-ethylhexyl) phthalate	120	101		ug/L	84	52 - 147	
4-Bromophenyl phenyl ether	120	105		ug/L	87	54 - 122	
Butyl benzyl phthalate	120	114		ug/L	95	54 - 133	
4-Chloroaniline	120	73.7		ug/L	61	26 - 120	
4-Chloro-3-methylphenol	120	108		ug/L	90	48 - 131	
2-Chloronaphthalene	120	93.1		ug/L	78	52 - 121	
2-Chlorophenol	120	82.4		ug/L	69	40 - 120	
4-Chlorophenyl phenyl ether	120	101		ug/L	84	56 - 125	
Dibenz[a,h]acridine	120	104		ug/L	87	31 - 150	
Dibenzofuran	120	97.2		ug/L	81	56 - 122	
3,3'-Dichlorobenzidine	160	193		ug/L	120	36 - 132	
2,4-Dichlorophenol	120	94.1		ug/L	78	49 - 120	
Diethyl phthalate	120	103		ug/L	86	50 - 137	
2,4-Dimethylphenol	120	87.9		ug/L	73	48 - 120	
Dimethyl phthalate	120	101		ug/L	84	57 - 124	
Di-n-butyl phthalate	120	103		ug/L	86	58 - 126	
4,6-Dinitro-ortho-cresol	240	208		ug/L	87	23 - 148	
2,4-Dinitrophenol	240	248		ug/L	103	10 - 150	
2,4-Dinitrotoluene	120	107		ug/L	89	54 - 142	
2,6-Dinitrotoluene	120	101		ug/L	84	55 - 130	
Di-n-octyl phthalate	120	115		ug/L	95	57 - 138	
1,4-Dioxane	120	67.1		ug/L	56	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	120	97.6		ug/L	81	45 - 124	
Hexachlorobenzene	120	108		ug/L	90	52 - 129	
Hexachlorocyclopentadiene	120	70.0		ug/L	58	10 - 134	
Hexachloroethane	120	77.5		ug/L	65	20 - 120	
Indene	120	102		ug/L	85	49 - 120	
Isophorone	120	95.5		ug/L	80	48 - 120	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: LCS 400-506479/2-A

Matrix: Water

Analysis Batch: 506784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506479

%Rec.

Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
2-Methylphenol	120	96.1		ug/L	80	46 - 124	
3 & 4 Methylphenol	120	90.6		ug/L	75	45 - 120	
2-Nitroaniline	120	95.0		ug/L	79	51 - 145	
3-Nitroaniline	120	99.8		ug/L	83	37 - 127	
4-Nitroaniline	120	116		ug/L	96	36 - 137	
Nitrobenzene	120	87.6		ug/L	73	45 - 120	
2-Nitrophenol	120	79.5		ug/L	66	40 - 124	
4-Nitrophenol	240	187		ug/L	78	23 - 146	
N-Nitrosodimethylamine	120	104		ug/L	87	29 - 137	
N-Nitrosodi-n-propylamine	120	94.8		ug/L	79	45 - 120	
N-Nitrosodiphenylamine	119	103		ug/L	86	54 - 120	
Pentachlorophenol	240	220		ug/L	92	31 - 130	
Phenol	120	83.7		ug/L	70	11 - 120	
Pyridine	240	142		ug/L	59	16 - 120	
Quinoline	120	111		ug/L	93	49 - 130	
2,4,5-Trichlorophenol	120	102		ug/L	85	51 - 136	
2,4,6-Trichlorophenol	120	99.8		ug/L	83	50 - 127	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	73		46 - 124
2-Fluorophenol	49		13 - 113
Nitrobenzene-d5	80		36 - 126
Phenol-d5	73		17 - 127
Terphenyl-d14	98		44 - 149
2,4,6-Tribromophenol	92		26 - 150

Lab Sample ID: LCS 400-506479/3-A

Matrix: Water

Analysis Batch: 506784

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506479

%Rec.

Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Benzeneethiol	120	6.31	J *	ug/L	5	10 - 120	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	72		46 - 124
2-Fluorophenol	48		13 - 113
Nitrobenzene-d5	72		36 - 126
Phenol-d5	71		17 - 127
Terphenyl-d14	98		44 - 149
2,4,6-Tribromophenol	62		26 - 150

Lab Sample ID: LCSD 400-506479/4-A

Matrix: Water

Analysis Batch: 506784

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 506479

%Rec.

RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit
Benzeneethiol	120	3.52	J **1	ug/L	3	10 - 120	57	30

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: LCSD 400-506479/4-A

Matrix: Water

Analysis Batch: 506784

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 506479

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	76				46 - 124
2-Fluorophenol	14				13 - 113
Nitrobenzene-d5	73				36 - 126
Phenol-d5	10	X			17 - 127
Terphenyl-d14	105				44 - 149
2,4,6-Tribromophenol	39				26 - 150

Lab Sample ID: 400-194266-3 MS

Matrix: Water

Analysis Batch: 506784

Client Sample ID: MW1-ROX-100920

Prep Type: Total/NA

Prep Batch: 506479

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Aniline	ND		113	65.3		ug/L		58	10 - 120
Benzoic acid	ND		440	317		ug/L		72	10 - 149
Benzyl alcohol	ND		113	100		ug/L		89	33 - 120
Bis(2-chloroethoxy)methane	ND		113	84.1		ug/L		74	26 - 120
Bis(2-chloroethyl)ether	ND		113	84.6		ug/L		75	42 - 120
bis (2-chloroisopropyl) ether	ND		113	93.5		ug/L		83	28 - 120
Bis(2-ethylhexyl) phthalate	5.6 J B		113	107		ug/L		89	39 - 120
4-Bromophenyl phenyl ether	ND		113	103		ug/L		91	40 - 120
Butyl benzyl phthalate	ND		113	115		ug/L		102	45 - 120
4-Chloroaniline	ND		113	63.5		ug/L		56	10 - 120
4-Chloro-3-methylphenol	ND		113	97.5		ug/L		86	34 - 120
2-Chloronaphthalene	ND F1		113	92.2		ug/L		81	39 - 120
2-Chlorophenol	ND		113	66.3		ug/L		59	25 - 120
4-Chlorophenyl phenyl ether	ND		113	98.0		ug/L		86	44 - 120
Dibenz[a,h]acridine	ND		113	113		ug/L		100	50 - 150
Dibenzofuran	ND		113	95.5		ug/L		84	25 - 130
3,3'-Dichlorobenzidine	ND		151	144		ug/L		96	10 - 120
2,4-Dichlorophenol	ND		113	81.0		ug/L		71	31 - 120
Diethyl phthalate	0.89 J		113	105		ug/L		92	46 - 120
2,4-Dimethylphenol	ND		113	83.9		ug/L		74	21 - 120
Dimethyl phthalate	ND		113	101		ug/L		89	38 - 120
Di-n-butyl phthalate	3.4 J		113	107		ug/L		91	49 - 120
4,6-Dinitro-ortho-cresol	ND		227	227		ug/L		100	25 - 120
2,4-Dinitrophenol	ND		227	258		ug/L		114	15 - 140
2,4-Dinitrotoluene	ND		113	106		ug/L		93	53 - 120
2,6-Dinitrotoluene	ND		113	101		ug/L		89	43 - 120
Di-n-octyl phthalate	ND		113	119		ug/L		105	35 - 121
1,4-Dioxane	ND F1		113	37.1 F1		ug/L		33	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		113	100		ug/L		88	50 - 150
Hexachlorobenzene	ND		113	106		ug/L		94	38 - 122
Hexachlorocyclopentadiene	ND		113	74.8		ug/L		66	10 - 120
Hexachloroethane	ND		113	81.3		ug/L		72	10 - 150
Indene	ND		113	98.4		ug/L		87	50 - 150
Isophorone	ND		113	94.4		ug/L		83	42 - 120
2-Methylphenol	ND		113	91.2		ug/L		81	28 - 120
3 & 4 Methylphenol	ND		113	85.1		ug/L		75	31 - 120

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: 400-194266-3 MS

Matrix: Water

Analysis Batch: 506784

Client Sample ID: MW1-ROX-100920

Prep Type: Total/NA

Prep Batch: 506479

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
2-Nitroaniline	ND		113	81.9		ug/L	72	45 - 120	
3-Nitroaniline	ND		113	94.0		ug/L	83	10 - 130	
4-Nitroaniline	ND		113	97.0		ug/L	86	10 - 132	
Nitrobenzene	ND		113	99.9		ug/L	88	39 - 120	
2-Nitrophenol	ND		113	72.7		ug/L	64	33 - 120	
4-Nitrophenol	ND		227	178		ug/L	78	10 - 120	
N-Nitrosodimethylamine	ND		113	99.8		ug/L	88	10 - 139	
N-Nitrosodi-n-propylamine	ND		113	93.3		ug/L	82	37 - 124	
N-Nitrosodiphenylamine	ND		112	96.9		ug/L	86	10 - 150	
Pentachlorophenol	ND		227	208		ug/L	92	29 - 130	
Phenol	ND		113	70.0		ug/L	62	10 - 150	
Pyridine	ND		227	135		ug/L	60	10 - 120	
Quinoline	ND		113	107		ug/L	95	51 - 120	
2,4,5-Trichlorophenol	ND		113	92.6		ug/L	82	34 - 120	
2,4,6-Trichlorophenol	ND		113	88.5		ug/L	78	33 - 120	
<hr/>									
Surrogate	MS		MS		Limits				
	%Recovery	Qualifier							
2-Fluorobiphenyl	75				46 - 124				
2-Fluorophenol	32				13 - 113				
Nitrobenzene-d5	81				36 - 126				
Phenol-d5	64				17 - 127				
Terphenyl-d14	100				44 - 149				
2,4,6-Tribromophenol	84				26 - 150				

Lab Sample ID: 400-194266-3 MSD

Matrix: Water

Analysis Batch: 506784

Client Sample ID: MW1-ROX-100920

Prep Type: Total/NA

Prep Batch: 506479

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Aniline	ND		115	68.6		ug/L	60	10 - 120	5	63	
Benzoic acid	ND		447	367		ug/L	82	10 - 149	14	49	
Benzyl alcohol	ND		115	94.9		ug/L	82	33 - 120	6	37	
Bis(2-chloroethoxy)methane	ND		115	80.3		ug/L	70	26 - 120	5	70	
Bis(2-chloroethyl)ether	ND		115	78.8		ug/L	58	42 - 120	7	42	
bis (2-chloroisopropyl) ether	ND		115	87.4		ug/L	76	28 - 120	7	41	
Bis(2-ethylhexyl) phthalate	5.6 J B		115	95.8		ug/L	78	39 - 120	11	35	
4-Bromophenyl phenyl ether	ND		115	96.6		ug/L	84	40 - 120	6	30	
Butyl benzyl phthalate	ND		115	106		ug/L	92	45 - 120	8	32	
4-Chloroaniline	ND		115	58.7		ug/L	51	10 - 120	8	94	
4-Chloro-3-methylphenol	ND		115	93.3		ug/L	81	34 - 120	4	40	
2-Chloronaphthalene	ND F1		115	87.4		ug/L	76	39 - 120	5	29	
2-Chlorophenol	ND		115	64.1		ug/L	56	25 - 120	3	42	
4-Chlorophenyl phenyl ether	ND		115	93.0		ug/L	81	44 - 120	5	27	
Dibenz[a,h]acridine	ND		115	97.6		ug/L	85	50 - 150	15	40	
Dibenzofuran	ND		115	88.2		ug/L	77	25 - 130	8	29	
3,3'-Dichlorobenzidine	ND		154	136		ug/L	89	10 - 120	6	58	
2,4-Dichlorophenol	ND		115	77.8		ug/L	68	31 - 120	4	43	
Diethyl phthalate	0.89 J		115	96.7		ug/L	83	46 - 120	8	40	

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194266-1

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

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

Lab Sample ID: 400-194266-3 MSD

Matrix: Water

Analysis Batch: 506784

Client Sample ID: MW1-ROX-100920

Prep Type: Total/NA

Prep Batch: 506479

%Rec.

RPD

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,4-Dimethylphenol	ND		115	77.5		ug/L	67	21 - 120	8	47	
Dimethyl phthalate	ND		115	93.7		ug/L	81	38 - 120	7	36	
Di-n-butyl phthalate	3.4 J		115	96.5		ug/L	81	49 - 120	10	32	
4,6-Dinitro-ortho-cresol	ND		230	216		ug/L	94	25 - 120	5	42	
2,4-Dinitrophenol	ND		230	259		ug/L	113	15 - 140	0	36	
2,4-Dinitrophenol	ND		115	100		ug/L	87	53 - 120	5	28	
2,4-Dinitrotoluene	ND		115	92.2		ug/L	80	43 - 120	9	28	
2,6-Dinitrotoluene	ND		115	108		ug/L	94	35 - 121	10	35	
Di-n-octyl phthalate	ND F1		115	46.0	F1	ug/L	40	50 - 150	22	40	
1,4-Dioxane	ND		115	91.3		ug/L	79	50 - 150	9	40	
1,2-Diphenylhydrazine (as Azobenzene)	ND		115	99.1		ug/L	86	38 - 122	7	33	
Hexachlorobenzene	ND		115	75.0		ug/L	65	10 - 120	0	50	
Hexachlorocyclopentadiene	ND		115	81.3		ug/L	71	10 - 150	0	41	
Hexachloroethane	ND		115	96.6		ug/L	84	50 - 150	2	40	
Indene	ND		115	90.5		ug/L	79	42 - 120	4	33	
Isophorone	ND		115	82.4		ug/L	72	28 - 120	10	47	
2-Methylphenol	ND		115	76.4		ug/L	66	31 - 120	11	33	
3 & 4 Methylphenol	ND		115	76.2		ug/L	66	45 - 120	7	33	
2-Nitroaniline	ND		115	90.6		ug/L	79	10 - 130	4	39	
3-Nitroaniline	ND		115	93.5		ug/L	81	10 - 132	4	50	
4-Nitroaniline	ND		115	97.7		ug/L	85	39 - 120	2	35	
Nitrobenzene	ND		115	66.6		ug/L	58	33 - 120	9	43	
2-Nitrophenol	ND		230	177		ug/L	77	10 - 120	0	82	
4-Nitrophenol	ND		115	94.7		ug/L	82	10 - 139	5	62	
N-Nitrosodimethylamine	ND		115	89.9		ug/L	78	37 - 124	4	36	
N-Nitrosodi-n-propylamine	ND		114	88.3		ug/L	77	10 - 150	9	34	
N-Nitrosodiphenylamine	ND		230	202		ug/L	87	29 - 130	3	42	
Pentachlorophenol	ND		115	68.2		ug/L	59	10 - 150	3	52	
Phenol	ND		230	132		ug/L	57	10 - 120	2	55	
Pyridine	ND		115	103		ug/L	90	51 - 120	4	40	
Quinoline	ND		115	89.5		ug/L	78	34 - 120	3	42	
2,4,5-Trichlorophenol	ND		115	83.3		ug/L	72	33 - 120	6	44	
2,4,6-Trichlorophenol	ND										
Surrogate	MSD %Recovery	MSD Qualifier		Limits							
2-Fluorobiphenyl	68			46 - 124							
2-Fluorophenol	35			13 - 113							
Nitrobenzene-d5	77			36 - 126							
Phenol-d5	60			17 - 127							
Terphenyl-d14	90			44 - 149							
2,4,6-Tribromophenol	76			26 - 150							

Eurofins TestAmerica, Pensacola

10/23/2020

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: MB 400-506479/1-A

Matrix: Water

Analysis Batch: 507154

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506479

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		0.20	0.032	ug/L		10/12/20 14:35	10/16/20 22:49	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/12/20 14:35	10/16/20 22:49	1
Anthracene	ND		0.20	0.032	ug/L		10/12/20 14:35	10/16/20 22:49	1
Benz[a]anthracene	ND		0.20	0.046	ug/L		10/12/20 14:35	10/16/20 22:49	1
Benz[a]pyrene	ND		0.20	0.042	ug/L		10/12/20 14:35	10/16/20 22:49	1
Benz[b]fluoranthene	ND		0.20	0.034	ug/L		10/12/20 14:35	10/16/20 22:49	1
Benz[g,h,i]perylene	ND		0.20	0.13	ug/L		10/12/20 14:35	10/16/20 22:49	1
Benz[k]fluoranthene	ND		0.20	0.10	ug/L		10/12/20 14:35	10/16/20 22:49	1
Chrysene	ND		0.20	0.074	ug/L		10/12/20 14:35	10/16/20 22:49	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		10/12/20 14:35	10/16/20 22:49	1
Fluoranthene	ND		0.20	0.068	ug/L		10/12/20 14:35	10/16/20 22:49	1
Fluorene	ND		0.20	0.11	ug/L		10/12/20 14:35	10/16/20 22:49	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		10/12/20 14:35	10/16/20 22:49	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		10/12/20 14:35	10/16/20 22:49	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		10/12/20 14:35	10/16/20 22:49	1
Phenanthrene	ND		0.20	0.036	ug/L		10/12/20 14:35	10/16/20 22:49	1
Pyrene	ND		0.20	0.040	ug/L		10/12/20 14:35	10/16/20 22:49	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl	85		15 - 122	10/12/20 14:35	10/16/20 22:49	1
Nitrobenzene-d5	85		19 - 130	10/12/20 14:35	10/16/20 22:49	1
Terphenyl-d14	103		33 - 138	10/12/20 14:35	10/16/20 22:49	1

Lab Sample ID: LCS 400-506479/2-A

Matrix: Water

Analysis Batch: 507154

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506479

Analyte	Spike		LCS LCS		Unit	D	%Rec	Limits
	Added	Result	Qualifier	Unit				
Acenaphthene	120	100		ug/L			84	41 - 120
Acenaphthylene	120	102		ug/L			85	44 - 120
Anthracene	120	116		ug/L			96	49 - 120
Benz[a]anthracene	120	118		ug/L			98	61 - 135
Benz[a]pyrene	120	111		ug/L			92	52 - 120
Benz[b]fluoranthene	120	106		ug/L			88	53 - 134
Benz[g,h,i]perylene	120	99.1		ug/L			83	47 - 133
Benz[k]fluoranthene	120	105		ug/L			87	57 - 134
Chrysene	120	116		ug/L			97	55 - 122
Dibenz(a,h)anthracene	120	108		ug/L			90	48 - 146
Fluoranthene	120	110		ug/L			92	54 - 128
Fluorene	120	109		ug/L			91	45 - 125
Indeno[1,2,3-cd]pyrene	120	109		ug/L			91	43 - 142
1-Methylnaphthalene	120	96.0		ug/L			80	41 - 120
2-Methylnaphthalene	120	94.0		ug/L			78	32 - 124
Phenanthrene	120	109		ug/L			91	48 - 120
Pyrene	120	113		ug/L			95	48 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	86		15 - 122

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: LCS 400-506479/2-A

Matrix: Water

Analysis Batch: 507154

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506479

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
Nitrobenzene-d5		90			19 - 130
Terphenyl-d14		109			33 - 138

Lab Sample ID: 400-194266-3 MS

Matrix: Water

Analysis Batch: 507154

Client Sample ID: MW1-ROX-100920

Prep Type: Total/NA

Prep Batch: 506479

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	ND		113	95.4		ug/L		84	35 - 113
Acenaphthylene	ND		113	96.9		ug/L		86	41 - 118
Anthracene	ND		113	106		ug/L		94	45 - 122
Benzo[a]anthracene	ND		113	107		ug/L		95	55 - 133
Benzo[a]pyrene	ND		113	114		ug/L		101	50 - 108
Benzo[b]fluoranthene	ND		113	112		ug/L		99	50 - 128
Benzo[g,h,i]perylene	ND		113	107		ug/L		95	46 - 133
Benzo[k]fluoranthene	ND		113	98.2		ug/L		87	52 - 128
Chrysene	ND		113	112		ug/L		99	52 - 116
Dibenz(a,h)anthracene	ND		113	107		ug/L		95	52 - 143
Fluoranthene	ND		113	102		ug/L		90	32 - 150
Fluorene	ND		113	106		ug/L		93	15 - 150
Indeno[1,2,3-cd]pyrene	ND		113	116		ug/L		102	41 - 141
1-Methylnaphthalene	ND		113	89.7		ug/L		79	10 - 150
2-Methylnaphthalene	0.075	J	113	89.2		ug/L		79	10 - 150
Phenanthrene	ND		113	99.7		ug/L		88	36 - 125
Pyrene	ND		113	102		ug/L		90	41 - 127
Surrogate	MS %Recovery		MS Qualifier	MS Limits					
2-Fluorobiphenyl	85			15 - 122					
Nitrobenzene-d5	86			19 - 130					
Terphenyl-d14	107			33 - 138					

Lab Sample ID: 400-194266-3 MSD

Matrix: Water

Analysis Batch: 507154

Client Sample ID: MW1-ROX-100920

Prep Type: Total/NA

Prep Batch: 506479

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	ND		115	90.6		ug/L		79	35 - 113	5	49
Acenaphthylene	ND		115	95.3		ug/L		83	41 - 118	2	48
Anthracene	ND		115	104		ug/L		90	45 - 122	2	56
Benzo[a]anthracene	ND		115	104		ug/L		90	55 - 133	3	57
Benzo[a]pyrene	ND		115	100		ug/L		87	50 - 108	13	59
Benzo[b]fluoranthene	ND		115	96.5		ug/L		84	50 - 128	15	62
Benzo[g,h,i]perylene	ND		115	98.7		ug/L		86	46 - 133	8	58
Benzo[k]fluoranthene	ND		115	96.0		ug/L		83	52 - 128	2	58
Chrysene	ND		115	107		ug/L		93	52 - 116	5	59
Dibenz(a,h)anthracene	ND		115	93.8		ug/L		81	52 - 143	13	60
Fluoranthene	ND		115	99.8		ug/L		87	32 - 150	3	59
Fluorene	ND		115	94.7		ug/L		82	15 - 150	11	49

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

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

Lab Sample ID: 400-194266-3 MSD				Client Sample ID: MW1-ROX-100920							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 507154				Prep Batch: 506479							
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
Indeno[1,2,3-cd]pyrene	ND		115	108		ug/L		93	41 - 141	8	58
1-Methylnaphthalene	ND		115	87.6		ug/L		76	10 - 150	2	66
2-Methylnaphthalene	0.075	J	115	86.5		ug/L		75	10 - 150	3	66
Phenanthrene	ND		115	101		ug/L		88	36 - 125	2	69
Pyrene	ND		115	94.4		ug/L		82	41 - 127	8	58
Surrogate				MSD	MSD						
	%Recovery	Qualifier				Limits					
2-Fluorobiphenyl	79					15 - 122					
Nitrobenzene-d5	85					19 - 130					
Terphenyl-d14	98					33 - 138					

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-506570/1-A				Client Sample ID: Method Blank							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 506666				Prep Batch: 506570							
Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac		
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/13/20 11:03	10/13/20 17:09		1	
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/13/20 11:03	10/13/20 17:09		1	
Surrogate				MB	MB						
	%Recovery	Qualifier			Limits						
4-Bromofluorobenzene	115					51 - 149					
							Prepared	Analyzed	Dil Fac		
							10/13/20 11:03	10/13/20 17:09		1	

Lab Sample ID: LCS 400-506570/2-A

Lab Sample ID: LCS 400-506570/2-A				Client Sample ID: Lab Control Sample							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 506666				Prep Batch: 506570							
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	Limits			
1,2-Dibromo-3-Chloropropane	0.101	0.115		ug/L		115	60 - 140				
1,2-Dibromoethane	0.101	0.116		ug/L		115	60 - 140				
Surrogate				LCSD	LCSD						
	%Recovery	Qualifier			Limits						
4-Bromofluorobenzene	113				51 - 149						

Lab Sample ID: LCSD 400-506570/3-A

Lab Sample ID: LCSD 400-506570/3-A				Client Sample ID: Lab Control Sample Dup							
Matrix: Water				Prep Type: Total/NA							
Analysis Batch: 506666				Prep Batch: 506570							
Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	Limits	RPD	Limit	
1,2-Dibromo-3-Chloropropane	0.101	0.118		ug/L		117	60 - 140		2	30	
1,2-Dibromoethane	0.101	0.119		ug/L		118	60 - 140		3	30	
Surrogate				LCSD	LCSD						
	%Recovery	Qualifier			Limits						
4-Bromofluorobenzene	115				51 - 149						

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194266-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-194266-3 MS

Matrix: Water

Analysis Batch: 506666

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Client Sample ID: MW1-ROX-100920	
	Result	Qualifier	Added	Result	Qualifier				%Rec.	Limits
1,2-Dibromo-3-Chloropropane	ND		0.0985	0.111		ug/L	112	65 - 135		
1,2-Dibromoethane	ND		0.0988	0.113		ug/L	115	65 - 135		
Surrogate										
4-Bromofluorobenzene	MS	MS	%Recovery	Qualifier	Limits					
	118				51 - 149					

Lab Sample ID: 400-194266-3 MSD

Matrix: Water

Analysis Batch: 506666

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Client Sample ID: MW1-ROX-100920	
	Result	Qualifier	Added	Result	Qualifier				%Rec.	Limits
1,2-Dibromo-3-Chloropropane	ND		0.101	0.110		ug/L	108	65 - 135	1	20
1,2-Dibromoethane	ND		0.102	0.111		ug/L	110	65 - 135	2	20
Surrogate										
4-Bromofluorobenzene	MSD	MSD	%Recovery	Qualifier	Limits					
	109				51 - 149					

AECOM

Shell Oil Products US Chain Of Custody Record

LAB (LOCATION)

ACCOUNT (
□ CADCSCIENCE (
□ TEST/ANALY (Test/Analysis Performed: 3355 Midmore Dr
PL 32514 850-474-0001))

Other Lab Vantair # 1361569 (Test/Analysis))

SAMPLING COMPANY
AECOM
ADDRESS:
160 N. Broadway, 20th Floor, ST. LOUIS, MO 63102, USA
PROJECT CONTACT (Name/Email or POC, Agent, etc)
Elizabeth Kunkel, Bob Billman, Melissa Reminger, Wendy Pennington

TELEPHONE: 314-429-0100 FAX: 314-429-0462

TURNAROUND TIME (CALENDAR DAYS): STANDARD (14 DAY) 5 DAYS

DELIBERABLES: LEVEL 2 LEVEL 3 LEVEL 4 OTHER (SPECIFY) EDDO

TEMPERATURE ON RECEIPT C°: Cooler #1 Cooler #2

LA - RWQC REPORT FORMAT

Please Check Appropriate Box:

<input type="checkbox"/> PIPELINE	<input type="checkbox"/> RETAIL
<input type="checkbox"/> SGW FG	<input type="checkbox"/> LUBES
<input type="checkbox"/> CHEMICALS	<input type="checkbox"/> CONSULTANT
<input type="checkbox"/> TRANSPORTATION	<input checked="" type="checkbox"/> OTHER ENV. SERVICES

Site Address: Street and City 900 South Central Ave, ROXANA For deliverable to Name, Company, Office location Elizabeth Kunkel, AECOM, St. Louis MO Reminger, Bob Billman, Wendy Pennington SAMPLE IN GLOBE(S) (check)	Phone # 314-802-1171, 314-449-2913, 314-802-1122 FAX: 60643618 - 9-03-02F	Date 60643618 - 9-03-02F	PlanNet Site or Project ID 25278
Site Address: Street and City 900 South Central Ave, ROXANA For deliverable to Name, Company, Office location Elizabeth Kunkel, AECOM, St. Louis MO Reminger, Bob Billman, Wendy Pennington SAMPLE IN GLOBE(S) (check)	Phone # 314-802-1171, 314-449-2913, 314-802-1122 FAX: 60643618 - 9-03-02F	Date 60643618 - 9-03-02F	GSAP Project ID USPC00114/R02
Site Address: Street and City 900 South Central Ave, ROXANA For deliverable to Name, Company, Office location Elizabeth Kunkel, AECOM, St. Louis MO Reminger, Bob Billman, Wendy Pennington SAMPLE IN GLOBE(S) (check)	Phone # 314-802-1171, 314-449-2913, 314-802-1122 FAX: 60643618 - 9-03-02F	Date 60643618 - 9-03-02F	AECOM Project Task Number: Roxana Quarterly GW



LAB USE ONLY

REQUESTED ANALYSIS M-179906 T-J020	NON-UNIT COST 60643618 - 9-03-02F	UNIT COST 60643618 - 9-03-02F	FIELD NOTES: 400-194266 COC
RESULTS NEEDED ON WEEKEND □ 24 HOURS □ 5 DAYS			TEMPERATURE ON RECEIPT C°
COOLER # Cooler #1 <input type="checkbox"/> Cooler #2 <input checked="" type="checkbox"/>			Container PID Readings or Laboratory Notes
OTHER CONTRACT RATE APPLIES EDD NOT NEEDED RECEIPT VERIFICATION REQUESTED PROVIDE LEDO DISK			

SPECIAL INSTRUCTIONS OR NOTES: Please include "✓" versus on Reports. Please provide sample receipt upon return.	VOC 8270 PAH 8270LL VOC 8260 SVC 8270 PAH 8270LL		
DATE TIME MATERIAL HCL H2SO4 NONE OTHER CONT			
Field Sample Identification of 56			
TB-RDX-100920-8200	10/9/20 Gross	X	X
TB-RDX-100920-8011	0000	X	X
MW1-RDX-100920-8010	0900	X	X
MW1-RDX-100920-MS	0100	X	X
MW1-RDX-100920-MSD	0900	X	X
MW11-RDX-100920	1000	X	X
MW9-RDX-100920	1110	X	X
MW10-RDX-100920	1200	X	X
	10/9/20		

Received by (Signature) John Doe	Received by (Signature) Fedor: 9174 5384 8836 / 9174 5384 8847	Date 10/9/20	Time 1600
Received by (Signature) Pharrell	Received by (Signature) FedEx: 9174 5384 8836 / 9174 5384 8847	Date 10-10-20	Time 0931

Version 14D(Rev.5)

Customer Ref#: 1339587 1339586 / 1339589 1339588
1.50L, 1.70L, 2.30L LR-B

13

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194266-1

Login Number: 194266

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Conrady, Hank W

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	1.5°C 1.7°C 2.3°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	

14

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.

Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194266-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-20
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LA000307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

15

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194323-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/20/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-101220-8260	TB-ROX-101220-8011
MW4-ROX-101220-EB	MW4-ROX-101220
MW25-ROX-101220	MW8-ROX-101220
MW7-ROX-101220	MW7-ROX-101220-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 several SVOCs were re-extracted outside extraction time criteria. Dimethyl phthalate was detected in the method blank. Several VOC and SVOC LCS/LCD recoveries and/or SVOC LCS/LCSD RPDs, were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in several quality control samples. The SVOC internal standard recovery for perylene-d₁₂ was outside criteria in sample MW7-ROX-101220, and chrysene-d₁₂ was outside criteria in the continuing calibration verification. The difference in 1-methylnaphthalene results for the field duplicate pair MW7-ROX-101220/MW7-ROX-101220-Dup was greater than two times (2X) the reporting level; therefore, results were qualified as estimated (UJ/J). Sample MW8-ROX-101220 and field duplicate pair MW7-ROX-101220/MW7-ROX-101220-Dup were diluted to bring VOCs into calibration range of the instrument. Continuing calibration verifications for several analytes were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

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

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

No, several SVOCs were re-extracted 7 days outside extraction time criteria (7 days) due to initial failing LCS and/or surrogate recoveries. Professional judgement was used to qualify as estimated, however, not reject the out of holding time data. Holding time exceedances were not greater than two times (2X) criteria; data requiring qualification is

summarized in the following table. Equipment blanks are quality control samples and do not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-101220 – RERA	SVOCs	Benzenethiol	UJ
MW4-ROX-101220 – RERA	SVOCs	2-Chlorophenol	UJ
MW4-ROX-101220 – RERA	SVOCs	2,4-Dinitrophenol	UJ
MW4-ROX-101220 – RERA	SVOCs	2-Nitrophenol	UJ
MW25-ROX-101220 – RERA	SVOCs	Benzenethiol	UJ
MW25-ROX-101220 – RERA	SVOCs	2-Chlorophenol	UJ
MW25-ROX-101220 – RERA	SVOCs	2,4-Dinitrophenol	UJ
MW25-ROX-101220 – RERA	SVOCs	2-Nitrophenol	UJ
MW8-ROX-101220 – RERA	SVOCs	Benzenethiol	UJ
MW8-ROX-101220 – RERA	SVOCs	2-Chlorophenol	UJ
MW8-ROX-101220 – RERA	SVOCs	2,4-Dinitrophenol	UJ
MW8-ROX-101220 – RERA	SVOCs	2-Nitrophenol	UJ
MW7-ROX-101220 – RERA	SVOCs	Benzenethiol	UJ
MW7-ROX-101220 – RERA	SVOCs	2-Chlorophenol	UJ
MW7-ROX-101220 – RERA	SVOCs	2,4-Dinitrophenol	UJ
MW7-ROX-101220 – RERA	SVOCs	2-Nitrophenol	UJ
MW7-ROX-101220-Dup – RERA	SVOCs	Benzenethiol	UJ
MW7-ROX-101220-Dup – RERA	SVOCs	2-Chlorophenol	UJ
MW7-ROX-101220-Dup – RERA	SVOCs	2,4-Dinitrophenol	UJ
MW7-ROX-101220-Dup – RERA	SVOCs	2-Nitrophenol	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 400-506820/1-A	SVOCs	Dimethyl phthalate	0.954 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 400-507584/1002	VOCs	Bromoform	54	NA	57-140
LCS 400-507584/1002	VOCs	Dibromochloromethane	64	NA	67-135

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-506820/21-A/22-A	SVOCs	Benzenethiol	2/0.5	130	10-120/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	Aniline	45/64	36	21-120/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	Benzyl alcohol	45/80	56	28-120/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	bis(2-Chloroethoxy) methane	47/71	42	47-120/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	bis(2-Chloroethyl) ether	49/74	40	44-120/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	bis(2-Chloroisopropyl) ether	45/78	53	33-121/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	4-Chloroaniline	34/67	65	26-120/67
LCS/LCSD 400-506820/2-A/3-A	SVOCs	1,4-Dioxane	36/54	39	31-120/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	53/78	39	45-124/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	Hexachlorocyclopentadiene	19/47	84	10-134/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	Isophorone	50/78	43	48-120/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	2-Nitroaniline	56/83	39	51-145/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	3-Nitroaniline	50/83	49	37-127/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	Nitrobenzene	74/51	37	45-120/30
LCS/LCSD 400-506820/2-A/3-A	SVOCs	Pyridine	32/56	54	16-120/30
LCS/LCSD 400-508204/4-A/5-A	SVOCs	Benzenethiol – RERA	3/3	11	10-120/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Benzenethiol was qualified in Section 3.0 of this data review due to holding time criteria; no further qualification of previously qualified SVOCs was required. Analytical data associated with RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-101220	VOCs	Bromoform	UJ
MW4-ROX-101220	VOCs	Dibromochloromethane	UJ
MW25-ROX-101220	VOCs	Bromoform	UJ
MW25-ROX-101220	VOCs	Dibromochloromethane	UJ
MW8-ROX-101220	VOCs	Bromoform	UJ
MW8-ROX-101220	VOCs	Dibromochloromethane	UJ
MW7-ROX-101220	VOCs	Bromoform	UJ
MW7-ROX-101220	VOCs	Dibromochloromethane	UJ

Sample ID	Parameter	Analyte	Qualification
MW7-ROX-101220-Dup	VOCs	Bromoform	UJ
MW7-ROX-101220-Dup	VOCs	Dibromochloromethane	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MB 400-506820/1-A	SVOCs	2-Fluorophenol	3	13-113
MB 400-506820/1-A	SVOCs	Phenol-d ₅	15	17-127
MB 400-506820/1-A	SVOCs	2-Fluorophenol	4	13-113
LCSD 400-506820/22-A	SVOCs	2-Fluorobiphenyl	22	46-124
LCSD 400-506820/22-A	SVOCs	2-Fluorophenol	2	13-113
LCSD 400-506820/22-A	SVOCs	Nitrobenzene-d ₅	19	36-126
LCSD 400-506820/22-A	SVOCs	Phenol-d ₅	3	17-127
LCSD 400-506820/22-A	SVOCs	2,4,6-Tribromophenol	16	26-150
LCSD 400-508204/5-A	SVOCs	2,4,6-Tribromophenol – RERA	14	13-113

Method blanks and LCSDs 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?

No

Sample ID	Parameter	Analyte	IS Area Recovery	12/24 Hour Standard	IS Criteria
MW7-ROX-101220	SVOCs	Perylene-d ₁₂	1512722	701708	350854-1403416
CCV 400-509317/6	SVOCs	Chrysene-d ₁₂	344263	691527	345764-1383054

Analytical data reported as non-detect and associated with internal standard area recoveries above evaluation criteria, indicating a possible high bias, did 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
MW7-ROX-101220	MW7-ROX-101220-Dup

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
MW7-ROX-101220	MW7-ROX-101220-Dup	PAHs	1-Methylnaphthalene	> 2X RL	UJ/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 VOCs in field duplicate pair MW7-ROX-101220/MW7-ROX-101220-Dup, due to the nature of the sample matrix. VOCs were non-detect at a dilution factor of 1000X, with raised reporting limits of between 1,000 and 25,000 µg/L. Due to historical VOC detections, please see section 12.0 of the data review for additional qualifications.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, VOCs in field duplicate pair MW7-ROX-101220/MW7-ROX-101220-Dup were qualified as estimated non-detect due to sample dilution and historical detections.

Sample ID	Parameter	Analyte	Qualification
MW7-ROX-101220	VOCs	All non-detects	UJ
MW7-ROX-101220-Dup	VOCs	All non-detects	UJ

Additionally, the continuing calibration verifications for several analytes were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW4-ROX-101220	SVOCs	Aniline	UJ
MW4-ROX-101220	SVOCs	Benzyl alcohol	UJ
MW4-ROX-101220	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW4-ROX-101220	SVOCs	1,4-Dioxane	UJ
MW4-ROX-101220	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW4-ROX-101220	SVOCs	Hexachlorocyclopentadiene	UJ
MW4-ROX-101220	SVOCs	Pyridine	UJ
MW4-ROX-101220	SVOCs	Quinoline	UJ
MW25-ROX-101220	SVOCs	Aniline	UJ
MW25-ROX-101220	SVOCs	Benzyl alcohol	UJ

Sample ID	Parameter	Analyte	Qualification
MW25-ROX-101220	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW25-ROX-101220	SVOCs	1,4-Dioxane	UJ
MW25-ROX-101220	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW25-ROX-101220	SVOCs	Hexachlorocyclopentadiene	UJ
MW25-ROX-101220	SVOCs	Pyridine	UJ
MW25-ROX-101220	SVOCs	Quinoline	UJ
MW8-ROX-101220	SVOCs	Aniline	UJ
MW8-ROX-101220	SVOCs	Benzyl alcohol	UJ
MW8-ROX-101220	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW8-ROX-101220	SVOCs	1,4-Dioxane	UJ
MW8-ROX-101220	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW8-ROX-101220	SVOCs	Hexachlorocyclopentadiene	UJ
MW8-ROX-101220	SVOCs	Pyridine	UJ
MW8-ROX-101220	SVOCs	Quinoline	UJ
MW7-ROX-101220	SVOCs	Aniline	UJ
MW7-ROX-101220	SVOCs	Benzyl alcohol	UJ
MW7-ROX-101220	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW7-ROX-101220	SVOCs	1,4-Dioxane	UJ
MW7-ROX-101220	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW7-ROX-101220	SVOCs	Hexachlorocyclopentadiene	UJ
MW7-ROX-101220	SVOCs	Pyridine	UJ
MW7-ROX-101220	SVOCs	Quinoline	UJ
MW7-ROX-101220-Dup	SVOCs	Aniline	UJ
MW7-ROX-101220-Dup	SVOCs	Benzyl alcohol	UJ
MW7-ROX-101220-Dup	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW7-ROX-101220-Dup	SVOCs	1,4-Dioxane	UJ
MW7-ROX-101220-Dup	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW7-ROX-101220-Dup	SVOCs	Hexachlorocyclopentadiene	UJ
MW7-ROX-101220-Dup	SVOCs	Pyridine	UJ
MW7-ROX-101220-Dup	SVOCs	Quinoline	UJ



eurofins

Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 400-194323-1
Client Project/Site: ROXANA QUARTERLY GW

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

Attn: Elizabeth Kunkel

Authorized for release by:
11/10/2020 5:12:44 PM

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

LINKS

Review your project
results through
Total Access

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Reviewed 11/20/2020
LR

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.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	8
Definitions	35
Surrogate Summary	36
Method Summary	38
Chronicle	39
QC Association	45
QC Sample Results	48
Chain of Custody	62
Receipt Checklists	63
Certification Summary	64

Case Narrative

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

Job ID: 400-194323-1

Job ID: 400-194323-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-194323-1

Comments

No additional comments.

Receipt

The samples were received on 10/13/2020 9:11 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.2° C, 2.8° C and 3.4° C.

GC/MS VOA

Method 8260B: The continuing calibration verification (CCV) associated with batch 400-507584 recovered above the upper control limit for Vinyl chloride. The samples associated with this CCV was non-detects for the affected analyte; therefore, the data have been reported.

Method 8260B: The preservative used in the sample containers provided is not compatible with one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-101220-8260 (400-194323-1), MW4-ROX-101220-EB (400-194323-3), MW4-ROX-101220 (400-194323-4), MW25-ROX-101220 (400-194323-5), MW8-ROX-101220 (400-194323-6), MW7-ROX-101220 (400-194323-7) and MW7-ROX-101220-DUP (400-194323-8). 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 analytes recovered outside control limits for the LCS associated with analytical batch 400-507584: Bromoform and Chlorodibromomethane . This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW7-ROX-101220 (400-194323-7) and MW7-ROX-101220-DUP (400-194323-8). 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 initial calibration verification (ICV) analyzed in batch 400-504644 was outside method criteria for the following analyte(s): 1,4-Dioxane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-506820 and analytical batch 400-507337 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 400-506820 and analytical batch 400-507337 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-507337 recovered above the upper control limit for Hexachlorobenzene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-507337 recovered outside acceptance criteria, low biased, for Benzyl alcohol, 1,2-Diphenylhydrazine (as Azobenzene), Hexachlorocyclopentadiene, 1,4-Dioxane, Pyridine, Aniline, Bis(2-chloroethoxy)methane and Quinoline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-507407 recovered above the upper control limit for 4,6-Dinitro-2-methylphenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have

Case Narrative

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

Job ID: 400-194323-1

Job ID: 400-194323-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

been reported.

Method 8270D: The method blank for preparation batch 400-506820 and analytical batch 400-507454 contained Dimethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 400-506820/1-A). 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 400-506820 and analytical batch 400-507454 recovered outside control limits for the following analytes: Benzyl alcohol, Nitrobenzene, bis (2-chloroisopropyl) ether, Bis(2-chloroethoxy)methane, Aniline, 1,4-Dioxane, Isophorone, 3-Nitroaniline, 1,2-Diphenylhydrazine (as Azobenzene), 4-Chloroaniline, Hexachlorocyclopentadiene, 2-Nitroaniline, Pyridine and Bis(2-chloroethyl)ether.

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-508204 and analytical batch 400-509317 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and LCSD that were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-508204 and analytical batch 400-509317 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol and Nitrobenzene-d5 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: 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: (LCSD 400-508204/5-A). 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 400-506820 and analytical batch 400-507337 recovered outside control limits for the following analytes: Phenol, 4-Chloroaniline, 2,4-Dichlorophenol, 2-Chlorophenol and 2-Nitrophenol.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-506820 and analytical batch 400-507337 recovered outside control limits for the following analytes: 2,4-Dinitrophenol, 2-Chlorophenol and 2-Nitrophenol. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. Both sets of data have been reported.

Method 8270D: Surrogate recovery for the following samples were outside control limits: (LCSD 400-506820/22-A) and (MB 400-506820/1-A). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

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 400-507289 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

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

Job ID: 400-194323-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194323-1	TB-ROX-101220-8260✓	Water	10/12/20 00:00	10/13/20 09:11	
400-194323-2	TB-ROX-101220-8011✓	Water	10/12/20 00:00	10/13/20 09:11	
400-194323-3	MW4-ROX-101220-EB✓	Water	10/12/20 08:50	10/13/20 09:11	
400-194323-4	MW4-ROX-101220✓	Water	10/12/20 09:42	10/13/20 09:11	
400-194323-5	MW25-ROX-101220✓	Water	10/12/20 10:25	10/13/20 09:11	
400-194323-6	MW8-ROX-101220✓	Water	10/12/20 11:38	10/13/20 09:11	
400-194323-7	MW7-ROX-101220✓	Water	10/12/20 12:40	10/13/20 09:11	
400-194323-8	MW7-ROX-101220-DUP✓	Water	10/12/20 12:40	10/13/20 09:11	

4

5

Detection Summary

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

Job ID: 400-194323-1

Client Sample ID: TB-ROX-101220-8260

Lab Sample ID: 400-194323-1

No Detections.

Client Sample ID: TB-ROX-101220-8011

Lab Sample ID: 400-194323-2

No Detections.

Client Sample ID: MW4-ROX-101220-EB

Lab Sample ID: 400-194323-3

No Detections.

Client Sample ID: MW4-ROX-101220

Lab Sample ID: 400-194323-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	1.0	0.38	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	1.9		1.0	0.74	ug/L	1		8260B	Total/NA
o-Xylene	0.67	J	5.0	0.60	ug/L	1		8260B	Total/NA
Toluene	0.47	J	1.0	0.41	ug/L	1		8260B	Total/NA
Xylenes, Total	2.1	J	10	1.6	ug/L	1		8260B	Total/NA

Client Sample ID: MW25-ROX-101220

Lab Sample ID: 400-194323-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	45		1.0	0.38	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	3.3		1.0	0.74	ug/L	1		8260B	Total/NA
o-Xylene	0.83	J	5.0	0.60	ug/L	1		8260B	Total/NA
Toluene	0.56	J	1.0	0.41	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	0.89	J	1.0	0.82	ug/L	1		8260B	Total/NA
Xylenes, Total	2.2	J	10	1.6	ug/L	1		8260B	Total/NA
1-Methylnaphthalene	0.17	J	0.19	0.070	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	0.20		0.19	0.056	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW8-ROX-101220

Lab Sample ID: 400-194323-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	130000		500	190	ug/L	500		8260B	Total/NA
1-Methylnaphthalene	8.2		0.19	0.069	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	1.6		0.19	0.056	ug/L	1		8270D LL	Total/NA
Indene	1.4	J	9.3	0.93	ug/L	1		8270D	Total/NA
Phenol	260		9.3	2.4	ug/L	1		8270D	Total/NA

Client Sample ID: MW7-ROX-101220

Lab Sample ID: 400-194323-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene - DL	1400000		10000	3800	ug/L	10000		8260B	Total/NA
2-Methylnaphthalene	2.5		0.19	0.058	ug/L	1		8270D LL	Total/NA
Benzoic acid	32		29	7.0	ug/L	1		8270D	Total/NA
2-Methylphenol	2.1	J	9.6	1.7	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	2.3	J	19	0.38	ug/L	1		8270D	Total/NA
Phenol	63		9.6	2.5	ug/L	1		8270D	Total/NA

Client Sample ID: MW7-ROX-101220-DUP

Lab Sample ID: 400-194323-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene - DL	1400000		10000	3800	ug/L	10000		8260B	Total/NA
1-Methylnaphthalene	1.8	J	0.19	0.070	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	2.5		0.19	0.057	ug/L	1		8270D LL	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

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

Job ID: 400-194323-1

Client Sample ID: MW7-ROX-101220-DUP (Continued)

Lab Sample ID: 400-194323-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzoic acid	32		28	6.9	ug/L	1	8270D	Total/NA	
2-Methylphenol	2.1	J	9.4	1.7	ug/L	1	8270D	Total/NA	
3 & 4 Methylphenol	2.4	J	19	0.37	ug/L	1	8270D	Total/NA	
Phenol	73		9.4	2.5	ug/L	1	8270D	Total/NA	

5

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: TB-ROX-101220-8260

Date Collected: 10/12/20 00:00

Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 12:47	1
Acrolein	ND		20	10	ug/L			10/21/20 12:47	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 12:47	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 12:47	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 12:47	1
Bromoform	ND *		5.0	0.71	ug/L			10/21/20 12:47	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 12:47	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 12:47	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 12:47	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 12:47	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 12:47	1
Dibromochloromethane	ND *		1.0	0.50	ug/L			10/21/20 12:47	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 12:47	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 12:47	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 12:47	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 12:47	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 12:47	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 12:47	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 12:47	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 12:47	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 12:47	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 12:47	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 12:47	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 12:47	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 12:47	1
1,1-Dichloroelthene	ND		1.0	0.50	ug/L			10/21/20 12:47	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 12:47	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 12:47	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 12:47	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 12:47	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 12:47	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 12:47	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 12:47	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 12:47	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 12:47	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 12:47	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 12:47	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 12:47	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/21/20 12:47	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 12:47	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 12:47	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/20 12:47	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 12:47	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 12:47	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/20 12:47	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 12:47	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 12:47	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: TB-ROX-101220-8260
Date Collected: 10/12/20 00:00
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 12:47	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 12:47	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 12:47	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 12:47	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 12:47	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 12:47	1
Toluene	ND		1.0	0.41	ug/L			10/21/20 12:47	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/21/20 12:47	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 12:47	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 12:47	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 12:47	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 12:47	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 12:47	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 12:47	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 12:47	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 12:47	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 12:47	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 12:47	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 12:47	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 12:47	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/20 12:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	94		78 - 118				10/21/20 12:47		1
Dibromofluoromethane	97		81 - 121				10/21/20 12:47		1
Toluene-d8 (Surr)	94		80 - 120				10/21/20 12:47		1

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: TB-ROX-101220-8011

Lab Sample ID: 400-194323-2

Date Collected: 10/12/20 00:00

Matrix: Water

Date Received: 10/13/20 09:11

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/19/20 09:37	10/19/20 17:16	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/19/20 09:37	10/19/20 17:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		51 - 149				10/19/20 09:37	10/19/20 17:16	1

5

6

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW4-ROX-101220-EB

Lab Sample ID: 400-194323-3

Date Collected: 10/12/20 08:50

Matrix: Water

Date Received: 10/13/20 09:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 13:09	1
Acrolein	ND		20	10	ug/L			10/21/20 13:09	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 13:09	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 13:09	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 13:09	1
Bromoform	ND		1.0	0.52	ug/L			10/21/20 13:09	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Bromoform	ND		5.0	0.71	ug/L			10/21/20 13:09	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 13:09	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 13:09	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 13:09	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 13:09	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 13:09	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 13:09	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 13:09	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 13:09	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 13:09	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 13:09	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 13:09	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 13:09	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 13:09	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 13:09	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 13:09	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 13:09	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 13:09	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 13:09	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 13:09	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 13:09	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 13:09	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 13:09	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 13:09	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 13:09	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 13:09	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 13:09	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/21/20 13:09	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 13:09	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 13:09	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/20 13:09	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 13:09	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 13:09	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/20 13:09	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 13:09	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 13:09	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW4-ROX-101220-EB

Lab Sample ID: 400-194323-3

Date Collected: 10/12/20 08:50

Matrix: Water

Date Received: 10/13/20 09:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 13:09	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 13:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 13:09	1
1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 13:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 13:09	1
Toluene	ND		1.0	0.41	ug/L			10/21/20 13:09	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/21/20 13:09	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 13:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 13:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 13:09	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 13:09	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 13:09	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 13:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 13:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 13:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 13:09	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 13:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 13:09	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/20 13:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		78 - 118		10/21/20 13:09	1
Dibromofluoromethane	96		81 - 121		10/21/20 13:09	1
Toluene-d8 (Surr)	95		80 - 120		10/21/20 13:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/14/20 16:36	10/20/20 17:22	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/14/20 16:36	10/20/20 17:22	1
Anthracene	ND		0.19	0.030	ug/L		10/14/20 16:36	10/20/20 17:22	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		10/14/20 16:36	10/20/20 17:22	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		10/14/20 16:36	10/20/20 17:22	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/14/20 16:36	10/20/20 17:22	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/14/20 16:36	10/20/20 17:22	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		10/14/20 16:36	10/20/20 17:22	1
Chrysene	ND		0.19	0.069	ug/L		10/14/20 16:36	10/20/20 17:22	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/14/20 16:36	10/20/20 17:22	1
Fluoranthene	ND		0.19	0.064	ug/L		10/14/20 16:36	10/20/20 17:22	1
Fluorene	ND		0.19	0.10	ug/L		10/14/20 16:36	10/20/20 17:22	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		10/14/20 16:36	10/20/20 17:22	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		10/14/20 16:36	10/20/20 17:22	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		10/14/20 16:36	10/20/20 17:22	1
Phenanthrene	ND		0.19	0.034	ug/L		10/14/20 16:36	10/20/20 17:22	1
Pyrene	ND		0.19	0.037	ug/L		10/14/20 16:36	10/20/20 17:22	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2-Fluorobiphenyl	86		15 - 122		10/20/20 17:22	1			
Nitrobenzene-d5	85		19 - 130		10/20/20 17:22	1			

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW4-ROX-101220-EB

Lab Sample ID: 400-194323-3

Date Collected: 10/12/20 08:50

Matrix: Water

Date Received: 10/13/20 09:11

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	112		33 - 138	10/14/20 16:36	10/20/20 17:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*1	9.3	3.6	ug/L		10/14/20 16:36	10/19/20 22:18	1
Benzenethiol	ND	**1	9.3	1.6	ug/L		10/14/20 16:36	10/19/20 22:18	1
Benzoic acid	ND		28	6.8	ug/L		10/14/20 16:36	10/19/20 22:18	1
Benzyl alcohol	ND	*1	9.3	1.9	ug/L		10/14/20 16:36	10/19/20 22:18	1
Bis(2-chloroethoxy)methane	ND	*1	9.3	0.15	ug/L		10/14/20 16:36	10/19/20 22:18	1
Bis(2-chloroethyl)ether	ND	*1	9.3	2.5	ug/L		10/14/20 16:36	10/19/20 22:18	1
bis (2-chloroisopropyl) ether	ND	*1	9.3	0.15	ug/L		10/14/20 16:36	10/19/20 22:18	1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.7	ug/L		10/14/20 16:36	10/19/20 22:18	1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L		10/14/20 16:36	10/19/20 22:18	1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L		10/14/20 16:36	10/19/20 22:18	1
4-Chloroaniline	ND	*1	9.3	3.2	ug/L		10/14/20 16:36	10/19/20 22:18	1
4-Chloro-3-methylphenol	ND		9.3	3.6	ug/L		10/14/20 16:36	10/19/20 22:18	1
2-Chloronaphthalene	ND		9.3	0.13	ug/L		10/14/20 16:36	10/19/20 22:18	1
2-Chlorophenol	ND		9.3	2.1	ug/L		10/14/20 16:36	10/19/20 22:18	1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L		10/14/20 16:36	10/19/20 22:18	1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L		10/14/20 16:36	10/19/20 22:18	1
Dibenzofuran	ND		9.3	0.16	ug/L		10/14/20 16:36	10/19/20 22:18	1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L		10/14/20 16:36	10/19/20 22:18	1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L		10/14/20 16:36	10/19/20 22:18	1
Diethyl phthalate	ND		9.3	0.22	ug/L		10/14/20 16:36	10/19/20 22:18	1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L		10/14/20 16:36	10/19/20 22:18	1
Dimethyl phthalate	ND		9.3	0.16	ug/L		10/14/20 16:36	10/19/20 22:18	1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L		10/14/20 16:36	10/19/20 22:18	1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L		10/14/20 16:36	10/20/20 14:17	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/14/20 16:36	10/19/20 22:18	1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L		10/14/20 16:36	10/19/20 22:18	1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L		10/14/20 16:36	10/19/20 22:18	1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L		10/14/20 16:36	10/19/20 22:18	1
1,4-Dioxane	ND	*1	9.3	0.93	ug/L		10/14/20 16:36	10/19/20 22:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	*1	9.3	0.93	ug/L		10/14/20 16:36	10/19/20 22:18	1
Hexachlorobenzene	ND		9.3	0.16	ug/L		10/14/20 16:36	10/19/20 22:18	1
Hexachlorocyclopentadiene	ND	*1	19	2.4	ug/L		10/14/20 16:36	10/19/20 22:18	1
Hexachloroethane	ND		9.3	3.9	ug/L		10/14/20 16:36	10/19/20 22:18	1
Indene	ND		9.3	0.93	ug/L		10/14/20 16:36	10/19/20 22:18	1
Isophorone	ND	*1	9.3	0.13	ug/L		10/14/20 16:36	10/19/20 22:18	1
2-Methylphenol	ND		9.3	1.7	ug/L		10/14/20 16:36	10/19/20 22:18	1
3 & 4 Methylphenol	ND		19	0.36	ug/L		10/14/20 16:36	10/19/20 22:18	1
2-Nitroaniline	ND	*1	9.3	2.1	ug/L		10/14/20 16:36	10/19/20 22:18	1
3-Nitroaniline	ND	*1	9.3	1.7	ug/L		10/14/20 16:36	10/19/20 22:18	1
4-Nitroaniline	ND		9.3	1.4	ug/L		10/14/20 16:36	10/19/20 22:18	1
Nitrobenzene	ND	*1	9.3	0.12	ug/L		10/14/20 16:36	10/19/20 22:18	1
2-Nitrophenol	ND		9.3	4.9	ug/L		10/14/20 16:36	10/19/20 22:18	1
4-Nitrophenol	ND		9.3	2.0	ug/L		10/14/20 16:36	10/19/20 22:18	1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L		10/14/20 16:36	10/19/20 22:18	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW4-ROX-101220-EB

Lab Sample ID: 400-194323-3

Date Collected: 10/12/20 08:50

Matrix: Water

Date Received: 10/13/20 09:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L	10/14/20	16:36	10/19/20 22:18	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L	10/14/20	16:36	10/19/20 22:18	1
Pentachlorophenol	ND		19	1.3	ug/L	10/14/20	16:36	10/19/20 22:18	1
Phenol	ND		9.3	2.4	ug/L	10/14/20	16:36	10/19/20 22:18	1
Pyridine	ND *1		9.3	3.0	ug/L	10/14/20	16:36	10/19/20 22:18	1
Quinoline	ND		9.3	4.2	ug/L	10/14/20	16:36	10/19/20 22:18	1
2,4,5-Trichlorophenol	ND		9.3	3.5	ug/L	10/14/20	16:36	10/19/20 22:18	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L	10/14/20	16:36	10/19/20 22:18	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		62		46 - 124			10/14/20 16:36	10/19/20 22:18	1
2-Fluorophenol		20		13 - 113			10/14/20 16:36	10/19/20 22:18	1
Nitrobenzene-d5		58		36 - 126			10/14/20 16:36	10/19/20 22:18	1
Phenol-d5		38		17 - 127			10/14/20 16:36	10/19/20 22:18	1
Terphenyl-d14		104		44 - 149			10/14/20 16:36	10/19/20 22:18	1
2,4,6-Tribromophenol		83		26 - 150			10/14/20 16:36	10/19/20 22:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzethiol	ND H *		9.6	1.6	ug/L	10/26/20	13:24	11/04/20 21:14	1
2-Chlorophenol	ND H		9.6	2.1	ug/L	10/26/20	13:24	11/04/20 21:14	1
2,4-Dinitrophenol	ND H		29	3.3	ug/L	10/26/20	13:24	11/04/20 21:14	1
2-Nitrophenol	ND H		9.6	5.0	ug/L	10/26/20	13:24	11/04/20 21:14	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		80		46 - 124			10/26/20 13:24	11/04/20 21:14	1
2-Fluorophenol		21		13 - 113			10/26/20 13:24	11/04/20 21:14	1
Nitrobenzene-d5		75		36 - 126			10/26/20 13:24	11/04/20 21:14	1
Phenol-d5		57		17 - 127			10/26/20 13:24	11/04/20 21:14	1
Terphenyl-d14		95		44 - 149			10/26/20 13:24	11/04/20 21:14	1
2,4,6-Tribromophenol		70		26 - 150			10/26/20 13:24	11/04/20 21:14	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L	10/19/20	09:37	10/19/20 17:36	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L	10/19/20	09:37	10/19/20 17:36	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene		87		51 - 149			10/19/20 09:37	10/19/20 17:36	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW4-ROX-101220

Date Collected: 10/12/20 09:42

Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 16:28	1
Acrolein	ND		20	10	ug/L			10/21/20 16:28	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 16:28	1
Benzene	0.41	J	1.0	0.38	ug/L			10/21/20 16:28	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 16:28	1
Bromochloromethane	ND		1.0	0.52	ug/L			10/21/20 16:28	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/20 16:28	1
Bromoform	ND *	WS	5.0	0.71	ug/L			10/21/20 16:28	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 16:28	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 16:28	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 16:28	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 16:28	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 16:28	1
Dibromochloromethane	ND *	WS	1.0	0.50	ug/L			10/21/20 16:28	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 16:28	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 16:28	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 16:28	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 16:28	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 16:28	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 16:28	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 16:28	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 16:28	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 16:28	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 16:28	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 16:28	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 16:28	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 16:28	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 16:28	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 16:28	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 16:28	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 16:28	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 16:28	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 16:28	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 16:28	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 16:28	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 16:28	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 16:28	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 16:28	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 16:28	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 16:28	1
Methyl tert-butyl ether	1.9		1.0	0.74	ug/L			10/21/20 16:28	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 16:28	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 16:28	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/20 16:28	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 16:28	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 16:28	1
o-Xylene	0.67	J	5.0	0.60	ug/L			10/21/20 16:28	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 16:28	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 16:28	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW4-ROX-101220

Date Collected: 10/12/20 09:42

Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-4

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 16:28	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 16:28	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 16:28	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 16:28	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 16:28	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/21/20 16:28	1
Toluene	0.47	J	1.0	0.41	ug/L			10/21/20 16:28	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 16:28	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 16:28	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 16:28	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 16:28	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 16:28	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 16:28	1
Trichloroethene	ND		1.0	0.50	ug/L			10/21/20 16:28	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 16:28	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 16:28	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 16:28	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 16:28	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 16:28	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 16:28	1
Xylenes, Total	2.1	J	10	1.6	ug/L			10/21/20 16:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		78 - 118		10/21/20 16:28	1
Dibromofluoromethane	99		81 - 121		10/21/20 16:28	1
Toluene-d8 (Surf)	90		80 - 120		10/21/20 16:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L			10/14/20 16:36	10/20/20 17:40	1
Acenaphthylene	ND		0.19	0.042	ug/L			10/14/20 16:36	10/20/20 17:40	1
Anthracene	ND		0.19	0.030	ug/L			10/14/20 16:36	10/20/20 17:40	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L			10/14/20 16:36	10/20/20 17:40	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/14/20 16:36	10/20/20 17:40	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/14/20 16:36	10/20/20 17:40	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/14/20 16:36	10/20/20 17:40	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L			10/14/20 16:36	10/20/20 17:40	1
Chrysene	ND		0.19	0.070	ug/L			10/14/20 16:36	10/20/20 17:40	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/14/20 16:36	10/20/20 17:40	1
Fluoranthene	ND		0.19	0.064	ug/L			10/14/20 16:36	10/20/20 17:40	1
Fluorene	ND		0.19	0.10	ug/L			10/14/20 16:36	10/20/20 17:40	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/14/20 16:36	10/20/20 17:40	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L			10/14/20 16:36	10/20/20 17:40	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L			10/14/20 16:36	10/20/20 17:40	1
Phenanthrene	ND		0.19	0.034	ug/L			10/14/20 16:36	10/20/20 17:40	1
Pyrene	ND		0.19	0.038	ug/L			10/14/20 16:36	10/20/20 17:40	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
2-Fluorobiphenyl	84		15 - 122		10/14/20 16:36	10/20/20 17:40	1			
Nitrobenzene-d5	80		19 - 130		10/14/20 16:36	10/20/20 17:40	1			

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW4-ROX-101220
Date Collected: 10/12/20 09:42
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	89		33 - 138	10/14/20 16:36	10/20/20 17:40	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*1 <i>WS</i>	9.4	3.6	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Benzenethiol	ND	**1	9.4	1.6	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Benzoic acid	ND		28	6.9	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Benzyl alcohol	ND	*1 <i>WS</i>	9.4	1.9	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Bis(2-chloroethoxy)methane	ND	*1 <i>WS</i>	9.4	0.15	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Bis(2-chloroethyl)ether	ND	*1	9.4	2.5	ug/L	10/14/20 16:36	10/19/20 22:39	1	
bis (2-chloroisopropyl) ether	ND	*1	9.4	0.15	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L	10/14/20 16:36	10/19/20 22:39	1	
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Butyl benzyl phthalate	ND		9.4	0.18	ug/L	10/14/20 16:36	10/19/20 22:39	1	
4-Chloroaniline	ND	*1	9.4	3.2	ug/L	10/14/20 16:36	10/19/20 22:39	1	
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L	10/14/20 16:36	10/19/20 22:39	1	
2-Chloronaphthalene	ND		9.4	0.13	ug/L	10/14/20 16:36	10/19/20 22:39	1	
2-Chlorophenol	ND		9.4	2.1	ug/L	10/14/20 16:36	10/19/20 22:39	1	
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Dibenzofuran	ND		9.4	0.16	ug/L	10/14/20 16:36	10/19/20 22:39	1	
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L	10/14/20 16:36	10/19/20 22:39	1	
2,4-Dichlorophenol	ND		9.4	2.8	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Diethyl phthalate	ND		9.4	0.23	ug/L	10/14/20 16:36	10/19/20 22:39	1	
2,4-Dimethylphenol	ND		9.4	3.3	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Dimethyl phthalate	ND		9.4	0.16	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Di-n-butyl phthalate	ND		9.4	2.5	ug/L	10/14/20 16:36	10/19/20 22:39	1	
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L	10/14/20 16:36	10/20/20 14:41	1	
2,4-Dinitrophenol	ND		28	3.2	ug/L	10/14/20 16:36	10/19/20 22:39	1	
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L	10/14/20 16:36	10/19/20 22:39	1	
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Di-n-octyl phthalate	ND		9.4	0.16	ug/L	10/14/20 16:36	10/19/20 22:39	1	
1,4-Dioxane	ND	*1 <i>WS</i>	9.4	0.94	ug/L	10/14/20 16:36	10/19/20 22:39	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND	*1 <i>WS</i>	9.4	0.94	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Hexachlorobenzene	ND		9.4	0.16	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Hexachlorocyclopentadiene	ND	*1 <i>WS</i>	19	2.5	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Hexachloroethane	ND		9.4	4.0	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Indene	ND		9.4	0.94	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Isophorone	ND	*1	9.4	0.13	ug/L	10/14/20 16:36	10/19/20 22:39	1	
2-Methylphenol	ND		9.4	1.7	ug/L	10/14/20 16:36	10/19/20 22:39	1	
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/14/20 16:36	10/19/20 22:39	1	
2-Nitroaniline	ND	*1	9.4	2.1	ug/L	10/14/20 16:36	10/19/20 22:39	1	
3-Nitroaniline	ND	*1	9.4	1.7	ug/L	10/14/20 16:36	10/19/20 22:39	1	
4-Nitroaniline	ND		9.4	1.4	ug/L	10/14/20 16:36	10/19/20 22:39	1	
Nitrobenzene	ND	*1	9.4	0.12	ug/L	10/14/20 16:36	10/19/20 22:39	1	
2-Nitrophenol	ND		9.4	4.9	ug/L	10/14/20 16:36	10/19/20 22:39	1	
4-Nitrophenol	ND		9.4	2.0	ug/L	10/14/20 16:36	10/19/20 22:39	1	
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L	10/14/20 16:36	10/19/20 22:39	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW4-ROX-101220

Lab Sample ID: 400-194323-4

Date Collected: 10/12/20 09:42

Matrix: Water

Date Received: 10/13/20 09:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L	10/14/20 16:36	10/19/20 22:39		1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L	10/14/20 16:36	10/19/20 22:39		1
Pentachlorophenol	ND		19	1.3	ug/L	10/14/20 16:36	10/19/20 22:39		1
Phenol	ND		9.4	2.5	ug/L	10/14/20 16:36	10/19/20 22:39		1
Pyridine	ND *1	WS	9.4	3.0	ug/L	10/14/20 16:36	10/19/20 22:39		1
Quinoline	ND	WS	9.4	4.2	ug/L	10/14/20 16:36	10/19/20 22:39		1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L	10/14/20 16:36	10/19/20 22:39		1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L	10/14/20 16:36	10/19/20 22:39		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	60		46-124	10/14/20 16:36	10/19/20 22:39	1
2-Fluorophenol	39		13-113	10/14/20 16:36	10/19/20 22:39	1
Nitrobenzene-d5	57		36-126	10/14/20 16:36	10/19/20 22:39	1
Phenol-d5	46		17-127	10/14/20 16:36	10/19/20 22:39	1
Terphenyl-d14	91		44-149	10/14/20 16:36	10/19/20 22:39	1
2,4,6-Tribromophenol	96		26-150	10/14/20 16:36	10/19/20 22:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzethiol	ND H	WS	9.5	1.6	ug/L	10/26/20 13:24	11/04/20 21:35		1
2-Chlorophenol	ND H		9.5	2.1	ug/L	10/26/20 13:24	11/04/20 21:35		1
2,4-Dinitrophenol	ND H		28	3.2	ug/L	10/26/20 13:24	11/04/20 21:35		1
2-Nitrophenol	ND H		9.5	4.9	ug/L	10/26/20 13:24	11/04/20 21:35		1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		46-124	10/26/20 13:24	11/04/20 21:35	1
2-Fluorophenol	47		13-113	10/26/20 13:24	11/04/20 21:35	1
Nitrobenzene-d5	76		36-126	10/26/20 13:24	11/04/20 21:35	1
Phenol-d5	65		17-127	10/26/20 13:24	11/04/20 21:35	1
Terphenyl-d14	90		44-149	10/26/20 13:24	11/04/20 21:35	1
2,4,6-Tribromophenol	98		26-150	10/26/20 13:24	11/04/20 21:35	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L	10/19/20 09:37	10/19/20 17:56		1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L	10/19/20 09:37	10/19/20 17:56		1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	104		51-149	10/19/20 09:37	10/19/20 17:56	1			

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW25-ROX-101220
Date Collected: 10/12/20 10:25
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 16:50	1
Acrolein	ND		20	10	ug/L			10/21/20 16:50	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 16:50	1
Benzene	45		1.0	0.38	ug/L			10/21/20 16:50	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 16:50	1
Bromoform	ND		1.0	0.52	ug/L			10/21/20 16:50	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/21/20 16:50	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/21/20 16:50	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 16:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 16:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 16:50	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 16:50	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 16:50	1
Dibromochloromethane	ND	WS	1.0	0.50	ug/L			10/21/20 16:50	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 16:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 16:50	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 16:50	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 16:50	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 16:50	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 16:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 16:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 16:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 16:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 16:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 16:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 16:50	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 16:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 16:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 16:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 16:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 16:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 16:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 16:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 16:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 16:50	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 16:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 16:50	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 16:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 16:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 16:50	1
Methyl tert-butyl ether	3.3		1.0	0.74	ug/L			10/21/20 16:50	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 16:50	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 16:50	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/20 16:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 16:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 16:50	1
o-Xylene	0.83 J		5.0	0.60	ug/L			10/21/20 16:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 16:50	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 16:50	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW25-ROX-101220

Date Collected: 10/12/20 10:25

Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-5

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 16:50	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 16:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 16:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 16:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 16:50	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 16:50	1
Toluene	0.56 J		1.0	0.41	ug/L			10/21/20 16:50	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 16:50	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 16:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 16:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 16:50	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 16:50	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 16:50	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 16:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 16:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 16:50	1
1,2,4-Trimethylbenzene	0.89 J		1.0	0.82	ug/L			10/21/20 16:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 16:50	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 16:50	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 16:50	1
Xylenes, Total	2.2 J		10	1.6	ug/L			10/21/20 16:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		78 - 118		10/21/20 16:50	1
Dibromofluoromethane	97		81 - 121		10/21/20 16:50	1
Toluene-d8 (Surf)	92		80 - 120		10/21/20 16:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L			10/14/20 16:36	10/20/20 17:57	1
Acenaphthylene	ND		0.19	0.042	ug/L			10/14/20 16:36	10/20/20 17:57	1
Anthracene	ND		0.19	0.030	ug/L			10/14/20 16:36	10/20/20 17:57	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L			10/14/20 16:36	10/20/20 17:57	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/14/20 16:36	10/20/20 17:57	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/14/20 16:36	10/20/20 17:57	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/14/20 16:36	10/20/20 17:57	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L			10/14/20 16:36	10/20/20 17:57	1
Chrysene	ND		0.19	0.070	ug/L			10/14/20 16:36	10/20/20 17:57	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/14/20 16:36	10/20/20 17:57	1
Fluoranthene	ND		0.19	0.064	ug/L			10/14/20 16:36	10/20/20 17:57	1
Fluorene	ND		0.19	0.10	ug/L			10/14/20 16:36	10/20/20 17:57	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L			10/14/20 16:36	10/20/20 17:57	1
1-Methylnaphthalene	0.17 J		0.19	0.070	ug/L			10/14/20 16:36	10/20/20 17:57	1
2-Methylnaphthalene	0.20		0.19	0.056	ug/L			10/14/20 16:36	10/20/20 17:57	1
Phenanthrene	ND		0.19	0.034	ug/L			10/14/20 16:36	10/20/20 17:57	1
Pyrene	ND		0.19	0.038	ug/L			10/14/20 16:36	10/20/20 17:57	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac				
2-Fluorobiphenyl	95		15 - 122		10/14/20 16:36	10/20/20 17:57	1			
Nitrobenzene-d5	92		19 - 130		10/14/20 16:36	10/20/20 17:57	1			

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW25-ROX-101220
Date Collected: 10/12/20 10:25
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	101		33 - 138	10/14/20 16:36	10/20/20 17:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*1 <i>WS</i>	9.4	3.6	ug/L	10/14/20 16:36	10/19/20 23:00		1
Benzenethiol	ND	**1	9.4	1.6	ug/L	10/14/20 16:36	10/19/20 23:00		1
Benzoic acid	ND		28	6.9	ug/L	10/14/20 16:36	10/19/20 23:00		1
Benzyl alcohol	ND	*1 <i>WS</i>	9.4	1.9	ug/L	10/14/20 16:36	10/19/20 23:00		1
Bis(2-chloroethoxy)methane	ND	*1 <i>WS</i>	9.4	0.15	ug/L	10/14/20 16:36	10/19/20 23:00		1
Bis(2-chloroethyl)ether	ND	*1	9.4	2.5	ug/L	10/14/20 16:36	10/19/20 23:00		1
bis (2-chloroisopropyl) ether	ND	*1	9.4	0.15	ug/L	10/14/20 16:36	10/19/20 23:00		1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L	10/14/20 16:36	10/19/20 23:00		1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L	10/14/20 16:36	10/19/20 23:00		1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L	10/14/20 16:36	10/19/20 23:00		1
4-Chloroaniline	ND	*1	9.4	3.2	ug/L	10/14/20 16:36	10/19/20 23:00		1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L	10/14/20 16:36	10/19/20 23:00		1
2-Chloronaphthalene	ND		9.4	0.13	ug/L	10/14/20 16:36	10/19/20 23:00		1
2-Chlorophenol	ND		9.4	2.1	ug/L	10/14/20 16:36	10/19/20 23:00		1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L	10/14/20 16:36	10/19/20 23:00		1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L	10/14/20 16:36	10/19/20 23:00		1
Dibenzofuran	ND		9.4	0.16	ug/L	10/14/20 16:36	10/19/20 23:00		1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L	10/14/20 16:36	10/19/20 23:00		1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L	10/14/20 16:36	10/19/20 23:00		1
Diethyl phthalate	ND		9.4	0.23	ug/L	10/14/20 16:36	10/19/20 23:00		1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L	10/14/20 16:36	10/19/20 23:00		1
Dimethyl phthalate	ND		9.4	0.16	ug/L	10/14/20 16:36	10/19/20 23:00		1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L	10/14/20 16:36	10/19/20 23:00		1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L	10/14/20 16:36	10/20/20 15:06		1
2,4-Dinitrophenol	ND		28	3.2	ug/L	10/14/20 16:36	10/19/20 23:00		1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L	10/14/20 16:36	10/19/20 23:00		1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L	10/14/20 16:36	10/19/20 23:00		1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L	10/14/20 16:36	10/19/20 23:00		1
1,4-Dioxane	ND	*1 <i>WS</i>	9.4	0.94	ug/L	10/14/20 16:36	10/19/20 23:00		1
1,2-Diphenylhydrazine (as Azobenzene)	ND	*1 <i>WS</i>	9.4	0.94	ug/L	10/14/20 16:36	10/19/20 23:00		1
Hexachlorobenzene	ND		9.4	0.16	ug/L	10/14/20 16:36	10/19/20 23:00		1
Hexachlorocyclopentadiene	ND	*1 <i>WS</i>	19	2.4	ug/L	10/14/20 16:36	10/19/20 23:00		1
Hexachloroethane	ND		9.4	4.0	ug/L	10/14/20 16:36	10/19/20 23:00		1
Indene	ND		9.4	0.94	ug/L	10/14/20 16:36	10/19/20 23:00		1
Isophorone	ND	*1	9.4	0.13	ug/L	10/14/20 16:36	10/19/20 23:00		1
2-Methylphenol	ND		9.4	1.7	ug/L	10/14/20 16:36	10/19/20 23:00		1
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/14/20 16:36	10/19/20 23:00		1
2-Nitroaniline	ND	*1	9.4	2.1	ug/L	10/14/20 16:36	10/19/20 23:00		1
3-Nitroaniline	ND	*1	9.4	1.7	ug/L	10/14/20 16:36	10/19/20 23:00		1
4-Nitroaniline	ND		9.4	1.4	ug/L	10/14/20 16:36	10/19/20 23:00		1
Nitrobenzene	ND	*1	9.4	0.12	ug/L	10/14/20 16:36	10/19/20 23:00		1
2-Nitrophenol	ND		9.4	4.9	ug/L	10/14/20 16:36	10/19/20 23:00		1
4-Nitrophenol	ND		9.4	2.0	ug/L	10/14/20 16:36	10/19/20 23:00		1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L	10/14/20 16:36	10/19/20 23:00		1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW25-ROX-101220
Date Collected: 10/12/20 10:25
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/14/20 16:36	10/19/20 23:00	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/14/20 16:36	10/19/20 23:00	1
Pentachlorophenol	ND		19	1.3	ug/L		10/14/20 16:36	10/19/20 23:00	1
Phenol	ND		9.4	2.4	ug/L		10/14/20 16:36	10/19/20 23:00	1
Pyridine	ND *1	WS	9.4	3.0	ug/L		10/14/20 16:36	10/19/20 23:00	1
Quinoline	ND WS		9.4	4.2	ug/L		10/14/20 16:36	10/19/20 23:00	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/14/20 16:36	10/19/20 23:00	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/14/20 16:36	10/19/20 23:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	64		46 - 124				10/14/20 16:36	10/19/20 23:00	1
2-Fluorophenol	28		13 - 113				10/14/20 16:36	10/19/20 23:00	1
Nitrobenzene-d5	61		36 - 126				10/14/20 16:36	10/19/20 23:00	1
Phenol-d5	42		17 - 127				10/14/20 16:36	10/19/20 23:00	1
Terphenyl-d14	91		44 - 149				10/14/20 16:36	10/19/20 23:00	1
2,4,6-Tribromophenol	105		26 - 150				10/14/20 16:36	10/19/20 23:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzethiol	ND H *	WS	9.5	1.6	ug/L		10/26/20 13:24	11/04/20 21:56	1
2-Chlorophenol	ND H		9.5	2.1	ug/L		10/26/20 13:24	11/04/20 21:56	1
2,4-Dinitrophenol	ND H		28	3.2	ug/L		10/26/20 13:24	11/04/20 21:56	1
2-Nitrophenol	ND H		9.5	4.9	ug/L		10/26/20 13:24	11/04/20 21:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		46 - 124				10/26/20 13:24	11/04/20 21:56	1
2-Fluorophenol	20		13 - 113				10/26/20 13:24	11/04/20 21:56	1
Nitrobenzene-d5	76		36 - 126				10/26/20 13:24	11/04/20 21:56	1
Phenol-d5	54		17 - 127				10/26/20 13:24	11/04/20 21:56	1
Terphenyl-d14	93		44 - 149				10/26/20 13:24	11/04/20 21:56	1
2,4,6-Tribromophenol	102		26 - 150				10/26/20 13:24	11/04/20 21:56	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.0056	ug/L		10/19/20 09:37	10/19/20 18:16	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/19/20 09:37	10/19/20 18:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		51 - 149				10/19/20 09:37	10/19/20 18:16	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW8-ROX-101220

Lab Sample ID: 400-194323-6

Date Collected: 10/12/20 11:38

Matrix: Water

Date Received: 10/13/20 09:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		13000	5000	ug/L			10/21/20 18:18	500
Acrolein	ND		10000	5000	ug/L			10/21/20 18:18	500
Acrylonitrile	ND		5000	1400	ug/L			10/21/20 18:18	500
Benzene	130000		500	190	ug/L			10/21/20 18:18	500
Bromobenzene	ND		500	270	ug/L			10/21/20 18:18	500
Bromoform	ND * WJ		2500	360	ug/L			10/21/20 18:18	500
Bromomethane	ND		500	490	ug/L			10/21/20 18:18	500
2-Butanone (MEK)	ND		13000	1300	ug/L			10/21/20 18:18	500
Carbon disulfide	ND		500	250	ug/L			10/21/20 18:18	500
Carbon tetrachloride	ND		500	250	ug/L			10/21/20 18:18	500
Chlorobenzene	ND		500	250	ug/L			10/21/20 18:18	500
Dibromochloromethane	ND * WJ		500	250	ug/L			10/21/20 18:18	500
Chloroethane	ND		500	380	ug/L			10/21/20 18:18	500
2-Chloroethyl vinyl ether	ND		2500	1000	ug/L			10/21/20 18:18	500
Chloroform	ND		500	300	ug/L			10/21/20 18:18	500
1-Chlorohexane	ND		500	350	ug/L			10/21/20 18:18	500
Chloromethane	ND		500	420	ug/L			10/21/20 18:18	500
cis-1,2-Dichloroethene	ND		500	250	ug/L			10/21/20 18:18	500
cis-1,3-Dichloropropene	ND		2500	250	ug/L			10/21/20 18:18	500
1,2-Dichlorobenzene	ND		500	250	ug/L			10/21/20 18:18	500
1,3-Dichlorobenzene	ND		500	270	ug/L			10/21/20 18:18	500
1,4-Dichlorobenzene	ND		500	320	ug/L			10/21/20 18:18	500
Dichlorodifluoromethane	ND		500	430	ug/L			10/21/20 18:18	500
1,1-Dichloroethane	ND		500	250	ug/L			10/21/20 18:18	500
1,2-Dichloroethane	ND		500	250	ug/L			10/21/20 18:18	500
1,1-Dichloroethene	ND		500	250	ug/L			10/21/20 18:18	500
1,2-Dichloropropane	ND		500	250	ug/L			10/21/20 18:18	500
1,3-Dichloropropane	ND		500	250	ug/L			10/21/20 18:18	500
2,2-Dichloropropane	ND		500	250	ug/L			10/21/20 18:18	500
1,1-Dichloropropene	ND		500	250	ug/L			10/21/20 18:18	500
Ethylbenzene	ND		500	250	ug/L			10/21/20 18:18	500
Ethyl methacrylate	ND		500	300	ug/L			10/21/20 18:18	500
Hexachlorobutadiene	ND		2500	450	ug/L			10/21/20 18:18	500
2-Hexanone	ND		13000	1600	ug/L			10/21/20 18:18	500
Isopropylbenzene	ND		500	270	ug/L			10/21/20 18:18	500
Methylene bromide	ND		2500	300	ug/L			10/21/20 18:18	500
Methylene Chloride	ND		2500	1500	ug/L			10/21/20 18:18	500
4-Methyl-2-pentanone (MIBK)	ND		13000	900	ug/L			10/21/20 18:18	500
Methyl tert-butyl ether	ND		500	370	ug/L			10/21/20 18:18	500
m-Xylene & p-Xylene	ND		2500	800	ug/L			10/21/20 18:18	500
Naphthalene	ND		500	500	ug/L			10/21/20 18:18	500
n-Butylbenzene	ND		500	380	ug/L			10/21/20 18:18	500
N-Propylbenzene	ND		500	350	ug/L			10/21/20 18:18	500
o-Chlorotoluene	ND		500	290	ug/L			10/21/20 18:18	500
o-Xylene	ND		2500	300	ug/L			10/21/20 18:18	500
p-Chlorotoluene	ND		500	280	ug/L			10/21/20 18:18	500
p-Isopropyltoluene	ND		500	360	ug/L			10/21/20 18:18	500

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW8-ROX-101220

Lab Sample ID: 400-194323-6

Date Collected: 10/12/20 11:38

Matrix: Water

Date Received: 10/13/20 09:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		500	350	ug/L			10/21/20 18:18	500
Styrene	ND		500	500	ug/L			10/21/20 18:18	500
tert-Butylbenzene	ND		500	320	ug/L			10/21/20 18:18	500
1,1,1,2-Tetrachloroethane	ND		500	260	ug/L			10/21/20 18:18	500
1,1,2,2-Tetrachloroethane	ND		500	250	ug/L			10/21/20 18:18	500
Tetrachloroethylene	ND		500	290	ug/L			10/21/20 18:18	500
Toluene	ND		500	210	ug/L			10/21/20 18:18	500
trans-1,2-Dichloroethylene	ND		500	250	ug/L			10/21/20 18:18	500
trans-1,3-Dichloropropene	ND		2500	250	ug/L			10/21/20 18:18	500
1,2,3-Trichlorobenzene	ND		500	350	ug/L			10/21/20 18:18	500
1,2,4-Trichlorobenzene	ND		500	410	ug/L			10/21/20 18:18	500
1,1,1-Trichloroethane	ND		500	250	ug/L			10/21/20 18:18	500
1,1,2-Trichloroethane	ND		2500	250	ug/L			10/21/20 18:18	500
Trichloroethylene	ND		500	250	ug/L			10/21/20 18:18	500
Trichlorofluoromethane	ND		500	260	ug/L			10/21/20 18:18	500
1,2,3-Trichloropropane	ND		2500	420	ug/L			10/21/20 18:18	500
1,2,4-Trimethylbenzene	ND		500	410	ug/L			10/21/20 18:18	500
1,3,5-Trimethylbenzene	ND		500	280	ug/L			10/21/20 18:18	500
Vinyl acetate	ND		13000	1000	ug/L			10/21/20 18:18	500
Vinyl chloride	ND		500	250	ug/L			10/21/20 18:18	500
Xylenes, Total	ND		5000	800	ug/L			10/21/20 18:18	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		78 - 118		10/21/20 18:18	500
Dibromofluoromethane	102		81 - 121		10/21/20 18:18	500
Toluene-d8 (Sur)	93		80 - 120		10/21/20 18:18	500

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L			10/14/20 16:36	10/20/20 18:15	1
Acenaphthylene	ND		0.19	0.042	ug/L			10/14/20 16:36	10/20/20 18:15	1
Anthracene	ND		0.19	0.030	ug/L			10/14/20 16:36	10/20/20 18:15	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L			10/14/20 16:36	10/20/20 18:15	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L			10/14/20 16:36	10/20/20 18:15	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/14/20 16:36	10/20/20 18:15	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/14/20 16:36	10/20/20 18:15	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L			10/14/20 16:36	10/20/20 18:15	1
Chrysene	ND		0.19	0.069	ug/L			10/14/20 16:36	10/20/20 18:15	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/14/20 16:36	10/20/20 18:15	1
Fluoranthene	ND		0.19	0.063	ug/L			10/14/20 16:36	10/20/20 18:15	1
Fluorene	ND		0.19	0.10	ug/L			10/14/20 16:36	10/20/20 18:15	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L			10/14/20 16:36	10/20/20 18:15	1
1-Methylnaphthalene	8.2		0.19	0.069	ug/L			10/14/20 16:36	10/20/20 18:15	1
2-Methylnaphthalene	1.6		0.19	0.056	ug/L			10/14/20 16:36	10/20/20 18:15	1
Phenanthrene	ND		0.19	0.034	ug/L			10/14/20 16:36	10/20/20 18:15	1
Pyrene	ND		0.19	0.037	ug/L			10/14/20 16:36	10/20/20 18:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	72		15 - 122		10/14/20 16:36	10/20/20 18:15
Nitrobenzene-d5	74		19 - 130		10/14/20 16:36	10/20/20 18:15

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW8-ROX-101220
Date Collected: 10/12/20 11:38
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-6
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	49		33 - 138		10/14/20 16:36	10/20/20 18:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*1	9.3	3.5	ug/L				1
Benzenethiol	ND	**1	9.3	1.6	ug/L				1
Benzoic acid	ND		28	6.8	ug/L				1
Benzyl alcohol	ND	*1	9.3	1.9	ug/L				1
Bis(2-chloroethoxy)methane	ND	*1	9.3	0.15	ug/L				1
Bis(2-chloroethyl)ether	ND	*1	9.3	2.5	ug/L				1
bis (2-chloroisopropyl) ether	ND	*1	9.3	0.15	ug/L				1
Bis(2-ethylhexyl) phthalate	ND		9.3	4.7	ug/L				1
4-Bromophenyl phenyl ether	ND		9.3	0.19	ug/L				1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L				1
4-Chloroaniline	ND	*1	9.3	3.2	ug/L				1
4-Chloro-3-methylphenol	ND		9.3	3.5	ug/L				1
2-Chloronaphthalene	ND		9.3	0.13	ug/L				1
2-Chlorophenol	ND		9.3	2.0	ug/L				1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L				1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L				1
Dibenzofuran	ND		9.3	0.16	ug/L				1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L				1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L				1
Diethyl phthalate	ND		9.3	0.22	ug/L				1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L				1
Dimethyl phthalate	ND		9.3	0.16	ug/L				1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L				1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L				1
2,4-Dinitrophenol	ND		28	3.2	ug/L				1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L				1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L				1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L				1
1,4-Dioxane	ND	*1	9.3	0.93	ug/L				1
1,2-Diphenylhydrazine (as Azobenzene)	ND	*1	9.3	0.93	ug/L				1
Hexachlorobenzene	ND		9.3	0.16	ug/L				1
Hexachlorocyclopentadiene	ND	*1	19	2.4	ug/L				1
Hexachloroelthane	ND		9.3	3.9	ug/L				1
Indene	1.4	J	9.3	0.93	ug/L				1
Isophorone	ND	*1	9.3	0.13	ug/L				1
2-Methylphenol	ND		9.3	1.7	ug/L				1
3 & 4 Methylphenol	ND		19	0.36	ug/L				1
2-Nitroaniline	ND	*1	9.3	2.0	ug/L				1
3-Nitroaniline	ND	*1	9.3	1.7	ug/L				1
4-Nitroaniline	ND		9.3	1.4	ug/L				1
Nitrobenzene	ND	*1	9.3	0.12	ug/L				1
2-Nitrophenol	ND		9.3	4.8	ug/L				1
4-Nitrophenol	ND		9.3	2.0	ug/L				1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L				1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW8-ROX-101220

Lab Sample ID: 400-194323-6

Date Collected: 10/12/20 11:38

Matrix: Water

Date Received: 10/13/20 09:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L	10/14/20	16:36	10/19/20 23:21	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L	10/14/20	16:36	10/19/20 23:21	1
Pentachlorophenol	ND		19	1.3	ug/L	10/14/20	16:36	10/19/20 23:21	1
Phenol	260		9.3	2.4	ug/L	10/14/20	16:36	10/19/20 23:21	1
Pyridine	ND *1	W3	9.3	3.0	ug/L	10/14/20	16:36	10/19/20 23:21	1
Quinoline	ND W3		9.3	4.2	ug/L	10/14/20	16:36	10/19/20 23:21	1
2,4,5-Trichlorophenol	ND		9.3	3.4	ug/L	10/14/20	16:36	10/19/20 23:21	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L	10/14/20	16:36	10/19/20 23:21	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		46 - 124			10/14/20	16:36	10/19/20 23:21	1
2-Fluorophenol	32		13 - 113			10/14/20	16:36	10/19/20 23:21	1
Nitrobenzene-d5	56		36 - 126			10/14/20	16:36	10/19/20 23:21	1
Phenol-d5	48		17 - 127			10/14/20	16:36	10/19/20 23:21	1
Terphenyl-d14	50		44 - 149			10/14/20	16:36	10/19/20 23:21	1
2,4,6-Tribromophenol	99		26 - 150			10/14/20	16:36	10/19/20 23:21	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzenthal	ND H *	W3	9.6	1.6	ug/L	10/26/20	13:24	11/04/20 22:17	1
2-Chlorophenol	ND H		9.6	2.1	ug/L	10/26/20	13:24	11/04/20 22:17	1
2,4-Dinitrophenol	ND H		29	3.3	ug/L	10/26/20	13:24	11/04/20 22:17	1
2-Nitrophenol	ND H		9.6	5.0	ug/L	10/26/20	13:24	11/04/20 22:17	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		46 - 124			10/26/20	13:24	11/04/20 22:17	1
2-Fluorophenol	28		13 - 113			10/26/20	13:24	11/04/20 22:17	1
Nitrobenzene-d5	84		36 - 126			10/26/20	13:24	11/04/20 22:17	1
Phenol-d5	73		17 - 127			10/26/20	13:24	11/04/20 22:17	1
Terphenyl-d14	82		44 - 149			10/26/20	13:24	11/04/20 22:17	1
2,4,6-Tribromophenol	107		26 - 150			10/26/20	13:24	11/04/20 22:17	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0056	ug/L	10/19/20	09:37	10/19/20 18:35	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L	10/19/20	09:37	10/19/20 18:35	1
<hr/>									
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91		51 - 149			10/19/20	09:37	10/19/20 18:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW7-ROX-101220
Date Collected: 10/12/20 12:40
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	US	25000	10000	ug/L			10/21/20 18:40	1000
Acrolein	ND		20000	10000	ug/L			10/21/20 18:40	1000
Acrylonitrile	ND		10000	2800	ug/L			10/21/20 18:40	1000
Bromobenzene	ND		1000	540	ug/L			10/21/20 18:40	1000
Bromoform	ND	*	1000	520	ug/L			10/21/20 18:40	1000
Bromochloromethane	ND		1000	500	ug/L			10/21/20 18:40	1000
Bromodichloromethane	ND		1000	710	ug/L			10/21/20 18:40	1000
Bromomethane	ND		1000	980	ug/L			10/21/20 18:40	1000
2-Butanone (MEK)	ND		25000	2600	ug/L			10/21/20 18:40	1000
Carbon disulfide	ND		1000	500	ug/L			10/21/20 18:40	1000
Carbon tetrachloride	ND		1000	500	ug/L			10/21/20 18:40	1000
Chlorobenzene	ND		1000	500	ug/L			10/21/20 18:40	1000
Dibromochloromethane	ND	*	1000	500	ug/L			10/21/20 18:40	1000
Chloroethane	ND		1000	760	ug/L			10/21/20 18:40	1000
2-Chloroethyl vinyl ether	ND		5000	2000	ug/L			10/21/20 18:40	1000
Chloroform	ND		1000	600	ug/L			10/21/20 18:40	1000
1-Chlorohexane	ND		1000	700	ug/L			10/21/20 18:40	1000
Chloromethane	ND		1000	830	ug/L			10/21/20 18:40	1000
cis-1,2-Dichloroethene	ND		1000	500	ug/L			10/21/20 18:40	1000
cis-1,3-Dichloropropene	ND		5000	500	ug/L			10/21/20 18:40	1000
1,2-Dichlorobenzene	ND		1000	500	ug/L			10/21/20 18:40	1000
1,3-Dichlorobenzene	ND		1000	540	ug/L			10/21/20 18:40	1000
1,4-Dichlorobenzene	ND		1000	640	ug/L			10/21/20 18:40	1000
Dichlorodifluoromethane	ND		1000	850	ug/L			10/21/20 18:40	1000
1,1-Dichloroethane	ND		1000	500	ug/L			10/21/20 18:40	1000
1,2-Dichloroethane	ND		1000	500	ug/L			10/21/20 18:40	1000
1,1-Dichloroethene	ND		1000	500	ug/L			10/21/20 18:40	1000
1,2-Dichloropropane	ND		1000	500	ug/L			10/21/20 18:40	1000
1,3-Dichloropropane	ND		1000	500	ug/L			10/21/20 18:40	1000
2,2-Dichloropropane	ND		1000	500	ug/L			10/21/20 18:40	1000
1,1-Dichloropropene	ND		1000	500	ug/L			10/21/20 18:40	1000
Ethylbenzene	ND		1000	500	ug/L			10/21/20 18:40	1000
Ethyl methacrylate	ND		1000	600	ug/L			10/21/20 18:40	1000
Hexachlorobutadiene	ND		5000	900	ug/L			10/21/20 18:40	1000
2-Hexanone	ND		25000	3100	ug/L			10/21/20 18:40	1000
Isopropylbenzene	ND		1000	530	ug/L			10/21/20 18:40	1000
Methylene bromide	ND		5000	590	ug/L			10/21/20 18:40	1000
Methylene Chloride	ND		5000	3000	ug/L			10/21/20 18:40	1000
4-Methyl-2-pentanone (MIBK)	ND		25000	1800	ug/L			10/21/20 18:40	1000
Methyl tert-butyl ether	ND		1000	740	ug/L			10/21/20 18:40	1000
m-Xylene & p-Xylene	ND		5000	1600	ug/L			10/21/20 18:40	1000
Naphthalene	ND		1000	1000	ug/L			10/21/20 18:40	1000
n-Butylbenzene	ND		1000	760	ug/L			10/21/20 18:40	1000
N-Propylbenzene	ND		1000	690	ug/L			10/21/20 18:40	1000
o-Chlorotoluene	ND		1000	570	ug/L			10/21/20 18:40	1000
o-Xylene	ND		5000	600	ug/L			10/21/20 18:40	1000
p-Chlorotoluene	ND		1000	560	ug/L			10/21/20 18:40	1000
p-Isopropyltoluene	ND		1000	710	ug/L			10/21/20 18:40	1000
sec-Butylbenzene	ND		1000	700	ug/L			10/21/20 18:40	1000

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW7-ROX-101220
Date Collected: 10/12/20 12:40
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	WT	1000	1000	ug/L			10/21/20 18:40	1000
tert-Butylbenzene	ND		1000	630	ug/L			10/21/20 18:40	1000
1,1,1,2-Tetrachloroethane	ND		1000	520	ug/L			10/21/20 18:40	1000
1,1,2,2-Tetrachloroethane	ND		1000	500	ug/L			10/21/20 18:40	1000
Tetrachloroethylene	ND		1000	580	ug/L			10/21/20 18:40	1000
Toluene	ND		1000	410	ug/L			10/21/20 18:40	1000
trans-1,2-Dichloroethene	ND		1000	500	ug/L			10/21/20 18:40	1000
trans-1,3-Dichloropropene	ND		5000	500	ug/L			10/21/20 18:40	1000
1,2,3-Trichlorobenzene	ND		1000	700	ug/L			10/21/20 18:40	1000
1,2,4-Trichlorobenzene	ND		1000	820	ug/L			10/21/20 18:40	1000
1,1,1-Trichloroethane	ND		1000	500	ug/L			10/21/20 18:40	1000
1,1,2-Trichloroethane	ND		5000	500	ug/L			10/21/20 18:40	1000
Trichloroethylene	ND		1000	500	ug/L			10/21/20 18:40	1000
Trichlorofluoromethane	ND		1000	520	ug/L			10/21/20 18:40	1000
1,2,3-Trichloropropane	ND		5000	840	ug/L			10/21/20 18:40	1000
1,2,4-Trimethylbenzene	ND		1000	820	ug/L			10/21/20 18:40	1000
1,3,5-Trimethylbenzene	ND		1000	560	ug/L			10/21/20 18:40	1000
Vinyl acetate	ND		25000	2000	ug/L			10/21/20 18:40	1000
Vinyl chloride	ND		1000	500	ug/L			10/21/20 18:40	1000
Xylenes, Total	ND		10000	1600	ug/L			10/21/20 18:40	1000

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		78 - 118		10/21/20 18:40	1000
Dibromofluoromethane	101		81 - 121		10/21/20 18:40	1000
Toluene-d8 (Surf)	90		80 - 120		10/21/20 18:40	1000

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1400000		10000	3800	ug/L			10/23/20 23:57	10000
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	93		78 - 118		10/23/20 23:57	10000			
Dibromofluoromethane	97		81 - 121		10/23/20 23:57	10000			
Toluene-d8 (Surf)	98		80 - 120		10/23/20 23:57	10000			

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.031	ug/L			10/14/20 16:36	10/20/20 18:33	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/14/20 16:36	10/20/20 18:33	1
Anthracene	ND		0.19	0.031	ug/L			10/14/20 16:36	10/20/20 18:33	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/14/20 16:36	10/20/20 18:33	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/14/20 16:36	10/20/20 18:33	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L			10/14/20 16:36	10/20/20 18:33	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L			10/14/20 16:36	10/20/20 18:33	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L			10/14/20 16:36	10/20/20 18:33	1
Chrysene	ND		0.19	0.071	ug/L			10/14/20 16:36	10/20/20 18:33	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L			10/14/20 16:36	10/20/20 18:33	1
Fluoranthene	ND		0.19	0.065	ug/L			10/14/20 16:36	10/20/20 18:33	1
Fluorene	ND		0.19	0.11	ug/L			10/14/20 16:36	10/20/20 18:33	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/14/20 16:36	10/20/20 18:33	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW7-ROX-101220

Lab Sample ID: 400-194323-7

Date Collected: 10/12/20 12:40

Matrix: Water

Date Received: 10/13/20 09:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND	WJ	0.19	0.071	ug/L		10/14/20 16:36	10/20/20 18:33	1
2-Methylnaphthalene	2.5		0.19	0.058	ug/L		10/14/20 16:36	10/20/20 18:33	1
Phenanthrene	ND		0.19	0.035	ug/L		10/14/20 16:36	10/20/20 18:33	1
Pyrene	ND		0.19	0.038	ug/L		10/14/20 16:36	10/20/20 18:33	1
Surrogate		%Recovery		Qualifier	Limits		Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		91			15 - 122		10/14/20 16:36	10/20/20 18:33	1
Nitrobenzene-d5		86			19 - 130		10/14/20 16:36	10/20/20 18:33	1
Terphenyl-d14		68			33 - 138		10/14/20 16:36	10/20/20 18:33	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*1 WJ	9.6	3.7	ug/L		10/14/20 16:36	10/19/20 23:42	1
Benzenethiol	ND	**1	9.6	1.6	ug/L		10/14/20 16:36	10/19/20 23:42	1
Benzolic acid	32		29	7.0	ug/L		10/14/20 16:36	10/19/20 23:42	1
Benzyl alcohol	ND	*1 WJ	9.6	1.9	ug/L		10/14/20 16:36	10/19/20 23:42	1
Bis(2-chloroethoxy)methane	ND	*1 WJ	9.6	0.15	ug/L		10/14/20 16:36	10/19/20 23:42	1
Bis(2-chloroethyl)ether	ND	*1	9.6	2.6	ug/L		10/14/20 16:36	10/19/20 23:42	1
bis (2-chloroisopropyl) ether	ND	*1	9.6	0.15	ug/L		10/14/20 16:36	10/19/20 23:42	1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L		10/14/20 16:36	10/19/20 23:42	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		10/14/20 16:36	10/19/20 23:42	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		10/14/20 16:36	10/19/20 23:42	1
4-Chloroaniline	ND	*1	9.6	3.3	ug/L		10/14/20 16:36	10/19/20 23:42	1
4-Chloro-3-methylphenol	ND		9.6	3.7	ug/L		10/14/20 16:36	10/19/20 23:42	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		10/14/20 16:36	10/19/20 23:42	1
2-Chlorophenol	ND		9.6	2.1	ug/L		10/14/20 16:36	10/19/20 23:42	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		10/14/20 16:36	10/19/20 23:42	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		10/14/20 16:36	10/19/20 23:42	1
Dibenzofuran	ND		9.6	0.16	ug/L		10/14/20 16:36	10/19/20 23:42	1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L		10/14/20 16:36	10/19/20 23:42	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		10/14/20 16:36	10/19/20 23:42	1
Diethyl phthalate	ND		9.6	0.23	ug/L		10/14/20 16:36	10/19/20 23:42	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		10/14/20 16:36	10/19/20 23:42	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		10/14/20 16:36	10/19/20 23:42	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		10/14/20 16:36	10/19/20 23:42	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		10/14/20 16:36	10/20/20 15:54	1
2,4-Dinitrophenol	ND		29	3.3	ug/L		10/14/20 16:36	10/19/20 23:42	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		10/14/20 16:36	10/19/20 23:42	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		10/14/20 16:36	10/19/20 23:42	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		10/14/20 16:36	10/19/20 23:42	1
1,4-Dioxane	ND	*1 WJ	9.6	0.96	ug/L		10/14/20 16:36	10/19/20 23:42	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	*1 WJ	9.6	0.96	ug/L		10/14/20 16:36	10/19/20 23:42	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		10/14/20 16:36	10/19/20 23:42	1
Hexachlorocyclopentadiene	ND	*1 WJ	19	2.5	ug/L		10/14/20 16:36	10/19/20 23:42	1
Hexachloroethane	ND		9.6	4.0	ug/L		10/14/20 16:36	10/19/20 23:42	1
Indene	ND		9.6	0.96	ug/L		10/14/20 16:36	10/19/20 23:42	1
Isophorone	ND	*1	9.6	0.13	ug/L		10/14/20 16:36	10/19/20 23:42	1
2-Methylphenol	2.1	J	9.6	1.7	ug/L		10/14/20 16:36	10/19/20 23:42	1
3 & 4 Methylphenol	2.3	J	19	0.38	ug/L		10/14/20 16:36	10/19/20 23:42	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW7-ROX-101220
Date Collected: 10/12/20 12:40
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND	*1	9.6	2.1	ug/L	10/14/20 16:36	10/19/20 23:42		1
3-Nitroaniline	ND	*1	9.6	1.7	ug/L	10/14/20 16:36	10/19/20 23:42		1
4-Nitroaniline	ND		9.6	1.4	ug/L	10/14/20 16:36	10/19/20 23:42		1
Nitrobenzene	ND	*1	9.6	0.13	ug/L	10/14/20 16:36	10/19/20 23:42		1
2-Nitrophenol	ND		9.6	5.0	ug/L	10/14/20 16:36	10/19/20 23:42		1
4-Nitrophenol	ND		9.6	2.0	ug/L	10/14/20 16:36	10/19/20 23:42		1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L	10/14/20 16:36	10/19/20 23:42		1
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L	10/14/20 16:36	10/19/20 23:42		1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L	10/14/20 16:36	10/19/20 23:42		1
Pentachlorophenol	ND		19	1.3	ug/L	10/14/20 16:36	10/19/20 23:42		1
Phenol	63		9.6	2.5	ug/L	10/14/20 16:36	10/19/20 23:42		1
Pyridine	ND	*1 <i>WS</i>	9.6	3.1	ug/L	10/14/20 16:36	10/19/20 23:42		1
Quinoline	ND	<i>WS</i>	9.6	4.3	ug/L	10/14/20 16:36	10/19/20 23:42		1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L	10/14/20 16:36	10/19/20 23:42		1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L	10/14/20 16:36	10/19/20 23:42		1

Analyte	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	63		46 - 124	10/14/20 16:36	10/19/20 23:42	1
2-Fluorophenol	19		13 - 113	10/14/20 16:36	10/19/20 23:42	1
Nitrobenzene-d5	59		36 - 126	10/14/20 16:36	10/19/20 23:42	1
Phenol-d5	38		17 - 127	10/14/20 16:36	10/19/20 23:42	1
Terphenyl-d14	74		44 - 149	10/14/20 16:36	10/19/20 23:42	1
2,4,6-Tribromophenol	112		26 - 150	10/14/20 16:36	10/19/20 23:42	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzethiol	ND	H * <i>WS</i>	9.4	1.6	ug/L	10/26/20 13:24	11/04/20 22:38		1
2-Chlorophenol	ND	H	9.4	2.1	ug/L	10/26/20 13:24	11/04/20 22:38		1
2,4-Dinitrophenol	ND	H	28	3.2	ug/L	10/26/20 13:24	11/04/20 22:38		1
2-Nitrophenol	ND	H	9.4	4.9	ug/L	10/26/20 13:24	11/04/20 22:38		1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2-Fluorobiphenyl	73		46 - 124	10/26/20 13:24	11/04/20 22:38	1			
2-Fluorophenol	29		13 - 113	10/26/20 13:24	11/04/20 22:38	1			
Nitrobenzene-d5	74		36 - 126	10/26/20 13:24	11/04/20 22:38	1			
Phenol-d5	56		17 - 127	10/26/20 13:24	11/04/20 22:38	1			
Terphenyl-d14	68		44 - 149	10/26/20 13:24	11/04/20 22:38	1			
2,4,6-Tribromophenol	100		26 - 150	10/26/20 13:24	11/04/20 22:38	1			

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.0056	ug/L	10/19/20 09:37	10/19/20 18:55		1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L	10/19/20 09:37	10/19/20 18:55		1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	92		51 - 149	10/19/20 09:37	10/19/20 18:55	1			

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW7-ROX-101220-DUP

Date Collected: 10/12/20 12:40

Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-8

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND	WS	25000	10000	ug/L			10/21/20 19:03	1000
Acrolein	ND		20000	10000	ug/L			10/21/20 19:03	1000
Acrylonitrile	ND		10000	2800	ug/L			10/21/20 19:03	1000
Bromobenzene	ND		1000	540	ug/L			10/21/20 19:03	1000
Bromoform	ND	WS	1000	520	ug/L			10/21/20 19:03	1000
Bromochloromethane	ND		1000	500	ug/L			10/21/20 19:03	1000
Bromodichloromethane	ND		1000	710	ug/L			10/21/20 19:03	1000
Bromomethane	ND		1000	980	ug/L			10/21/20 19:03	1000
2-Butanone (MEK)	ND		25000	2600	ug/L			10/21/20 19:03	1000
Carbon disulfide	ND		1000	500	ug/L			10/21/20 19:03	1000
Carbon tetrachloride	ND		1000	500	ug/L			10/21/20 19:03	1000
Chlorobenzene	ND	WS	1000	500	ug/L			10/21/20 19:03	1000
Dibromochloromethane	ND	WS	1000	500	ug/L			10/21/20 19:03	1000
Chloroethane	ND		1000	760	ug/L			10/21/20 19:03	1000
2-Chloroethyl vinyl ether	ND		5000	2000	ug/L			10/21/20 19:03	1000
Chloroform	ND		1000	600	ug/L			10/21/20 19:03	1000
1-Chlorohexane	ND		1000	700	ug/L			10/21/20 19:03	1000
Chloromethane	ND		1000	830	ug/L			10/21/20 19:03	1000
cis-1,2-Dichloroethene	ND		1000	500	ug/L			10/21/20 19:03	1000
cis-1,3-Dichloropropene	ND		5000	500	ug/L			10/21/20 19:03	1000
1,2-Dichlorobenzene	ND		1000	500	ug/L			10/21/20 19:03	1000
1,3-Dichlorobenzene	ND		1000	540	ug/L			10/21/20 19:03	1000
1,4-Dichlorobenzene	ND		1000	640	ug/L			10/21/20 19:03	1000
Dichlorodifluoromethane	ND		1000	850	ug/L			10/21/20 19:03	1000
1,1-Dichloroethane	ND		1000	500	ug/L			10/21/20 19:03	1000
1,2-Dichloroethane	ND		1000	500	ug/L			10/21/20 19:03	1000
1,1-Dichloroethene	ND		1000	500	ug/L			10/21/20 19:03	1000
1,2-Dichloropropane	ND		1000	500	ug/L			10/21/20 19:03	1000
1,3-Dichloropropane	ND		1000	500	ug/L			10/21/20 19:03	1000
2,2-Dichloropropane	ND		1000	500	ug/L			10/21/20 19:03	1000
1,1-Dichloropropene	ND		1000	500	ug/L			10/21/20 19:03	1000
Ethylbenzene	ND		1000	500	ug/L			10/21/20 19:03	1000
Ethyl methacrylate	ND		1000	600	ug/L			10/21/20 19:03	1000
Hexachlorobutadiene	ND		5000	900	ug/L			10/21/20 19:03	1000
2-Hexanone	ND		25000	3100	ug/L			10/21/20 19:03	1000
Isopropylbenzene	ND		1000	530	ug/L			10/21/20 19:03	1000
Methylene bromide	ND		5000	590	ug/L			10/21/20 19:03	1000
Methylene Chloride	ND		5000	3000	ug/L			10/21/20 19:03	1000
4-Methyl-2-pentanone (MIBK)	ND		25000	1800	ug/L			10/21/20 19:03	1000
Methyl tert-butyl ether	ND		1000	740	ug/L			10/21/20 19:03	1000
m-Xylene & p-Xylene	ND		5000	1600	ug/L			10/21/20 19:03	1000
Naphthalene	ND		1000	1000	ug/L			10/21/20 19:03	1000
n-Butylbenzene	ND		1000	760	ug/L			10/21/20 19:03	1000
N-Propylbenzene	ND		1000	690	ug/L			10/21/20 19:03	1000
o-Chlorotoluene	ND		1000	570	ug/L			10/21/20 19:03	1000
o-Xylene	ND		5000	600	ug/L			10/21/20 19:03	1000
p-Chlorotoluene	ND		1000	560	ug/L			10/21/20 19:03	1000
p-Isopropyltoluene	ND		1000	710	ug/L			10/21/20 19:03	1000
sec-Butylbenzene	ND		1000	700	ug/L			10/21/20 19:03	1000

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW7-ROX-101220-DUP

Lab Sample ID: 400-194323-8

Date Collected: 10/12/20 12:40

Matrix: Water

Date Received: 10/13/20 09:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND	us	1000	1000	ug/L			10/21/20 19:03	1000
tert-Butylbenzene	ND		1000	630	ug/L			10/21/20 19:03	1000
1,1,1,2-Tetrachloroethane	ND		1000	520	ug/L			10/21/20 19:03	1000
1,1,2,2-Tetrachloroethane	ND		1000	500	ug/L			10/21/20 19:03	1000
Tetrachloroethylene	ND		1000	580	ug/L			10/21/20 19:03	1000
Toluene	ND		1000	410	ug/L			10/21/20 19:03	1000
trans-1,2-Dichloroethene	ND		1000	500	ug/L			10/21/20 19:03	1000
trans-1,3-Dichloropropene	ND		5000	500	ug/L			10/21/20 19:03	1000
1,2,3-Trichlorobenzene	ND		1000	700	ug/L			10/21/20 19:03	1000
1,2,4-Trichlorobenzene	ND		1000	820	ug/L			10/21/20 19:03	1000
1,1,1-Trichloroethane	ND		1000	500	ug/L			10/21/20 19:03	1000
1,1,2-Trichloroethane	ND		5000	500	ug/L			10/21/20 19:03	1000
Trichloroethylene	ND		1000	500	ug/L			10/21/20 19:03	1000
Trichlorofluoromethane	ND		1000	520	ug/L			10/21/20 19:03	1000
1,2,3-Trichloropropane	ND		5000	840	ug/L			10/21/20 19:03	1000
1,2,4-Trimethylbenzene	ND		1000	820	ug/L			10/21/20 19:03	1000
1,3,5-Trimethylbenzene	ND		1000	560	ug/L			10/21/20 19:03	1000
Vinyl acetate	ND		25000	2000	ug/L			10/21/20 19:03	1000
Vinyl chloride	ND		1000	500	ug/L			10/21/20 19:03	1000
Xylenes, Total	ND		10000	1600	ug/L			10/21/20 19:03	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		78 - 118		10/21/20 19:03	1000
Dibromofluoromethane	97		81 - 121		10/21/20 19:03	1000
Toluene-d8 (Surf)	91		80 - 120		10/21/20 19:03	1000

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	1400000		10000	3800	ug/L			10/24/20 00:22	10000
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	95		78 - 118		10/24/20 00:22	10000			
Dibromofluoromethane	102		81 - 121		10/24/20 00:22	10000			
Toluene-d8 (Surf)	96		80 - 120		10/24/20 00:22	10000			

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L			10/14/20 16:36	10/20/20 18:50	1
Acenaphthylene	ND		0.19	0.042	ug/L			10/14/20 16:36	10/20/20 18:50	1
Anthracene	ND		0.19	0.030	ug/L			10/14/20 16:36	10/20/20 18:50	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L			10/14/20 16:36	10/20/20 18:50	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/14/20 16:36	10/20/20 18:50	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/14/20 16:36	10/20/20 18:50	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/14/20 16:36	10/20/20 18:50	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L			10/14/20 16:36	10/20/20 18:50	1
Chrysene	ND		0.19	0.070	ug/L			10/14/20 16:36	10/20/20 18:50	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/14/20 16:36	10/20/20 18:50	1
Fluoranthene	ND		0.19	0.064	ug/L			10/14/20 16:36	10/20/20 18:50	1
Fluorene	ND		0.19	0.10	ug/L			10/14/20 16:36	10/20/20 18:50	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/14/20 16:36	10/20/20 18:50	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW7-ROX-101220-DUP

Lab Sample ID: 400-194323-8

Date Collected: 10/12/20 12:40

Matrix: Water

Date Received: 10/13/20 09:11

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	1.8	J	0.19	0.070	ug/L		10/14/20 16:36	10/20/20 18:50	1
2-Methylnaphthalene	2.5		0.19	0.057	ug/L		10/14/20 16:36	10/20/20 18:50	1
Phenanthrene	ND		0.19	0.034	ug/L		10/14/20 16:36	10/20/20 18:50	1
Pyrene	ND		0.19	0.038	ug/L		10/14/20 16:36	10/20/20 18:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	95		15 - 122	10/14/20 16:36	10/20/20 18:50	1
Nitrobenzene-d5	93		19 - 130	10/14/20 16:36	10/20/20 18:50	1
Terphenyl-d14	79		33 - 138	10/14/20 16:36	10/20/20 18:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	*1 WJ	9.4	3.6	ug/L		10/14/20 16:36	10/20/20 00:03	1
Benzenethiol	ND	**1	9.4	1.6	ug/L		10/14/20 16:36	10/20/20 00:03	1
Benzolic acid	32		28	6.9	ug/L		10/14/20 16:36	10/20/20 00:03	1
Benzyl alcohol	ND	*1 WJ	9.4	1.9	ug/L		10/14/20 16:36	10/20/20 00:03	1
Bis(2-chloroethoxy)methane	ND	*1 WJ	9.4	0.15	ug/L		10/14/20 16:36	10/20/20 00:03	1
Bis(2-chloroethyl)ether	ND	*1	9.4	2.5	ug/L		10/14/20 16:36	10/20/20 00:03	1
bis (2-chloroisopropyl) ether	ND	*1	9.4	0.15	ug/L		10/14/20 16:36	10/20/20 00:03	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/14/20 16:36	10/20/20 00:03	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/14/20 16:36	10/20/20 00:03	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/14/20 16:36	10/20/20 00:03	1
4-Chloroaniline	ND	*1	9.4	3.2	ug/L		10/14/20 16:36	10/20/20 00:03	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/14/20 16:36	10/20/20 00:03	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/14/20 16:36	10/20/20 00:03	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/14/20 16:36	10/20/20 00:03	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/14/20 16:36	10/20/20 00:03	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/14/20 16:36	10/20/20 00:03	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/14/20 16:36	10/20/20 00:03	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		10/14/20 16:36	10/20/20 00:03	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/14/20 16:36	10/20/20 00:03	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/14/20 16:36	10/20/20 00:03	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/14/20 16:36	10/20/20 00:03	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/14/20 16:36	10/20/20 00:03	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/14/20 16:36	10/20/20 00:03	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		10/14/20 16:36	10/20/20 16:19	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/14/20 16:36	10/20/20 00:03	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/14/20 16:36	10/20/20 00:03	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/14/20 16:36	10/20/20 00:03	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/14/20 16:36	10/20/20 00:03	1
1,4-Dioxane	ND	*1 WJ	9.4	0.94	ug/L		10/14/20 16:36	10/20/20 00:03	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	*1 WJ	9.4	0.94	ug/L		10/14/20 16:36	10/20/20 00:03	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		10/14/20 16:36	10/20/20 00:03	1
Hexachlorocyclopentadiene	ND	*1 WJ	19	2.5	ug/L		10/14/20 16:36	10/20/20 00:03	1
Hexachloroethane	ND		9.4	4.0	ug/L		10/14/20 16:36	10/20/20 00:03	1
Indene	ND		9.4	0.94	ug/L		10/14/20 16:36	10/20/20 00:03	1
Isophorone	ND	*1	9.4	0.13	ug/L		10/14/20 16:36	10/20/20 00:03	1
2-Methylphenol	2.1	J	9.4	1.7	ug/L		10/14/20 16:36	10/20/20 00:03	1
3 & 4 Methylphenol	2.4	J	19	0.37	ug/L		10/14/20 16:36	10/20/20 00:03	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194323-1

Client Sample ID: MW7-ROX-101220-DUP
Date Collected: 10/12/20 12:40
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-8
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND	*1	9.4	2.1	ug/L		10/14/20 16:36	10/20/20 00:03	1
3-Nitroaniline	ND	*1	9.4	1.7	ug/L		10/14/20 16:36	10/20/20 00:03	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/14/20 16:36	10/20/20 00:03	1
Nitrobenzene	ND	*1	9.4	0.12	ug/L		10/14/20 16:36	10/20/20 00:03	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/14/20 16:36	10/20/20 00:03	1
4-Nitrophenol	ND		9.4	2.0	ug/L		10/14/20 16:36	10/20/20 00:03	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		10/14/20 16:36	10/20/20 00:03	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/14/20 16:36	10/20/20 00:03	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/14/20 16:36	10/20/20 00:03	1
Pentachlorophenol	ND		19	1.3	ug/L		10/14/20 16:36	10/20/20 00:03	1
Phenol	73		9.4	2.5	ug/L		10/14/20 16:36	10/20/20 00:03	1
Pyridine	ND	*1 <i>WT</i>	9.4	3.0	ug/L		10/14/20 16:36	10/20/20 00:03	1
Quinoline	ND	<i>WT</i>	9.4	4.2	ug/L		10/14/20 16:36	10/20/20 00:03	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/14/20 16:36	10/20/20 00:03	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/14/20 16:36	10/20/20 00:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65		46 - 124				10/14/20 16:36	10/20/20 00:03	1
2-Fluorophenol	27		13 - 113				10/14/20 16:36	10/20/20 00:03	1
Nitrobenzene-d5	62		36 - 126				10/14/20 16:36	10/20/20 00:03	1
Phenol-d5	47		17 - 127				10/14/20 16:36	10/20/20 00:03	1
Terphenyl-d14	79		44 - 149				10/14/20 16:36	10/20/20 00:03	1
2,4,6-Tribromophenol	120		26 - 150				10/14/20 16:36	10/20/20 00:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzenthiol	ND	H * <i>WT</i>	9.6	1.6	ug/L		10/26/20 13:24	11/04/20 22:59	1
2-Chlorophenol	ND	H	9.6	2.1	ug/L		10/26/20 13:24	11/04/20 22:59	1
2,4-Dinitrophenol	ND	H	29	3.3	ug/L		10/26/20 13:24	11/04/20 22:59	1
2-Nitrophenol	ND	H	9.6	5.0	ug/L		10/26/20 13:24	11/04/20 22:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		46 - 124				10/26/20 13:24	11/04/20 22:59	1
2-Fluorophenol	52		13 - 113				10/26/20 13:24	11/04/20 22:59	1
Nitrobenzene-d5	77		36 - 126				10/26/20 13:24	11/04/20 22:59	1
Phenol-d5	74		17 - 127				10/26/20 13:24	11/04/20 22:59	1
Terphenyl-d14	73		44 - 149				10/26/20 13:24	11/04/20 22:59	1
2,4,6-Tribromophenol	105		26 - 150				10/26/20 13:24	11/04/20 22:59	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0054	ug/L		10/19/20 09:37	10/19/20 19:15	1
1,2-Dibromoethane	ND		0.020	0.0049	ug/L		10/19/20 09:37	10/19/20 19:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		51 - 149				10/19/20 09:37	10/19/20 19:15	1

Eurofins TestAmerica, Pensacola

Definitions/Glossary

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

Job ID: 400-194323-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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 or LCSD is outside acceptance limits.
*1	LCS/LCSD 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.
X	Surrogate recovery exceeds control limits

7

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: 400-194323-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194323-1	TB-ROX-101220-8260	94	97	94
400-194323-3	MW4-ROX-101220-EB	95	96	95
400-194323-4	MW4-ROX-101220	93	99	90
400-194323-5	MW25-ROX-101220	91	97	92
400-194323-6	MW8-ROX-101220	94	102	93
400-194323-7	MW7-ROX-101220	95	101	90
400-194323-7 - DL	MW7-ROX-101220	93	97	98
400-194323-8	MW7-ROX-101220-DUP	95	97	91
400-194323-8 - DL	MW7-ROX-101220-DUP	95	102	96
LCS 400-507584/1002	Lab Control Sample	96	93	94
LCS 400-507901/1002	Lab Control Sample	92	102	96
MB 400-507584/4	Method Blank	94	93	93
MB 400-507901/4	Method Blank	92	99	99

Surrogate Legend

BFB = 4-Bromo Fluorobenzene

DBFM = Dibromo Fluoromethane

TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194323-3	MW4-ROX-101220-EB	62	20	58	38	104	83
400-194323-3 - RERA	MW4-ROX-101220-EB	80	21	75	57	95	70
400-194323-4	MW4-ROX-101220	60	39	57	46	91	96
400-194323-4 - RERA	MW4-ROX-101220	77	47	76	65	90	98
400-194323-5	MW25-ROX-101220	64	28	61	42	91	105
400-194323-5 - RERA	MW25-ROX-101220	76	20	76	54	93	102
400-194323-6	MW8-ROX-101220	59	32	56	48	50	99
400-194323-6 - RERA	MW8-ROX-101220	82	28	84	73	82	107
400-194323-7	MW7-ROX-101220	63	19	59	38	74	112
400-194323-7 - RERA	MW7-ROX-101220	73	29	74	56	68	100
400-194323-8	MW7-ROX-101220-DUP	65	27	62	47	79	120
400-194323-8 - RERA	MW7-ROX-101220-DUP	75	52	77	74	73	105
LCS 400-506820/21-A	Lab Control Sample	54	18	52	33	100	55
LCS 400-506820/2-A	Lab Control Sample	65	35	63	47	95	105
LCS 400-508204/2-A	Lab Control Sample	94	39	73	69	87	96
LCS 400-508204/4-A	Lab Control Sample	79	40	76	61	97	36
LCSD 400-506820/22-A	Lab Control Sample Dup	22 X	2 X	19 X	3 X	72	16 X
LCSD 400-506820/3-A	Lab Control Sample Dup	72	41	84	64	86	74
LCSD 400-508204/3-A	Lab Control Sample Dup	82	32	64	61	77	88
LCSD 400-508204/5-A - RERA	Lab Control Sample Dup	77	22	72	51	94	14 X
MB 400-506820/1-A	Method Blank	65	3 X	62	15 X	124	71
MB 400-506820/1-A	Method Blank	79	4 X	85	25	107	55
MB 400-508204/1-A	Method Blank	76	39	73	58	95	70

Surrogate Legend

Eurofins TestAmerica, Pensacola

Surrogate Summary

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

Job ID: 400-194323-1

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

8

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194323-3	MW4-ROX-101220-EB	86	85	112
400-194323-4	MW4-ROX-101220	84	80	89
400-194323-5	MW25-ROX-101220	95	92	101
400-194323-6	MW8-ROX-101220	72	74	49
400-194323-7	MW7-ROX-101220	91	86	68
400-194323-8	MW7-ROX-101220-DUP	95	93	79
LCS 400-506820/2-A	Lab Control Sample	86	88	113
LCSD 400-506820/3-A	Lab Control Sample Dup	80	85	98
MB 400-506820/1-A	Method Blank	85	83	119

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB2 (51-149)	
400-194323-2	TB-ROX-101220-8011	97	
400-194323-3	MW4-ROX-101220-EB	87	
400-194323-4	MW4-ROX-101220	104	
400-194323-5	MW25-ROX-101220	103	
400-194323-6	MW8-ROX-101220	91	
400-194323-7	MW7-ROX-101220	92	
400-194323-8	MW7-ROX-101220-DUP	103	
LCS 400-507275/2-A	Lab Control Sample	86	
LCSD 400-507275/3-A	Lab Control Sample Dup	91	
MB 400-507275/1-A	Method Blank	93	

Surrogate Legend

BFB = 4-Bromofluorobenzene

Eurofins TestAmerica, Pensacola

Method Summary

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

Job ID: 400-194323-1

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

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

9

Lab Chronicle

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

Job ID: 400-194323-1

Client Sample ID: TB-ROX-101220-8260
Date Collected: 10/12/20 00:00
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-1
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	507584	10/21/20 12:47	AMB	TAL PEN

Client Sample ID: TB-ROX-101220-8011
Date Collected: 10/12/20 00:00
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.3 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 17:16	DHJ	TAL PEN

Client Sample ID: MW4-ROX-101220-EB
Date Collected: 10/12/20 08:50
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-3
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	507584	10/21/20 13:09	AMB	TAL PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507407	10/20/20 14:17	VC1	TAL PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507337	10/19/20 22:18	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		260.4 mL	1 mL	508204	10/26/20 13:24	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			509317	11/04/20 21:14	S1B	TAL PEN
Total/NA	Prep	3520C			267.6 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507458	10/20/20 17:22	KJA	TAL PEN
Total/NA	Prep	8011			35.2 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 17:36	DHJ	TAL PEN

Client Sample ID: MW4-ROX-101220
Date Collected: 10/12/20 09:42
Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-4
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	507584	10/21/20 16:28	AMB	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507407	10/20/20 14:41	VC1	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507337	10/19/20 22:39	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		263.4 mL	1 mL	508204	10/26/20 13:24	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			509317	11/04/20 21:35	S1B	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507458	10/20/20 17:40	KJA	TAL PEN
Total/NA	Prep	8011			34.8 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 17:56	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194323-1

Client Sample ID: MW25-ROX-101220

Date Collected: 10/12/20 10:25

Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-5

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	507584	10/21/20 18:50	AMB	TAL PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507407	10/20/20 15:06	VC1	TAL PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507337	10/19/20 23:00	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		263.6 mL	1 mL	508204	10/26/20 13:24	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			509317	11/04/20 21:56	S1B	TAL PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507458	10/20/20 17:57	KJA	TAL PEN
Total/NA	Prep	8011			34.4 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 18:16	DHJ	TAL PEN

Client Sample ID: MW8-ROX-101220

Date Collected: 10/12/20 11:38

Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		500	5 mL	5 mL	507584	10/21/20 18:18	AMB	TAL PEN
Total/NA	Prep	3520C			268.4 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507407	10/20/20 15:30	VC1	TAL PEN
Total/NA	Prep	3520C			268.4 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507337	10/19/20 23:21	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		260.4 mL	1 mL	508204	10/26/20 13:24	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			509317	11/04/20 22:17	S1B	TAL PEN
Total/NA	Prep	3520C			268.4 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507458	10/20/20 18:15	KJA	TAL PEN
Total/NA	Prep	8011			34.6 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 18:35	DHJ	TAL PEN

Client Sample ID: MW7-ROX-101220

Date Collected: 10/12/20 12:40

Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10000	5 mL	5 mL	507901	10/23/20 23:57	BEP	TAL PEN
Total/NA	Analysis	8260B		1000	5 mL	5 mL	507584	10/21/20 18:40	AMB	TAL PEN
Total/NA	Prep	3520C			260 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507407	10/20/20 15:54	VC1	TAL PEN
Total/NA	Prep	3520C			260 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507337	10/19/20 23:42	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		264.6 mL	1 mL	508204	10/26/20 13:24	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			509317	11/04/20 22:38	S1B	TAL PEN
Total/NA	Prep	3520C			260 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507458	10/20/20 18:33	KJA	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194323-1

Client Sample ID: MW7-ROX-101220

Date Collected: 10/12/20 12:40

Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.3 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 18:55	DHJ	TAL PEN

Client Sample ID: MW7-ROX-101220-DUP

Date Collected: 10/12/20 12:40

Date Received: 10/13/20 09:11

Lab Sample ID: 400-194323-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	10000	5 mL	5 mL	507901	10/24/20 00:22	BEP	TAL PEN
Total/NA	Analysis	8260B		1000	5 mL	5 mL	507584	10/21/20 19:03	AMB	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507407	10/20/20 16:19	VC1	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507337	10/20/20 00:03	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		261 mL	1 mL	508204	10/26/20 13:24	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			509317	11/04/20 22:59	S1B	TAL PEN
Total/NA	Prep	3520C			264.8 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507458	10/20/20 18:50	KJA	TAL PEN
Total/NA	Prep	8011			35.5 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 19:15	DHJ	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-506820/1-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	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507337	10/19/20 17:20	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507454	10/20/20 13:33	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507458	10/20/20 13:51	KJA	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-507275/1-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:16	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194323-1

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

Lab Sample ID: MB 400-507584/4
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	507584	10/21/20 10:49	AMB	TAL PEN

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

Lab Sample ID: MB 400-507901/4
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	507901	10/23/20 16:16	BEP	TAL PEN

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

Lab Sample ID: MB 400-508204/1-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 16:18	S1B	TAL PEN

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

Lab Sample ID: LCS 400-506820/21-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	506820	10/14/20 16:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507337	10/19/20 18:24	S1B	TAL PEN

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

Lab Sample ID: LCS 400-506820/2-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	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1	0.4 mL	1.0 mL	507337	10/19/20 17:41	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507458	10/20/20 14:08	KJA	TAL PEN

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

Lab Sample ID: LCS 400-507275/2-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:36	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194323-1

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-507584/1002

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	507584	10/21/20 09:50	AMB	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-507901/1002

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	507901	10/23/20 14:06	BEP	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-508204/2-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 16:39	S1B	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-508204/4-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:21	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-506820/22-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	506820	10/14/20 16:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			507337	10/19/20 18:45	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-506820/3-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	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1	0.4 mL	1.0 mL	507454	10/20/20 13:53	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	506820	10/14/20 16:36	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507458	10/20/20 14:26	KJA	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194323-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-507275/3-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:56	DHJ	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-508204/3-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:00	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-508204/5-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	RERA		250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			509317	11/04/20 17:43	S1B	TAL PEN

Laboratory References:

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

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194323-1

GC/MS VOA

Analysis Batch: 507584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-1	TB-ROX-101220-8260	Total/NA	Water	8260B	
400-194323-3	MW4-ROX-101220-EB	Total/NA	Water	8260B	
400-194323-4	MW4-ROX-101220	Total/NA	Water	8260B	
400-194323-5	MW25-ROX-101220	Total/NA	Water	8260B	
400-194323-6	MW8-ROX-101220	Total/NA	Water	8260B	
400-194323-7	MW7-ROX-101220	Total/NA	Water	8260B	
400-194323-8	MW7-ROX-101220-DUP	Total/NA	Water	8260B	
MB 400-507584/4	Method Blank	Total/NA	Water	8260B	
LCS 400-507584/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 507901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-7 - DL	MW7-ROX-101220	Total/NA	Water	8260B	
400-194323-8 - DL	MW7-ROX-101220-DUP	Total/NA	Water	8260B	
MB 400-507901/4	Method Blank	Total/NA	Water	8260B	
LCS 400-507901/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 506820

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-3	MW4-ROX-101220-EB	Total/NA	Water	3520C	
400-194323-4	MW4-ROX-101220	Total/NA	Water	3520C	
400-194323-5	MW25-ROX-101220	Total/NA	Water	3520C	
400-194323-6	MW8-ROX-101220	Total/NA	Water	3520C	
400-194323-7	MW7-ROX-101220	Total/NA	Water	3520C	
400-194323-8	MW7-ROX-101220-DUP	Total/NA	Water	3520C	
MB 400-506820/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-506820/21-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-506820/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-506820/22-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-506820/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 507337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-3	MW4-ROX-101220-EB	Total/NA	Water	8270D	506820
400-194323-4	MW4-ROX-101220	Total/NA	Water	8270D	506820
400-194323-5	MW25-ROX-101220	Total/NA	Water	8270D	506820
400-194323-6	MW8-ROX-101220	Total/NA	Water	8270D	506820
400-194323-7	MW7-ROX-101220	Total/NA	Water	8270D	506820
400-194323-8	MW7-ROX-101220-DUP	Total/NA	Water	8270D	506820
MB 400-506820/1-A	Method Blank	Total/NA	Water	8270D	506820
LCS 400-506820/21-A	Lab Control Sample	Total/NA	Water	8270D	506820
LCS 400-506820/2-A	Lab Control Sample	Total/NA	Water	8270D	506820
LCSD 400-506820/22-A	Lab Control Sample Dup	Total/NA	Water	8270D	506820

Analysis Batch: 507407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-3	MW4-ROX-101220-EB	Total/NA	Water	8270D	506820
400-194323-4	MW4-ROX-101220	Total/NA	Water	8270D	506820
400-194323-5	MW25-ROX-101220	Total/NA	Water	8270D	506820

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194323-1

GC/MS Semi VOA (Continued)

Analysis Batch: 507407 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-6	MW8-ROX-101220	Total/NA	Water	8270D	506820
400-194323-7	MW7-ROX-101220	Total/NA	Water	8270D	506820
400-194323-8	MW7-ROX-101220-DUP	Total/NA	Water	8270D	506820

Analysis Batch: 507454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-506820/1-A	Method Blank	Total/NA	Water	8270D	506820
LCSD 400-506820/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	506820

Analysis Batch: 507458

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-3	MW4-ROX-101220-EB	Total/NA	Water	8270D LL	506820
400-194323-4	MW4-ROX-101220	Total/NA	Water	8270D LL	506820
400-194323-5	MW25-ROX-101220	Total/NA	Water	8270D LL	506820
400-194323-6	MW8-ROX-101220	Total/NA	Water	8270D LL	506820
400-194323-7	MW7-ROX-101220	Total/NA	Water	8270D LL	506820
400-194323-8	MW7-ROX-101220-DUP	Total/NA	Water	8270D LL	506820
MB 400-506820/1-A	Method Blank	Total/NA	Water	8270D LL	506820
LCS 400-506820/2-A	Lab Control Sample	Total/NA	Water	8270D LL	506820
LCSD 400-506820/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	506820

Prep Batch: 508204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-3 - RERA	MW4-ROX-101220-EB	Total/NA	Water	3520C	
400-194323-4 - RERA	MW4-ROX-101220	Total/NA	Water	3520C	
400-194323-5 - RERA	MW25-ROX-101220	Total/NA	Water	3520C	
400-194323-6 - RERA	MW8-ROX-101220	Total/NA	Water	3520C	
400-194323-7 - RERA	MW7-ROX-101220	Total/NA	Water	3520C	
400-194323-8 - RERA	MW7-ROX-101220-DUP	Total/NA	Water	3520C	
MB 400-508204/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-508204/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-508204/5-A - REF	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 509317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-3 - RERA	MW4-ROX-101220-EB	Total/NA	Water	8270D	508204
400-194323-4 - RERA	MW4-ROX-101220	Total/NA	Water	8270D	508204
400-194323-5 - RERA	MW25-ROX-101220	Total/NA	Water	8270D	508204
400-194323-6 - RERA	MW8-ROX-101220	Total/NA	Water	8270D	508204
400-194323-7 - RERA	MW7-ROX-101220	Total/NA	Water	8270D	508204
400-194323-8 - RERA	MW7-ROX-101220-DUP	Total/NA	Water	8270D	508204
MB 400-508204/1-A	Method Blank	Total/NA	Water	8270D	508204
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	8270D	508204
LCS 400-508204/4-A	Lab Control Sample	Total/NA	Water	8270D	508204
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	508204
LCSD 400-508204/5-A - REF	Lab Control Sample Dup	Total/NA	Water	8270D	508204

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194323-1

GC Semi VOA

Prep Batch: 507275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-2	TB-ROX-101220-8011	Total/NA	Water	8011	
400-194323-3	MW4-ROX-101220-EB	Total/NA	Water	8011	
400-194323-4	MW4-ROX-101220	Total/NA	Water	8011	
400-194323-5	MW25-ROX-101220	Total/NA	Water	8011	
400-194323-6	MW8-ROX-101220	Total/NA	Water	8011	
400-194323-7	MW7-ROX-101220	Total/NA	Water	8011	
400-194323-8	MW7-ROX-101220-DUP	Total/NA	Water	8011	
MB 400-507275/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-507275/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-507275/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 507289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194323-2	TB-ROX-101220-8011	Total/NA	Water	8011	507275
400-194323-3	MW4-ROX-101220-EB	Total/NA	Water	8011	507275
400-194323-4	MW4-ROX-101220	Total/NA	Water	8011	507275
400-194323-5	MW25-ROX-101220	Total/NA	Water	8011	507275
400-194323-6	MW8-ROX-101220	Total/NA	Water	8011	507275
400-194323-7	MW7-ROX-101220	Total/NA	Water	8011	507275
400-194323-8	MW7-ROX-101220-DUP	Total/NA	Water	8011	507275
MB 400-507275/1-A	Method Blank	Total/NA	Water	8011	507275
LCS 400-507275/2-A	Lab Control Sample	Total/NA	Water	8011	507275
LCSD 400-507275/3-A	Lab Control Sample Dup	Total/NA	Water	8011	507275

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: MB 400-507584/4

Matrix: Water

Analysis Batch: 507584

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

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone			ND		25	10	ug/L			10/21/20 10:49	1
Acrolein			ND		20	10	ug/L			10/21/20 10:49	1
Acrylonitrile			ND		10	2.8	ug/L			10/21/20 10:49	1
Benzene			ND		1.0	0.38	ug/L			10/21/20 10:49	1
Bromobenzene			ND		1.0	0.54	ug/L			10/21/20 10:49	1
Bromoform			ND		1.0	0.52	ug/L			10/21/20 10:49	1
Bromochloromethane			ND		1.0	0.50	ug/L			10/21/20 10:49	1
Bromodichloromethane			ND		5.0	0.71	ug/L			10/21/20 10:49	1
Bromomethane			ND		1.0	0.98	ug/L			10/21/20 10:49	1
2-Butanone (MEK)			ND		25	2.6	ug/L			10/21/20 10:49	1
Carbon disulfide			ND		1.0	0.50	ug/L			10/21/20 10:49	1
Carbon tetrachloride			ND		1.0	0.50	ug/L			10/21/20 10:49	1
Chlorobenzene			ND		1.0	0.50	ug/L			10/21/20 10:49	1
Dibromochloromethane			ND		1.0	0.50	ug/L			10/21/20 10:49	1
Chloroethane			ND		1.0	0.76	ug/L			10/21/20 10:49	1
2-Chloroethyl vinyl ether			ND		5.0	2.0	ug/L			10/21/20 10:49	1
Chloroform			ND		1.0	0.60	ug/L			10/21/20 10:49	1
1-Chlorohexane			ND		1.0	0.70	ug/L			10/21/20 10:49	1
Chloromethane			ND		1.0	0.83	ug/L			10/21/20 10:49	1
cis-1,2-Dichloroethene			ND		1.0	0.50	ug/L			10/21/20 10:49	1
cis-1,3-Dichloropropene			ND		5.0	0.50	ug/L			10/21/20 10:49	1
1,2-Dichlorobenzene			ND		1.0	0.50	ug/L			10/21/20 10:49	1
1,3-Dichlorobenzene			ND		1.0	0.54	ug/L			10/21/20 10:49	1
1,4-Dichlorobenzene			ND		1.0	0.64	ug/L			10/21/20 10:49	1
Dichlorodifluoromethane			ND		1.0	0.85	ug/L			10/21/20 10:49	1
1,1-Dichloroethane			ND		1.0	0.50	ug/L			10/21/20 10:49	1
1,2-Dichloroethane			ND		1.0	0.50	ug/L			10/21/20 10:49	1
1,1-Dichloroethylene			ND		1.0	0.50	ug/L			10/21/20 10:49	1
1,2-Dichloropropane			ND		1.0	0.50	ug/L			10/21/20 10:49	1
1,3-Dichloropropane			ND		1.0	0.50	ug/L			10/21/20 10:49	1
2,2-Dichloropropane			ND		1.0	0.50	ug/L			10/21/20 10:49	1
1,1-Dichloropropene			ND		1.0	0.50	ug/L			10/21/20 10:49	1
Ethylbenzene			ND		1.0	0.50	ug/L			10/21/20 10:49	1
Ethyl methacrylate			ND		1.0	0.60	ug/L			10/21/20 10:49	1
Hexachlorobutadiene			ND		5.0	0.90	ug/L			10/21/20 10:49	1
2-Hexanone			ND		25	3.1	ug/L			10/21/20 10:49	1
Isopropylbenzene			ND		1.0	0.53	ug/L			10/21/20 10:49	1
Methylene bromide			ND		5.0	0.59	ug/L			10/21/20 10:49	1
Methylene Chloride			ND		5.0	3.0	ug/L			10/21/20 10:49	1
4-Methyl-2-pentanone (MIBK)			ND		25	1.8	ug/L			10/21/20 10:49	1
Methyl tert-butyl ether			ND		1.0	0.74	ug/L			10/21/20 10:49	1
m-Xylene & p-Xylene			ND		5.0	1.6	ug/L			10/21/20 10:49	1
Naphthalene			ND		1.0	1.0	ug/L			10/21/20 10:49	1
n-Butylbenzene			ND		1.0	0.76	ug/L			10/21/20 10:49	1
N-Propylbenzene			ND		1.0	0.69	ug/L			10/21/20 10:49	1
o-Chlorotoluene			ND		1.0	0.57	ug/L			10/21/20 10:49	1
o-Xylene			ND		5.0	0.60	ug/L			10/21/20 10:49	1
p-Chlorotoluene			ND		1.0	0.56	ug/L			10/21/20 10:49	1

12

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: MB 400-507584/4

Matrix: Water

Analysis Batch: 507584

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND				1.0	0.71	ug/L			10/21/20 10:49	1
sec-Butylbenzene	ND				1.0	0.70	ug/L			10/21/20 10:49	1
Styrene	ND				1.0	1.0	ug/L			10/21/20 10:49	1
tert-Butylbenzene	ND				1.0	0.63	ug/L			10/21/20 10:49	1
1,1,1,2-Tetrachloroethane	ND				1.0	0.52	ug/L			10/21/20 10:49	1
1,1,2,2-Tetrachloroethane	ND				1.0	0.50	ug/L			10/21/20 10:49	1
Tetrachloroethylene	ND				1.0	0.58	ug/L			10/21/20 10:49	1
Toluene	ND				1.0	0.41	ug/L			10/21/20 10:49	1
trans-1,2-Dichloroethylene	ND				1.0	0.50	ug/L			10/21/20 10:49	1
trans-1,3-Dichloropropene	ND				5.0	0.50	ug/L			10/21/20 10:49	1
1,2,3-Trichlorobenzene	ND				1.0	0.70	ug/L			10/21/20 10:49	1
1,2,4-Trichlorobenzene	ND				1.0	0.82	ug/L			10/21/20 10:49	1
1,1,1-Trichloroethane	ND				1.0	0.50	ug/L			10/21/20 10:49	1
1,1,2-Trichloroethane	ND				5.0	0.50	ug/L			10/21/20 10:49	1
Trichloroelohene	ND				1.0	0.50	ug/L			10/21/20 10:49	1
Trichlorofluoromethane	ND				1.0	0.52	ug/L			10/21/20 10:49	1
1,2,3-Trichloropropane	ND				5.0	0.84	ug/L			10/21/20 10:49	1
1,2,4-Trimethylbenzene	ND				1.0	0.82	ug/L			10/21/20 10:49	1
1,3,5-Trimethylbenzene	ND				1.0	0.56	ug/L			10/21/20 10:49	1
Vinyl acetate	ND				25	2.0	ug/L			10/21/20 10:49	1
Vinyl chloride	ND				1.0	0.50	ug/L			10/21/20 10:49	1
Xylenes, Total	ND				10	1.6	ug/L			10/21/20 10:49	1
Surrogate	MB	MB	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94				78 - 118					10/21/20 10:49	1
Dibromoefluoromethane	93				81 - 121					10/21/20 10:49	1
Toluene-d8 (Sur)	93				80 - 120					10/21/20 10:49	1

Lab Sample ID: LCS 400-507584/1002

Matrix: Water

Analysis Batch: 507584

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added									
Acetone	200	193				ug/L		96	43 - 160	
Acrolein	500	500				ug/L		100	38 - 160	
Acrylonitrile	500	432				ug/L		86	64 - 142	
Benzene	50.0	52.1				ug/L		104	70 - 130	
Bromobenzene	50.0	44.5				ug/L		89	70 - 132	
Bromochloromethane	50.0	48.1				ug/L		96	70 - 130	
Bromodichloromethane	50.0	37.7				ug/L		75	67 - 133	
Bromoform	50.0	27.1 *				ug/L		54	57 - 140	
Bromomethane	50.0	49.2				ug/L		98	10 - 160	
2-Butanone (MEK)	200	193				ug/L		96	61 - 145	
Carbon disulfide	50.0	42.0				ug/L		84	61 - 137	
Carbon tetrachloride	50.0	46.4				ug/L		93	61 - 137	
Chlorobenzene	50.0	47.4				ug/L		95	70 - 130	
Dibromochloromethane	50.0	32.0 *				ug/L		64	67 - 135	
Chloroelohane	50.0	68.4				ug/L		137	55 - 141	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: LCS 400-507584/1002

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507584

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloroethyl vinyl ether	50.0	58.1		ug/L		116	10 - 160
Chloroform	50.0	44.9		ug/L		90	69 - 130
1-Chlorohexane	50.0	51.8		ug/L		104	69 - 130
Chloromethane	50.0	53.9		ug/L		108	58 - 137
cis-1,2-Dichloroethene	50.0	46.9		ug/L		94	68 - 130
cis-1,3-Dichloropropene	50.0	42.0		ug/L		84	69 - 132
1,2-Dichlorobenzene	50.0	44.2		ug/L		88	67 - 130
1,3-Dichlorobenzene	50.0	46.8		ug/L		94	70 - 130
1,4-Dichlorobenzene	50.0	46.1		ug/L		92	70 - 130
Dichlorodifluoromethane	50.0	58.2		ug/L		116	41 - 146
1,1-Dichloroethane	50.0	49.1		ug/L		98	70 - 130
1,2-Dichloroethane	50.0	39.8		ug/L		80	69 - 130
1,1-Dichloroethylene	50.0	52.3		ug/L		105	63 - 134
1,2-Dichloropropane	50.0	51.7		ug/L		103	70 - 130
1,3-Dichloropropane	50.0	44.0		ug/L		88	70 - 130
2,2-Dichloropropane	50.0	41.3		ug/L		83	52 - 135
1,1-Dichloropropene	50.0	53.6		ug/L		107	70 - 130
Ethylbenzene	50.0	49.8		ug/L		100	70 - 130
Ethyl methacrylate	50.0	39.9		ug/L		80	68 - 130
Hexachlorobutadiene	50.0	51.0		ug/L		102	53 - 140
2-Hexanone	200	167		ug/L		84	65 - 137
Isopropylbenzene	50.0	52.0		ug/L		104	70 - 130
Methylene bromide	50.0	46.0		ug/L		92	70 - 130
Methylene Chloride	50.0	46.3		ug/L		93	66 - 135
4-Methyl-2-pentanone (MIBK)	200	175		ug/L		87	69 - 138
Methyl tert-butyl ether	50.0	41.0		ug/L		82	66 - 130
m-Xylene & p-Xylene	50.0	48.1		ug/L		96	70 - 130
Naphthalene	50.0	41.9		ug/L		84	47 - 149
n-Butylbenzene	50.0	57.6		ug/L		115	67 - 130
N-Propylbenzene	50.0	54.3		ug/L		109	70 - 130
o-Chlorotoluene	50.0	49.2		ug/L		98	70 - 130
o-Xylene	50.0	47.3		ug/L		95	70 - 130
p-Chlorotoluene	50.0	47.4		ug/L		95	70 - 130
p-Isopropyltoluene	50.0	52.7		ug/L		105	65 - 130
sec-Butylbenzene	50.0	54.8		ug/L		110	66 - 130
Styrene	50.0	44.6		ug/L		89	70 - 130
tert-Butylbenzene	50.0	48.3		ug/L		97	64 - 139
1,1,1,2-Tetrachloroethane	50.0	39.5		ug/L		79	67 - 131
1,1,2,2-Tetrachloroethane	50.0	41.5		ug/L		83	70 - 131
Tetrachloroethene	50.0	47.3		ug/L		95	65 - 130
Toluene	50.0	49.0		ug/L		98	70 - 130
trans-1,2-Dichloroethene	50.0	51.6		ug/L		103	70 - 130
trans-1,3-Dichloropropene	50.0	33.8		ug/L		68	63 - 130
1,2,3-Trichlorobenzene	50.0	43.0		ug/L		86	60 - 138
1,2,4-Trichlorobenzene	50.0	44.1		ug/L		88	60 - 140
1,1,1-Trichloroethane	50.0	45.7		ug/L		91	68 - 130
1,1,2-Trichloroethane	50.0	41.6		ug/L		83	70 - 130
Trichloroethene	50.0	54.4		ug/L		109	70 - 130
Trichlorofluoromethane	50.0	65.1		ug/L		130	65 - 138

12

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: LCS 400-507584/1002

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

Matrix: Water

Analysis Batch: 507584

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
1,2,3-Trichloropropane	50.0	38.1		ug/L	76	70 - 130	
1,2,4-Trimethylbenzene	50.0	48.1		ug/L	96	70 - 130	
1,3,5-Trimethylbenzene	50.0	49.3		ug/L	99	69 - 130	
Vinyl acetate	100	118		ug/L	118	26 - 160	
Vinyl chloride	50.0	64.6		ug/L	129	59 - 136	
Xylenes, Total	100	95.5		ug/L	95	70 - 130	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	96		78 - 118
Dibromofluoromethane	93		81 - 121
Toluene-d8 (Surrogate)	94		80 - 120

Lab Sample ID: MB 400-507901/4

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

Matrix: Water

Analysis Batch: 507901

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzene	ND		1.0	0.38	ug/L			10/23/20 16:16	1
Surrogate	MB	MB					Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	92		78 - 118					10/23/20 16:16	1
Dibromofluoromethane	99		81 - 121					10/23/20 16:16	1
Toluene-d8 (Surrogate)	99		80 - 120					10/23/20 16:16	1

Lab Sample ID: LCS 400-507901/1002

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

Matrix: Water

Analysis Batch: 507901

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
Benzene	50.0	46.6		ug/L	93	70 - 130	
Surrogate							
4-Bromofluorobenzene							
92							
Dibromofluoromethane							
102							
Toluene-d8 (Surrogate)							
96							

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

Lab Sample ID: MB 400-506820/1-A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506820

Matrix: Water

Analysis Batch: 507337

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aniline	ND		10	3.8	ug/L		10/14/20 16:36	10/19/20 17:20	1
Benzenethiol	ND		10	1.7	ug/L		10/14/20 16:36	10/19/20 17:20	1
Benzoic acid	ND		30	7.3	ug/L		10/14/20 16:36	10/19/20 17:20	1
Benzyl alcohol	ND		10	2.0	ug/L		10/14/20 16:36	10/19/20 17:20	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/14/20 16:36	10/19/20 17:20	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: MB 400-506820/1-A

Matrix: Water

Analysis Batch: 507337

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506820

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethyl)ether	ND		ND		10	2.7	ug/L	10/14/20 16:36	10/19/20 17:20		1
bis (2-chloroisopropyl) ether	ND		ND		10	0.16	ug/L	10/14/20 16:36	10/19/20 17:20		1
Bis(2-ethylhexyl) phthalate	ND		ND		10	5.0	ug/L	10/14/20 16:36	10/19/20 17:20		1
4-Bromophenyl phenyl ether	ND		ND		10	0.20	ug/L	10/14/20 16:36	10/19/20 17:20		1
Butyl benzyl phthalate	ND		ND		10	0.19	ug/L	10/14/20 16:36	10/19/20 17:20		1
4-Chloroaniline	ND		ND		10	3.4	ug/L	10/14/20 16:36	10/19/20 17:20		1
4-Chloro-3-methylphenol	ND		ND		10	3.8	ug/L	10/14/20 16:36	10/19/20 17:20		1
2-Chloronaphthalene	ND		ND		10	0.14	ug/L	10/14/20 16:36	10/19/20 17:20		1
2-Chlorophenol	ND		ND		10	2.2	ug/L	10/14/20 16:36	10/19/20 17:20		1
4-Chlorophenyl phenyl ether	ND		ND		10	2.0	ug/L	10/14/20 16:36	10/19/20 17:20		1
Dibenz[a,h]acridine	ND		ND		10	1.0	ug/L	10/14/20 16:36	10/19/20 17:20		1
Dibenzofuran	ND		ND		10	0.17	ug/L	10/14/20 16:36	10/19/20 17:20		1
3,3'-Dichlorobenzidine	ND		ND		10	2.6	ug/L	10/14/20 16:36	10/19/20 17:20		1
2,4-Dichlorophenol	ND		ND		10	3.0	ug/L	10/14/20 16:36	10/19/20 17:20		1
Diethyl phthalate	ND		ND		10	0.24	ug/L	10/14/20 16:36	10/19/20 17:20		1
2,4-Dimethylphenol	ND		ND		10	3.5	ug/L	10/14/20 16:36	10/19/20 17:20		1
Dimethyl phthalate	ND		ND		10	0.17	ug/L	10/14/20 16:36	10/19/20 17:20		1
Di-n-butyl phthalate	ND		ND		10	2.7	ug/L	10/14/20 16:36	10/19/20 17:20		1
4,6-Dinitro-ortho-cresol	ND		ND		10	1.6	ug/L	10/14/20 16:36	10/19/20 17:20		1
2,4-Dinitrophenol	ND		ND		30	3.4	ug/L	10/14/20 16:36	10/19/20 17:20		1
2,4-Dinitrotoluene	ND		ND		10	1.9	ug/L	10/14/20 16:36	10/19/20 17:20		1
2,6-Dinitrotoluene	ND		ND		10	1.9	ug/L	10/14/20 16:36	10/19/20 17:20		1
Di-n-octyl phthalate	ND		ND		10	0.17	ug/L	10/14/20 16:36	10/19/20 17:20		1
1,4-Dioxane	ND		ND		10	1.0	ug/L	10/14/20 16:36	10/19/20 17:20		1
1,2-Diphenylhydrazine (as Azobenzene)	ND		ND		10	1.0	ug/L	10/14/20 16:36	10/19/20 17:20		1
Hexachlorobenzene	ND		ND		10	0.17	ug/L	10/14/20 16:36	10/19/20 17:20		1
Hexachlorocyclopentadiene	ND		ND		20	2.6	ug/L	10/14/20 16:36	10/19/20 17:20		1
Hexachloroethane	ND		ND		10	4.2	ug/L	10/14/20 16:36	10/19/20 17:20		1
Indene	ND		ND		10	1.0	ug/L	10/14/20 16:36	10/19/20 17:20		1
Isophorone	ND		ND		10	0.14	ug/L	10/14/20 16:36	10/19/20 17:20		1
2-Methylphenol	ND		ND		10	1.8	ug/L	10/14/20 16:36	10/19/20 17:20		1
3 & 4 Methylphenol	ND		ND		20	0.39	ug/L	10/14/20 16:36	10/19/20 17:20		1
2-Nitroaniline	ND		ND		10	2.2	ug/L	10/14/20 16:36	10/19/20 17:20		1
3-Nitroaniline	ND		ND		10	1.8	ug/L	10/14/20 16:36	10/19/20 17:20		1
4-Nitroaniline	ND		ND		10	1.5	ug/L	10/14/20 16:36	10/19/20 17:20		1
Nitrobenzene	ND		ND		10	0.13	ug/L	10/14/20 16:36	10/19/20 17:20		1
2-Nitrophenol	ND		ND		10	5.2	ug/L	10/14/20 16:36	10/19/20 17:20		1
4-Nitrophenol	ND		ND		10	2.1	ug/L	10/14/20 16:36	10/19/20 17:20		1
N-Nitrosodimethylamine	ND		ND		10	3.5	ug/L	10/14/20 16:36	10/19/20 17:20		1
N-Nitrosodi-n-propylamine	ND		ND		10	3.3	ug/L	10/14/20 16:36	10/19/20 17:20		1
N-Nitrosodiphenylamine	ND		ND		10	0.18	ug/L	10/14/20 16:36	10/19/20 17:20		1
Pentachlorophenol	ND		ND		20	1.4	ug/L	10/14/20 16:36	10/19/20 17:20		1
Phenol	ND		ND		10	2.6	ug/L	10/14/20 16:36	10/19/20 17:20		1
Pyridine	ND		ND		10	3.2	ug/L	10/14/20 16:36	10/19/20 17:20		1
Quinoline	ND		ND		10	4.5	ug/L	10/14/20 16:36	10/19/20 17:20		1
2,4,5-Trichlorophenol	ND		ND		10	3.7	ug/L	10/14/20 16:36	10/19/20 17:20		1
2,4,6-Trichlorophenol	ND		ND		10	3.5	ug/L	10/14/20 16:36	10/19/20 17:20		1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: MB 400-506820/1-A

Matrix: Water

Analysis Batch: 507337

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506820

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	65				46 - 124	10/14/20 16:36	10/19/20 17:20	1
2-Fluorophenol	3 X				13 - 113	10/14/20 16:36	10/19/20 17:20	1
Nitrobenzene-d5	62				36 - 126	10/14/20 16:36	10/19/20 17:20	1
Phenol-d5	15 X				17 - 127	10/14/20 16:36	10/19/20 17:20	1
Terphenyl-d14	124				44 - 149	10/14/20 16:36	10/19/20 17:20	1
2,4,6-Tribromophenol	71				26 - 150	10/14/20 16:36	10/19/20 17:20	1

Lab Sample ID: MB 400-506820/1-A

Matrix: Water

Analysis Batch: 507454

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506820

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline			ND		10	3.8	ug/L	10/14/20 16:36	10/20/20 13:33		1
Benzoic acid			ND		30	7.3	ug/L	10/14/20 16:36	10/20/20 13:33		1
Benzyl alcohol			ND		10	2.0	ug/L	10/14/20 16:36	10/20/20 13:33		1
Bis(2-chloroethoxy)methane			ND		10	0.16	ug/L	10/14/20 16:36	10/20/20 13:33		1
Bis(2-chloroethyl)ether			ND		10	2.7	ug/L	10/14/20 16:36	10/20/20 13:33		1
bis (2-chloroisopropyl) ether			ND		10	0.16	ug/L	10/14/20 16:36	10/20/20 13:33		1
Bis(2-ethylhexyl) phthalate			ND		10	5.0	ug/L	10/14/20 16:36	10/20/20 13:33		1
4-Bromophenyl phenyl ether			ND		10	0.20	ug/L	10/14/20 16:36	10/20/20 13:33		1
Butyl benzyl phthalate			ND		10	0.19	ug/L	10/14/20 16:36	10/20/20 13:33		1
4-Chloroaniline			ND		10	3.4	ug/L	10/14/20 16:36	10/20/20 13:33		1
4-Chloro-3-methylphenol			ND		10	3.8	ug/L	10/14/20 16:36	10/20/20 13:33		1
2-Chloronaphthalene			ND		10	0.14	ug/L	10/14/20 16:36	10/20/20 13:33		1
2-Chlorophenol			ND		10	2.2	ug/L	10/14/20 16:36	10/20/20 13:33		1
4-Chlorophenyl phenyl ether			ND		10	2.0	ug/L	10/14/20 16:36	10/20/20 13:33		1
Dibenz[a,h]acridine			ND		10	1.0	ug/L	10/14/20 16:36	10/20/20 13:33		1
Dibenzofuran			ND		10	0.17	ug/L	10/14/20 16:36	10/20/20 13:33		1
3,3'-Dichlorobenzidine			ND		10	2.6	ug/L	10/14/20 16:36	10/20/20 13:33		1
2,4-Dichlorophenol			ND		10	3.0	ug/L	10/14/20 16:36	10/20/20 13:33		1
Diethyl phthalate			ND		10	0.24	ug/L	10/14/20 16:36	10/20/20 13:33		1
2,4-Dimethylphenol			ND		10	3.5	ug/L	10/14/20 16:36	10/20/20 13:33		1
Dimethyl phthalate		0.954 J	ND		10	0.17	ug/L	10/14/20 16:36	10/20/20 13:33		1
Di-n-butyl phthalate			ND		10	2.7	ug/L	10/14/20 16:36	10/20/20 13:33		1
4,6-Dinitro-ortho-cresol			ND		10	1.6	ug/L	10/14/20 16:36	10/20/20 13:33		1
2,4-Dinitrophenol			ND		30	3.4	ug/L	10/14/20 16:36	10/20/20 13:33		1
2,4-Dinitrotoluene			ND		10	1.9	ug/L	10/14/20 16:36	10/20/20 13:33		1
2,6-Dinitrotoluene			ND		10	1.9	ug/L	10/14/20 16:36	10/20/20 13:33		1
Di-n-octyl phthalate			ND		10	0.17	ug/L	10/14/20 16:36	10/20/20 13:33		1
1,4-Dioxane			ND		10	1.0	ug/L	10/14/20 16:36	10/20/20 13:33		1
1,2-Diphenylhydrazine (as Azobenzene)			ND		10	1.0	ug/L	10/14/20 16:36	10/20/20 13:33		1
Hexachlorobenzene			ND		10	0.17	ug/L	10/14/20 16:36	10/20/20 13:33		1
Hexachlorocyclopentadiene			ND		20	2.6	ug/L	10/14/20 16:36	10/20/20 13:33		1
Hexachloroethane			ND		10	4.2	ug/L	10/14/20 16:36	10/20/20 13:33		1
Indene			ND		10	1.0	ug/L	10/14/20 16:36	10/20/20 13:33		1
Isophorone			ND		10	0.14	ug/L	10/14/20 16:36	10/20/20 13:33		1
2-Methylphenol			ND		10	1.8	ug/L	10/14/20 16:36	10/20/20 13:33		1
3 & 4 Methylphenol			ND		20	0.39	ug/L	10/14/20 16:36	10/20/20 13:33		1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: MB 400-506820/1-A

Matrix: Water

Analysis Batch: 507454

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 506820

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		10	2.2	ug/L		10/14/20 16:36	10/20/20 13:33	1
3-Nitroaniline	ND		10	1.8	ug/L		10/14/20 16:36	10/20/20 13:33	1
4-Nitroaniline	ND		10	1.5	ug/L		10/14/20 16:36	10/20/20 13:33	1
Nitrobenzene	ND		10	0.13	ug/L		10/14/20 16:36	10/20/20 13:33	1
2-Nitrophenol	ND		10	5.2	ug/L		10/14/20 16:36	10/20/20 13:33	1
4-Nitrophenol	ND		10	2.1	ug/L		10/14/20 16:36	10/20/20 13:33	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/14/20 16:36	10/20/20 13:33	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/14/20 16:36	10/20/20 13:33	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/14/20 16:36	10/20/20 13:33	1
Pentachlorophenol	ND		20	1.4	ug/L		10/14/20 16:36	10/20/20 13:33	1
Phenol	ND		10	2.6	ug/L		10/14/20 16:36	10/20/20 13:33	1
Pyridine	ND		10	3.2	ug/L		10/14/20 16:36	10/20/20 13:33	1
Quinoline	ND		10	4.5	ug/L		10/14/20 16:36	10/20/20 13:33	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/14/20 16:36	10/20/20 13:33	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/14/20 16:36	10/20/20 13:33	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	79		46 - 124	10/14/20 16:36	10/20/20 13:33	1
2-Fluorophenol	4 X		13 - 113	10/14/20 16:36	10/20/20 13:33	1
Nitrobenzene-d5	85		36 - 126	10/14/20 16:36	10/20/20 13:33	1
Phenol-d5	25		17 - 127	10/14/20 16:36	10/20/20 13:33	1
Terphenyl-d14	107		44 - 149	10/14/20 16:36	10/20/20 13:33	1
2,4,6-Tribromophenol	55		26 - 150	10/14/20 16:36	10/20/20 13:33	1

Lab Sample ID: LCS 400-506820/21-A

Matrix: Water

Analysis Batch: 507337

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Benzethiol	120	2.82	J *	ug/L		2	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	54		46 - 124
2-Fluorophenol	18		13 - 113
Nitrobenzene-d5	52		36 - 126
Phenol-d5	33		17 - 127
Terphenyl-d14	100		44 - 149
2,4,6-Tribromophenol	55		26 - 150

Lab Sample ID: LCS 400-506820/2-A

Matrix: Water

Analysis Batch: 507337

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 506820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Aniline	120	53.5		ug/L		45	21 - 120
Benzoic acid	466	176		ug/L		38	10 - 144
Benzyl alcohol	120	54.3		ug/L		45	28 - 120
Bis(2-chloroethoxy)methane	120	56.0		ug/L		47	47 - 120

Eurofins TestAmerica, Pensacola

12

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: LCS 400-506820/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507337

Prep Batch: 506820

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Bis(2-chloroethyl)ether	120	59.1		ug/L	49	44 - 120		
bis (2-chloroisopropyl) ether	120	54.1		ug/L	45	33 - 121		
Bis(2-ethylhexyl) phthalate	120	83.4		ug/L	70	52 - 147		
4-Bromophenyl phenyl ether	120	96.3		ug/L	80	54 - 122		
Butyl benzyl phthalate	120	78.1		ug/L	65	54 - 133		
4-Chloroaniline	120	41.2		ug/L	34	26 - 120		
4-Chloro-3-methylphenol	120	73.2		ug/L	61	48 - 131		
2-Chloronaphthalene	120	79.9		ug/L	67	52 - 121		
2-Chlorophenol	120	61.5		ug/L	51	40 - 120		
4-Chlorophenyl phenyl ether	120	90.5		ug/L	75	56 - 125		
Dibenz[a,h]acridine	120	112		ug/L	94	31 - 150		
Dibenzofuran	120	78.9		ug/L	66	56 - 122		
3,3'-Dichlorobenzidine	160	170		ug/L	106	36 - 132		
2,4-Dichlorophenol	120	75.3		ug/L	63	49 - 120		
Diethyl phthalate	120	100		ug/L	83	50 - 137		
2,4-Dimethylphenol	120	76.9		ug/L	64	48 - 120		
Dimethyl phthalate	120	85.6		ug/L	71	57 - 124		
Di-n-butyl phthalate	120	89.7		ug/L	75	58 - 126		
4,6-Dinitro-ortho-cresol	240	212		ug/L	88	23 - 148		
2,4-Dinitrophenol	240	219		ug/L	91	10 - 150		
2,4-Dinitrotoluene	120	85.0		ug/L	71	54 - 142		
2,6-Dinitrotoluene	120	82.2		ug/L	68	55 - 130		
Di-n-octyl phthalate	120	85.9		ug/L	72	57 - 138		
1,4-Dioxane	120	43.4		ug/L	36	31 - 120		
1,2-Diphenylhydrazine (as Azobenzene)	120	63.6		ug/L	53	45 - 124		
Hexachlorobenzene	120	115		ug/L	96	52 - 129		
Hexachlorocyclopentadiene	120	23.0		ug/L	19	10 - 134		
Hexachloroethane	120	65.4		ug/L	55	20 - 120		
Indene	120	74.0		ug/L	62	49 - 120		
Isophorone	120	60.3		ug/L	50	48 - 120		
2-Methylphenol	120	76.6		ug/L	64	46 - 124		
3 & 4 Methylphenol	120	74.6		ug/L	62	45 - 120		
2-Nitroaniline	120	67.1		ug/L	56	51 - 145		
3-Nitroaniline	120	60.0		ug/L	50	37 - 127		
4-Nitroaniline	120	80.7		ug/L	67	36 - 137		
Nitrobenzene	120	61.1		ug/L	51	45 - 120		
2-Nitrophenol	120	71.6		ug/L	60	40 - 124		
4-Nitrophenol	240	155		ug/L	65	23 - 146		
N-Nitrosodimethylamine	120	71.4		ug/L	59	29 - 137		
N-Nitrosodi-n-propylamine	120	73.5		ug/L	61	45 - 120		
N-Nitrosodiphenylamine	119	76.7		ug/L	64	54 - 120		
Pentachlorophenol	240	154		ug/L	64	31 - 130		
Phenol	120	60.0		ug/L	50	11 - 120		
Pyridine	240	76.9		ug/L	32	16 - 120		
Quinoline	120	70.1		ug/L	59	49 - 130		
2,4,5-Trichlorophenol	120	88.2		ug/L	74	51 - 136		
2,4,6-Trichlorophenol	120	86.0		ug/L	72	50 - 127		

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: LCS 400-506820/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507337

Prep Batch: 506820

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	65				46 - 124
2-Fluorophenol	35				13 - 113
Nitrobenzene-d5	63				36 - 126
Phenol-d5	47				17 - 127
Terphenyl-d14	95				44 - 149
2,4,6-Tribromophenol	105				26 - 150

Lab Sample ID: LCSD 400-506820/22-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507337

Prep Batch: 506820

Analyte	Spike	LCSD	LCSD	%Rec.	RPD			
	Added	Result	Qualifier	Unit	D			
Benzenethiol	120	ND	*1	ug/L	0.5	10 - 120	130	30

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	22	X	22	X	46 - 124
2-Fluorophenol	2	X	2	X	13 - 113
Nitrobenzene-d5	19	X	19	X	36 - 126
Phenol-d5	3	X	3	X	17 - 127
Terphenyl-d14	72		72		44 - 149
2,4,6-Tribromophenol	16	X	16	X	26 - 150

Lab Sample ID: LCSD 400-506820/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507454

Prep Batch: 506820

Analyte	Spike	LCSD	LCSD	%Rec.	RPD			
	Added	Result	Qualifier	Unit	D			
Aniline	120	76.9	*1	ug/L	64	21 - 120	36	30
Benzoic acid	466	223		ug/L	48	10 - 144	24	30
Benzyl alcohol	120	96.6	*1	ug/L	80	28 - 120	56	30
Bis(2-chloroethoxy)methane	120	85.6	*1	ug/L	71	47 - 120	42	30
Bis(2-chloroethyl)ether	120	88.2	*1	ug/L	74	44 - 120	40	30
bis (2-chloroisopropyl) ether	120	93.3	*1	ug/L	78	33 - 121	53	30
Bis(2-ethylhexyl) phthalate	120	95.4		ug/L	79	52 - 147	13	30
4-Bromophenyl phenyl ether	120	95.3		ug/L	79	54 - 122	1	30
Butyl benzyl phthalate	120	102		ug/L	85	54 - 133	26	30
4-Chloroaniline	120	81.0	*1	ug/L	67	26 - 120	65	30
4-Chloro-3-methylphenol	120	89.4		ug/L	75	48 - 131	20	30
2-Chloronaphthalene	120	84.9		ug/L	71	52 - 121	6	30
2-Chlorophenol	120	68.6		ug/L	57	40 - 120	11	30
4-Chlorophenyl phenyl ether	120	87.9		ug/L	73	56 - 125	3	30
Dibenz[a,h]acridine	120	107		ug/L	89	31 - 150	5	30
Dibenzofuran	120	81.4		ug/L	68	56 - 122	3	30
3,3'-Dichlorobenzidine	160	185		ug/L	116	36 - 132	9	30
2,4-Dichlorophenol	120	79.2		ug/L	66	49 - 120	5	30
Diethyl phthalate	120	89.8		ug/L	75	50 - 137	11	30
2,4-Dimethylphenol	120	82.9		ug/L	69	48 - 120	7	30
Dimethyl phthalate	120	91.2		ug/L	76	57 - 124	6	30

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: LCSD 400-506820/3-A

Matrix: Water

Analysis Batch: 507454

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 506820

%Rec.

RPD

Limit

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Di-n-butyl phthalate	120	94.5		ug/L	79	58 - 126	5	30	
4,6-Dinitro-ortho-cresol	240	199		ug/L	83	23 - 148	6	30	
2,4-Dinitrophenol	240	225		ug/L	94	10 - 150	3	30	
2,4-Dinitrotoluene	120	91.0		ug/L	76	54 - 142	7	30	
2,6-Dinitrotoluene	120	95.1		ug/L	79	55 - 130	15	30	
Di-n-octyl phthalate	120	111		ug/L	93	57 - 138	26	30	
1,4-Dioxane	120	64.3 *1		ug/L	54	31 - 120	39	30	
1,2-Diphenylhydrazine (as Azobenzene)	120	94.1 *1		ug/L	78	45 - 124	39	30	
Hexachlorobenzene	120	92.3		ug/L	77	52 - 129	22	30	
Hexachlorocyclopentadiene	120	56.6 *1		ug/L	47	10 - 134	84	30	
Hexachloroethane	120	80.9		ug/L	67	20 - 120	21	30	
Indene	120	95.8		ug/L	80	49 - 120	26	30	
Isophorone	120	93.8 *1		ug/L	78	48 - 120	43	30	
2-Methylphenol	120	86.0		ug/L	72	46 - 124	12	30	
3 & 4 Methylphenol	120	81.9		ug/L	68	45 - 120	9	30	
2-Nitroaniline	120	99.7 *1		ug/L	83	51 - 145	39	30	
3-Nitroaniline	120	99.2 *1		ug/L	83	37 - 127	49	30	
4-Nitroaniline	120	101		ug/L	84	36 - 137	22	30	
Nitrobenzene	120	88.7 *1		ug/L	74	45 - 120	37	30	
2-Nitrophenol	120	69.2		ug/L	58	40 - 124	3	30	
4-Nitrophenol	240	174		ug/L	72	23 - 146	11	30	
N-Nitrosodimethylamine	120	96.5		ug/L	80	29 - 137	30	30	
N-Nitrosodi-n-propylamine	120	92.7		ug/L	77	45 - 120	23	30	
N-Nitrosodiphenylamine	119	95.5		ug/L	80	54 - 120	22	30	
Pentachlorophenol	240	165		ug/L	69	31 - 130	7	30	
Phenol	120	70.9		ug/L	59	11 - 120	17	30	
Pyridine	240	134 *1		ug/L	56	16 - 120	54	30	
Quinoline	120	94.6		ug/L	79	49 - 130	30	30	
2,4,5-Trichlorophenol	120	87.0		ug/L	72	51 - 136	1	30	
2,4,6-Trichlorophenol	120	86.6		ug/L	72	50 - 127	1	30	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	72		46 - 124
2-Fluorophenol	41		13 - 113
Nitrobenzene-d5	84		36 - 126
Phenol-d5	64		17 - 127
Terphenyl-d14	86		44 - 149
2,4,6-Tribromophenol	74		26 - 150

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508204

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzene-thiol	ND		10	1.7	ug/L	10/26/20	13:21	11/04/20	16:18	1
2-Chlorophenol	ND		10	2.2	ug/L	10/26/20	13:21	11/04/20	16:18	1
2,4-Dinitrophenol	ND		30	3.4	ug/L	10/26/20	13:21	11/04/20	16:18	1
2-Nitrophenol	ND		10	5.2	ug/L	10/26/20	13:21	11/04/20	16:18	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		46 - 124	10/26/20 13:21	11/04/20 16:18	1
2-Fluorophenol	39		13 - 113	10/26/20 13:21	11/04/20 16:18	1
Nitrobenzene-d5	73		36 - 126	10/26/20 13:21	11/04/20 16:18	1
Phenol-d5	58		17 - 127	10/26/20 13:21	11/04/20 16:18	1
Terphenyl-d14	95		44 - 149	10/26/20 13:21	11/04/20 16:18	1
2,4,6-Tribromophenol	70		26 - 150	10/26/20 13:21	11/04/20 16:18	1

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509317

Analyte	Spike			LCS	LCS	D	%Rec.	Limits
	Added	Result	Qualifier	Unit				
2-Chlorophenol	120	81.2		ug/L		68	40 - 120	
2,4-Dinitrophenol	240	246		ug/L		102	10 - 150	
2-Nitrophenol	120	90.2		ug/L		75	40 - 124	

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	94		46 - 124
2-Fluorophenol	39		13 - 113
Nitrobenzene-d5	73		36 - 126
Phenol-d5	69		17 - 127
Terphenyl-d14	87		44 - 149
2,4,6-Tribromophenol	96		26 - 150

Lab Sample ID: LCS 400-508204/4-A

Matrix: Water

Analysis Batch: 509317

Analyte	Spike			LCS	LCS	D	%Rec.	Limits
	Added	Result	Qualifier	Unit				
Benzethiol	120	3.75	J *	ug/L		3	10 - 120	

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	79		46 - 124
2-Fluorophenol	40		13 - 113
Nitrobenzene-d5	76		36 - 126
Phenol-d5	61		17 - 127
Terphenyl-d14	97		44 - 149
2,4,6-Tribromophenol	36		26 - 150

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509317

Analyte	Spike			LCSD	LCSD	D	%Rec.	Limits	RPD
	Added	Result	Qualifier	Unit					
2-Chlorophenol	120	67.6		ug/L		56	40 - 120	18	30
2,4-Dinitrophenol	240	240		ug/L		100	10 - 150	2	30
2-Nitrophenol	120	83.4		ug/L		70	40 - 124	8	30

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	82		46 - 124

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: LCSD 400-508204/3-A
Matrix: Water
Analysis Batch: 509317

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 508204

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorophenol	32				13 - 113
Nitrobenzene-d5	64				36 - 126
Phenol-d5	61				17 - 127
Terphenyl-d14	77				44 - 149
2,4,6-Tribromophenol	88				26 - 150

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

Lab Sample ID: LCSD 400-508204/5-A
Matrix: Water
Analysis Batch: 509317

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 508204

Analyte	Spike	LCSD	LCSD	%Rec.	RPD
	Added	Result	Qualifier	Unit	Limit
Benzenethiol - RERA	120	4.19	J *	ug/L	11

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorobiphenyl - RERA	77				46 - 124
2-Fluorophenol - RERA	22				13 - 113
Nitrobenzene-d5 - RERA	72				36 - 126
Phenol-d5 - RERA	51				17 - 127
Terphenyl-d14 - RERA	94				44 - 149
2,4,6-Tribromophenol - RERA	14 X				26 - 150

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

Lab Sample ID: MB 400-506820/1-A
Matrix: Water
Analysis Batch: 507458

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506820

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene			ND		0.20	0.032	ug/L		10/14/20 16:36	10/20/20 13:51	1
Acenaphthylene			ND		0.20	0.045	ug/L		10/14/20 16:36	10/20/20 13:51	1
Anthracene			ND		0.20	0.032	ug/L		10/14/20 16:36	10/20/20 13:51	1
Benzo[a]anthracene			ND		0.20	0.046	ug/L		10/14/20 16:36	10/20/20 13:51	1
Benzo[a]pyrene			ND		0.20	0.042	ug/L		10/14/20 16:36	10/20/20 13:51	1
Benzo[b]fluoranthene			ND		0.20	0.034	ug/L		10/14/20 16:36	10/20/20 13:51	1
Benzo[g,h,i]perylene			ND		0.20	0.13	ug/L		10/14/20 16:36	10/20/20 13:51	1
Benzo[k]fluoranthene			ND		0.20	0.10	ug/L		10/14/20 16:36	10/20/20 13:51	1
Chrysene			ND		0.20	0.074	ug/L		10/14/20 16:36	10/20/20 13:51	1
Dibenz(a,h)anthracene			ND		0.20	0.050	ug/L		10/14/20 16:36	10/20/20 13:51	1
Fluoranthene			ND		0.20	0.068	ug/L		10/14/20 16:36	10/20/20 13:51	1
Fluorene			ND		0.20	0.11	ug/L		10/14/20 16:36	10/20/20 13:51	1
Indeno[1,2,3-cd]pyrene			ND		0.20	0.043	ug/L		10/14/20 16:36	10/20/20 13:51	1
1-MethylNaphthalene			ND		0.20	0.074	ug/L		10/14/20 16:36	10/20/20 13:51	1
2-MethylNaphthalene			ND		0.20	0.060	ug/L		10/14/20 16:36	10/20/20 13:51	1
Phenanthrene			ND		0.20	0.036	ug/L		10/14/20 16:36	10/20/20 13:51	1
Pyrene			ND		0.20	0.040	ug/L		10/14/20 16:36	10/20/20 13:51	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: MB 400-506820/1-A

Matrix: Water

Analysis Batch: 507458

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506820

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil. Fac.
2-Fluorobiphenyl		85			15 - 122	10/14/20 16:36	10/20/20 13:51	1
Nitrobenzene-d5		83			19 - 130	10/14/20 16:36	10/20/20 13:51	1
Terphenyl-d14		119			33 - 138	10/14/20 16:36	10/20/20 13:51	1

Lab Sample ID: LCS 400-506820/2-A

Matrix: Water

Analysis Batch: 507458

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506820

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Acenaphthene	120	100		ug/L	83	41 - 120	
Acenaphthylene	120	98.0		ug/L	82	44 - 120	
Anthracene	120	112		ug/L	94	49 - 120	
Benzo[a]anthracene	120	109		ug/L	91	61 - 135	
Benzo[a]pyrene	120	109		ug/L	91	52 - 120	
Benzo[b]fluoranthene	120	104		ug/L	87	53 - 134	
Benzo[g,h,i]perylene	120	103		ug/L	86	47 - 133	
Benzo[k]fluoranthene	120	108		ug/L	90	57 - 134	
Chrysene	120	109		ug/L	90	55 - 122	
Dibenz(a,h)anthracene	120	104		ug/L	86	48 - 146	
Fluoranthene	120	95.2		ug/L	79	54 - 128	
Fluorene	120	93.9		ug/L	78	45 - 125	
Indeno[1,2,3-cd]pyrene	120	114		ug/L	95	43 - 142	
1-Methylnaphthalene	120	89.9		ug/L	75	41 - 120	
2-Methylnaphthalene	120	86.1		ug/L	72	32 - 124	
Phenanthrene	120	111		ug/L	93	48 - 120	
Pyrene	120	112		ug/L	94	48 - 132	

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	86				15 - 122
Nitrobenzene-d5	88				19 - 130
Terphenyl-d14	113				33 - 138

Lab Sample ID: LCSD 400-506820/3-A

Matrix: Water

Analysis Batch: 507458

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 506820

Analyte	Spike Added	LCSD		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
Acenaphthene	120	94.7		ug/L	79	41 - 120	6	56	
Acenaphthylene	120	90.6		ug/L	76	44 - 120	8	56	
Anthracene	120	93.1		ug/L	78	49 - 120	19	51	
Benzo[a]anthracene	120	95.5		ug/L	80	61 - 135	13	49	
Benzo[a]pyrene	120	90.2		ug/L	75	52 - 120	19	50	
Benzo[b]fluoranthene	120	80.8		ug/L	67	53 - 134	25	54	
Benzo[g,h,i]perylene	120	87.5		ug/L	73	47 - 133	16	50	
Benzo[k]fluoranthene	120	83.8		ug/L	70	57 - 134	25	52	
Chrysene	120	98.6		ug/L	82	55 - 122	10	50	
Dibenz(a,h)anthracene	120	84.3		ug/L	70	48 - 146	21	50	
Fluoranthene	120	83.9		ug/L	70	54 - 128	13	52	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194323-1

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

Lab Sample ID: LCSD 400-506820/3-A

Matrix: Water

Analysis Batch: 507458

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 506820

%Rec.

RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Fluorene	120	81.7		ug/L	68	45 - 125	14	56	
Indeno[1,2,3-cd]pyrene	120	87.1		ug/L	73	43 - 142	26	51	
1-Methylnaphthalene	120	81.2		ug/L	68	41 - 120	10	55	
2-Methylnaphthalene	120	83.9		ug/L	70	32 - 124	2	57	
Phenanthrene	120	94.6		ug/L	79	48 - 120	16	56	
Pyrene	120	102		ug/L	85	48 - 132	10	52	

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	80		15 - 122
Nitrobenzene-d5	85		19 - 130
Terphenyl-d14	98		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-507275/1-A

Matrix: Water

Analysis Batch: 507289

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507275

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/19/20 09:37	10/19/20 16:16	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/19/20 09:37	10/19/20 16:16	1
Surrogate	MB %Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		51 - 149				10/19/20 09:37	10/19/20 16:16	1

Lab Sample ID: LCS 400-507275/2-A

Matrix: Water

Analysis Batch: 507289

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507275

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2-Dibromo-3-Chloropropane	0.101	0.104		ug/L	103	60 - 140	
1,2-Dibromoethane	0.101	0.0963		ug/L	96	60 - 140	
Surrogate	LCS %Recovery	LCS Qualifier	LCS Limits				
4-Bromofluorobenzene	86		51 - 149				

Lab Sample ID: LCSD 400-507275/3-A

Matrix: Water

Analysis Batch: 507289

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507275

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2-Dibromo-3-Chloropropane	0.101	0.106		ug/L	105	60 - 140	2	30	
1,2-Dibromoethane	0.101	0.0947		ug/L	94	60 - 140	2	30	
Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits						
4-Bromofluorobenzene	91		51 - 149						

Eurofins TestAmerica, Pensacola



Shell Oil Products US Chain Of Custody Record

AECOM

AECOM
Shell Oil Products US Chain Of Custody Record

39594 / 339893 / 339597
39599 / 339597, 133 9596

Z-811-21340C
1P8

విషయాల పాఠాలు

13

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194323-1

Login Number: 194323

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Whitley, Adrian

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	1339596, 1339597, 1339592, 1339593, 1339599, 1339598
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	2.8, 1.2, 3.4°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	

14

Accreditation/Certification Summary

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

Job ID: 400-194323-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LA000307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

15

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194417-1-Rev. 1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/10/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-101320-8260	TB-ROX-101320-8011
P54-ROX-101320	MW24-ROX-101320
MW27-ROX-101320	

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 bis(2-ethylhexyl) phthalate and acenaphthene were detected in the method blank. The VOC LCS recovery for n-butylbenzene, and the SVOC LCS/LCSD recoveries and RPD for benzenethiol, were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in several investigative and quality control samples. Several VOC, SVOC, and PAH MS/MSD recoveries and MS/MSD RPDs were outside evaluation criteria in sample P54-ROX-101320. The initial calibration verification for 1,4-dioxane was outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review. The laboratory report was revised on November 11, 2020 to remove an incorrect out-of-hold time laboratory qualification on PAHs in sample MW27-ROX-101320; no qualification of data was required.

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

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

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

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-507284/1-A	SVOCs	bis(2-Ethylhexyl) phthalate	2.53 µg/L
MB 400-507284/1-A	PAHs	Acenaphthene	0.0181 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 400-507729/1003	VOCs	n-Butylbenzene	132	NA	67-130
LCS/LCSD 400-507284/6-A/7-A	SVOCs	Benzenethiol	0.2/0.8	121	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; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
P54-ROX-101320	SVOCs	Benzenethiol	UJ
MW24-ROX-101320	SVOCs	Benzenethiol	UJ
MW27-ROX-101320	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW24-ROX-101320	SVOCs	2-Fluorobiphenyl	41	46-124
MW27-ROX-101320	SVOCs	2-Fluorophenol	7	13-113
LCS 400-507284/6-A	SVOCs	2-Fluorobiphenyl	44	46-124
P54-ROX-101320 MS	SVOCs	2-Fluorophenol	6	13-113

Qualifications due to surrogate recoveries were not required if only one of three acid or base/neutral SVOC surrogate recoveries were outside evaluation criteria in the associated samples. Matrix spike and laboratory control samples 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 P54-ROX-101320 was spiked and analyzed for VOCs, SVOCs, PAHs, and VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
P54-ROX-101320	VOCs	2-Chloroethyl vinyl ether	6/4	28	10-150/50
P54-ROX-101320	SVOCs	bis(2-Chloroethyl)ether	46/41	13	42-120/42
P54-ROX-101320	SVOCs	2-Chlorophenol	19/34	57	25-120/42
P54-ROX-101320	SVOCs	1,4-Dioxane	31/26	16	50-150/40
P54-ROX-101320	SVOCs	Indene	54/49	10	50-150/40
P54-ROX-101320	SVOCs	2-Nitrophenol	24/41	51	33-120/43
P54-ROX-101320	SVOCs	Quinoline	58/50	15	51-120/40
P54-ROX-101320	PAHs	Benzo[a]pyrene	111/106	5	50-108/59

Analytical data that required qualification based on MS/MSD data are included in the table below. 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
P54-ROX-101320	VOCs	2-Chloroethyl vinyl ether	UJ
P54-ROX-101320	SVOCs	bis(2-Chloroethyl)ether	UJ
P54-ROX-101320	SVOCs	2-Chlorophenol	UJ
P54-ROX-101320	SVOCs	1,4-Dioxane	UJ
P54-ROX-101320	SVOCs	Indene	UJ
P54-ROX-101320	SVOCs	2-Nitrophenol	UJ
P54-ROX-101320	SVOCs	Quinoline	UJ

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the initial calibration verification for 1,4-dioxane was outside acceptance criteria, biased low, and is qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW24-ROX-101320	SVOCs	1,4-Dioxane	UJ
MW27-ROX-101320	SVOCs	1,4-Dioxane	UJ



eurofins

Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 400-194417-1
Client Project/Site: ROXANA QUARTERLY GW
Revision: 1

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

Attn: Elizabeth Kunkel

Authorized for release by:
11/11/2020 1:29:18 PM

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

LINKS

Review your project
results through

Total Access

Have a Question?

Ask
The
Expert

Visit us at:

www.eurofinsus.com/Env

Reviewed
11/11/2020
LR

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.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	7
Definitions	22
Surrogate Summary	23
Method Summary	25
Chronicle	26
QC Association	30
QC Sample Results	32
Chain of Custody	50
Receipt Checklists	51
Certification Summary	52

Case Narrative

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

Job ID: 400-194417-1

Job ID: 400-194417-1

Laboratory: Eurofins TestAmerica, Pensacola

3

Narrative

Job Narrative
400-194417-1

Comments

Revised Report

Report revised to remove an unnecessary flag.

Supersedes report dated 10-30-2020.

Receipt

The samples were received on 10/14/2020 9:26 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.2° C, 2.5° C, 2.8° C and 3.2° C.

GC/MS VOA

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-507729 recovered outside control limits for the following analyte: n-Butylbenzene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-507729 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 400-507729 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-101320-8260 (400-194417-1), P54-ROX-101320 (400-194417-3), MW24-ROX-101320 (400-194417-6) and MW27-ROX-101320 (400-194417-7). 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 initial calibration verification (ICV) analyzed in batch 400-490802 was outside method criteria for the following analyte(s): 2-Chloroethyl vinyl ether. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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 initial calibration verification (ICV) analyzed in batch 400-504644 was outside method criteria for the following analyte(s): 1,4-Dioxane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: P54-ROX-101320 (400-194417-3[MS]), MW24-ROX-101320 (400-194417-6) and MW27-ROX-101320 (400-194417-7). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508112 recovered above the upper control limit for 4-Nitrophenol and N-Nitrosodimethylamine. 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 400-508103 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, Aniline, Benzyl alcohol, Bis(2-chloroethoxy)methane, Hexachlorocyclopentadiene, Isophorone, Pyridine and Quinoline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The method blank for preparation batch 400-507284 contained Bis(2-ethylhexyl) phthalate above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of

Case Narrative

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

Job ID: 400-194417-1

Job ID: 400-194417-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

samples were not performed.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-507284 and analytical batch 400-508112 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 400-507284 and analytical batch 400-508112 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 400-507284 and analytical batch 400-508112 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8270D LL: The method blank for preparation batch 400-507284 and analytical batch 400-507831 contained Acenaphthene 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 matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-507284 and analytical batch 400-507831 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

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

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-507289 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 400-507289 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

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

Job ID: 400-194417-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194417-1	TB-ROX-101320-8260 ✓	Water	10/13/20 00:00	10/14/20 09:26	
400-194417-2	TB-ROX-101320-B011 ✓	Water	10/13/20 00:00	10/14/20 09:26	
400-194417-3	P54-ROX-101320 ✓	Water	10/13/20 09:50	10/14/20 09:26	
400-194417-6	MW24-ROX-101320 ✓	Water	10/13/20 10:45	10/14/20 09:26	
400-194417-7	MW27-ROX-101320 ✓	Water	10/13/20 11:50	10/14/20 09:26	

4

5

6

7

Detection Summary

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

Job ID: 400-194417-1

Client Sample ID: TB-ROX-101320-8260

Lab Sample ID: 400-194417-1

No Detections.

Client Sample ID: TB-ROX-101320-8011

Lab Sample ID: 400-194417-2

No Detections.

Client Sample ID: P54-ROX-101320

Lab Sample ID: 400-194417-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Xylene	0.61	J	5.0	0.60	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	1.6		1.0	0.82	ug/L	1		8260B	Total/NA
Xylenes, Total	1.8	J	10	1.6	ug/L	1		8260B	Total/NA
2-Methylnaphthalene	0.085	J	0.19	0.057	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW24-ROX-101320

Lab Sample ID: 400-194417-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Xylene	0.80	J	5.0	0.60	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	1.4		1.0	0.82	ug/L	1		8260B	Total/NA
Xylenes, Total	2.3	J	10	1.6	ug/L	1		8260B	Total/NA
Fluoranthene	0.070	J	0.19	0.064	ug/L	1		8270D LL	Total/NA

Client Sample ID: MW27-ROX-101320

Lab Sample ID: 400-194417-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Xylene	0.61	J	5.0	0.60	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	1.2		1.0	0.82	ug/L	1		8260B	Total/NA
Xylenes, Total	1.8	J	10	1.6	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: TB-ROX-101320-8260

Lab Sample ID: 400-194417-1

Date Collected: 10/13/20 00:00

Matrix: Water

Date Received: 10/14/20 09:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil. Fac
Acetone	ND		25	10	ug/L			10/22/20 14:58	1
Acrolein	ND		20	10	ug/L			10/22/20 14:58	1
Acrylonitrile	ND		10	2.8	ug/L			10/22/20 14:58	1
Benzene	ND		1.0	0.38	ug/L			10/22/20 14:58	1
Bromobenzene	ND		1.0	0.54	ug/L			10/22/20 14:58	1
Bromoform	ND		1.0	0.52	ug/L			10/22/20 14:58	1
Bromoform	ND		5.0	0.71	ug/L			10/22/20 14:58	1
Bromomethane	ND		1.0	0.98	ug/L			10/22/20 14:58	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/22/20 14:58	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/22/20 14:58	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/22/20 14:58	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/22/20 14:58	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/22/20 14:58	1
Chloroethane	ND		1.0	0.76	ug/L			10/22/20 14:58	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/22/20 14:58	1
Chloroform	ND		1.0	0.60	ug/L			10/22/20 14:58	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/22/20 14:58	1
Chloromethane	ND		1.0	0.83	ug/L			10/22/20 14:58	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 14:58	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 14:58	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/22/20 14:58	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/22/20 14:58	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/22/20 14:58	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/22/20 14:58	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 14:58	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 14:58	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 14:58	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 14:58	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 14:58	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 14:58	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/22/20 14:58	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/22/20 14:58	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/22/20 14:58	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/22/20 14:58	1
2-Hexanone	ND		25	3.1	ug/L			10/22/20 14:58	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/22/20 14:58	1
Methylene bromide	ND		5.0	0.59	ug/L			10/22/20 14:58	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/22/20 14:58	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/22/20 14:58	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/22/20 14:58	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/22/20 14:58	1
Naphthalene	ND		1.0	1.0	ug/L			10/22/20 14:58	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/22/20 14:58	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/22/20 14:58	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/22/20 14:58	1
o-Xylene	ND		5.0	0.60	ug/L			10/22/20 14:58	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/22/20 14:58	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/22/20 14:58	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: TB-ROX-101320-8260
Date Collected: 10/13/20 00:00
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/22/20 14:58	1
Styrene	ND		1.0	1.0	ug/L			10/22/20 14:58	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/22/20 14:58	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/22/20 14:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/22/20 14:58	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/22/20 14:58	1
Toluene	ND		1.0	0.41	ug/L			10/22/20 14:58	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 14:58	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 14:58	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/22/20 14:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/22/20 14:58	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/22/20 14:58	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/22/20 14:58	1
Trichloroethene	ND		1.0	0.50	ug/L			10/22/20 14:58	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/22/20 14:58	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/22/20 14:58	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/22/20 14:58	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/22/20 14:58	1
Vinyl acetate	ND		25	2.0	ug/L			10/22/20 14:58	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/22/20 14:58	1
Xylenes, Total	ND		10	1.6	ug/L			10/22/20 14:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		78 - 118					10/22/20 14:58	1
Dibromofluoromethane	94		81 - 121					10/22/20 14:58	1
Toluene-d8 (Surr)	104		80 - 120					10/22/20 14:58	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: TB-ROX-101320-8011
Date Collected: 10/13/20 00:00
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/19/20 09:37	10/20/20 00:14	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/19/20 09:37	10/20/20 00:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	112		51 - 149				10/19/20 09:37	10/20/20 00:14	1

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: P54-ROX-101320
Date Collected: 10/13/20 09:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/22/20 12:34	1
Acrolein	ND		20	10	ug/L			10/22/20 12:34	1
Acrylonitrile	ND		10	2.8	ug/L			10/22/20 12:34	1
Benzene	ND		1.0	0.38	ug/L			10/22/20 12:34	1
Bromobenzene	ND		1.0	0.54	ug/L			10/22/20 12:34	1
Bromoform	ND		1.0	0.52	ug/L			10/22/20 12:34	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/22/20 12:34	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/22/20 12:34	1
Bromoform	ND		5.0	0.71	ug/L			10/22/20 12:34	1
Bromomethane	ND		1.0	0.98	ug/L			10/22/20 12:34	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/22/20 12:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/22/20 12:34	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/22/20 12:34	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/22/20 12:34	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/22/20 12:34	1
Chloroethane	ND		1.0	0.76	ug/L			10/22/20 12:34	1
2-Chloroethyl vinyl ether	ND	F1 WJ	5.0	2.0	ug/L			10/22/20 12:34	1
Chloroform	ND		1.0	0.60	ug/L			10/22/20 12:34	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/22/20 12:34	1
Chloromethane	ND		1.0	0.83	ug/L			10/22/20 12:34	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 12:34	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 12:34	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/22/20 12:34	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/22/20 12:34	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/22/20 12:34	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/22/20 12:34	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 12:34	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 12:34	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 12:34	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 12:34	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 12:34	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 12:34	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/22/20 12:34	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/22/20 12:34	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/22/20 12:34	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/22/20 12:34	1
2-Hexanone	ND		25	3.1	ug/L			10/22/20 12:34	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/22/20 12:34	1
Methylene bromide	ND		5.0	0.59	ug/L			10/22/20 12:34	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/22/20 12:34	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/22/20 12:34	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/22/20 12:34	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/22/20 12:34	1
Naphthalene	ND		1.0	1.0	ug/L			10/22/20 12:34	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/22/20 12:34	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/22/20 12:34	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/22/20 12:34	1
o-Xylene	0.61	J	5.0	0.60	ug/L			10/22/20 12:34	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/22/20 12:34	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/22/20 12:34	1

5
6

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: P54-ROX-101320
Date Collected: 10/13/20 09:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L		10/22/20 12:34	10/22/20 12:34	1
Styrene	ND		1.0	1.0	ug/L		10/22/20 12:34	10/22/20 12:34	1
tert-Butylbenzene	ND		1.0	0.63	ug/L		10/22/20 12:34	10/22/20 12:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L		10/22/20 12:34	10/22/20 12:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L		10/22/20 12:34	10/22/20 12:34	1
Tetrachloroethene	ND		1.0	0.58	ug/L		10/22/20 12:34	10/22/20 12:34	1
Toluene	ND		1.0	0.41	ug/L		10/22/20 12:34	10/22/20 12:34	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L		10/22/20 12:34	10/22/20 12:34	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L		10/22/20 12:34	10/22/20 12:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L		10/22/20 12:34	10/22/20 12:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L		10/22/20 12:34	10/22/20 12:34	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L		10/22/20 12:34	10/22/20 12:34	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L		10/22/20 12:34	10/22/20 12:34	1
Trichloroethene	ND		1.0	0.50	ug/L		10/22/20 12:34	10/22/20 12:34	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L		10/22/20 12:34	10/22/20 12:34	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L		10/22/20 12:34	10/22/20 12:34	1
1,2,4-Trimethylbenzene	1.6		1.0	0.82	ug/L		10/22/20 12:34	10/22/20 12:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L		10/22/20 12:34	10/22/20 12:34	1
Vinyl acetate	ND		25	2.0	ug/L		10/22/20 12:34	10/22/20 12:34	1
Vinyl chloride	ND		1.0	0.50	ug/L		10/22/20 12:34	10/22/20 12:34	1
Xylenes, Total	1.8	J	10	1.6	ug/L		10/22/20 12:34	10/22/20 12:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78 - 118	10/22/20 12:34	10/22/20 12:34	1
Dibromofluoromethane	95		81 - 121	10/22/20 12:34	10/22/20 12:34	1
Toluene-d8 (Sur)	106		80 - 120	10/22/20 12:34	10/22/20 12:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		10/19/20 10:29	10/22/20 22:59	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/19/20 10:29	10/22/20 22:59	1
Anthracene	ND		0.19	0.031	ug/L		10/19/20 10:29	10/22/20 22:59	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/19/20 10:29	10/22/20 22:59	1
Benzo[a]pyrene	ND	F1	0.19	0.040	ug/L		10/19/20 10:29	10/22/20 22:59	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/19/20 10:29	10/22/20 22:59	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/19/20 10:29	10/22/20 22:59	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		10/19/20 10:29	10/22/20 22:59	1
Chrysene	ND		0.19	0.071	ug/L		10/19/20 10:29	10/22/20 22:59	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/19/20 10:29	10/22/20 22:59	1
Fluoranthene	ND		0.19	0.065	ug/L		10/19/20 10:29	10/22/20 22:59	1
Fluorene	ND		0.19	0.11	ug/L		10/19/20 10:29	10/22/20 22:59	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/19/20 10:29	10/22/20 22:59	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		10/19/20 10:29	10/22/20 22:59	1
2-Methylnaphthalene	0.085	J	0.19	0.057	ug/L		10/19/20 10:29	10/22/20 22:59	1
Phenanthrene	ND		0.19	0.034	ug/L		10/19/20 10:29	10/22/20 22:59	1
Pyrene	ND		0.19	0.038	ug/L		10/19/20 10:29	10/22/20 22:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	53		15 - 122	10/19/20 10:29	10/22/20 22:59	1
Nitrobenzene-d5	58		19 - 130	10/19/20 10:29	10/22/20 22:59	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: P54-ROX-101320
Date Collected: 10/13/20 09:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	65		33 - 138		10/19/20 10:29	10/22/20 22:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L				1
Benzenethiol	ND	**1 UJ	9.5	1.6	ug/L				1
Benzoic acid	ND		29	7.0	ug/L				1
Benzyl alcohol	ND		9.5	1.9	ug/L				1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L				1
Bis(2-chloroethyl)ether	ND	F1 UJ	9.5	2.6	ug/L				1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L				1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L				1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L				1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L				1
4-Chloroaniline	ND		9.5	3.2	ug/L				1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L				1
2-Chloronaphthalene	ND		9.5	0.13	ug/L				1
2-Chlorophenol	ND	F1 F2 UJ	9.5	2.1	ug/L				1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L				1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L				1
Dibenzofuran	ND		9.5	0.16	ug/L				1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L				1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L				1
Diethyl phthalate	ND		9.5	0.23	ug/L				1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L				1
Dimethyl phthalate	ND		9.5	0.16	ug/L				1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L				1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L				1
2,4-Dinitrophenol	ND		29	3.2	ug/L				1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L				1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L				1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L				1
1,4-Dioxane	ND	F1 UJ	9.5	0.95	ug/L				1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L				1
Hexachlorobenzene	ND		9.5	0.16	ug/L				1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L				1
Hexachloroethane	ND		9.5	4.0	ug/L				1
Indene	ND	F1 UJ	9.5	0.95	ug/L				1
Isophorone	ND		9.5	0.13	ug/L				1
2-Methylphenol	ND		9.5	1.7	ug/L				1
3 & 4 Methylphenol	ND		19	0.37	ug/L				1
2-Nitroaniline	ND		9.5	2.1	ug/L				1
3-Nitroaniline	ND		9.5	1.7	ug/L				1
4-Nitroaniline	ND		9.5	1.4	ug/L				1
Nitrobenzene	ND		9.5	0.12	ug/L				1
2-Nitrophenol	ND	F1 F2 UJ	9.5	5.0	ug/L				1
4-Nitrophenol	ND		9.5	2.0	ug/L				1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L				1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: P54-ROX-101320
Date Collected: 10/13/20 09:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.2	ug/L		10/19/20 10:29	10/26/20 17:30	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/19/20 10:29	10/26/20 17:30	1
Pentachlorophenol	ND		19	1.3	ug/L		10/19/20 10:29	10/26/20 17:30	1
Phenol	ND		9.5	2.5	ug/L		10/19/20 10:29	10/26/20 17:30	1
Pyridine	ND		9.5	3.1	ug/L		10/19/20 10:29	10/26/20 17:30	1
Quinoline	ND F1	WS	9.5	4.3	ug/L		10/19/20 10:29	10/26/20 17:30	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/19/20 10:29	10/26/20 17:30	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/19/20 10:29	10/26/20 17:30	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		50		46 - 124			10/19/20 10:29	10/26/20 17:30	1
2-Fluorophenol		17		13 - 113			10/19/20 10:29	10/26/20 17:30	1
Nitrobenzene-d5		50		36 - 126			10/19/20 10:29	10/26/20 17:30	1
Phenol-d5		31		17 - 127			10/19/20 10:29	10/26/20 17:30	1
Terphenyl-d14		72		44 - 149			10/19/20 10:29	10/26/20 17:30	1
2,4,6-Tribromophenol		68		26 - 150			10/19/20 10:29	10/26/20 17:30	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0056	ug/L		10/19/20 09:37	10/19/20 21:35	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/19/20 09:37	10/19/20 21:35	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene		90		51 - 149			10/19/20 09:37	10/19/20 21:35	1

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: MW24-ROX-101320
Date Collected: 10/13/20 10:45
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/22/20 15:22	1
Acrolein	ND		20	10	ug/L			10/22/20 15:22	1
Acrylonitrile	ND		10	2.8	ug/L			10/22/20 15:22	1
Benzene	ND		1.0	0.38	ug/L			10/22/20 15:22	1
Bromobenzene	ND		1.0	0.54	ug/L			10/22/20 15:22	1
Bromoform	ND		1.0	0.52	ug/L			10/22/20 15:22	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/22/20 15:22	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/22/20 15:22	1
Bromoform	ND		5.0	0.71	ug/L			10/22/20 15:22	1
Bromomethane	ND		1.0	0.98	ug/L			10/22/20 15:22	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/22/20 15:22	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/22/20 15:22	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/22/20 15:22	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/22/20 15:22	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/22/20 15:22	1
Chloroethane	ND		1.0	0.76	ug/L			10/22/20 15:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/22/20 15:22	1
Chloroform	ND		1.0	0.60	ug/L			10/22/20 15:22	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/22/20 15:22	1
Chloromethane	ND		1.0	0.83	ug/L			10/22/20 15:22	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 15:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 15:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/22/20 15:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/22/20 15:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/22/20 15:22	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/22/20 15:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 15:22	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 15:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 15:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 15:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 15:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 15:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/22/20 15:22	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/22/20 15:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/22/20 15:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/22/20 15:22	1
2-Hexanone	ND		25	3.1	ug/L			10/22/20 15:22	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/22/20 15:22	1
Methylene bromide	ND		5.0	0.59	ug/L			10/22/20 15:22	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/22/20 15:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/22/20 15:22	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/22/20 15:22	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/22/20 15:22	1
Naphthalene	ND		1.0	1.0	ug/L			10/22/20 15:22	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/22/20 15:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/22/20 15:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/22/20 15:22	1
o-Xylene	0.80 J		5.0	0.60	ug/L			10/22/20 15:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/22/20 15:22	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/22/20 15:22	1

6

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: MW24-ROX-101320

Lab Sample ID: 400-194417-6

Date Collected: 10/13/20 10:45

Matrix: Water

Date Received: 10/14/20 09:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L		10/22/20 15:22	10/22/20 15:22	1
Styrene	ND		1.0	1.0	ug/L		10/22/20 15:22	10/22/20 15:22	1
tert-Butylbenzene	ND		1.0	0.63	ug/L		10/22/20 15:22	10/22/20 15:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L		10/22/20 15:22	10/22/20 15:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L		10/22/20 15:22	10/22/20 15:22	1
Tetrachloroethylene	ND		1.0	0.58	ug/L		10/22/20 15:22	10/22/20 15:22	1
Toluene	ND		1.0	0.41	ug/L		10/22/20 15:22	10/22/20 15:22	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L		10/22/20 15:22	10/22/20 15:22	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L		10/22/20 15:22	10/22/20 15:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L		10/22/20 15:22	10/22/20 15:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L		10/22/20 15:22	10/22/20 15:22	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L		10/22/20 15:22	10/22/20 15:22	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L		10/22/20 15:22	10/22/20 15:22	1
Trichloroethylene	ND		1.0	0.50	ug/L		10/22/20 15:22	10/22/20 15:22	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L		10/22/20 15:22	10/22/20 15:22	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L		10/22/20 15:22	10/22/20 15:22	1
1,2,4-Trimethylbenzene	1.4		1.0	0.82	ug/L		10/22/20 15:22	10/22/20 15:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L		10/22/20 15:22	10/22/20 15:22	1
Vinyl acetate	ND		25	2.0	ug/L		10/22/20 15:22	10/22/20 15:22	1
Vinyl chloride	ND		1.0	0.50	ug/L		10/22/20 15:22	10/22/20 15:22	1
Xylenes, Total	2.3	J	10	1.6	ug/L		10/22/20 15:22	10/22/20 15:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78 - 118		10/22/20 15:22	1
Dibromofluoromethane	96		81 - 121		10/22/20 15:22	1
Toluene-d8 (Surr)	104		80 - 120		10/22/20 15:22	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/19/20 10:29	10/22/20 23:17	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/19/20 10:29	10/22/20 23:17	1
Anthracene	ND		0.19	0.030	ug/L		10/19/20 10:29	10/22/20 23:17	1
Benz[a]anthracene	ND		0.19	0.043	ug/L		10/19/20 10:29	10/22/20 23:17	1
Benz[a]pyrene	ND		0.19	0.039	ug/L		10/19/20 10:29	10/22/20 23:17	1
Benz[b]fluoranthene	ND		0.19	0.032	ug/L		10/19/20 10:29	10/22/20 23:17	1
Benz[g,h,i]perylene	ND		0.19	0.12	ug/L		10/19/20 10:29	10/22/20 23:17	1
Benz[k]fluoranthene	ND		0.19	0.094	ug/L		10/19/20 10:29	10/22/20 23:17	1
Chrysene	ND		0.19	0.069	ug/L		10/19/20 10:29	10/22/20 23:17	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/19/20 10:29	10/22/20 23:17	1
Fluoranthene	0.070	J	0.19	0.064	ug/L		10/19/20 10:29	10/22/20 23:17	1
Fluorene	ND		0.19	0.10	ug/L		10/19/20 10:29	10/22/20 23:17	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		10/19/20 10:29	10/22/20 23:17	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		10/19/20 10:29	10/22/20 23:17	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		10/19/20 10:29	10/22/20 23:17	1
Phenanthrene	ND		0.19	0.034	ug/L		10/19/20 10:29	10/22/20 23:17	1
Pyrene	ND		0.19	0.037	ug/L		10/19/20 10:29	10/22/20 23:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	45		15 - 122		10/22/20 23:17	1
Nitrobenzene-d5	50		19 - 130		10/22/20 23:17	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: MW24-ROX-101320
Date Collected: 10/13/20 10:45
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-6
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	59		33- 138		10/19/20 10:29	10/22/20 23:17	1

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

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

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: MW24-ROX-101320
Date Collected: 10/13/20 10:45
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/19/20 10:29	10/26/20 17:55	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/19/20 10:29	10/26/20 17:55	1
Pentachlorophenol	ND		19	1.3	ug/L		10/19/20 10:29	10/26/20 17:55	1
Phenol	ND		9.4	2.4	ug/L		10/19/20 10:29	10/26/20 17:55	1
Pyridine	ND		9.4	3.0	ug/L		10/19/20 10:29	10/26/20 17:55	1
Quinoline	ND		9.4	4.2	ug/L		10/19/20 10:29	10/26/20 17:55	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/19/20 10:29	10/26/20 17:55	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/19/20 10:29	10/26/20 17:55	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	41	X		46 - 124			10/19/20 10:29	10/26/20 17:55	1
2-Fluorophenol	73			13 - 113			10/19/20 10:29	10/26/20 17:55	1
Nitrobenzene-d5	43			36 - 126			10/19/20 10:29	10/26/20 17:55	1
Phenol-d5	24			17 - 127			10/19/20 10:29	10/26/20 17:55	1
Terphenyl-d14	58			44 - 149			10/19/20 10:29	10/26/20 17:55	1
2,4,6-Tribromophenol	56			26 - 150			10/19/20 10:29	10/26/20 17:55	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.0056	ug/L		10/19/20 09:37	10/19/20 22:35	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/19/20 09:37	10/19/20 22:35	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	109			51 - 149			10/19/20 09:37	10/19/20 22:35	1

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: MW27-ROX-101320

Lab Sample ID: 400-194417-7

Date Collected: 10/13/20 11:50

Matrix: Water

Date Received: 10/14/20 09:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/22/20 15:50	1
Acrolein	ND		20	10	ug/L			10/22/20 15:50	1
Acrylonitrile	ND		10	2.8	ug/L			10/22/20 15:50	1
Benzene	ND		1.0	0.38	ug/L			10/22/20 15:50	1
Bromobenzene	ND		1.0	0.54	ug/L			10/22/20 15:50	1
Bromochloromethane	ND		1.0	0.52	ug/L			10/22/20 15:50	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/22/20 15:50	1
Bromoform	ND		5.0	0.71	ug/L			10/22/20 15:50	1
Bromomethane	ND		1.0	0.98	ug/L			10/22/20 15:50	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/22/20 15:50	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/22/20 15:50	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/22/20 15:50	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/22/20 15:50	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/22/20 15:50	1
Chloroethane	ND		1.0	0.76	ug/L			10/22/20 15:50	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/22/20 15:50	1
Chloroform	ND		1.0	0.60	ug/L			10/22/20 15:50	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/22/20 15:50	1
Chloromethane	ND		1.0	0.83	ug/L			10/22/20 15:50	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 15:50	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 15:50	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/22/20 15:50	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/22/20 15:50	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/22/20 15:50	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/22/20 15:50	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 15:50	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 15:50	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 15:50	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 15:50	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 15:50	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 15:50	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/22/20 15:50	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/22/20 15:50	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/22/20 15:50	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/22/20 15:50	1
2-Hexanone	ND		25	3.1	ug/L			10/22/20 15:50	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/22/20 15:50	1
Methylene bromide	ND		5.0	0.59	ug/L			10/22/20 15:50	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/22/20 15:50	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/22/20 15:50	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/22/20 15:50	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/22/20 15:50	1
Naphthalene	ND		1.0	1.0	ug/L			10/22/20 15:50	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/22/20 15:50	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/22/20 15:50	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/22/20 15:50	1
o-Xylene	0.61 J		5.0	0.60	ug/L			10/22/20 15:50	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/22/20 15:50	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/22/20 15:50	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: MW27-ROX-101320

Lab Sample ID: 400-194417-7

Date Collected: 10/13/20 11:50

Matrix: Water

Date Received: 10/14/20 09:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L		10/22/20 15:50	10/22/20 15:50	1
Styrene	ND		1.0	1.0	ug/L		10/22/20 15:50	10/22/20 15:50	1
tert-Butylbenzene	ND		1.0	0.63	ug/L		10/22/20 15:50	10/22/20 15:50	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L		10/22/20 15:50	10/22/20 15:50	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L		10/22/20 15:50	10/22/20 15:50	1
Tetrachloroethylene	ND		1.0	0.58	ug/L		10/22/20 15:50	10/22/20 15:50	1
Toluene	ND		1.0	0.41	ug/L		10/22/20 15:50	10/22/20 15:50	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L		10/22/20 15:50	10/22/20 15:50	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L		10/22/20 15:50	10/22/20 15:50	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L		10/22/20 15:50	10/22/20 15:50	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L		10/22/20 15:50	10/22/20 15:50	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L		10/22/20 15:50	10/22/20 15:50	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L		10/22/20 15:50	10/22/20 15:50	1
Trichloroethylene	ND		1.0	0.50	ug/L		10/22/20 15:50	10/22/20 15:50	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L		10/22/20 15:50	10/22/20 15:50	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L		10/22/20 15:50	10/22/20 15:50	1
1,2,4-Trimethylbenzene	1.2		1.0	0.82	ug/L		10/22/20 15:50	10/22/20 15:50	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L		10/22/20 15:50	10/22/20 15:50	1
Vinyl acetate	ND		25	2.0	ug/L		10/22/20 15:50	10/22/20 15:50	1
Vinyl chloride	ND		1.0	0.50	ug/L		10/22/20 15:50	10/22/20 15:50	1
Xylenes, Total	1.8	J	10	1.6	ug/L		10/22/20 15:50	10/22/20 15:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromo- <i>o</i> -fluorobenzene	96		78 - 118				10/22/20 15:50	10/22/20 15:50	1
Dibromo- <i>o</i> -fluoromethane	96		81 - 121				10/22/20 15:50	10/22/20 15:50	1
Toluene-d8 (Sur)	103		80 - 120				10/22/20 15:50	10/22/20 15:50	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		10/20/20 10:06	10/22/20 23:34	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/20/20 10:06	10/22/20 23:34	1
Anthracene	ND		0.19	0.031	ug/L		10/20/20 10:06	10/22/20 23:34	1
Benz[a]anthracene	ND		0.19	0.044	ug/L		10/20/20 10:06	10/22/20 23:34	1
Benz[a]pyrene	ND		0.19	0.040	ug/L		10/20/20 10:06	10/22/20 23:34	1
Benz[b]fluoranthene	ND		0.19	0.032	ug/L		10/20/20 10:06	10/22/20 23:34	1
Benz[g,h,i]perylene	ND		0.19	0.12	ug/L		10/20/20 10:06	10/22/20 23:34	1
Benz[k]fluoranthene	ND		0.19	0.095	ug/L		10/20/20 10:06	10/22/20 23:34	1
Chrysene	ND		0.19	0.071	ug/L		10/20/20 10:06	10/22/20 23:34	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/20/20 10:06	10/22/20 23:34	1
Fluoranthene	ND		0.19	0.065	ug/L		10/20/20 10:06	10/22/20 23:34	1
Fluorene	ND		0.19	0.10	ug/L		10/20/20 10:06	10/22/20 23:34	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/20/20 10:06	10/22/20 23:34	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		10/20/20 10:06	10/22/20 23:34	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		10/20/20 10:06	10/22/20 23:34	1
Phenanthrene	ND		0.19	0.034	ug/L		10/20/20 10:06	10/22/20 23:34	1
Pyrene	ND		0.19	0.038	ug/L		10/20/20 10:06	10/22/20 23:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		15 - 122				10/20/20 10:06	10/22/20 23:34	1
Nitrobenzene-d5	64		19 - 130				10/20/20 10:06	10/22/20 23:34	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: MW27-ROX-101320
Date Collected: 10/13/20 11:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-7
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	81		33 - 138	10/20/20 10:06	10/22/20 23:34	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		10/20/20 10:06	10/26/20 18:21	1
Benzenethiol	ND	**1 US	9.5	1.6	ug/L		10/20/20 10:06	10/26/20 18:21	1
Benzoic acid	ND		29	7.0	ug/L		10/20/20 10:06	10/26/20 18:21	1
Benzyl alcohol	ND		9.5	1.9	ug/L		10/20/20 10:06	10/26/20 18:21	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		10/20/20 10:06	10/26/20 18:21	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/20/20 10:06	10/26/20 18:21	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/20/20 10:06	10/26/20 18:21	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		10/20/20 10:06	10/26/20 18:21	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/20/20 10:06	10/26/20 18:21	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/20/20 10:06	10/26/20 18:21	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/20/20 10:06	10/26/20 18:21	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/20/20 10:06	10/26/20 18:21	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/20/20 10:06	10/26/20 18:21	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/20/20 10:06	10/26/20 18:21	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/20/20 10:06	10/26/20 18:21	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/20/20 10:06	10/26/20 18:21	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/20/20 10:06	10/26/20 18:21	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		10/20/20 10:06	10/26/20 18:21	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		10/20/20 10:06	10/26/20 18:21	1
Diethyl phthalate	ND		9.5	0.23	ug/L		10/20/20 10:06	10/26/20 18:21	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/20/20 10:06	10/26/20 18:21	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/20/20 10:06	10/26/20 18:21	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/20/20 10:06	10/26/20 18:21	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		10/20/20 10:06	10/26/20 18:21	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		10/20/20 10:06	10/26/20 18:21	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/20/20 10:06	10/26/20 18:21	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/20/20 10:06	10/26/20 18:21	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/20/20 10:06	10/26/20 18:21	1
1,4-Dioxane	ND	US	9.5	0.95	ug/L		10/20/20 10:06	10/26/20 18:21	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/20/20 10:06	10/26/20 18:21	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/20/20 10:06	10/26/20 18:21	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		10/20/20 10:06	10/26/20 18:21	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/20/20 10:06	10/26/20 18:21	1
Indene	ND		9.5	0.95	ug/L		10/20/20 10:06	10/26/20 18:21	1
Isophorone	ND		9.5	0.13	ug/L		10/20/20 10:06	10/26/20 18:21	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/20/20 10:06	10/26/20 18:21	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/20/20 10:06	10/26/20 18:21	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/20/20 10:06	10/26/20 18:21	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/20/20 10:06	10/26/20 18:21	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/20/20 10:06	10/26/20 18:21	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/20/20 10:06	10/26/20 18:21	1
2-Nitrophenol	ND		9.5	5.0	ug/L		10/20/20 10:06	10/26/20 18:21	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/20/20 10:06	10/26/20 18:21	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/20/20 10:06	10/26/20 18:21	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194417-1

Client Sample ID: MW27-ROX-101320

Lab Sample ID: 400-194417-7

Date Collected: 10/13/20 11:50

Matrix: Water

Date Received: 10/14/20 09:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/20/20 10:06	10/26/20 18:21	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/20/20 10:06	10/26/20 18:21	1
Pentachlorophenol	ND		19	1.3	ug/L		10/20/20 10:06	10/26/20 18:21	1
Phenol	ND		9.5	2.5	ug/L		10/20/20 10:06	10/26/20 18:21	1
Pyridine	ND		9.5	3.1	ug/L		10/20/20 10:06	10/26/20 18:21	1
Quinoline	ND		9.5	4.3	ug/L		10/20/20 10:06	10/26/20 18:21	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/20/20 10:06	10/26/20 18:21	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/20/20 10:06	10/26/20 18:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	54		46 - 124				10/20/20 10:06	10/26/20 18:21	1
2-Fluorophenol	7 X		13 - 113				10/20/20 10:06	10/26/20 18:21	1
Nitrobenzene-d5	57		36 - 126				10/20/20 10:06	10/26/20 18:21	1
Phenol-d5	26		17 - 127				10/20/20 10:06	10/26/20 18:21	1
Terphenyl-d14	78		44 - 149				10/20/20 10:06	10/26/20 18:21	1
2,4,6-Tribromophenol	45		26 - 150				10/20/20 10:06	10/26/20 18:21	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0054	ug/L		10/19/20 09:37	10/19/20 22:55	1
1,2-Dibromoethane	ND		0.020	0.0049	ug/L		10/19/20 09:37	10/19/20 22:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	111		51 - 149				10/19/20 09:37	10/19/20 22:55	1

Definitions/Glossary

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

Job ID: 400-194417-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
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.
X	

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

#	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Surrogate Summary

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

Job ID: 400-194417-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194417-1	TB-ROX-101320-8260	95	94	104
400-194417-3	P54-ROX-101320	97	95	106
400-194417-3 MS	P54-ROX-101320	97	95	106
400-194417-3 MSD	P54-ROX-101320	97	95	105
400-194417-6	MW24-ROX-101320	97	96	104
400-194417-7	MW27-ROX-101320	96	96	103
LCS 400-507729/1003	Lab Control Sample	97	97	105
MB 400-507729/5	Method Blank	93	93	105

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194417-3	P54-ROX-101320	50	17	50	31	72	68
400-194417-3 MS	P54-ROX-101320	53	6 X	54	22	72	67
400-194417-3 MSD	P54-ROX-101320	47	17	48	31	61	63
400-194417-6	MW24-ROX-101320	41 X	13	43	24	58	56
400-194417-7	MW27-ROX-101320	54	7 X	57	26	78	45
LCS 400-507284/2-A	Lab Control Sample	59	44	66	60	77	74
LCS 400-507284/6-A	Lab Control Sample	44 X	22	46	32	63	61
LCSD 400-507284/3-A	Lab Control Sample Dup	62	53	71	67	76	75
LCSD 400-507284/7-A	Lab Control Sample Dup	55	34	55	43	83	71
MB 400-507284/1-A	Method Blank	61	40	64	56	79	67

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194417-3	P54-ROX-101320	53	58	65
400-194417-3 MS	P54-ROX-101320	83	104	122
400-194417-3 MSD	P54-ROX-101320	73	98	112
400-194417-6	MW24-ROX-101320	45	50	59
400-194417-7	MW27-ROX-101320	59	64	81
LCS 400-507284/2-A	Lab Control Sample	72	92	117

Eurofins TestAmerica, Pensacola

Surrogate Summary

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

Job ID: 400-194417-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
LCSD 400-507284/3-A	Lab Control Sample Dup	82	96	104
MB 400-507284/1-A	Method Blank	57	59	78

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB2 (51-149)	
400-194417-2	TB-ROX-101320-8011	112	
400-194417-3	P54-ROX-101320	90	
400-194417-3 MS	P54-ROX-101320	110	
400-194417-3 MSD	P54-ROX-101320	111	
400-194417-6	MW24-ROX-101320	109	
400-194417-7	MW27-ROX-101320	111	
LCS 400-507275/2-A	Lab Control Sample	86	
LCSD 400-507275/3-A	Lab Control Sample Dup	91	
MB 400-507275/1-A	Method Blank	93	

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-194417-1

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

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, 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: 400-194417-1

Client Sample ID: TB-ROX-101320-8260
Date Collected: 10/13/20 00:00
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-1
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	507729	10/22/20 14:58	WPD	TAL PEN

Client Sample ID: TB-ROX-101320-8011
Date Collected: 10/13/20 00:00
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-2
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			34.9 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/20/20 00:14	DHJ	TAL PEN

Client Sample ID: P54-ROX-101320
Date Collected: 10/13/20 09:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-3
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	507729	10/22/20 12:34	WPD	TAL PEN
Total/NA	Prep	3520C			261.8 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 17:30	VC1	TAL PEN
Total/NA	Prep	3520C			261.8 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507831	10/22/20 22:59	PP1	TAL PEN
Total/NA	Prep	8011			34.6 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 21:35	DHJ	TAL PEN

Client Sample ID: MW24-ROX-101320
Date Collected: 10/13/20 10:45
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	507729	10/22/20 15:22	WPD	TAL PEN
Total/NA	Prep	3520C			267 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 17:55	VC1	TAL PEN
Total/NA	Prep	3520C			267 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507831	10/22/20 23:17	PP1	TAL PEN
Total/NA	Prep	8011			34.3 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 22:35	DHJ	TAL PEN

Client Sample ID: MW27-ROX-101320
Date Collected: 10/13/20 11:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	507729	10/22/20 15:50	WPD	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	507284	10/20/20 10:06	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 18:21	VC1	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194417-1

Client Sample ID: MW27-ROX-101320
Date Collected: 10/13/20 11:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			262 mL	1 mL	507284	10/20/20 10:06	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507831	10/22/20 23:34	PP1	TAL PEN
Total/NA	Prep	8011			35.4 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 22:55	DHJ	TAL PEN

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

Lab Sample ID: MB 400-507275/1-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:16	DHJ	TAL PEN

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

Lab Sample ID: MB 400-507284/1-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			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508103	10/26/20 10:21	VC1	TAL PEN
Total/NA	Prep	3520C			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507831	10/22/20 16:14	PP1	TAL PEN

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

Lab Sample ID: MB 400-507729/5
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	507729	10/22/20 08:35	WPD	TAL PEN

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

Lab Sample ID: LCS 400-507275/2-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:36	DHJ	TAL PEN

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

Lab Sample ID: LCS 400-507284/2-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			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508103	10/26/20 10:41	VC1	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194417-1

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507284/2-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			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507831	10/22/20 16:31	PP1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507284/6-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1000 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D		1	0.4 mL	1.0 mL	508112	10/26/20 15:45	VC1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507729/1003

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	507729	10/22/20 07:49	WPD	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-507275/3-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:56	DHJ	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-507284/3-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			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508103	10/26/20 11:02	VC1	TAL PEN
Total/NA	Prep	3520C			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507831	10/22/20 16:49	PP1	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-507284/7-A

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1000 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 16:11	VC1	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194417-1

Client Sample ID: P54-ROX-101320
Date Collected: 10/13/20 09:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-3 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	507729	10/22/20 13:44	WPD	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 16:37	VC1	TAL PEN
Total/NA	Prep	3520C			262.8 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507831	10/22/20 22:24	PP1	TAL PEN
Total/NA	Prep	8011			34.9 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 21:55	DHJ	TAL PEN

Client Sample ID: P54-ROX-101320
Date Collected: 10/13/20 09:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194417-3 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	507729	10/22/20 14:08	WPD	TAL PEN
Total/NA	Prep	3520C			262.2 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 17:03	VC1	TAL PEN
Total/NA	Prep	3520C			262.2 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507831	10/22/20 22:41	PP1	TAL PEN
Total/NA	Prep	8011			33.8 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 22:15	DHJ	TAL PEN

Laboratory References:

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

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194417-1

GC/MS VOA

Analysis Batch: 507729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194417-1	TB-ROX-101320-8260	Total/NA	Water	8260B	
400-194417-3	P54-ROX-101320	Total/NA	Water	8260B	
400-194417-6	MW24-ROX-101320	Total/NA	Water	8260B	
400-194417-7	MW27-ROX-101320	Total/NA	Water	8260B	
MB 400-507729/5	Method Blank	Total/NA	Water	8260B	
LCS 400-507729/1003	Lab Control Sample	Total/NA	Water	8260B	
400-194417-3 MS	P54-ROX-101320	Total/NA	Water	8260B	
400-194417-3 MSD	P54-ROX-101320	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 507284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194417-3	P54-ROX-101320	Total/NA	Water	3520C	
400-194417-6	MW24-ROX-101320	Total/NA	Water	3520C	
400-194417-7	MW27-ROX-101320	Total/NA	Water	3520C	
MB 400-507284/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-507284/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-507284/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-507284/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-507284/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-194417-3 MS	P54-ROX-101320	Total/NA	Water	3520C	
400-194417-3 MSD	P54-ROX-101320	Total/NA	Water	3520C	

Analysis Batch: 507831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194417-3	P54-ROX-101320	Total/NA	Water	8270D LL	507284
400-194417-6	MW24-ROX-101320	Total/NA	Water	8270D LL	507284
400-194417-7	MW27-ROX-101320	Total/NA	Water	8270D LL	507284
MB 400-507284/1-A	Method Blank	Total/NA	Water	8270D LL	507284
LCS 400-507284/2-A	Lab Control Sample	Total/NA	Water	8270D LL	507284
LCSD 400-507284/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	507284
400-194417-3 MS	P54-ROX-101320	Total/NA	Water	8270D LL	507284
400-194417-3 MSD	P54-ROX-101320	Total/NA	Water	8270D LL	507284

Analysis Batch: 508103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-507284/1-A	Method Blank	Total/NA	Water	8270D	507284
LCS 400-507284/2-A	Lab Control Sample	Total/NA	Water	8270D	507284
LCSD 400-507284/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	507284

Analysis Batch: 508112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194417-3	P54-ROX-101320	Total/NA	Water	8270D	507284
400-194417-6	MW24-ROX-101320	Total/NA	Water	8270D	507284
400-194417-7	MW27-ROX-101320	Total/NA	Water	8270D	507284
LCS 400-507284/6-A	Lab Control Sample	Total/NA	Water	8270D	507284
LCSD 400-507284/7-A	Lab Control Sample Dup	Total/NA	Water	8270D	507284
400-194417-3 MS	P54-ROX-101320	Total/NA	Water	8270D	507284
400-194417-3 MSD	P54-ROX-101320	Total/NA	Water	8270D	507284

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194417-1

GC Semi VOA

Prep Batch: 507275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194417-2	TB-ROX-101320-8011	Total/NA	Water	8011	
400-194417-3	P54-ROX-101320	Total/NA	Water	8011	
400-194417-6	MW24-ROX-101320	Total/NA	Water	8011	
400-194417-7	MW27-ROX-101320	Total/NA	Water	8011	
MB 400-507275/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-507275/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-507275/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-194417-3 MS	P54-ROX-101320	Total/NA	Water	8011	
400-194417-3 MSD	P54-ROX-101320	Total/NA	Water	8011	

Analysis Batch: 507289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194417-2	TB-ROX-101320-8011	Total/NA	Water	8011	507275
400-194417-3	P54-ROX-101320	Total/NA	Water	8011	507275
400-194417-6	MW24-ROX-101320	Total/NA	Water	8011	507275
400-194417-7	MW27-ROX-101320	Total/NA	Water	8011	507275
MB 400-507275/1-A	Method Blank	Total/NA	Water	8011	507275
LCS 400-507275/2-A	Lab Control Sample	Total/NA	Water	8011	507275
LCSD 400-507275/3-A	Lab Control Sample Dup	Total/NA	Water	8011	507275
400-194417-3 MS	P54-ROX-101320	Total/NA	Water	8011	507275
400-194417-3 MSD	P54-ROX-101320	Total/NA	Water	8011	507275

QC Sample Results

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

Job ID: 400-194417-1

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

Lab Sample ID: MB 400-507729/5

Matrix: Water

Analysis Batch: 507729

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

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		25	10	ug/L			10/22/20 08:35	1
Acrolein	ND		20	10	ug/L			10/22/20 08:35	1
Acrylonitrile	ND		10	2.8	ug/L			10/22/20 08:35	1
Benzene	ND		1.0	0.38	ug/L			10/22/20 08:35	1
Bromobenzene	ND		1.0	0.54	ug/L			10/22/20 08:35	1
Bromoform	ND		1.0	0.52	ug/L			10/22/20 08:35	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/22/20 08:35	1
Bromomethane	ND		1.0	0.98	ug/L			10/22/20 08:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/22/20 08:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Chloroethane	ND		1.0	0.76	ug/L			10/22/20 08:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/22/20 08:35	1
Chloroform	ND		1.0	0.60	ug/L			10/22/20 08:35	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/22/20 08:35	1
Chloromethane	ND		1.0	0.83	ug/L			10/22/20 08:35	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 08:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/22/20 08:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/22/20 08:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/22/20 08:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/22/20 08:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/22/20 08:35	1
2-Hexanone	ND		25	3.1	ug/L			10/22/20 08:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/22/20 08:35	1
Methylene bromide	ND		5.0	0.59	ug/L			10/22/20 08:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/22/20 08:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/22/20 08:35	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/22/20 08:35	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/22/20 08:35	1
Naphthalene	ND		1.0	1.0	ug/L			10/22/20 08:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/22/20 08:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/22/20 08:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/22/20 08:35	1
o-Xylene	ND		5.0	0.60	ug/L			10/22/20 08:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/22/20 08:35	1

12

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194417-1

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

Lab Sample ID: MB 400-507729/5

Matrix: Water

Analysis Batch: 507729

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND				1.0	0.71	ug/L			10/22/20 08:35	1
sec-Butylbenzene	ND				1.0	0.70	ug/L			10/22/20 08:35	1
Styrene	ND				1.0	1.0	ug/L			10/22/20 08:35	1
tert-Butylbenzene	ND				1.0	0.63	ug/L			10/22/20 08:35	1
1,1,1,2-Tetrachloroethane	ND				1.0	0.52	ug/L			10/22/20 08:35	1
1,1,2,2-Tetrachloroethane	ND				1.0	0.50	ug/L			10/22/20 08:35	1
Tetrachloroethylene	ND				1.0	0.58	ug/L			10/22/20 08:35	1
Toluene	ND				1.0	0.41	ug/L			10/22/20 08:35	1
trans-1,2-Dichloroethylene	ND				1.0	0.50	ug/L			10/22/20 08:35	1
trans-1,3-Dichloropropene	ND				5.0	0.50	ug/L			10/22/20 08:35	1
1,2,3-Trichlorobenzene	ND				1.0	0.70	ug/L			10/22/20 08:35	1
1,2,4-Trichlorobenzene	ND				1.0	0.82	ug/L			10/22/20 08:35	1
1,1,1-Trichloroethane	ND				1.0	0.50	ug/L			10/22/20 08:35	1
1,1,2-Trichloroethane	ND				5.0	0.50	ug/L			10/22/20 08:35	1
Trichloroethylene	ND				1.0	0.50	ug/L			10/22/20 08:35	1
Trichlorofluoromethane	ND				1.0	0.52	ug/L			10/22/20 08:35	1
1,2,3-Trichloropropane	ND				5.0	0.84	ug/L			10/22/20 08:35	1
1,2,4-Trimethylbenzene	ND				1.0	0.82	ug/L			10/22/20 08:35	1
1,3,5-Trimethylbenzene	ND				1.0	0.56	ug/L			10/22/20 08:35	1
Vinyl acetate	ND				25	2.0	ug/L			10/22/20 08:35	1
Vinyl chloride	ND				1.0	0.50	ug/L			10/22/20 08:35	1
Xylenes, Total	ND				10	1.6	ug/L			10/22/20 08:35	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		78 - 118				10/22/20 08:35	1
Dibromofluoromethane	93		81 - 121				10/22/20 08:35	1
Toluene-d8 (Surf)	105		80 - 120				10/22/20 08:35	1

Lab Sample ID: LCS 400-507729/1003

Matrix: Water

Analysis Batch: 507729

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

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added									
Acetone	200			249		ug/L		125	43 - 160	
Acrolein	500			524		ug/L		105	38 - 160	
Acrylonitrile	500			496		ug/L		99	64 - 142	
Benzene	50.0			52.1		ug/L		104	70 - 130	
Bromobenzene	50.0			48.1		ug/L		96	70 - 132	
Bromochloromethane	50.0			48.6		ug/L		97	70 - 130	
Bromodichloromethane	50.0			51.1		ug/L		102	67 - 133	
Bromoform	50.0			46.4		ug/L		93	57 - 140	
Bromomethane	50.0			70.5		ug/L		141	10 - 160	
2-Butanone (MEK)	200			260		ug/L		130	61 - 145	
Carbon disulfide	50.0			45.8		ug/L		92	61 - 137	
Carbon tetrachloride	50.0			44.2		ug/L		88	61 - 137	
Chlorobenzene	50.0			53.3		ug/L		107	70 - 130	
Dibromochloromethane	50.0			47.1		ug/L		94	67 - 135	
Chloroethane	50.0			56.1		ug/L		112	55 - 141	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194417-1

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

Lab Sample ID: LCS 400-507729/1003

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

Matrix: Water

Analysis Batch: 507729

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloroethyl vinyl ether	50.0	29.2		ug/L	58	10 - 160	
Chloroform	50.0	50.1		ug/L	100	69 - 130	
1-Chlorohexane	50.0	56.5		ug/L	113	69 - 130	
Chloromethane	50.0	44.6		ug/L	89	58 - 137	
cis-1,2-Dichloroethene	50.0	52.7		ug/L	105	68 - 130	
cis-1,3-Dichloropropene	50.0	57.7		ug/L	115	69 - 132	
1,2-Dichlorobenzene	50.0	49.8		ug/L	100	67 - 130	
1,3-Dichlorobenzene	50.0	51.2		ug/L	102	70 - 130	
1,4-Dichlorobenzene	50.0	51.5		ug/L	103	70 - 130	
Dichlorodifluoromethane	50.0	38.2		ug/L	76	41 - 146	
1,1-Dichloroethane	50.0	52.1		ug/L	104	70 - 130	
1,2-Dichloroethane	50.0	48.2		ug/L	96	69 - 130	
1,1-Dichloroethene	50.0	46.0		ug/L	92	63 - 134	
1,2-Dichloropropane	50.0	51.8		ug/L	104	70 - 130	
1,3-Dichloropropane	50.0	58.6		ug/L	117	70 - 130	
2,2-Dichloropropane	50.0	48.0		ug/L	96	52 - 135	
1,1-Dichloropropene	50.0	52.4		ug/L	105	70 - 130	
Ethylbenzene	50.0	54.3		ug/L	109	70 - 130	
Ethyl methacrylate	50.0	60.9		ug/L	122	68 - 130	
Hexachlorobutadiene	50.0	46.3		ug/L	93	53 - 140	
2-Hexanone	200	257		ug/L	128	65 - 137	
Isopropylbenzene	50.0	55.5		ug/L	111	70 - 130	
Methylene bromide	50.0	49.8		ug/L	100	70 - 130	
Methylene Chloride	50.0	50.5		ug/L	101	66 - 135	
4-Methyl-2-pentanone (MIBK)	200	241		ug/L	120	69 - 138	
Methyl tert-butyl ether	50.0	56.6		ug/L	113	66 - 130	
m-Xylene & p-Xylene	50.0	52.7		ug/L	105	70 - 130	
Naphthalene	50.0	51.0		ug/L	102	47 - 149	
n-Butylbenzene	50.0	66.0 *		ug/L	132	67 - 130	
N-Propylbenzene	50.0	54.4		ug/L	109	70 - 130	
o-Chlorotoluene	50.0	54.4		ug/L	109	70 - 130	
o-Xylene	50.0	53.1		ug/L	106	70 - 130	
p-Chlorotoluene	50.0	54.1		ug/L	108	70 - 130	
p-Isopropyltoluene	50.0	59.3		ug/L	119	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	52.7		ug/L	105	64 - 139	
1,1,1,2-Tetrachloroethane	50.0	51.7		ug/L	103	67 - 131	
1,1,2,2-Tetrachloroethane	50.0	56.8		ug/L	114	70 - 131	
Tetrachloroethene	50.0	49.1		ug/L	98	65 - 130	
Toluene	50.0	52.9		ug/L	106	70 - 130	
trans-1,2-Dichloroethene	50.0	50.0		ug/L	100	70 - 130	
trans-1,3-Dichloropropene	50.0	57.2		ug/L	114	63 - 130	
1,2,3-Trichlorobenzene	50.0	45.6		ug/L	91	60 - 138	
1,2,4-Trichlorobenzene	50.0	46.6		ug/L	93	60 - 140	
1,1,1-Trichloroethane	50.0	46.2		ug/L	92	68 - 130	
1,1,2-Trichloroethane	50.0	54.4		ug/L	109	70 - 130	
Trichloroethene	50.0	48.4		ug/L	97	70 - 130	
Trichlorofluoromethane	50.0	48.6		ug/L	97	65 - 138	

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: LCS 400-507729/1003

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

Matrix: Water

Analysis Batch: 507729

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
1,2,3-Trichloropropane	50.0	49.8		ug/L		100	70 - 130
1,2,4-Trimethylbenzene	50.0	51.6		ug/L		103	70 - 130
1,3,5-Trimethylbenzene	50.0	51.4		ug/L		103	69 - 130
Vinyl acetate	100	125		ug/L		125	26 - 160
Vinyl chloride	50.0	49.4		ug/L		99	59 - 136
Xylenes, Total	100	106		ug/L		106	70 - 130
Surrogate	LCS	LCS	%Recovery	Qualifier	Limits		
4-Bromoanisole	97				78 - 118		
Dibromoanisole	97				81 - 121		
Toluene-d8 (Surrogate)	105				80 - 120		

Lab Sample ID: 400-194417-3 MS

Client Sample ID: P54-ROX-101320
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 507729

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Acetone	ND		200	212		ug/L		106	43 - 150
Acrolein	ND		500	508		ug/L		102	38 - 150
Acrylonitrile	ND		500	512		ug/L		102	62 - 149
Benzene	ND		50.0	50.2		ug/L		100	56 - 142
Bromobenzene	ND		50.0	46.4		ug/L		93	59 - 136
Bromochloromethane	ND		50.0	48.8		ug/L		98	64 - 140
Bromodichloromethane	ND		50.0	48.2		ug/L		96	59 - 143
Bromoform	ND		50.0	45.3		ug/L		91	50 - 140
Bromomethane	ND		50.0	49.4		ug/L		99	10 - 150
2-Butanone (MEK)	ND		200	242		ug/L		121	55 - 150
Carbon disulfide	ND		50.0	44.7		ug/L		89	48 - 150
Carbon tetrachloride	ND		50.0	43.2		ug/L		86	55 - 145
Chlorobenzene	ND		50.0	50.2		ug/L		100	64 - 130
Dibromochloromethane	ND		50.0	44.5		ug/L		89	56 - 143
Chloroethane	ND		50.0	54.6		ug/L		109	50 - 150
2-Chloroethyl vinyl ether	ND F1		50.0	2.76	J F1	ug/L		6	10 - 150
Chloroform	ND		50.0	48.3		ug/L		97	60 - 141
1-Chlorohexane	ND		50.0	54.6		ug/L		109	56 - 136
Chloromethane	ND		50.0	41.3		ug/L		83	49 - 148
cis-1,2-Dichloroethene	ND		50.0	49.5		ug/L		99	59 - 143
cis-1,3-Dichloropropene	ND		50.0	54.7		ug/L		109	57 - 140
1,2-Dichlorobenzene	ND		50.0	46.7		ug/L		93	52 - 137
1,3-Dichlorobenzene	ND		50.0	48.1		ug/L		96	54 - 135
1,4-Dichlorobenzene	ND		50.0	48.3		ug/L		97	53 - 135
Dichlorodifluoromethane	ND		50.0	37.1		ug/L		74	16 - 150
1,1-Dichloroethane	ND		50.0	49.9		ug/L		100	61 - 144
1,2-Dichloroethane	ND		50.0	46.1		ug/L		92	60 - 141
1,1-Dichloroethene	ND		50.0	44.1		ug/L		88	54 - 147
1,2-Dichloropropane	ND		50.0	51.8		ug/L		104	66 - 137
1,3-Dichloropropane	ND		50.0	56.5		ug/L		113	66 - 133
2,2-Dichloropropane	ND		50.0	48.9		ug/L		98	42 - 144

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: 400-194417-3 MS

Matrix: Water

Analysis Batch: 507729

Client Sample ID: P54-ROX-101320
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1-Dichloropropene	ND		50.0	50.8		ug/L	102	65 - 136	
Ethylbenzene	ND		50.0	51.2		ug/L	102	58 - 131	
Ethyl methacrylate	ND		50.0	58.6		ug/L	117	64 - 130	
Hexachlorobutadiene	ND		50.0	43.3		ug/L	87	31 - 149	
2-Hexanone	ND		200	251		ug/L	125	65 - 140	
Isopropylbenzene	ND		50.0	51.5		ug/L	103	56 - 133	
Methylene bromide	ND		50.0	47.3		ug/L	95	63 - 138	
Methylene Chloride	ND		50.0	49.1		ug/L	98	60 - 146	
4-Methyl-2-pentanone (MIBK)	ND		200	237		ug/L	119	63 - 146	
Methyl tert-butyl ether	ND		50.0	54.5		ug/L	109	59 - 137	
m-Xylene & p-Xylene	ND		50.0	50.5		ug/L	101	57 - 130	
Naphthalene	ND		50.0	49.9		ug/L	100	25 - 150	
n-Butylbenzene	ND		50.0	60.2		ug/L	120	41 - 142	
N-Propylbenzene	ND		50.0	52.4		ug/L	105	51 - 138	
o-Chlorotoluene	ND		50.0	51.2		ug/L	102	53 - 134	
o-Xylene	0.61 J		50.0	49.9		ug/L	99	61 - 130	
p-Chlorotoluene	ND		50.0	50.8		ug/L	102	54 - 133	
p-Isopropyltoluene	ND		50.0	55.7		ug/L	111	48 - 139	
sec-Butylbenzene	ND		50.0	52.3		ug/L	105	50 - 138	
Styrene	ND		50.0	48.7		ug/L	97	58 - 131	
tert-Butylbenzene	ND		50.0	50.2		ug/L	100	54 - 146	
1,1,1,2-Tetrachloroethane	ND		50.0	47.7		ug/L	95	59 - 137	
1,1,2,2-Tetrachloroethane	ND		50.0	55.0		ug/L	110	66 - 135	
Tetrachloroethene	ND		50.0	42.1		ug/L	84	52 - 133	
Toluene	ND		50.0	50.7		ug/L	101	65 - 130	
trans-1,2-Dichloroethene	ND		50.0	48.3		ug/L	97	61 - 143	
trans-1,3-Dichloropropene	ND		50.0	53.5		ug/L	107	53 - 133	
1,2,3-Trichlorobenzene	ND		50.0	41.9		ug/L	84	43 - 145	
1,2,4-Trichlorobenzene	ND		50.0	42.9		ug/L	86	39 - 148	
1,1,1-Trichloroethane	ND		50.0	45.3		ug/L	91	57 - 142	
1,1,2-Trichloroethane	ND		50.0	51.0		ug/L	102	66 - 131	
Trichloroethene	ND		50.0	47.2		ug/L	94	64 - 136	
Trichlorofluoromethane	ND		50.0	46.3		ug/L	93	54 - 150	
1,2,3-Trichloropropane	ND		50.0	53.0		ug/L	106	65 - 133	
1,2,4-Trimethylbenzene	1.6		50.0	50.1		ug/L	97	50 - 139	
1,3,5-Trimethylbenzene	ND		100	129		ug/L	99	52 - 135	
Vinyl acetate	ND		50.0	49.6		ug/L	129	26 - 150	
Vinyl chloride	ND		100	100		ug/L	99	46 - 150	
Xylenes, Total	1.8 J					ug/L	99	59 - 130	
Surrogate		MS	MS						
		%Recovery	Qualifier			Limits			
4-Bromofluorobenzene		97		78 - 118					
Dibromofluoromethane		95		81 - 121					
Toluene-d8 (Surf)		106		80 - 120					

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: 400-194417-3 MSD

Matrix: Water

Analysis Batch: 507729

Client Sample ID: P54-ROX-101320

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acetone	ND		200	240		ug/L	120	43 - 150	12	30	
Acrolein	ND		500	495		ug/L	99	38 - 150	3	31	
Acrylonitrile	ND		500	564		ug/L	113	62 - 149	10	30	
Benzene	ND		50.0	50.3		ug/L	101	56 - 142	0	30	
Bromobenzene	ND		50.0	42.1		ug/L	84	59 - 136	10	30	
Bromoform	ND		50.0	47.9		ug/L	96	64 - 140	2	30	
Bromochloromethane	ND		50.0	48.7		ug/L	97	59 - 143	1	30	
Bromodichloromethane	ND		50.0	46.6		ug/L	93	50 - 140	3	30	
Bromomethane	ND		50.0	39.5		ug/L	79	10 - 150	22	50	
2-Butanone (MEK)	ND		200	258		ug/L	129	55 - 150	6	30	
Carbon disulfide	ND		50.0	44.9		ug/L	90	48 - 150	1	30	
Carbon tetrachloride	ND		50.0	41.5		ug/L	83	55 - 145	4	30	
Chlorobenzene	ND		50.0	48.4		ug/L	97	64 - 130	4	30	
Dibromochloromethane	ND		50.0	46.1		ug/L	92	56 - 143	4	30	
Chloroethane	ND		50.0	45.0		ug/L	90	50 - 150	19	30	
2-Chloroethyl vinyl ether	ND F1		50.0	2.09 J F1		ug/L	4	10 - 150	28	50	
Chloroform	ND		50.0	48.0		ug/L	96	60 - 141	1	30	
1-Chlorohexane	ND		50.0	50.6		ug/L	101	56 - 136	8	30	
Chloromethane	ND		50.0	35.8		ug/L	72	49 - 148	14	31	
cis-1,2-Dichloroethene	ND		50.0	51.1		ug/L	102	59 - 143	3	30	
cis-1,3-Dichloropropene	ND		50.0	55.4		ug/L	111	57 - 140	1	30	
1,2-Dichlorobenzene	ND		50.0	44.0		ug/L	88	52 - 137	6	30	
1,3-Dichlorobenzene	ND		50.0	44.1		ug/L	88	54 - 135	9	30	
1,4-Dichlorobenzene	ND		50.0	42.5		ug/L	85	53 - 135	13	30	
Dichlorodifluoromethane	ND		50.0	30.5		ug/L	101	61 - 144	1	30	
1,1-Dichloroethane	ND		50.0	50.3		ug/L	97	60 - 141	5	30	
1,2-Dichloroethane	ND		50.0	48.4		ug/L	89	54 - 147	1	30	
1,1-Dichloroethene	ND		50.0	44.6		ug/L	100	66 - 137	3	30	
1,2-Dichloropropane	ND		50.0	50.1		ug/L	116	66 - 133	2	30	
1,3-Dichloropropane	ND		50.0	57.8		ug/L	96	42 - 144	1	31	
2,2-Dichloropropane	ND		50.0	48.2		ug/L	100	65 - 136	2	30	
1,1-Dichloropropene	ND		50.0	49.9		ug/L	98	58 - 131	4	30	
Ethylbenzene	ND		50.0	49.2		ug/L	125	64 - 130	7	30	
Ethyl methacrylate	ND		50.0	62.6		ug/L	69	31 - 149	23	36	
Hexachlorobutadiene	ND		50.0	34.3		ug/L	131	65 - 140	5	30	
2-Hexanone	ND		200	263		ug/L	97	56 - 133	6	30	
Isopropylbenzene	ND		50.0	48.5		ug/L	102	63 - 138	8	30	
Methylene bromide	ND		50.0	51.2		ug/L	105	60 - 146	6	32	
Methylene Chloride	ND		50.0	52.4		ug/L	130	63 - 146	9	30	
4-Methyl-2-pentanone (MIBK)	ND		200	260		ug/L	117	59 - 137	7	30	
Methyl tert-butyl ether	ND		50.0	58.3		ug/L	96	57 - 130	5	30	
m-Xylene & p-Xylene	ND		50.0	47.9		ug/L	99	25 - 150	1	30	
Naphthalene	ND *		50.0	49.5		ug/L	103	41 - 142	16	31	
n-Butylbenzene	ND *		50.0	51.3		ug/L	92	51 - 138	13	30	
N-Propylbenzene	ND		50.0	45.9		ug/L	92	53 - 134	11	30	
o-Chlorotoluene	ND		50.0	45.8		ug/L	93	61 - 130	5	30	
o-Xylene	0.61 J		50.0	47.2		ug/L	84	54 - 133	19	30	
p-Chlorotoluene	ND		50.0	42.1		ug/L					

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: 400-194417-3 MSD

Matrix: Water

Analysis Batch: 507729

Client Sample ID: P54-ROX-101320
Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
p-Isopropyltoluene	ND		50.0	48.2		ug/L	96	48 - 139	14	30	
sec-Butylbenzene	ND		50.0	46.9		ug/L	94	50 - 138	11	30	
Styrene	ND		50.0	47.1		ug/L	94	58 - 131	3	30	
tert-Butylbenzene	ND		50.0	44.4		ug/L	89	54 - 146	12	30	
1,1,1,2-Tetrachloroethane	ND		50.0	47.8		ug/L	96	59 - 137	0	30	
1,1,2,2-Tetrachloroethane	ND		50.0	59.2		ug/L	118	66 - 135	7	30	
Tetrachloroethylene	ND		50.0	40.1		ug/L	80	52 - 133	5	30	
Toluene	ND		50.0	49.6		ug/L	99	65 - 130	2	30	
trans-1,2-Dichloroethene	ND		50.0	46.9		ug/L	94	61 - 143	3	30	
trans-1,3-Dichloropropene	ND		50.0	55.1		ug/L	110	53 - 133	3	30	
1,2,3-Trichlorobenzene	ND		50.0	37.0		ug/L	74	43 - 145	12	30	
1,2,4-Trichlorobenzene	ND		50.0	36.8		ug/L	74	39 - 148	15	30	
1,1,1-Trichloroethane	ND		50.0	44.7		ug/L	89	57 - 142	1	30	
1,1,2-Trichloroethane	ND		50.0	55.5		ug/L	111	66 - 131	9	30	
Trichloroethylene	ND		50.0	45.8		ug/L	92	64 - 136	3	30	
Trichlorofluoromethane	ND		50.0	40.8		ug/L	82	54 - 150	13	30	
1,2,3-Trichloropropane	ND		50.0	54.7		ug/L	109	65 - 133	3	30	
1,2,4-Trimethylbenzene	1.6		50.0	44.9		ug/L	87	50 - 139	11	30	
1,3,5-Trimethylbenzene	ND		50.0	43.7		ug/L	87	52 - 135	13	30	
Vinyl acetate	ND		100	116		ug/L	116	26 - 150	10	33	
Vinyl chloride	ND		50.0	41.8		ug/L	84	46 - 150	17	30	
Xylenes, Total	1.8 J		100	95.1		ug/L	93	59 - 130	5	30	
Surrogate		MSD	MSD								
		%Recovery	Qualifier		Limits						
4-Bromofluorobenzene		97			78 - 118						
Dibromofluoromethane		95			81 - 121						
Toluene-d8 (Surf)		105			80 - 120						

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

Lab Sample ID: MB 400-507284/1-A

Matrix: Water

Analysis Batch: 508103

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507284

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aniline	ND		2.5	0.95	ug/L		10/19/20 10:28	10/26/20 10:21	1
Benzenethiol	ND		2.5	0.43	ug/L		10/19/20 10:28	10/26/20 10:21	1
Benzoic acid	ND		7.5	1.8	ug/L		10/19/20 10:28	10/26/20 10:21	1
Benzyl alcohol	ND		2.5	0.50	ug/L		10/19/20 10:28	10/26/20 10:21	1
Bis(2-chloroethoxy)methane	ND		2.5	0.040	ug/L		10/19/20 10:28	10/26/20 10:21	1
Bis(2-chloroethyl)ether	ND		2.5	0.68	ug/L		10/19/20 10:28	10/26/20 10:21	1
bis (2-chloroisopropyl) ether	ND		2.5	0.040	ug/L		10/19/20 10:28	10/26/20 10:21	1
Bis(2-ethylhexyl) phthalate	2.53		2.5	1.3	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Bromophenyl phenyl ether	ND		2.5	0.050	ug/L		10/19/20 10:28	10/26/20 10:21	1
Butyl benzyl phthalate	ND		2.5	0.048	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Chloroaniline	ND		2.5	0.85	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Chloro-3-methylphenol	ND		2.5	0.95	ug/L		10/19/20 10:28	10/26/20 10:21	1
2-Chloronaphthalene	ND		2.5	0.035	ug/L		10/19/20 10:28	10/26/20 10:21	1
2-Chlorophenol	ND		2.5	0.55	ug/L		10/19/20 10:28	10/26/20 10:21	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: MB 400-507284/1-A

Matrix: Water

Analysis Batch: 508103

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507284

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		2.5	0.50	ug/L		10/19/20 10:28	10/26/20 10:21	1
Dibenz[a,h]acridine	ND		2.5	0.25	ug/L		10/19/20 10:28	10/26/20 10:21	1
Dibenzofuran	ND		2.5	0.043	ug/L		10/19/20 10:28	10/26/20 10:21	1
3,3'-Dichlorobenzidine	ND		2.5	0.65	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4-Dichlorophenol	ND		2.5	0.75	ug/L		10/19/20 10:28	10/26/20 10:21	1
Diethyl phthalate	ND		2.5	0.060	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4-Dimethylphenol	ND		2.5	0.88	ug/L		10/19/20 10:28	10/26/20 10:21	1
Dimethyl phthalate	ND		2.5	0.043	ug/L		10/19/20 10:28	10/26/20 10:21	1
Di-n-butyl phthalate	ND		2.5	0.68	ug/L		10/19/20 10:28	10/26/20 10:21	1
4,6-Dinitro-ortho-cresol	ND		2.5	0.40	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4-Dinitrophenol	ND		7.5	0.85	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4-Dinitrotoluene	ND		2.5	0.48	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,6-Dinitrotoluene	ND		2.5	0.48	ug/L		10/19/20 10:28	10/26/20 10:21	1
Di-n-octyl phthalate	ND		2.5	0.043	ug/L		10/19/20 10:28	10/26/20 10:21	1
1,4-Dioxane	ND		2.5	0.25	ug/L		10/19/20 10:28	10/26/20 10:21	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		2.5	0.25	ug/L		10/19/20 10:28	10/26/20 10:21	1
Hexachlorobenzene	ND		2.5	0.043	ug/L		10/19/20 10:28	10/26/20 10:21	1
Hexachlorocyclopentadiene	ND		5.0	0.65	ug/L		10/19/20 10:28	10/26/20 10:21	1
Hexachloroethane	ND		2.5	1.1	ug/L		10/19/20 10:28	10/26/20 10:21	1
Indene	ND		2.5	0.25	ug/L		10/19/20 10:28	10/26/20 10:21	1
Isophorone	ND		2.5	0.035	ug/L		10/19/20 10:28	10/26/20 10:21	1
2-Methylphenol	ND		2.5	0.45	ug/L		10/19/20 10:28	10/26/20 10:21	1
3 & 4 Methylphenol	ND		5.0	0.45	ug/L		10/19/20 10:28	10/26/20 10:21	1
3 & 4 Methylphenol	ND		5.0	0.098	ug/L		10/19/20 10:28	10/26/20 10:21	1
2-Nitroaniline	ND		2.5	0.55	ug/L		10/19/20 10:28	10/26/20 10:21	1
3-Nitroaniline	ND		2.5	0.45	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Nitroaniline	ND		2.5	0.38	ug/L		10/19/20 10:28	10/26/20 10:21	1
Nitrobenzene	ND		2.5	0.033	ug/L		10/19/20 10:28	10/26/20 10:21	1
2-Nitrophenol	ND		2.5	1.3	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Nitrophenol	ND		2.5	0.53	ug/L		10/19/20 10:28	10/26/20 10:21	1
N-Nitrosodimethylamine	ND		2.5	0.88	ug/L		10/19/20 10:28	10/26/20 10:21	1
N-Nitrosodi-n-propylamine	ND		2.5	0.83	ug/L		10/19/20 10:28	10/26/20 10:21	1
N-Nitrosodiphenylamine	ND		2.5	0.045	ug/L		10/19/20 10:28	10/26/20 10:21	1
Pentachlorophenol	ND		5.0	0.35	ug/L		10/19/20 10:28	10/26/20 10:21	1
Phenol	ND		2.5	0.65	ug/L		10/19/20 10:28	10/26/20 10:21	1
Pyridine	ND		2.5	0.80	ug/L		10/19/20 10:28	10/26/20 10:21	1
Quinoline	ND		2.5	1.1	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4,5-Trichlorophenol	ND		2.5	0.93	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4,6-Trichlorophenol	ND		2.5	0.88	ug/L		10/19/20 10:28	10/26/20 10:21	1
Surrogate	MB %Recovery	MB Qualifier	Limits			Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	61		46 - 124			10/19/20 10:28	10/26/20 10:21	1	
2-Fluorophenol	40		13 - 113			10/19/20 10:28	10/26/20 10:21	1	
Nitrobenzene-d5	64		36 - 126			10/19/20 10:28	10/26/20 10:21	1	
Phenol-d5	56		17 - 127			10/19/20 10:28	10/26/20 10:21	1	
Terphenyl-d14	79		44 - 149			10/19/20 10:28	10/26/20 10:21	1	
2,4,6-Tribromophenol	67		26 - 150			10/19/20 10:28	10/26/20 10:21	1	

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: LCS 400-507284/2-A

Matrix: Water

Analysis Batch: 508103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507284
%Rec.
Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	21 - 120
Aniline	30.0	21.2		ug/L		71	10 - 144
Benzoic acid	116	61.8		ug/L		53	28 - 120
Benzyl alcohol	30.0	21.8		ug/L		59	47 - 120
Bis(2-chloroethoxy)methane	30.0	17.7		ug/L		57	44 - 120
Bis(2-chloroethyl)ether	30.0	17.5		ug/L		58	33 - 121
bis (2-chloroisopropyl) ether	30.0	23.4		ug/L		78	52 - 147
Bis(2-ethylhexyl) phthalate	30.0	22.6		ug/L		75	54 - 122
4-Bromophenyl phenyl ether	30.0	24.9		ug/L		83	54 - 133
Butyl benzyl phthalate	30.0	19.6		ug/L		65	26 - 120
4-Chloroaniline	30.0	22.5		ug/L		75	48 - 131
4-Chloro-3-methylphenol	30.0	19.5		ug/L		65	52 - 121
2-Chloronaphthalene	30.0	18.4		ug/L		61	40 - 120
2-Chlorophenol	30.0	21.0		ug/L		70	56 - 125
4-Chlorophenyl phenyl ether	29.9	22.7		ug/L		76	31 - 150
Dibenz[a,h]acridine	30.0	19.3		ug/L		64	56 - 122
Dibenzofuran	60.0	67.9		ug/L		113	36 - 132
3,3'-Dichlorobenzidine	30.0	20.5		ug/L		68	49 - 120
2,4-Dichlorophenol	30.0	22.3		ug/L		74	50 - 137
Diethyl phthalate	30.0	16.9		ug/L		56	48 - 120
2,4-Dimethylphenol	30.0	26.2		ug/L		87	57 - 124
Dimethyl phthalate	30.0	22.8		ug/L		76	58 - 126
Di-n-butyl phthalate	60.0	58.5		ug/L		97	23 - 148
4,6-Dinitro-ortho-cresol	60.0	58.3		ug/L		97	10 - 150
2,4-Dinitrophenol	30.0	20.2		ug/L		67	54 - 142
2,4-Dinitrotoluene	30.0	20.9		ug/L		70	55 - 130
2,6-Dinitrotoluene	30.0	25.7		ug/L		86	57 - 138
Di-n-octyl phthalate	30.0	10.7		ug/L		36	31 - 120
1,4-Dioxane	30.0	20.8		ug/L		69	45 - 124
1,2-Diphenylhydrazine (as Azobenzene)	30.0	24.2		ug/L		81	52 - 129
Hexachlorobenzene	30.0	10.8		ug/L		36	10 - 134
Hexachlorocyclopentadiene	30.0	20.2		ug/L		67	20 - 120
Hexachloroethane	30.0	20.8		ug/L		69	49 - 120
Indene	30.0	19.7		ug/L		66	48 - 120
Isophorone	30.0	20.8		ug/L		69	46 - 124
2-Methylphenol	30.0	19.7		ug/L		66	45 - 120
3 & 4 Methylphenol	30.0	20.0		ug/L		67	51 - 145
2-Nitroaniline	30.0	23.3		ug/L		78	37 - 127
3-Nitroaniline	30.0	25.3		ug/L		84	36 - 137
4-Nitroaniline	30.0	17.7		ug/L		59	45 - 120
Nitrobenzene	30.0	17.2		ug/L		57	40 - 124
2-Nitrophenol	60.0	44.3		ug/L		74	23 - 146
4-Nitrophenol	30.0	20.4		ug/L		68	29 - 137
N-Nitrosodimethylamine	30.0	21.6		ug/L		72	45 - 120
N-Nitrosodi-n-propylamine	30.0	21.7		ug/L		73	54 - 120
N-Nitrosodiphenylamine	29.8			ug/L		84	31 - 130
Pentachlorophenol	60.0	50.2		ug/L		69	11 - 120
Phenol	30.0	20.6		ug/L		38	16 - 120
Pyridine	60.0	23.0		ug/L			

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: LCS 400-507284/2-A

Matrix: Water

Analysis Batch: 508103

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
				ug/L			
Quinoline	29.9	20.3			68	49 - 130	
2,4,5-Trichlorophenol	30.0	21.0		ug/L	70	51 - 135	
2,4,6-Trichlorophenol	30.0	21.3		ug/L	71	50 - 127	
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2-Fluorobiphenyl	59		46 - 124				
2-Fluorophenol	44		13 - 113				
Nitrobenzene-d5	66		36 - 126				
Phenol-d5	60		17 - 127				
Terphenyl-d14	77		44 - 149				
2,4,6-Tribromophenol	74		26 - 150				

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507284

%Rec.

Lab Sample ID: LCS 400-507284/6-A

Matrix: Water

Analysis Batch: 508112

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
		ND	*	ug/L			
Benzethiol	30.0					0.2	10 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
2-Fluorobiphenyl	44	X	46 - 124				
2-Fluorophenol	22		13 - 113				
Nitrobenzene-d5	46		36 - 126				
Phenol-d5	32		17 - 127				
Terphenyl-d14	63		44 - 149				
2,4,6-Tribromophenol	61		26 - 150				

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507284

%Rec.

Lab Sample ID: LCSD 400-507284/3-A

Matrix: Water

Analysis Batch: 508103

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	Limit
				ug/L				
Aniline	30.0	23.6		ug/L	79	21 - 120	10	30
Benzoic acid	116	78.1		ug/L	67	10 - 144	23	30
Benzyl alcohol	30.0	24.7		ug/L	82	28 - 120	13	30
Bis(2-chloroethoxy)methane	30.0	20.0		ug/L	67	47 - 120	12	30
Bis(2-chloroethyl)ether	30.0	19.1		ug/L	64	44 - 120	10	30
bis (2-chloroisopropyl) ether	30.0	19.7		ug/L	66	33 - 121	12	30
Bis(2-ethylhexyl) phthalate	30.0	23.3		ug/L	78	52 - 147	0	30
4-Bromophenyl phenyl ether	30.0	25.0		ug/L	83	54 - 122	10	30
Butyl benzyl phthalate	30.0	26.1		ug/L	87	54 - 133	5	30
4-Chloroaniline	30.0	20.7		ug/L	69	26 - 120	5	30
4-Chloro-3-methylphenol	30.0	24.6		ug/L	82	48 - 131	9	30
2-Chloronaphthalene	30.0	21.7		ug/L	72	52 - 121	11	30
2-Chlorophenol	30.0	22.0		ug/L	73	40 - 120	18	30
4-Chlorophenyl phenyl ether	30.0	23.2		ug/L	77	56 - 125	10	30
Dibenz[a,h]acridine	29.9	23.9		ug/L	80	31 - 150	6	30
Dibenzofuran	30.0	21.4		ug/L	71	56 - 122	10	30

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507284

%Rec.

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: LCSD 400-507284/3-A

Matrix: Water

Analysis Batch: 508103

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507284

%Rec.

RPD

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
3,3'-Dichlorobenzidine	60.0	69.7		ug/L		116	36 - 132	3	30
2,4-Dichlorophenol	30.0	23.5		ug/L		78	49 - 120	13	30
Diethyl phthalate	30.0	23.7		ug/L		79	50 - 137	6	30
2,4-Dimethylphenol	30.0	19.0		ug/L		63	48 - 120	12	30
Dimethyl phthalate	30.0	28.2		ug/L		94	57 - 124	7	30
Di-n-butyl phthalate	30.0	23.5		ug/L		78	58 - 126	3	30
4,6-Dinitro-ortho-cresol	60.0	58.8		ug/L		98	23 - 148	1	30
2,4-Dinitrophenol	60.0	59.5		ug/L		99	10 - 150	2	30
2,4-Dinitrotoluene	30.0	24.0		ug/L		80	54 - 142	17	30
2,6-Dinitrotoluene	30.0	22.6		ug/L		75	55 - 130	8	30
Di-n-octyl phthalate	30.0	26.7		ug/L		89	57 - 138	4	30
1,4-Dioxane	30.0	13.9		ug/L		46	31 - 120	26	30
1,2-Diphenylhydrazine (as Azobenzene)	30.0	23.1		ug/L		77	45 - 124	10	30
Hexachlorobenzene	30.0	27.2		ug/L		91	52 - 129	11	30
Hexachlorocyclopentadiene	30.0	13.8		ug/L		46	10 - 134	24	30
Hexachloroethane	30.0	23.0		ug/L		77	20 - 120	13	30
Indene	30.0	23.9		ug/L		80	49 - 120	14	30
Isophorone	30.0	21.8		ug/L		73	48 - 120	10	30
2-Methylphethol	30.0	23.9		ug/L		80	46 - 124	14	30
3 & 4 Methylphenol	30.0	22.0		ug/L		73	45 - 120	11	30
2-Nitroaniline	30.0	21.8		ug/L		80	37 - 127	3	30
3-Nitroaniline	30.0	24.0		ug/L		85	36 - 137	1	30
4-Nitroaniline	30.0	25.6		ug/L		67	45 - 120	13	30
Nitrobenzene	30.0	20.1		ug/L		65	40 - 124	14	30
2-Nitrophenol	30.0	19.6		ug/L		71	23 - 146	3	30
4-Nitrophenol	60.0	42.9		ug/L		80	29 - 137	16	30
N-Nitrosodimethylamine	30.0	24.0		ug/L		80	45 - 120	11	30
N-Nitrosodi-n-propylamine	30.0	24.0		ug/L		81	54 - 120	10	30
N-Nitrosodiphenylamine	29.8	24.1		ug/L		81	54 - 120	8	30
Pentachlorophenol	60.0	54.4		ug/L		91	31 - 130	12	30
Phenol	30.0	24.0		ug/L		80	11 - 120	15	30
Pyridine	60.0	28.7		ug/L		48	16 - 120	22	30
Quinoline	29.9	22.9		ug/L		77	49 - 130	12	30
2,4,5-Trichlorophenol	30.0	23.6		ug/L		79	51 - 136	12	30
2,4,6-Trichlorophenol	30.0	24.1		ug/L		80	50 - 127	13	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	62		46 - 124
2-Fluorophenol	53		13 - 113
Nitrobenzene-d5	71		36 - 126
Phenol-d5	67		17 - 127
Terphenyl-d14	76		44 - 149
2,4,6-Tribromophenol	75		26 - 150

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: LCSD 400-507284/7-A

Matrix: Water

Analysis Batch: 508112

Analyte	Spike Added	LCSD		Unit	D	%Rec	RPD	Client Sample ID: Lab Control Sample Dup	
		Result	Qualifier						ug/L
Benzeneethiol	30.0	ND	*1			0.8	10 - 120	121	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	55		46 - 124
2-Fluorophenol	34		13 - 113
Nitrobenzene-d5	55		36 - 126
Phenol-d5	43		17 - 127
Terphenyl-d14	83		44 - 149
2,4,6-Tribromophenol	71		26 - 150

Lab Sample ID: 400-194417-3 MS

Matrix: Water

Analysis Batch: 508112

Analyte	Sample Result	Sample Qualifier	Spike Added	MS		Unit	D	%Rec	Client Sample ID: P54-ROX-101320
				Result	Qualifier				
Aniline	ND		114	44.8		ug/L		39	10 - 120
Benzoic acid	ND		443	130		ug/L		29	10 - 149
Benzyl alcohol	ND		114	53.5		ug/L		47	33 - 120
Bis(2-chloroethoxy)methane	ND		114	56.4		ug/L		49	26 - 120
Bis(2-chloroethyl)ether	ND F1		114	52.7		ug/L		46	42 - 120
bis (2-chloroisopropyl) ether	ND		114	42.8		ug/L		37	28 - 120
Bis(2-ethylhexyl) phthalate	ND		114	72.1		ug/L		63	39 - 120
4-Bromophenyl phenyl ether	ND		114	92.5		ug/L		81	40 - 120
Butyl benzyl phthalate	ND		114	68.4		ug/L		60	45 - 120
4-Chloroaniline	ND		114	37.1		ug/L		32	10 - 120
4-Chloro-3-methylphenol	ND		114	63.3		ug/L		55	34 - 120
2-Chloronaphthalene	ND		114	68.9		ug/L		60	39 - 120
2-Chlorophenol	ND F1 F2		114	21.7	F1	ug/L		19	25 - 120
4-Chlorophenyl phenyl ether	ND		114	85.3		ug/L		75	44 - 120
Dibenz[a,h]acridine	ND		114	91.6		ug/L		80	50 - 150
Dibenzofuran	ND		114	69.0		ug/L		60	25 - 130
3,3'-Dichlorobenzidine	ND		228	145		ug/L		64	10 - 120
2,4-Dichlorophenol	ND		114	44.0		ug/L		39	31 - 120
Diethyl phthalate	ND		114	87.8		ug/L		77	46 - 120
2,4-Dimethylphenol	ND		114	60.0		ug/L		53	21 - 120
Dimethyl phthalate	ND		114	77.1		ug/L		76	49 - 120
Di-n-butyl phthalate	ND		114	86.8		ug/L		74	25 - 120
4,6-Dinitro-ortho-cresol	ND		228	168		ug/L		71	15 - 140
2,4-Dinitrophenol	ND		228	162		ug/L		67	53 - 120
2,4-Dinitrotoluene	ND		114	76.1		ug/L		62	43 - 120
2,6-Dinitrotoluene	ND		114	70.3		ug/L		65	35 - 121
Di-n-octyl phthalate	ND		114	74.0		ug/L		31	50 - 150
1,4-Dioxane	ND F1		114	35.3	F1	ug/L		63	50 - 150
1,2-Diphenylhydrazine (as Azobenzene)	ND		114	106		ug/L		93	38 - 122
Hexachlorobenzene	ND		114	29.0		ug/L		25	10 - 120
Hexachlorocyclopentadiene	ND		114	71.0		ug/L		62	10 - 150
Hexachloroethane	ND								

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: 400-194417-3 MS

Matrix: Water

Analysis Batch: 508112

Client Sample ID: P54-ROX-101320

Prep Type: Total/NA

Prep Batch: 507284

%Rec.

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Indene	ND	F1	114	61.3		ug/L	54	50 - 150	
Isophorone	ND		114	57.5		ug/L	50	42 - 120	
2-Methylphenol	ND		114	57.3		ug/L	50	31 - 120	
3 & 4 Methylphenol	ND		114	57.6		ug/L	60	45 - 120	
2-Nitroaniline	ND		114	69.0		ug/L	56	10 - 130	
3-Nitroaniline	ND		114	64.4		ug/L	65	10 - 132	
4-Nitroaniline	ND		114	74.5		ug/L	58	39 - 120	
Nitrobenzene	ND		114	66.3		ug/L	24	33 - 120	
2-Nitrophenol	ND	F1 F2	114	27.6	F1	ug/L	85	10 - 120	
4-Nitrophenol	ND		228	195		ug/L	88	10 - 139	
N-Nitrosodimethylamine	ND		114	99.9		ug/L	60	37 - 124	
N-Nitrosodi-n-propylamine	ND		114	69.0		ug/L	60	10 - 150	
N-Nitrosodiphenylamine	ND		113	67.5		ug/L	52	29 - 130	
Pentachlorophenol	ND		228	120		ug/L	28	10 - 150	
Phenol	ND		114	32.1		ug/L	31	10 - 120	
Pyridine	ND		228	71.4		ug/L	58	51 - 120	
Quinoline	ND	F1	114	66.3		ug/L	53	34 - 120	
2,4,5-Trichlorophenol	ND		114	60.8		ug/L	45	33 - 120	
2,4,6-Trichlorophenol	ND		114	50.9		ug/L			
Surrogate		MS	MS						
		%Recovery	Qualifier			Limits			
2-Fluorobiphenyl		53				46 - 124			
2-Fluorophenol		6	X			13 - 113			
Nitrobenzene-d5		54				36 - 126			
Phenol-d5		22				17 - 127			
Terphenyl-d14		72				44 - 149			
2,4,6-Tribromophenol		67				26 - 150			

Lab Sample ID: 400-194417-3 MSD

Matrix: Water

Analysis Batch: 508112

Client Sample ID: P54-ROX-101320

Prep Type: Total/NA

Prep Batch: 507284

%Rec.

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Aniline	ND		114	44.8		ug/L	39	10 - 120		0	63
Benzoic acid	ND		444	135		ug/L	30	10 - 149		4	49
Benzyl alcohol	ND		114	50.1		ug/L	44	33 - 120		7	37
Bis(2-chloroethoxy)methane	ND		114	51.6		ug/L	45	26 - 120		9	70
Bis(2-chloroethyl)ether	ND	F1	114	46.4	F1	ug/L	41	42 - 120		13	42
bis (2-chloroisopropyl) ether	ND		114	39.3		ug/L	34	28 - 120		8	41
Bis(2-ethylhexyl) phthalate	ND		114	59.7		ug/L	67	40 - 120		18	30
4-Bromophenyl phenyl ether	ND		114	77.0		ug/L	52	45 - 120		14	32
Butyl benzyl phthalate	ND		114	59.5		ug/L	52	10 - 120		0	94
4-Chloroaniline	ND		114	36.9		ug/L	32	10 - 120		4	40
4-Chloro-3-methylphenol	ND		114	60.8		ug/L	53	34 - 120		7	29
2-Chloronaphthalene	ND		114	64.6		ug/L	56	39 - 120		57	42
2-Chlorophenol	ND	F1 F2	114	39.2	F2	ug/L	34	25 - 120		6	27
4-Chlorophenyl phenyl ether	ND		114	80.3		ug/L	70	44 - 120		18	40
Dibenz[a,h]acridine	ND		114	76.8		ug/L	67	50 - 150			

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194417-1

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

Lab Sample ID: 400-194417-3 MSD

Matrix: Water

Analysis Batch: 508112

Client Sample ID: P54-ROX-101320

Prep Type: Total/NA

Prep Batch: 507284

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Dibenzofuran	ND		114	61.9		ug/L		54	25 - 130	11	29
3,3'-Dichlorobenzidine	ND		229	131		ug/L		57	10 - 120	10	58
2,4-Dichlorophenol	ND		114	56.5		ug/L		49	31 - 120	25	43
Diethyl phthalate	ND		114	77.7		ug/L		68	46 - 120	12	40
2,4-Dimethylphenol	ND		114	58.5		ug/L		51	21 - 120	3	47
Dimethyl phthalate	ND		114	65.5		ug/L		57	38 - 120	16	36
Di-n-butyl phthalate	ND		114	73.3		ug/L		64	49 - 120	17	32
4,6-Dinitro-ortho-cresol	ND		229	157		ug/L		69	25 - 120	7	42
2,4-Dinitrophenol	ND		229	157		ug/L		68	15 - 140	4	36
2,4-Dinitrotoluene	ND		114	68.6		ug/L		60	53 - 120	10	28
2,6-Dinitrotoluene	ND		114	67.8		ug/L		59	43 - 120	4	28
Di-n-octyl phthalate	ND		114	61.5		ug/L		54	35 - 121	18	35
1,4-Dioxane	ND F1		114	30.2	F1	ug/L		26	50 - 150	16	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		114	63.0		ug/L		55	50 - 150	14	40
Hexachlorobenzene	ND		114	87.5		ug/L		76	38 - 122	19	33
Hexachlorocyclopentadiene	ND		114	24.4		ug/L		21	10 - 120	17	50
Hexachloroethane	ND		114	61.6		ug/L		54	10 - 150	14	41
Indene	ND F1		114	55.6	F1	ug/L		49	50 - 150	10	40
Isophorone	ND		114	54.7		ug/L		48	42 - 120	5	33
2-Methylphenol	ND		114	58.8		ug/L		51	28 - 120	2	47
3 & 4 Methylphenol	ND		114	60.1		ug/L		53	31 - 120	4	47
2-Nitroaniline	ND		114	63.3		ug/L		55	45 - 120	9	33
3-Nitroaniline	ND		114	60.4		ug/L		53	10 - 130	6	39
4-Nitroaniline	ND		114	68.8		ug/L		60	10 - 132	8	50
Nitrobenzene	ND		114	61.4		ug/L		54	39 - 120	8	35
2-Nitrophenol	ND F1 F2		114	46.7	F2	ug/L		41	33 - 120	51	43
4-Nitrophenol	ND		229	247		ug/L		108	10 - 120	24	82
N-Nitrosodimethylamine	ND		114	84.0		ug/L		73	10 - 139	17	62
N-Nitrosodi-n-propylamine	ND		114	63.1		ug/L		55	37 - 124	9	36
N-Nitrosodiphenylamine	ND		114	59.9		ug/L		53	10 - 150	12	34
Pentachlorophenol	ND		229	112		ug/L		49	29 - 130	6	42
Phenol	ND		114	42.8		ug/L		37	10 - 150	29	52
Pyridine	ND		229	67.9		ug/L		30	10 - 120	5	55
Quinoline	ND F1		114	57.2	F1	ug/L		50	51 - 120	15	40
2,4,5-Trichlorophenol	ND		114	62.6		ug/L		55	34 - 120	3	42
2,4,6-Trichlorophenol	ND		114	59.9		ug/L		52	33 - 120	16	44

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorobiphenyl	47		46 - 124
2-Fluorophenol	17		13 - 113
Nitrobenzene-d5	48		36 - 126
Phenol-d5	31		17 - 127
Terphenyl-d14	61		44 - 149
2,4,6-Tribromophenol	63		26 - 150

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194417-1

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

Lab Sample ID: MB 400-507284/1-A

Matrix: Water

Analysis Batch: 507831

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.0181	J	0.050		0.0080	ug/L		10/19/20	10:28	10/22/20 16:14	1
Acenaphthylene	ND		0.050		0.011	ug/L		10/19/20	10:28	10/22/20 16:14	1
Anthracene	ND		0.050		0.0080	ug/L		10/19/20	10:28	10/22/20 16:14	1
Benzo[a]anthracene	ND		0.050		0.012	ug/L		10/19/20	10:28	10/22/20 16:14	1
Benzo[a]pyrene	ND		0.050		0.011	ug/L		10/19/20	10:28	10/22/20 16:14	1
Benzo[b]fluoranthene	ND		0.050		0.0085	ug/L		10/19/20	10:28	10/22/20 16:14	1
Benzo[g,h,i]perylene	ND		0.050		0.033	ug/L		10/19/20	10:28	10/22/20 16:14	1
Benzo[k]fluoranthene	ND		0.050		0.025	ug/L		10/19/20	10:28	10/22/20 16:14	1
Chrysene	ND		0.050		0.019	ug/L		10/19/20	10:28	10/22/20 16:14	1
Dibenz(a,h)anthracene	ND		0.050		0.013	ug/L		10/19/20	10:28	10/22/20 16:14	1
Fluoranthene	ND		0.050		0.017	ug/L		10/19/20	10:28	10/22/20 16:14	1
Fluorene	ND		0.050		0.028	ug/L		10/19/20	10:28	10/22/20 16:14	1
Indeno[1,2,3-cd]pyrene	ND		0.050		0.011	ug/L		10/19/20	10:28	10/22/20 16:14	1
1-Methylnaphthalene	ND		0.050		0.019	ug/L		10/19/20	10:28	10/22/20 16:14	1
2-Methylnaphthalene	ND		0.050		0.015	ug/L		10/19/20	10:28	10/22/20 16:14	1
Phenanthrene	ND		0.050		0.0090	ug/L		10/19/20	10:28	10/22/20 16:14	1
Pyrene	ND		0.050		0.010	ug/L		10/19/20	10:28	10/22/20 16:14	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	57		15 - 122			10/19/20 10:28	10/22/20 16:14	1
Nitrobenzene-d5	59		19 - 130			10/19/20 10:28	10/22/20 16:14	1
Terphenyl-d14	78		33 - 138			10/19/20 10:28	10/22/20 16:14	1

Lab Sample ID: LCS 400-507284/2-A

Matrix: Water

Analysis Batch: 507831

Analyte	Spike	LCS	LCS	Added	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
Acenaphthene	30.0	25.4		30.0			ug/L		85	41 - 120	
Acenaphthylene	30.0	26.7		30.0			ug/L		89	44 - 120	
Anthracene	30.0	31.4		30.0			ug/L		105	49 - 120	
Benzo[a]anthracene	30.0	31.1		30.0			ug/L		104	61 - 135	
Benzo[a]pyrene	30.0	31.9		30.0			ug/L		106	52 - 120	
Benzo[b]fluoranthene	30.0	27.6		30.0			ug/L		92	53 - 134	
Benzo[g,h,i]perylene	30.0	27.5		30.0			ug/L		92	47 - 133	
Benzo[k]fluoranthene	30.0	27.3		30.0			ug/L		91	57 - 134	
Chrysene	30.0	32.5		30.0			ug/L		108	55 - 122	
Dibenz(a,h)anthracene	30.0	28.7		30.0			ug/L		96	48 - 146	
Fluoranthene	30.0	29.8		30.0			ug/L		99	54 - 128	
Fluorene	30.0	27.8		30.0			ug/L		93	45 - 125	
Indeno[1,2,3-cd]pyrene	30.0	27.7		30.0			ug/L		92	43 - 142	
1-Methylnaphthalene	30.0	25.2		30.0			ug/L		84	41 - 120	
2-Methylnaphthalene	30.0	24.4		30.0			ug/L		81	32 - 124	
Phenanthrene	30.0	28.2		30.0			ug/L		94	48 - 120	
Pyrene	30.0	35.0		30.0			ug/L		117	48 - 132	

Surrogate	LCS	LCS	Limits	%Recovery	Qualifier
2-Fluorobiphenyl	72		15 - 122		

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507284

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: LCS 400-507284/2-A

Matrix: Water

Analysis Batch: 507831

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
Nitrobenzene-d5			92		19 - 130
Terphenyl-d14			117		33 - 138

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507284

Lab Sample ID: LCSD 400-507284/3-A

Matrix: Water

Analysis Batch: 507831

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	30.0	28.3		ug/L	94	41 - 120	11	56	
Acenaphthylene	30.0	28.0		ug/L	93	44 - 120	5	56	
Anthracene	30.0	30.6		ug/L	102	49 - 120	3	51	
Benzo[a]anthracene	30.0	32.7		ug/L	109	61 - 135	5	49	
Benzo[a]pyrene	30.0	32.6		ug/L	109	52 - 120	2	50	
Benzo[b]fluoranthene	30.0	28.5		ug/L	95	53 - 134	3	54	
Benzo[g,h,i]perylene	30.0	26.7		ug/L	89	47 - 133	3	50	
Benzo[k]fluoranthene	30.0	30.2		ug/L	101	57 - 134	10	52	
Chrysene	30.0	30.4		ug/L	101	55 - 122	7	50	
Dibenz(a,h)anthracene	30.0	26.9		ug/L	90	48 - 146	6	50	
Fluoranthene	30.0	29.4		ug/L	98	54 - 128	2	52	
Fluorene	30.0	29.5		ug/L	98	45 - 125	6	56	
Indeno[1,2,3-cd]pyrene	30.0	26.1		ug/L	87	43 - 142	6	51	
1-Methylnaphthalene	30.0	27.0		ug/L	90	41 - 120	7	55	
2-Methylnaphthalene	30.0	26.2		ug/L	87	32 - 124	7	57	
Phenanthrene	30.0	29.1		ug/L	97	48 - 120	3	56	
Pyrene	30.0	31.6		ug/L	105	48 - 132	10	52	

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorobiphenyl			82		15 - 122
Nitrobenzene-d5			96		19 - 130
Terphenyl-d14			104		33 - 138

Lab Sample ID: 400-194417-3 MS

Matrix: Water

Analysis Batch: 507831

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	ND		114	104		ug/L	91	35 - 113	
Acenaphthylene	ND		114	109		ug/L	95	41 - 118	
Anthracene	ND		114	126		ug/L	110	45 - 122	
Benzo[a]anthracene	ND		114	123		ug/L	108	55 - 133	
Benzo[a]pyrene	ND	F1	114	127	F1	ug/L	111	50 - 108	
Benzo[b]fluoranthene	ND		114	107		ug/L	93	50 - 128	
Benzo[g,h,i]perylene	ND		114	115		ug/L	101	46 - 133	
Benzo[k]fluoranthene	ND		114	114		ug/L	100	52 - 128	
Chrysene	ND		114	126		ug/L	110	52 - 116	
Dibenz(a,h)anthracene	ND		114	118		ug/L	103	52 - 143	
Fluoranthene	ND		114	121		ug/L	106	32 - 150	
Fluorene	ND		114	106		ug/L	93	15 - 150	

Client Sample ID: P54-ROX-101320
Prep Type: Total/NA
Prep Batch: 507284
%Rec.

QC Sample Results

Job ID: 400-194417-1

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

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

Lab Sample ID: 400-194417-3 MS

Matrix: Water

Analysis Batch: 507831

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Indeno[1,2,3-cd]pyrene	ND		114	113		ug/L	99	41 - 141	
1-Methylnaphthalene	ND		114	101		ug/L	88	10 - 150	
2-Methylnaphthalene	0.085	J	114	98.0		ug/L	86	10 - 150	
Phenanthrene	ND		114	123		ug/L	108	36 - 125	
Pyrene	ND		114	123		ug/L	108	41 - 127	
Surrogate		%Recovery	Qualifier	Limits					
2-Fluorobiphenyl	83			15 - 122					
Nitrobenzene-d5	104			19 - 130					
Terphenyl-d14	122			33 - 138					

Lab Sample ID: 400-194417-3 MSD

Matrix: Water

Analysis Batch: 507831

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Acenaphthene	ND		114	104		ug/L	90	35 - 113	1	49	
Acenaphthylene	ND		114	107		ug/L	94	41 - 118	1	48	
Anthracene	ND		114	116		ug/L	101	45 - 122	8	56	
Benzo[a]anthracene	ND		114	120		ug/L	105	55 - 133	2	57	
Benzo[a]pyrene	ND	F1	114	121		ug/L	106	50 - 108	5	59	
Benzo[b]fluoranthene	ND		114	108		ug/L	95	50 - 128	1	62	
Benzo[g,h,i]perylene	ND		114	102		ug/L	89	46 - 133	12	58	
Benzo[k]fluoranthene	ND		114	105		ug/L	91	52 - 128	9	58	
Chrysene	ND		114	120		ug/L	105	52 - 116	4	59	
Dibenz(a,h)anthracene	ND		114	102		ug/L	89	52 - 143	15	60	
Fluoranthene	ND		114	112		ug/L	98	32 - 150	8	59	
Fluorene	ND		114	109		ug/L	95	15 - 150	3	49	
Indeno[1,2,3-cd]pyrene	ND		114	106		ug/L	93	41 - 141	7	58	
1-Methylnaphthalene	ND		114	99.0		ug/L	87	10 - 150	2	66	
2-Methylnaphthalene	0.085	J	114	96.5		ug/L	84	10 - 150	2	66	
Phenanthrene	ND		114	115		ug/L	101	36 - 125	6	69	
Pyrene	ND		114	117		ug/L	102	41 - 127	5	58	
Surrogate		%Recovery	Qualifier	Limits							
2-Fluorobiphenyl	73			15 - 122							
Nitrobenzene-d5	98			19 - 130							
Terphenyl-d14	112			33 - 138							

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-507275/1-A

Matrix: Water

Analysis Batch: 507289

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/19/20 09:37	10/19/20 16:16	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/19/20 09:37	10/19/20 16:16	1

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507275

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194417-1

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

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-507275/1-A

Matrix: Water

Analysis Batch: 507289

Surrogate	MB %Recovery	MB Qualifier	Limits
4-Bromofluorobenzene	93		51 - 149

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507275

Lab Sample ID: LCS 400-507275/2-A

Matrix: Water

Analysis Batch: 507289

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2-Dibromo-3-Chloropropane	0.101	0.104		ug/L		103	60 - 140
1,2-Dibromoethane	0.101	0.0963		ug/L		96	60 - 140

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507275

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	86		51 - 149

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507275

Lab Sample ID: LCSD 400-507275/3-A

Matrix: Water

Analysis Batch: 507289

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2-Dibromo-3-Chloropropane	0.101	0.106		ug/L		105	60 - 140	2	30
1,2-Dibromoethane	0.101	0.0947		ug/L		94	60 - 140	2	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	91		51 - 149

Lab Sample ID: 400-194417-3 MS

Matrix: Water

Analysis Batch: 507289

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,2-Dibromo-3-Chloropropane	ND		0.101	0.127		ug/L		126	65 - 135
1,2-Dibromoethane	ND F2 *		0.101	0.116		ug/L		114	65 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	110		51 - 149

Lab Sample ID: 400-194417-3 MSD

Matrix: Water

Analysis Batch: 507289

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2-Dibromo-3-Chloropropane	ND		0.104	0.121		ug/L		116	65 - 135	5	20
1,2-Dibromoethane	ND F2 *		0.104	0.118		ug/L		113	65 - 135	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	111		51 - 149

Client Sample ID: P54-ROX-101320

Prep Type: Total/NA

Prep Batch: 507275

%Rec.

Client Sample ID: P54-ROX-101320

Prep Type: Total/NA

Prep Batch: 507275

RPD

Eurofins TestAmerica, Pensacola



Ball Oil Products IIS Chain Of Custody Record

Page 50 of 52

Login Sample Receipt Checklist

Job Number: 400-194417-1

Client: AECOM Technical Services Inc.

List Source: Eurofins TestAmerica, Pensacola

Login Number: 194417

List Number: 1

Creator: Whitley, Adrian

Question

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	1339602, 1339604, 1339600, 1339606
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	2.5, 3.2, 2.8, 2.2°C IR8
Cooler Temperature is recorded.	True	
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.	N/A	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Job ID: 400-194417-1

Client: AECOM Technical Services Inc.

Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-20
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FLO94	06-30-21
Michigan	State	9912	12-31-20
Minnesota	NELAP	012-999-481	06-30-21
New Jersey	NELAP	FL006	04-01-21
New York	NELAP	12115	12-31-20
North Carolina (WW/SW)	State	314	08-31-21
Oklahoma	State	9810-186	01-31-21
Pennsylvania	NELAP	68-00467	12-30-20
Rhode Island	State	LAO00307	06-30-21
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	09-30-21
Texas	NELAP	T104704286	07-31-21
US Fish & Wildlife	US Federal Programs	058448	05-17-21
USDA	US Federal Programs	P330-18-00148	06-14-21
Virginia	NELAP	460166	05-15-21
Washington	State	C915	12-31-20
West Virginia DEP	State	136	

Eurofins TestAmerica, Pensacola

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194420-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/11/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-101320-8260-BP	TB-ROX-101320-8011-BP
MW23-ROX-101320	

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 bis(2-ethylhexyl) phthalate and acenaphthene were detected in the method blank. The VOC LCS recovery for n-butylbenzene, and the SVOC LCS/LCSD recoveries and RPD for benzenethiol, were outside evaluation criteria. The surrogate recovery for 2-fluorobiphenyl was outside criteria in the SVOC LCS. The initial calibration verification for 1,4-dioxane was outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

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

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

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

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-507284/1-A	SVOCs	bis(2-Ethylhexyl) phthalate	2.53 µg/L
MB 400-507284/1-A	PAHs	Acenaphthene	0.0181 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 400-507729/1003	VOCs	n-Butylbenzene	132	NA	67-130
LCS/LCSD 400-507284/6-A/7-A	SVOCs	Benzenethiol	0.2/0.8	121	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; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-101320	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
LCS 400-507284/6-A	SVOCs	2-Fluorobiphenyl	44	46-124

Laboratory control samples are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the initial calibration verification for 1,4-dioxane was outside acceptance criteria, biased low, and is qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW23-ROX-101320	SVOCs	1,4-Dioxane	UJ



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 400-194420-1
Client Project/Site: ROXANA QUARTERLY GW

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

Attn: Elizabeth Kunkel

Authorized for release by:
10/30/2020 10:56:24 AM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Reviewed 11/11/2020
LR

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.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	7
Definitions	14
Surrogate Summary	15
Method Summary	17
Chronicle	18
QC Association	21
QC Sample Results	22
Chain of Custody	33
Receipt Checklists	34
Certification Summary	35

Case Narrative

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

Job ID: 400-194420-1

Job ID: 400-194420-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-194420-1

Comments

No additional comments.

Receipt

The samples were received on 10/14/2020 9:26 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 2.2° C, 2.5° C, 2.8° C and 3.2° C.

GC/MS VOA

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-507729 recovered outside control limits for the following analyte: n-Butylbenzene. 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 some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-101320-8260-BP (400-194420-1) and MW23-ROX-101320 (400-194420-3). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-490802 was outside method criteria for the following analyte(s): 2-Chloroethyl vinyl ether. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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 initial calibration verification (ICV) analyzed in batch 400-504644 was outside method criteria for the following analyte(s): 1,4-Dioxane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508112 recovered above the upper control limit for 4-Nitrophenol and N-Nitrosodimethylamine. 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 400-508103 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, Aniline, Benzyl alcohol, Bis(2-chloroethoxy)methane, Hexachlorocyclopentadiene, Isophorone, Pyridine and Quinoline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The method blank for preparation batch 400-507284 contained Bis(2-ethylhexyl) phthalate above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-507284 and analytical batch 400-508112 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 LL: The method blank for preparation batch 400-507284 and analytical batch 400-507831 contained Acenaphthene 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.

Case Narrative

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

Job ID: 400-194420-1

Job ID: 400-194420-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-507289 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 400-507289 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

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

Job ID: 400-194420-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194420-1	TB-ROX-101320-8260-BP	Water	10/13/20 00:00	10/14/20 09:26	
400-194420-2	TB-ROX-101320-8011-BP	Water	10/13/20 00:00	10/14/20 09:26	
400-194420-3	MW23-ROX-101320	Water	10/13/20 12:50	10/14/20 09:26	



Detection Summary

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

Job ID: 400-194420-1

Client Sample ID: TB-ROX-101320-8260-BP

Lab Sample ID: 400-194420-1

No Detections.

Client Sample ID: TB-ROX-101320-8011-BP

Lab Sample ID: 400-194420-2

No Detections.

Client Sample ID: MW23-ROX-101320

Lab Sample ID: 400-194420-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.2		1.0	0.82	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194420-1

Client Sample ID: TB-ROX-101320-8260-BP

Lab Sample ID: 400-194420-1

Date Collected: 10/13/20 00:00

Matrix: Water

Date Received: 10/14/20 09:26

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/22/20 16:18	1
Acrolein	ND		20	10	ug/L			10/22/20 16:18	1
Acrylonitrile	ND		10	2.8	ug/L			10/22/20 16:18	1
Benzene	ND		1.0	0.38	ug/L			10/22/20 16:18	1
Bromobenzene	ND		1.0	0.54	ug/L			10/22/20 16:18	1
Bromoform	ND		1.0	0.52	ug/L			10/22/20 16:18	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Bromoform	ND		5.0	0.71	ug/L			10/22/20 16:18	1
Bromomethane	ND		1.0	0.98	ug/L			10/22/20 16:18	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/22/20 16:18	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Chloroethane	ND		1.0	0.76	ug/L			10/22/20 16:18	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/22/20 16:18	1
Chloroform	ND		1.0	0.60	ug/L			10/22/20 16:18	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/22/20 16:18	1
Chloromethane	ND		1.0	0.83	ug/L			10/22/20 16:18	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 16:18	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 16:18	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/22/20 16:18	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/22/20 16:18	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/22/20 16:18	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/22/20 16:18	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 16:18	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 16:18	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 16:18	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 16:18	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 16:18	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 16:18	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/22/20 16:18	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/22/20 16:18	1
2-Hexanone	ND		25	3.1	ug/L			10/22/20 16:18	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/22/20 16:18	1
Methylene bromide	ND		5.0	0.59	ug/L			10/22/20 16:18	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/22/20 16:18	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/22/20 16:18	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/22/20 16:18	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/22/20 16:18	1
Naphthalene	ND		1.0	1.0	ug/L			10/22/20 16:18	1
n-Butylbenzene	ND	*	1.0	0.76	ug/L			10/22/20 16:18	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/22/20 16:18	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/22/20 16:18	1
o-Xylene	ND		5.0	0.60	ug/L			10/22/20 16:18	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/22/20 16:18	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/22/20 16:18	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194420-1

Client Sample ID: TB-ROX-101320-8260-BP
Date Collected: 10/13/20 00:00
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194420-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/22/20 16:18	1
Styrene	ND		1.0	1.0	ug/L			10/22/20 16:18	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/22/20 16:18	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/22/20 16:18	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/22/20 16:18	1
Toluene	ND		1.0	0.41	ug/L			10/22/20 16:18	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 16:18	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 16:18	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/22/20 16:18	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/22/20 16:18	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/22/20 16:18	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/22/20 16:18	1
Trichloroethene	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/22/20 16:18	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/22/20 16:18	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/22/20 16:18	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/22/20 16:18	1
Vinyl acetate	ND		25	2.0	ug/L			10/22/20 16:18	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/22/20 16:18	1
Xylenes, Total	ND		10	1.6	ug/L			10/22/20 16:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		78 - 118					10/22/20 16:18	1
Dibromofluoromethane	96		81 - 121					10/22/20 16:18	1
Toluene-d8 (Surr)	103		80 - 120					10/22/20 16:18	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194420-1

Client Sample ID: TB-ROX-101320-8011-BP

Lab Sample ID: 400-194420-2

Date Collected: 10/13/20 00:00

Matrix: Water

Date Received: 10/14/20 09:26

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/19/20 09:37	10/19/20 23:55	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/19/20 09:37	10/19/20 23:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		51 - 149				10/19/20 09:37	10/19/20 23:55	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194420-1

Client Sample ID: MW23-ROX-101320
Date Collected: 10/13/20 12:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194420-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/22/20 16:41	1
Acrolein	ND		20	10	ug/L			10/22/20 16:41	1
Acrylonitrile	ND		10	2.8	ug/L			10/22/20 16:41	1
Benzene	ND		1.0	0.38	ug/L			10/22/20 16:41	1
Bromobenzene	ND		1.0	0.54	ug/L			10/22/20 16:41	1
Bromoform	ND		1.0	0.52	ug/L			10/22/20 16:41	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/22/20 16:41	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/22/20 16:41	1
Bromoform	ND		5.0	0.71	ug/L			10/22/20 16:41	1
Bromomethane	ND		1.0	0.98	ug/L			10/22/20 16:41	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/22/20 16:41	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/22/20 16:41	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/22/20 16:41	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/22/20 16:41	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/22/20 16:41	1
Chloroethane	ND		1.0	0.76	ug/L			10/22/20 16:41	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/22/20 16:41	1
Chloroform	ND		1.0	0.60	ug/L			10/22/20 16:41	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/22/20 16:41	1
Chloromethane	ND		1.0	0.83	ug/L			10/22/20 16:41	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 16:41	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 16:41	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/22/20 16:41	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/22/20 16:41	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/22/20 16:41	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/22/20 16:41	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 16:41	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 16:41	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 16:41	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 16:41	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 16:41	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 16:41	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/22/20 16:41	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/22/20 16:41	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/22/20 16:41	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/22/20 16:41	1
2-Hexanone	ND		25	3.1	ug/L			10/22/20 16:41	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/22/20 16:41	1
Methylene bromide	ND		5.0	0.59	ug/L			10/22/20 16:41	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/22/20 16:41	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/22/20 16:41	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/22/20 16:41	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/22/20 16:41	1
Naphthalene	ND		1.0	1.0	ug/L			10/22/20 16:41	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/22/20 16:41	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/22/20 16:41	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/22/20 16:41	1
o-Xylene	ND		5.0	0.60	ug/L			10/22/20 16:41	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/22/20 16:41	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/22/20 16:41	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194420-1

Client Sample ID: MW23-ROX-101320
Date Collected: 10/13/20 12:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194420-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/22/20 16:41	1
Styrene	ND		1.0	1.0	ug/L			10/22/20 16:41	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/22/20 16:41	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/22/20 16:41	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/22/20 16:41	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/22/20 16:41	1
Toluene	ND		1.0	0.41	ug/L			10/22/20 16:41	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/22/20 16:41	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 16:41	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/22/20 16:41	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/22/20 16:41	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/22/20 16:41	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/22/20 16:41	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/22/20 16:41	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/22/20 16:41	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/22/20 16:41	1
1,2,4-Trimethylbenzene	1.2		1.0	0.82	ug/L			10/22/20 16:41	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/22/20 16:41	1
Vinyl acetate	ND		25	2.0	ug/L			10/22/20 16:41	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/22/20 16:41	1
Xylenes, Total	ND		10	1.6	ug/L			10/22/20 16:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78-118					10/22/20 16:41	1
Dibromofluoromethane	99		81-121					10/22/20 16:41	1
Toluene-d8 (Surr)	106		80-120					10/22/20 16:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.031	ug/L			10/19/20 12:36	10/22/20 23:52	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/19/20 12:36	10/22/20 23:52	1
Anthracene	ND		0.19	0.031	ug/L			10/19/20 12:36	10/22/20 23:52	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/19/20 12:36	10/22/20 23:52	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/19/20 12:36	10/22/20 23:52	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/19/20 12:36	10/22/20 23:52	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/19/20 12:36	10/22/20 23:52	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L			10/19/20 12:36	10/22/20 23:52	1
Chrysene	ND		0.19	0.071	ug/L			10/19/20 12:36	10/22/20 23:52	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L			10/19/20 12:36	10/22/20 23:52	1
Fluoranthene	ND		0.19	0.065	ug/L			10/19/20 12:36	10/22/20 23:52	1
Fluorene	ND		0.19	0.10	ug/L			10/19/20 12:36	10/22/20 23:52	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/19/20 12:36	10/22/20 23:52	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L			10/19/20 12:36	10/22/20 23:52	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L			10/19/20 12:36	10/22/20 23:52	1
Phenanthrene	ND		0.19	0.034	ug/L			10/19/20 12:36	10/22/20 23:52	1
Pyrene	ND		0.19	0.038	ug/L			10/19/20 12:36	10/22/20 23:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	56		15-122					10/19/20 12:36	10/22/20 23:52	1
Nitrobenzene-d5	65		19-130					10/19/20 12:36	10/22/20 23:52	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194420-1

Client Sample ID: MW23-ROX-101320
Date Collected: 10/13/20 12:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194420-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	77		33 - 138		10/19/20 12:36	10/22/20 23:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L				1
Benzenethiol	ND **1	WS	9.5	1.6	ug/L	10/19/20 12:36	10/26/20 18:48		1
Benzoic acid	ND		29	7.0	ug/L	10/19/20 12:36	10/26/20 18:48		1
Benzyl alcohol	ND		9.5	1.9	ug/L	10/19/20 12:36	10/26/20 18:48		1
Bis(2-chloroethyl)ether	ND		9.5	0.15	ug/L	10/19/20 12:36	10/26/20 18:48		1
bis (2-chloroisopropyl) ether	ND		9.5	2.6	ug/L	10/19/20 12:36	10/26/20 18:48		1
Bis(2-ethylhexyl) phthalate	ND		9.5	0.15	ug/L	10/19/20 12:36	10/26/20 18:48		1
4-Bromophenyl phenyl ether	ND		9.5	4.8	ug/L	10/19/20 12:36	10/26/20 18:48		1
Butyl benzyl phthalate	ND		9.5	0.19	ug/L	10/19/20 12:36	10/26/20 18:48		1
4-Chloroaniline	ND		9.5	0.18	ug/L	10/19/20 12:36	10/26/20 18:48		1
4-Chloro-3-methylphenol	ND		9.5	3.2	ug/L	10/19/20 12:36	10/26/20 18:48		1
2-Chloronaphthalene	ND		9.5	3.6	ug/L	10/19/20 12:36	10/26/20 18:48		1
2-Chlorophenol	ND		9.5	0.13	ug/L	10/19/20 12:36	10/26/20 18:48		1
4-Chlorophenyl phenyl ether	ND		9.5	2.1	ug/L	10/19/20 12:36	10/26/20 18:48		1
Dibenz[a,h]acridine	ND		9.5	1.9	ug/L	10/19/20 12:36	10/26/20 18:48		1
Dibenzofuran	ND		9.5	0.95	ug/L	10/19/20 12:36	10/26/20 18:48		1
3,3'-Dichlorobenzidine	ND		9.5	0.16	ug/L	10/19/20 12:36	10/26/20 18:48		1
2,4-Dichlorophenol	ND		9.5	2.5	ug/L	10/19/20 12:36	10/26/20 18:48		1
Diethyl phthalate	ND		9.5	2.9	ug/L	10/19/20 12:36	10/26/20 18:48		1
2,4-Dimethylphenol	ND		9.5	0.23	ug/L	10/19/20 12:36	10/26/20 18:48		1
Dimethyl phthalate	ND		9.5	3.3	ug/L	10/19/20 12:36	10/26/20 18:48		1
Di-n-butyl phthalate	ND		9.5	0.16	ug/L	10/19/20 12:36	10/26/20 18:48		1
4,6-Dinitro-ortho-cresol	ND		9.5	2.6	ug/L	10/19/20 12:36	10/26/20 18:48		1
2,4-Dinitrophenol	ND		9.5	1.5	ug/L	10/19/20 12:36	10/26/20 18:48		1
2,4-Dinitrotoluene	ND		29	3.2	ug/L	10/19/20 12:36	10/26/20 18:48		1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L	10/19/20 12:36	10/26/20 18:48		1
Di-n-octyl phthalate	ND		9.5	1.8	ug/L	10/19/20 12:36	10/26/20 18:48		1
1,4-Dioxane	ND	WS	9.5	0.16	ug/L	10/19/20 12:36	10/26/20 18:48		1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L	10/19/20 12:36	10/26/20 18:48		1
Hexachlorobenzene	ND		9.5	0.95	ug/L	10/19/20 12:36	10/26/20 18:48		1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L	10/19/20 12:36	10/26/20 18:48		1
Hexachloroethane	ND		9.5	4.0	ug/L	10/19/20 12:36	10/26/20 18:48		1
Indene	ND		9.5	0.95	ug/L	10/19/20 12:36	10/26/20 18:48		1
Isophorone	ND		9.5	0.13	ug/L	10/19/20 12:36	10/26/20 18:48		1
2-Methylphenol	ND		9.5	1.7	ug/L	10/19/20 12:36	10/26/20 18:48		1
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/19/20 12:36	10/26/20 18:48		1
2-Nitroaniline	ND		9.5	1.7	ug/L	10/19/20 12:36	10/26/20 18:48		1
3-Nitroaniline	ND		9.5	2.1	ug/L	10/19/20 12:36	10/26/20 18:48		1
4-Nitroaniline	ND		9.5	1.7	ug/L	10/19/20 12:36	10/26/20 18:48		1
Nitrobenzene	ND		9.5	1.4	ug/L	10/19/20 12:36	10/26/20 18:48		1
2-Nitrophenol	ND		9.5	0.12	ug/L	10/19/20 12:36	10/26/20 18:48		1
4-Nitrophenol	ND		9.5	5.0	ug/L	10/19/20 12:36	10/26/20 18:48		1
N-Nitrosodimethylamine	ND		9.5	2.0	ug/L	10/19/20 12:36	10/26/20 18:48		1
			9.5	3.3	ug/L	10/19/20 12:36	10/26/20 18:48		1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194420-1

Client Sample ID: MW23-ROX-101320
Date Collected: 10/13/20 12:50
Date Received: 10/14/20 09:26

Lab Sample ID: 400-194420-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/19/20 12:36	10/26/20 18:48	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/19/20 12:36	10/26/20 18:48	1
Pentachlorophenol	ND		19	1.3	ug/L		10/19/20 12:36	10/26/20 18:48	1
Phenol	ND		9.5	2.5	ug/L		10/19/20 12:36	10/26/20 18:48	1
Pyridine	ND		9.5	3.1	ug/L		10/19/20 12:36	10/26/20 18:48	1
Quinoline	ND		9.5	4.3	ug/L		10/19/20 12:36	10/26/20 18:48	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/19/20 12:36	10/26/20 18:48	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/19/20 12:36	10/26/20 18:48	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		57		46 - 124			10/19/20 12:36	10/26/20 18:48	1
2-Fluorophenol		14		13 - 113			10/19/20 12:36	10/26/20 18:48	1
Nitrobenzene-d5		55		36 - 126			10/19/20 12:36	10/26/20 18:48	1
Phenol-d5		39		17 - 127			10/19/20 12:36	10/26/20 18:48	1
Terphenyl-d14		81		44 - 149			10/19/20 12:36	10/26/20 18:48	1
2,4,6-Tribromophenol		87		26 - 150			10/19/20 12:36	10/26/20 18:48	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/19/20 09:37	10/19/20 23:35	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/19/20 09:37	10/19/20 23:35	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene		118		51 - 149			10/19/20 09:37	10/19/20 23:35	1

Definitions/Glossary

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

Job ID: 400-194420-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	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: 400-194420-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194420-1	TB-ROX-101320-8260-BP	96	96	103
400-194420-3	MW23-ROX-101320	97	99	106
LCS 400-507729/1003	Lab Control Sample	97	97	105
MB 400-507729/5	Method Blank	93	93	105

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194420-3	MW23-ROX-101320	57	14	55	39	81	87
LCS 400-507284/2-A	Lab Control Sample	59	44	66	60	77	74
LCS 400-507284/6-A	Lab Control Sample	44 X	22	46	32	63	61
LCSD 400-507284/3-A	Lab Control Sample Dup	62	53	71	67	76	75
LCSD 400-507284/7-A	Lab Control Sample Dup	55	34	55	43	83	71
MB 400-507284/1-A	Method Blank	61	40	64	56	79	67

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194420-3	MW23-ROX-101320	56	65	77
LCS 400-507284/2-A	Lab Control Sample	72	92	117
LCSD 400-507284/3-A	Lab Control Sample Dup	82	96	104
MB 400-507284/1-A	Method Blank	57	59	78

Surrogate Legend

FBP = 2-Fluorobiphenyl

NBZ = Nitrobenzene-d5

TPHL = Terphenyl-d14

Eurofins TestAmerica, Pensacola

Surrogate Summary

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

Job ID: 400-194420-1

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)
400-194420-2	TB-ROX-101320-8011-BP	108
400-194420-3	MW23-ROX-101320	118
LCS 400-507275/2-A	Lab Control Sample	86
LCSD 400-507275/3-A	Lab Control Sample Dup	91
MB 400-507275/1-A	Method Blank	93

Surrogate Legend

BFB = 4-Bromofluorobenzene

8

Method Summary

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

Job ID: 400-194420-1

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

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

9

Lab Chronicle

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

Job ID: 400-194420-1

Client Sample ID: TB-ROX-101320-8260-BP

Lab Sample ID: 400-194420-1

Date Collected: 10/13/20 00:00

Matrix: Water

Date Received: 10/14/20 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	507729	10/22/20 16:18	WPD	TAL PEN

Client Sample ID: TB-ROX-101320-8011-BP

Lab Sample ID: 400-194420-2

Date Collected: 10/13/20 00:00

Matrix: Water

Date Received: 10/14/20 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 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 23:55	DHJ	TAL PEN

Client Sample ID: MW23-ROX-101320

Lab Sample ID: 400-194420-3

Date Collected: 10/13/20 12:50

Matrix: Water

Date Received: 10/14/20 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	507729	10/22/20 16:41	WPD	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	507284	10/19/20 12:36	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 18:48	VC1	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	507284	10/19/20 12:36	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507831	10/22/20 23:52	PP1	TAL PEN
Total/NA	Prep	8011			35 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 23:35	DHJ	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-507275/1-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:16	DHJ	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-507284/1-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			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508103	10/26/20 10:21	VC1	TAL PEN
Total/NA	Prep	3520C			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			507831	10/22/20 16:14	PP1	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194420-1

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

Lab Sample ID: MB 400-507729/5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst WPD	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	507729	10/22/20 08:35		TAL PEN

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

Lab Sample ID: LCS 400-507275/2-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:36	DHJ	TAL PEN

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

Lab Sample ID: LCS 400-507284/2-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			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508103	10/26/20 10:41	VC1	TAL PEN
Total/NA	Prep	3520C			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507831	10/22/20 16:31	PP1	TAL PEN

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

Lab Sample ID: LCS 400-507284/6-A
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1000 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D		1	0.4 mL	1.0 mL	508112	10/26/20 15:45	VC1	TAL PEN

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

Lab Sample ID: LCS 400-507729/1003
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	507729	10/22/20 07:49	WPD	TAL PEN

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

Lab Sample ID: LCSD 400-507275/3-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:56	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194420-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-507284/3-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			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508103	10/26/20 11:02	VC1	TAL PEN
Total/NA	Prep	3520C			1000 mL	1 mL	507284	10/19/20 10:28	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			507831	10/22/20 16:49	PP1	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-507284/7-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			1000 mL	1 mL	507284	10/19/20 10:29	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 16:11	VC1	TAL PEN

Laboratory References:

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

QC Association Summary

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

Job ID: 400-194420-1

GC/MS VOA

Analysis Batch: 507729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194420-1	TB-ROX-101320-8260-BP	Total/NA	Water	8260B	
400-194420-3	MW23-ROX-101320	Total/NA	Water	8260B	
MB 400-507729/5	Method Blank	Total/NA	Water	8260B	
LCS 400-507729/1003	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 507284

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194420-3	MW23-ROX-101320	Total/NA	Water	3520C	
MB 400-507284/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-507284/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-507284/6-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-507284/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-507284/7-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 507831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194420-3	MW23-ROX-101320	Total/NA	Water	8270D LL	507284
MB 400-507284/1-A	Method Blank	Total/NA	Water	8270D LL	507284
LCS 400-507284/2-A	Lab Control Sample	Total/NA	Water	8270D LL	507284
LCSD 400-507284/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	507284

Analysis Batch: 508103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-507284/1-A	Method Blank	Total/NA	Water	8270D	507284
LCS 400-507284/2-A	Lab Control Sample	Total/NA	Water	8270D	507284
LCSD 400-507284/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	507284

Analysis Batch: 508112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194420-3	MW23-ROX-101320	Total/NA	Water	8270D	507284
LCS 400-507284/6-A	Lab Control Sample	Total/NA	Water	8270D	507284
LCSD 400-507284/7-A	Lab Control Sample Dup	Total/NA	Water	8270D	507284

GC Semi VOA

Prep Batch: 507275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194420-2	TB-ROX-101320-8011-BP	Total/NA	Water	8011	
400-194420-3	MW23-ROX-101320	Total/NA	Water	8011	
MB 400-507275/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-507275/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-507275/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 507289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194420-2	TB-ROX-101320-8011-BP	Total/NA	Water	8011	507275
400-194420-3	MW23-ROX-101320	Total/NA	Water	8011	507275
MB 400-507275/1-A	Method Blank	Total/NA	Water	8011	507275
LCS 400-507275/2-A	Lab Control Sample	Total/NA	Water	8011	507275
LCSD 400-507275/3-A	Lab Control Sample Dup	Total/NA	Water	8011	507275

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

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

Lab Sample ID: MB 400-507729/5

Matrix: Water

Analysis Batch: 507729

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			10/22/20 08:35	1
Acrolein	ND		20	10	ug/L			10/22/20 08:35	1
Acrylonitrile	ND		10	2.8	ug/L			10/22/20 08:35	1
Benzene	ND		1.0	0.38	ug/L			10/22/20 08:35	1
Bromobenzene	ND		1.0	0.54	ug/L			10/22/20 08:35	1
Bromoform	ND		1.0	0.52	ug/L			10/22/20 08:35	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Bromoform	ND		5.0	0.71	ug/L			10/22/20 08:35	1
Bromomethane	ND		1.0	0.98	ug/L			10/22/20 08:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/22/20 08:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Chloroethane	ND		1.0	0.76	ug/L			10/22/20 08:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/22/20 08:35	1
Chloroform	ND		1.0	0.60	ug/L			10/22/20 08:35	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/22/20 08:35	1
Chloromethane	ND		1.0	0.83	ug/L			10/22/20 08:35	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 08:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/22/20 08:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/22/20 08:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/22/20 08:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,1-Dichloroelthene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/22/20 08:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/22/20 08:35	1
2-Hexanone	ND		25	3.1	ug/L			10/22/20 08:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/22/20 08:35	1
Methylene bromide	ND		5.0	0.59	ug/L			10/22/20 08:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/22/20 08:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/22/20 08:35	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/22/20 08:35	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/22/20 08:35	1
Naphthalene	ND		1.0	1.0	ug/L			10/22/20 08:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/22/20 08:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/22/20 08:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/22/20 08:35	1
o-Xylene	ND		5.0	0.60	ug/L			10/22/20 08:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/22/20 08:35	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

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

Lab Sample ID: MB 400-507729/5

Matrix: Water

Analysis Batch: 507729

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

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/22/20 08:35	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/22/20 08:35	1
Styrene	ND		1.0	1.0	ug/L			10/22/20 08:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/22/20 08:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/22/20 08:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/22/20 08:35	1
Toluene	ND		1.0	0.41	ug/L			10/22/20 08:35	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/22/20 08:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/22/20 08:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/22/20 08:35	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/22/20 08:35	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/22/20 08:35	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/22/20 08:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/22/20 08:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/22/20 08:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/22/20 08:35	1
Vinyl acetate	ND		25	2.0	ug/L			10/22/20 08:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/22/20 08:35	1
Xylenes, Total	ND		10	1.6	ug/L			10/22/20 08:35	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	93		78 - 118			1
Dibromofluoromethane	93		81 - 121			1
Toluene-d8 (Surf)	105		80 - 120			1

Lab Sample ID: LCS 400-507729/1003

Matrix: Water

Analysis Batch: 507729

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

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Acetone	200	249		ug/L		125	43 - 160
Acrolein	500	524		ug/L		105	38 - 160
Acrylonitrile	500	496		ug/L		99	64 - 142
Benzene	50.0	52.1		ug/L		104	70 - 130
Bromobenzene	50.0	48.1		ug/L		96	70 - 132
Bromoform	50.0	48.6		ug/L		97	70 - 130
Bromochloromethane	50.0	51.1		ug/L		102	67 - 133
Bromodichloromethane	50.0	46.4		ug/L		93	57 - 140
Bromoform	50.0	70.6		ug/L		141	10 - 160
2-Butanone (MEK)	200	260		ug/L		130	61 - 145
Carbon disulfide	50.0	45.8		ug/L		92	61 - 137
Carbon tetrachloride	50.0	44.2		ug/L		88	61 - 137
Chlorobenzene	50.0	53.3		ug/L		107	70 - 130
Dibromochloromethane	50.0	47.1		ug/L		94	67 - 135
Chloroethane	50.0	56.1		ug/L		112	55 - 141

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

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

Lab Sample ID: LCS 400-507729/1003

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

Matrix: Water

Analysis Batch: 507729

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
							Limits
2-Chloroethyl vinyl ether	50.0	29.2		ug/L		58	10 - 160
Chloroform	50.0	50.1		ug/L		100	69 - 130
1-Chlorohexane	50.0	56.5		ug/L		113	69 - 130
Chloromethane	50.0	44.6		ug/L		89	58 - 137
cis-1,2-Dichloroethane	50.0	52.7		ug/L		105	68 - 130
cis-1,3-Dichloropropene	50.0	57.7		ug/L		115	69 - 132
1,2-Dichlorobenzene	50.0	49.8		ug/L		100	67 - 130
1,3-Dichlorobenzene	50.0	51.2		ug/L		102	70 - 130
1,4-Dichlorobenzene	50.0	51.5		ug/L		103	70 - 130
Dichlorodifluoromethane	50.0	38.2		ug/L		78	41 - 146
1,1-Dichloroethane	50.0	52.1		ug/L		104	70 - 130
1,2-Dichloroethane	50.0	48.2		ug/L		96	69 - 130
1,1-Dichloroethene	50.0	46.0		ug/L		92	63 - 134
1,2-Dichloropropane	50.0	51.8		ug/L		104	70 - 130
1,3-Dichloropropane	50.0	58.6		ug/L		117	70 - 130
2,2-Dichloropropane	50.0	48.0		ug/L		98	52 - 135
1,1-Dichloropropene	50.0	52.4		ug/L		105	70 - 130
Ethylbenzene	50.0	54.3		ug/L		109	70 - 130
Ethyl methacrylate	50.0	60.9		ug/L		122	68 - 130
Hexachlorobutadiene	50.0	46.3		ug/L		93	53 - 140
2-Hexanone	200	257		ug/L		128	65 - 137
Isopropylbenzene	50.0	55.5		ug/L		111	70 - 130
Methylene bromide	50.0	49.8		ug/L		100	70 - 130
Methylene Chloride	50.0	50.5		ug/L		101	66 - 135
4-Methyl-2-pentanone (MIBK)	200	241		ug/L		120	69 - 138
Methyl tert-butyl ether	50.0	56.6		ug/L		113	66 - 130
m-Xylene & p-Xylene	50.0	52.7		ug/L		105	70 - 130
Naphthalene	50.0	51.0		ug/L		102	47 - 149
n-Butylbenzene	50.0	66.0 *		ug/L		132	67 - 130
N-Propylbenzene	50.0	54.4		ug/L		109	70 - 130
o-Chlorotoluene	50.0	54.4		ug/L		109	70 - 130
o-Xylene	50.0	53.1		ug/L		106	70 - 130
p-Chlorotoluene	50.0	54.1		ug/L		108	70 - 130
p-Isopropyltoluene	50.0	59.3		ug/L		119	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	52.7		ug/L		105	64 - 139
1,1,1,2-Tetrachloroethane	50.0	51.7		ug/L		103	67 - 131
1,1,2,2-Tetrachloroethane	50.0	56.8		ug/L		114	70 - 131
Tetrachloroethene	50.0	49.1		ug/L		98	65 - 130
Toluene	50.0	52.9		ug/L		106	70 - 130
trans-1,2-Dichloroethene	50.0	50.0		ug/L		100	70 - 130
trans-1,3-Dichloropropene	50.0	57.2		ug/L		114	63 - 130
1,2,3-Trichlorobenzene	50.0	45.6		ug/L		91	60 - 138
1,2,4-Trichlorobenzene	50.0	46.6		ug/L		93	60 - 140
1,1,1-Trichloroethane	50.0	46.2		ug/L		92	68 - 130
1,1,2-Trichloroethane	50.0	54.4		ug/L		109	70 - 130
Trichloroethene	50.0	48.4		ug/L		97	70 - 130
Trichlorofluoromethane	50.0	48.6		ug/L		97	65 - 138

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

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

Lab Sample ID: LCS 400-507729/1003

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

Matrix: Water
Analysis Batch: 507729

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
1,2,3-Trichloropropane	50.0	49.8		ug/L		100	70 - 130
1,2,4-Trimethylbenzene	50.0	51.6		ug/L		103	70 - 130
1,3,5-Trimethylbenzene	50.0	51.4		ug/L		103	69 - 130
Vinyl acetate	100	125		ug/L		125	26 - 160
Vinyl chloride	50.0	49.4		ug/L		99	59 - 136
Xylenes, Total	100	106		ug/L		106	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	97		78 - 118
Dibromofluoromethane	97		81 - 121
Toluene-d8 (Surf)	105		80 - 120

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

Lab Sample ID: MB 400-507284/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508103

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aniline	ND		2.5	0.95	ug/L		10/19/20 10:28	10/26/20 10:21	1
Benzenethiol	ND		2.5	0.43	ug/L		10/19/20 10:28	10/26/20 10:21	1
Benzoic acid	ND		7.5	1.8	ug/L		10/19/20 10:28	10/26/20 10:21	1
Benzyl alcohol	ND		2.5	0.50	ug/L		10/19/20 10:28	10/26/20 10:21	1
Bis(2-chloroethoxy)methane	ND		2.5	0.040	ug/L		10/19/20 10:28	10/26/20 10:21	1
Bis(2-chloroethyl)ether	ND		2.5	0.68	ug/L		10/19/20 10:28	10/26/20 10:21	1
bis (2-chloroisopropyl) ether	ND		2.5	0.040	ug/L		10/19/20 10:28	10/26/20 10:21	1
Bis(2-ethylhexyl) phthalate	2.53		2.5	1.3	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Bromophenyl phenyl ether	ND		2.5	0.050	ug/L		10/19/20 10:28	10/26/20 10:21	1
Bulyl benzyl phthalate	ND		2.5	0.048	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Chloroaniline	ND		2.5	0.85	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Chloro-3-methylphenol	ND		2.5	0.95	ug/L		10/19/20 10:28	10/26/20 10:21	1
2-Chloronaphthalene	ND		2.5	0.035	ug/L		10/19/20 10:28	10/26/20 10:21	1
2-Chlorophenol	ND		2.5	0.55	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Chlorophenyl phenyl ether	ND		2.5	0.50	ug/L		10/19/20 10:28	10/26/20 10:21	1
Dibenzo[a,h]acridine	ND		2.5	0.25	ug/L		10/19/20 10:28	10/26/20 10:21	1
Dibenzofuran	ND		2.5	0.043	ug/L		10/19/20 10:28	10/26/20 10:21	1
3,3'-Dichlorobenzidine	ND		2.5	0.65	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4-Dichlorophenol	ND		2.5	0.75	ug/L		10/19/20 10:28	10/26/20 10:21	1
Diethyl phthalate	ND		2.5	0.060	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4-Dimethylphenol	ND		2.5	0.88	ug/L		10/19/20 10:28	10/26/20 10:21	1
Dimethyl phthalate	ND		2.5	0.043	ug/L		10/19/20 10:28	10/26/20 10:21	1
Di-n-butyl phthalate	ND		2.5	0.68	ug/L		10/19/20 10:28	10/26/20 10:21	1
4,6-Dinitro-ortho-cresol	ND		2.5	0.40	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4-Dinitrophenol	ND		7.5	0.85	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4-Dinitrotoluene	ND		2.5	0.48	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,6-Dinitrotoluene	ND		2.5	0.48	ug/L		10/19/20 10:28	10/26/20 10:21	1
Di-n-octyl phthalate	ND		2.5	0.043	ug/L		10/19/20 10:28	10/26/20 10:21	1
1,4-Dioxane	ND		2.5	0.25	ug/L		10/19/20 10:28	10/26/20 10:21	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

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

Lab Sample ID: MB 400-507284/1-A

Matrix: Water

Analysis Batch: 508103

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507284

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND				2.5	0.25	ug/L		10/19/20 10:28	10/26/20 10:21	1
Hexachlorobenzene	ND				2.5	0.043	ug/L		10/19/20 10:28	10/26/20 10:21	1
Hexachlorocyclopentadiene	ND				5.0	0.65	ug/L		10/19/20 10:28	10/26/20 10:21	1
Hexachloroethane	ND				2.5	1.1	ug/L		10/19/20 10:28	10/26/20 10:21	1
Indene	ND				2.5	0.25	ug/L		10/19/20 10:28	10/26/20 10:21	1
Isophorone	ND				2.5	0.035	ug/L		10/19/20 10:28	10/26/20 10:21	1
2-Methylphenol	ND				2.5	0.45	ug/L		10/19/20 10:28	10/26/20 10:21	1
3 & 4 Methylphenol	ND				5.0	0.098	ug/L		10/19/20 10:28	10/26/20 10:21	1
2-Nitroaniline	ND				2.5	0.55	ug/L		10/19/20 10:28	10/26/20 10:21	1
3-Nitroaniline	ND				2.5	0.45	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Nitroaniline	ND				2.5	0.38	ug/L		10/19/20 10:28	10/26/20 10:21	1
Nitrobenzene	ND				2.5	0.033	ug/L		10/19/20 10:28	10/26/20 10:21	1
2-Nitrophenol	ND				2.5	1.3	ug/L		10/19/20 10:28	10/26/20 10:21	1
4-Nitrophenol	ND				2.5	0.53	ug/L		10/19/20 10:28	10/26/20 10:21	1
N-Nitrosodimethylamine	ND				2.5	0.88	ug/L		10/19/20 10:28	10/26/20 10:21	1
N-Nitrosodi-n-propylamine	ND				2.5	0.83	ug/L		10/19/20 10:28	10/26/20 10:21	1
N-Nitrosodiphenylamine	ND				2.5	0.045	ug/L		10/19/20 10:28	10/26/20 10:21	1
Pentachlorophenol	ND				5.0	0.35	ug/L		10/19/20 10:28	10/26/20 10:21	1
Phenol	ND				2.5	0.65	ug/L		10/19/20 10:28	10/26/20 10:21	1
Pyridine	ND				2.5	0.80	ug/L		10/19/20 10:28	10/26/20 10:21	1
Quinoline	ND				2.5	1.1	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4,5-Trichlorophenol	ND				2.5	0.93	ug/L		10/19/20 10:28	10/26/20 10:21	1
2,4,6-Trichlorophenol	ND				2.5	0.88	ug/L		10/19/20 10:28	10/26/20 10:21	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
2-Fluorobiphenyl	61		46 - 124			10/19/20 10:28	10/26/20 10:21	1
2-Fluorophenol	40		13 - 113			10/19/20 10:28	10/26/20 10:21	1
Nitrobenzene-d5	64		36 - 126			10/19/20 10:28	10/26/20 10:21	1
Phenol-d5	56		17 - 127			10/19/20 10:28	10/26/20 10:21	1
Terphenyl-d14	79		44 - 149			10/19/20 10:28	10/26/20 10:21	1
2,4,6-Tribromophenol	67		26 - 150			10/19/20 10:28	10/26/20 10:21	1

Lab Sample ID: LCS 400-507284/2-A

Matrix: Water

Analysis Batch: 508103

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507284

Analyte	Spike	LCS			Unit	D	%Rec	Limits
	Added	Result	Qualifier	Unit				
Aniline	30.0	21.2		ug/L	71		21 - 120	
Benzoic acid	116	61.8		ug/L	53		10 - 144	
Benzyl alcohol	30.0	21.8		ug/L	73		28 - 120	
Bis(2-chloroethoxy)methane	30.0	17.7		ug/L	59		47 - 120	
Bis(2-chloroethyl)ether	30.0	17.2		ug/L	57		44 - 120	
bis (2-chloroisopropyl) ether	30.0	17.5		ug/L	58		33 - 121	
Bis(2-ethylhexyl) phthalate	30.0	23.4		ug/L	78		52 - 147	
4-Bromophenyl phenyl ether	30.0	22.6		ug/L	75		54 - 122	
Butyl benzyl phthalate	30.0	24.9		ug/L	83		54 - 133	
4-Chloroaniline	30.0	19.6		ug/L	65		26 - 120	
4-Chloro-3-methylphenol	30.0	22.5		ug/L	75		48 - 131	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

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

Lab Sample ID: LCS 400-507284/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508103

Prep Batch: 507284

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
2-Chloronaphthalene	30.0	19.5		ug/L	65	52 - 121	
2-Chlorophenol	30.0	18.4		ug/L	61	40 - 120	
4-Chlorophenyl phenyl ether	30.0	21.0		ug/L	70	56 - 125	
Dibenz[a,h]acridine	29.9	22.7		ug/L	76	31 - 150	
Dibenzofuran	30.0	19.3		ug/L	64	56 - 122	
3,3'-Dichlorobenzidine	60.0	67.9		ug/L	113	36 - 132	
2,4-Dichlorophenol	30.0	20.5		ug/L	68	49 - 120	
Diethyl phthalate	30.0	22.3		ug/L	74	50 - 137	
2,4-Dimethylphenol	30.0	16.9		ug/L	56	48 - 120	
Dimethyl phthalate	30.0	26.2		ug/L	87	57 - 124	
Di-n-butyl phthalate	30.0	22.8		ug/L	76	58 - 126	
4,6-Dinitro-ortho-cresol	60.0	58.5		ug/L	97	23 - 148	
2,4-Dinitrophenol	60.0	58.3		ug/L	97	10 - 150	
2,4-Dinitrotoluene	30.0	20.2		ug/L	67	54 - 142	
2,6-Dinitrotoluene	30.0	20.9		ug/L	70	55 - 130	
Di-n-octyl phthalate	30.0	25.7		ug/L	86	57 - 138	
1,4-Dioxane	30.0	10.7		ug/L	36	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	30.0	20.8		ug/L	69	45 - 124	
Hexachlorobenzene	30.0	24.2		ug/L	81	52 - 129	
Hexachlorocyclopentadiene	30.0	10.8		ug/L	36	10 - 134	
Hexachloroethane	30.0	20.2		ug/L	67	20 - 120	
Indene	30.0	20.8		ug/L	69	49 - 120	
Isophorone	30.0	19.7		ug/L	66	48 - 120	
2-Methylphenol	30.0	20.8		ug/L	69	46 - 124	
3 & 4 Methylphenol	30.0	19.7		ug/L	66	45 - 120	
2-Nitroaniline	30.0	20.0		ug/L	67	51 - 145	
3-Nitroaniline	30.0	23.3		ug/L	78	37 - 127	
4-Nitroaniline	30.0	25.3		ug/L	84	36 - 137	
Nitrobenzene	30.0	17.7		ug/L	59	45 - 120	
2-Nitrophenol	30.0	17.2		ug/L	57	40 - 124	
4-Nitrophenol	60.0	44.3		ug/L	74	23 - 146	
N-Nitrosodimethylamine	30.0	20.4		ug/L	68	29 - 137	
N-Nitrosodi-n-propylamine	30.0	21.6		ug/L	72	45 - 120	
N-Nitrosodiphenylamine	29.8	21.7		ug/L	73	54 - 120	
Pentachlorophenol	60.0	50.2		ug/L	84	31 - 130	
Phenol	30.0	20.6		ug/L	69	11 - 120	
Pyridine	60.0	23.0		ug/L	38	16 - 120	
Quinoline	29.9	20.3		ug/L	68	49 - 130	
2,4,5-Trichlorophenol	30.0	21.0		ug/L	70	51 - 136	
2,4,6-Trichlorophenol	30.0	21.3		ug/L	71	50 - 127	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	59		46 - 124
2-Fluorophenol	44		13 - 113
Nitrobenzene-d5	66		36 - 126
Phenol-d5	60		17 - 127
Terphenyl-d14	77		44 - 149

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

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

Lab Sample ID: LCS 400-507284/2-A
Matrix: Water
Analysis Batch: 508103

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507284

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol			74		26 - 150

Lab Sample ID: LCS 400-507284/6-A
Matrix: Water
Analysis Batch: 508112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507284

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit ug/L	D	%Rec.	Limits
Benzeneethiol	30.0	ND	*		0.2		10 - 120

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	44	X			46 - 124
2-Fluorophenol	22				13 - 113
Nitrobenzene-d5	46				36 - 126
Phenol-d5	32				17 - 127
Terphenyl-d14	63				44 - 149
2,4,6-Tribromophenol	61				26 - 150

Lab Sample ID: LCSD 400-507284/3-A
Matrix: Water
Analysis Batch: 508103

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 507284

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit ug/L	D	%Rec.	RPD	Limit
Aniline	30.0	23.5		ug/L	79	21 - 120	10	30
Benzoic acid	116	78.1		ug/L	67	10 - 144	23	30
Benzyl alcohol	30.0	24.7		ug/L	82	28 - 120	13	30
Bis(2-chloroethoxy)methane	30.0	20.0		ug/L	67	47 - 120	12	30
Bis(2-chloroethyl)ether	30.0	19.1		ug/L	64	44 - 120	10	30
bis (2-chloroisopropyl) ether	30.0	19.7		ug/L	66	33 - 121	12	30
Bis(2-ethylhexyl) phthalate	30.0	23.3		ug/L	78	52 - 147	0	30
4-Bromophenyl phenyl ether	30.0	25.0		ug/L	83	54 - 122	10	30
Butyl benzyl phthalate	30.0	26.1		ug/L	87	54 - 133	5	30
4-Chloroaniline	30.0	20.7		ug/L	69	26 - 120	5	30
4-Chloro-3-methylphenol	30.0	24.6		ug/L	82	48 - 131	9	30
2-Chloronaphthalene	30.0	21.7		ug/L	72	52 - 121	11	30
2-Chlorophenol	30.0	22.0		ug/L	73	40 - 120	18	30
4-Chlorophenyl phenyl ether	30.0	23.2		ug/L	77	56 - 125	10	30
Dibenz[a,h]acridine	29.9	23.9		ug/L	80	31 - 150	6	30
Dibenzofuran	30.0	21.4		ug/L	71	56 - 122	10	30
3,3'-Dichlorobenzidine	60.0	69.7		ug/L	116	36 - 132	3	30
2,4-Dichlorophenol	30.0	23.5		ug/L	78	49 - 120	13	30
Diethyl phthalate	30.0	23.7		ug/L	79	50 - 137	6	30
2,4-Dimethylphenol	30.0	19.0		ug/L	63	48 - 120	12	30
Dimethyl phthalate	30.0	28.2		ug/L	94	57 - 124	7	30
Di-n-butyl phthalate	30.0	23.5		ug/L	78	58 - 126	3	30
4,6-Dinitro-ortho-cresol	60.0	58.8		ug/L	98	23 - 148	1	30
2,4-Dinitrophenol	60.0	59.5		ug/L	99	10 - 150	2	30
2,4-Dinitrotoluene	30.0	24.0		ug/L	80	54 - 142	17	30
2,6-Dinitrotoluene	30.0	22.6		ug/L	75	55 - 130	8	30

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

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

Lab Sample ID: LCSD 400-507284/3-A

Matrix: Water

Analysis Batch: 508103

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Client Sample ID: Lab Control Sample Dup		
	Added	Result	Qualifier				Limits	RPD	Limit
Di-n-octyl phthalate	30.0	26.7		ug/L	89	57 - 138	4	30	
1,4-Dioxane	30.0	13.9		ug/L	46	31 - 120	26	30	
1,2-Diphenylhydrazine (as Azobenzene)	30.0	23.1		ug/L	77	45 - 124	10	30	
Hexachlorobenzene	30.0	27.2		ug/L	91	52 - 129	11	30	
Hexachlorocyclopentadiene	30.0	13.8		ug/L	46	10 - 134	24	30	
Hexachloroethane	30.0	23.0		ug/L	77	20 - 120	13	30	
Indene	30.0	23.9		ug/L	80	49 - 120	14	30	
Isophorone	30.0	21.8		ug/L	73	48 - 120	10	30	
2-Methylphenol	30.0	23.9		ug/L	80	46 - 124	14	30	
3 & 4 Methylphenol	30.0	22.0		ug/L	73	45 - 120	11	30	
2-Nitroaniline	30.0	21.8		ug/L	73	51 - 145	9	30	
3-Nitroaniline	30.0	24.0		ug/L	80	37 - 127	3	30	
4-Nitroaniline	30.0	25.6		ug/L	85	36 - 137	1	30	
Nitrobenzene	30.0	20.1		ug/L	67	45 - 120	13	30	
2-Nitrophenol	30.0	19.6		ug/L	65	40 - 124	14	30	
4-Nitrophenol	60.0	42.9		ug/L	71	23 - 146	3	30	
N-Nitrosodimethylamine	30.0	24.0		ug/L	80	29 - 137	16	30	
N-Nitrosodi-n-propylamine	30.0	24.0		ug/L	80	45 - 120	11	30	
N-Nitrosodiphenylamine	29.8	24.1		ug/L	81	54 - 120	10	30	
Pentachlorophenol	60.0	54.4		ug/L	91	31 - 130	8	30	
Phenol	30.0	24.0		ug/L	80	11 - 120	15	30	
Pyridine	60.0	28.7		ug/L	48	16 - 120	22	30	
Quinoline	29.9	22.9		ug/L	77	49 - 130	12	30	
2,4,5-Trichlorophenol	30.0	23.6		ug/L	79	51 - 136	12	30	
2,4,6-Trichlorophenol	30.0	24.1		ug/L	80	50 - 127	13	30	

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	62		46 - 124
2-Fluorophenol	53		13 - 113
Nitrobenzene-d5	71		36 - 126
Phenol-d5	67		17 - 127
Terphenyl-d14	76		44 - 149
2,4,6-Tribromophenol	75		26 - 150

Lab Sample ID: LCSD 400-507284/7-A

Matrix: Water

Analysis Batch: 508112

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Client Sample ID: Lab Control Sample Dup		
	Added	Result	Qualifier				Limits	RPD	Limit
Benzenethiol	30.0	ND	***	ug/L		0.8	10 - 120	121	30

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	55		46 - 124
2-Fluorophenol	34		13 - 113
Nitrobenzene-d5	55		36 - 126
Phenol-d5	43		17 - 127
Terphenyl-d14	83		44 - 149

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

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

Lab Sample ID: LCSD 400-507284/7-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 507284

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol			71		26 - 150

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

Lab Sample ID: MB 400-507284/1-A

Matrix: Water

Analysis Batch: 507831

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507284

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene			0.0181	J	0.050	0.0080	ug/L		10/19/20 10:28	10/22/20 16:14	1
Acenaphthylene			ND		0.050	0.011	ug/L		10/19/20 10:28	10/22/20 16:14	1
Anthracene			ND		0.050	0.0080	ug/L		10/19/20 10:28	10/22/20 16:14	1
Benzo[a]anthracene			ND		0.050	0.012	ug/L		10/19/20 10:28	10/22/20 16:14	1
Benzo[a]pyrene			ND		0.050	0.011	ug/L		10/19/20 10:28	10/22/20 16:14	1
Benzo[b]fluoranthene			ND		0.050	0.0085	ug/L		10/19/20 10:28	10/22/20 16:14	1
Benzo[g,h,i]perylene			ND		0.050	0.033	ug/L		10/19/20 10:28	10/22/20 16:14	1
Benzo[k]fluoranthene			ND		0.050	0.025	ug/L		10/19/20 10:28	10/22/20 16:14	1
Chrysene			ND		0.050	0.019	ug/L		10/19/20 10:28	10/22/20 16:14	1
Dibenz(a,h)anthracene			ND		0.050	0.013	ug/L		10/19/20 10:28	10/22/20 16:14	1
Fluoranthene			ND		0.050	0.017	ug/L		10/19/20 10:28	10/22/20 16:14	1
Fluorene			ND		0.050	0.028	ug/L		10/19/20 10:28	10/22/20 16:14	1
Indeno[1,2,3-cd]pyrene			ND		0.050	0.011	ug/L		10/19/20 10:28	10/22/20 16:14	1
1-Methylnaphthalene			ND		0.050	0.019	ug/L		10/19/20 10:28	10/22/20 16:14	1
2-Methylnaphthalene			ND		0.050	0.015	ug/L		10/19/20 10:28	10/22/20 16:14	1
Phenanthrene			ND		0.050	0.0090	ug/L		10/19/20 10:28	10/22/20 16:14	1
Pyrene			ND		0.050	0.010	ug/L		10/19/20 10:28	10/22/20 16:14	1

Analyte	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl			57		15 - 122	10/19/20 10:28	10/22/20 16:14	1
Nitrobenzene-d5			59		19 - 130	10/19/20 10:28	10/22/20 16:14	1
Terphenyl-d14			78		33 - 138	10/19/20 10:28	10/22/20 16:14	1

Lab Sample ID: LCS 400-507284/2-A

Matrix: Water

Analysis Batch: 507831

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507284

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	30.0	25.4		ug/L		85	41 - 120
Acenaphthylene	30.0	26.7		ug/L		89	44 - 120
Anthracene	30.0	31.4		ug/L		105	49 - 120
Benzo[a]anthracene	30.0	31.1		ug/L		104	61 - 135
Benzo[a]pyrene	30.0	31.9		ug/L		106	52 - 120
Benzo[b]fluoranthene	30.0	27.6		ug/L		92	53 - 134
Benzo[g,h,i]perylene	30.0	27.5		ug/L		92	47 - 133
Benzo[k]fluoranthene	30.0	27.3		ug/L		91	57 - 134
Chrysene	30.0	32.5		ug/L		108	55 - 122
Dibenz(a,h)anthracene	30.0	28.7		ug/L		96	48 - 146
Fluoranthene	30.0	29.8		ug/L		99	54 - 128

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

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

Lab Sample ID: LCS 400-507284/2-A

Matrix: Water

Analysis Batch: 507831

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507284

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Fluorene	30.0	27.8		ug/L		93	45 - 125
Indeno[1,2,3-cd]pyrene	30.0	27.7		ug/L		92	43 - 142
1-Methylnaphthalene	30.0	25.2		ug/L		84	41 - 120
2-Methylnaphthalene	30.0	24.4		ug/L		81	32 - 124
Phenanthrene	30.0	28.2		ug/L		94	48 - 120
Pyrene	30.0	35.0		ug/L		117	48 - 132

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	72		15 - 122
Nitrobenzene-d5	92		19 - 130
Terphenyl-d14	117		33 - 138

Lab Sample ID: LCSD 400-507284/3-A

Matrix: Water

Analysis Batch: 507831

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507284

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthene	30.0	28.3		ug/L		94	41 - 120	11	56
Acenaphthylene	30.0	28.0		ug/L		93	44 - 120	5	56
Anthracene	30.0	30.6		ug/L		102	49 - 120	3	51
Benz[a]anthracene	30.0	32.7		ug/L		109	61 - 135	5	49
Benz[a]pyrene	30.0	32.6		ug/L		109	52 - 120	2	50
Benz[b]fluoranthene	30.0	28.5		ug/L		95	53 - 134	3	54
Benz[g,h,i]perylene	30.0	26.7		ug/L		89	47 - 133	3	50
Benz[k]fluoranthene	30.0	30.2		ug/L		101	57 - 134	10	52
Chrysene	30.0	30.4		ug/L		101	55 - 122	7	50
Dibenz(a,h)anthracene	30.0	26.9		ug/L		90	48 - 146	6	50
Fluoranthene	30.0	29.4		ug/L		98	54 - 128	2	52
Fluorene	30.0	29.5		ug/L		98	45 - 125	6	56
Indeno[1,2,3-cd]pyrene	30.0	26.1		ug/L		87	43 - 142	6	51
1-Methylnaphthalene	30.0	27.0		ug/L		90	41 - 120	7	55
2-Methylnaphthalene	30.0	26.2		ug/L		87	32 - 124	7	57
Phenanthrene	30.0	29.1		ug/L		97	48 - 120	3	56
Pyrene	30.0	31.6		ug/L		105	48 - 132	10	52

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	82		15 - 122
Nitrobenzene-d5	96		19 - 130
Terphenyl-d14	104		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-507275/1-A

Matrix: Water

Analysis Batch: 507289

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507275

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/19/20 09:37	10/19/20 16:16	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194420-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-507275/1-A

Matrix: Water

Analysis Batch: 507289

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507275

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane			ND		0.020	0.0050	ug/L		10/19/20 09:37	10/19/20 16:16	1
Surrogate	MB	MB									
4-Bromofluorobenzene	%Recovery	Qualifier			Limits						
	93				51 - 149						

Lab Sample ID: LCS 400-507275/2-A

Matrix: Water

Analysis Batch: 507289

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507275

Analyte	MB	MB	Spike	LCS	LCS	Unit	D	%Rec	Limits	Dil Fac
				Added	Result	Qualifier				
1,2-Dibromo-3-Chloropropane			0.101	0.104			ug/L		103	60 - 140
1,2-Dibromoethane			0.101	0.0963			ug/L		96	60 - 140
Surrogate	MB	MB		LCS	LCS					
4-Bromofluorobenzene	%Recovery	Qualifier		Limits						
	86			51 - 149						

Lab Sample ID: LCSD 400-507275/3-A

Matrix: Water

Analysis Batch: 507289

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 507275

Analyte	LCSD	LCSD	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
				Added	Result	Qualifier					
1,2-Dibromo-3-Chloropropane			0.101	0.106			ug/L		105	60 - 140	2
1,2-Dibromoethane			0.101	0.0947			ug/L		94	60 - 140	2
Surrogate	LCSD	LCSD									
4-Bromofluorobenzene	%Recovery	Qualifier		Limits							
	91			51 - 149							



AECOM

Shell Oil Products US Chain Of Custody Record

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194420-1

Login Number: 194420

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Whitley, Adrian

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	1339602, 1339604, 1339600, 1339606
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	2.5, 3.2, 2.8, 2.2°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	

14

Accreditation/Certification Summary

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

Job ID: 400-194420-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-20
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LA00307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194495-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/20/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-101420-8260	TB-ROX-101420-8011
MW5-ROX-101420	P114R-ROX-101420
MW13-ROX-101420	MW16-ROX-101420
MW16-ROX-101420-EB	

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 SVOCs in sample P114R-ROX-101420 were re-extracted outside extraction time criteria. Diethyl phthalate was detected in the method blank; although not indicated in the laboratory case narrative, diethyl phthalate was detected in the equipment blank. Several SVOC/PAH LCS/LCD recoveries and/or SVOC/PAH LCS/LCSD RPDs, were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in several investigative and quality control samples. Continuing calibration verifications for several analytes were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

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

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

No, several SVOCs in sample P114R-ROX-101420 were re-extracted 13 days outside extraction time criteria (7 days) due to initial failing LCS and/or surrogate recoveries. Professional judgement was used to qualify as estimated, however, not reject the out of holding time data. Holding time exceedances were not greater than two times (2X) criteria; data requiring qualification is summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P114R-ROX-101420 – RERA	SVOCs	Aniline	UJ
P114R-ROX-101420 – RERA	SVOCs	Benzene-thiol	UJ

Sample ID	Parameter	Analyte	Qualification
P114R-ROX-101420 – RERA	SVOCs	Benzoic acid	UJ
P114R-ROX-101420 – RERA	SVOCs	4-Chloroaniline	UJ
P114R-ROX-101420 – RERA	SVOCs	Dibenz[a,h]acridine	UJ
P114R-ROX-101420 – RERA	SVOCs	Indene	UJ
P114R-ROX-101420 – RERA	SVOCs	3-Nitroaniline	UJ
P114R-ROX-101420 – RERA	SVOCs	Pyridine	UJ
P114R-ROX-101420 – RERA	SVOCs	Quinoline	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
MW16-ROX-101420-EB	SVOCs	Diethyl phthalate	0.24 µg/L
MB 400-507618/1-A	SVOCs	Diethyl phthalate	0.548 µg/L

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

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
MW5-ROX-101420	SVOCs	Diethyl phthalate	-	U
MW13-ROX-101420	SVOCs	Diethyl phthalate	-	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-507389/2-A/3-A	SVOCs	Aniline	0.4/1	86	21-120/30
LCS/LCSD 400-507389/2-A/3-A	SVOCs	Benzyl alcohol	58/84	37	28-120/30
LCS/LCSD 400-507389/2-A/3-A	SVOCs	4-Chloroaniline	15/17	17	26-120/30
LCS/LCSD 400-507389/2-A/3-A	SVOCs	1,4-Dioxane	39/55	34	31-120/30
LCS/LCSD 400-507389/2-A/3-A	SVOCs	3-Nitroaniline	26/33	25	37-127/30
LCS/LCSD 400-507389/2-A/3-A	SVOCs	Phenol	42/65	43	11-120/30
LCS/LCSD 400-507389/2-A/3-A	SVOCs	Pyridine	0/0	NC	16-120/30

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-507618/3-A/4-A	SVOCs	Benzenethiol	2/0.8	NaN	10-120/30
LCS/LCSD 400-507389/2-A/3-A	PAHs	Benzo[a]pyrene	38/96	86	52-120/50

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Professional judgment was used to qualify, however not reject, data associated with benzenethiol; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-101420	SVOCs	Benzenethiol	UJ
P114R-ROX-101420	PAHs	Benzo[a]pyrene	UJ
MW13-ROX-101420	SVOCs	Benzenethiol	UJ
MW16-ROX-101420	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P114R-ROX-101420	SVOCs	2-Fluorobiphenyl	34	46-124
MW13-ROX-101420	SVOCs	2-Fluorophenol	11	13-113
LCSD 400-507618/4-A	SVOCs	2-Fluorophenol	5	13-113

Qualifications due to surrogate recoveries were not required if only one of three acid or base/neutral SVOC surrogate recoveries were outside evaluation criteria in the associated samples. LCSDs are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

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

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW5-ROX-101420	SVOCs	Aniline	UJ
MW5-ROX-101420	SVOCs	Benzyl alcohol	UJ
MW5-ROX-101420	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW5-ROX-101420	SVOCs	1,4-Dioxane	UJ
MW5-ROX-101420	SVOCs	Hexachlorocyclopentadiene	UJ
MW5-ROX-101420	SVOCs	Isophorone	UJ
MW5-ROX-101420	SVOCs	Pyridine	UJ
MW5-ROX-101420	SVOCs	Quinoline	UJ
P114R-ROX-101420	SVOCs	2,4,5-Trichlorophenol	UJ
P114R-ROX-101420	SVOCs	2,4,6-Trichlorophenol	UJ
MW13-ROX-101420	SVOCs	Aniline	UJ
MW13-ROX-101420	SVOCs	Benzyl alcohol	UJ
MW13-ROX-101420	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW13-ROX-101420	SVOCs	1,4-Dioxane	UJ
MW13-ROX-101420	SVOCs	Hexachlorocyclopentadiene	UJ
MW13-ROX-101420	SVOCs	Isophorone	UJ
MW13-ROX-101420	SVOCs	Pyridine	UJ
MW13-ROX-101420	SVOCs	Quinoline	UJ
MW16-ROX-101420	SVOCs	Aniline	UJ
MW16-ROX-101420	SVOCs	Benzyl alcohol	UJ
MW16-ROX-101420	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW16-ROX-101420	SVOCs	1,4-Dioxane	UJ
MW16-ROX-101420	SVOCs	Hexachlorocyclopentadiene	UJ
MW16-ROX-101420	SVOCs	Isophorone	UJ
MW16-ROX-101420	SVOCs	Pyridine	UJ
MW16-ROX-101420	SVOCs	Quinoline	UJ



eurofins

Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 400-194495-1
Client Project/Site: ROXANA QUARTERLY GW

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

Attn: Elizabeth Kunkel

Authorized for release by:
11/10/2020 5:05:47 PM

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

LINKS

Review your project
results through

Total Access

Have a Question?

Ask—
The
Expert

Visit us at:

www.eurofinsus.com/Env

Reviewed 11/20/2020
LR

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.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	6
Detection Summary	7
Client Sample Results	8
Definitions	31
Surrogate Summary	32
Method Summary	34
Chronicle	35
QC Association	41
QC Sample Results	44
Chain of Custody	65
Receipt Checklists	68
Certification Summary	69

Case Narrative

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

Job ID: 400-194495-1

Job ID: 400-194495-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-194495-1

Comments

No additional comments.

Receipt

The samples were received on 10/15/2020 9:45 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.5° C, 1.3° C, 3.3° C and 3.7° 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-101420-8260 (400-194495-1), MW5-ROX-101420 (400-194495-3), P114R-ROX-101420 (400-194495-4), MW13-ROX-101420 (400-194495-5), MW16-ROX-101420 (400-194495-6), and MW16-ROX-101420-EB (400-194495-7). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-497771 was outside method criteria for the following analyte: Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-490802 was outside method criteria for the following analyte(s): 2-Chloroethyl vinyl ether. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-507407 recovered above the upper control limit for Hexachloroethane, N-Nitrosodimethylamine, 4-Nitrophenol, Nitrobenzene, 2,2'-oxybis[1-chloropropane], N-Nitrosodi-n-propylamine, 2-Methylphenol, 1,2-Diphenylhydrazine (as Azobenzene), 4,6-Dinitro-ortho-cresol and Dibenzofuran. 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 400-507407 recovered outside acceptance criteria, low biased, for 2,4,5-Trichlorophenol and 2,4,6-Trichlorophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been 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: P114R-ROX-101420 (400-194495-4). These results have been reported and qualified.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW13-ROX-101420 (400-194495-5), (LCSD 400-507618/4-A) and (400-194572-H-4-A). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508112 recovered above the upper control limit for 4-Nitrophenol and N-Nitrosodimethylamine. 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 400-508112 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, Aniline, Benzyl alcohol, Bis(2-chloroethoxy)methane, Hexachlorocyclopentadiene, Isophorone, Pyridine and Quinoline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Case Narrative

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

Job ID: 400-194495-1

Job ID: 400-194495-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-507618 and analytical batch 400-507618 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 400-507618 and analytical batch 400-508112 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 method blank for preparation batch 400-507618 and analytical batch 400-508112 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508916 recovered above the upper control limit for Benzenethiol. 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 400-508916 recovered outside acceptance criteria, low biased, for 4-Nitrophenol, Hexachlorocyclopentadiene, Pyridine, Aniline and Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-509593 recovered above the upper control limit for Benzenethiol. 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 400-509593 recovered outside acceptance criteria, low biased, for Pyridine and Aniline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The method blank for preparation batch 400-509223 and analytical batch 400-509593 contained Bis(2-ethylhexyl) phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-507389 and analytical batch 400-507407 recovered outside control limits for the following analytes: Phenol, 1,4-Dioxane, Benzyl alcohol and Aniline.

Method 8270D: The laboratory control sample (LCS) for preparation batch 400-507389 and analytical batch 400-507407 recovered outside control limits for the following analytes: 3-Nitroaniline, 4-Chloroaniline, Pyridine, Aniline, Benzenethiol, Quinoline, Dibenz(a,h) acridine, Benzoic acid and Indene. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. Both sets of data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-509865 recovered above the upper control limit for Dibenz[a,h]acridine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8270D LL: The following analyte(s) recovered outside control limits for the LCS associated with preparation batch 400-507389 and analytical batch 400-507460: Benzo[a]pyrene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270D LL: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-507389 and analytical batch 400-507460 recovered outside control limits for the following analytes: Benzo[a]pyrene.

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 400-507289 recovered above the upper control limit for

Case Narrative

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

Job ID: 400-194495-1

Job ID: 400-194495-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-507289 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-507451 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 400-507450 and analytical batch 400-507451 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 8011: The continuing calibration verification (CCV) associated with batch 400-507451 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

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

Organic Prep

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

VOA Prep

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

Sample Summary

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

Job ID: 400-194495-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194495-1	TB-ROX-101420-8260 ✓	Water	10/14/20 00:00	10/15/20 09:45	
400-194495-2	TB-ROX-101420-8011 ✓	Water	10/14/20 00:00	10/15/20 09:45	
400-194495-3	MW5-ROX-101420 ✓	Water	10/14/20 09:20	10/15/20 09:45	
400-194495-4	P114R-ROX-101420 ✓	Water	10/14/20 11:00	10/15/20 09:45	
400-194495-5	MW13-ROX-101420 ✓	Water	10/14/20 11:42	10/15/20 09:45	
400-194495-6	MW16-ROX-101420 ✓	Water	10/14/20 13:50	10/15/20 09:45	
400-194495-7	MW16-ROX-101420-EB ✓	Water	10/14/20 13:00	10/15/20 09:45	

Detection Summary

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

Job ID: 400-194495-1

Client Sample ID: TB-ROX-101420-8260

Lab Sample ID: 400-194495-1

No Detections.

Client Sample ID: TB-ROX-101420-8011

Lab Sample ID: 400-194495-2

No Detections.

Client Sample ID: MW5-ROX-101420

Lab Sample ID: 400-194495-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.9		1.0	0.74	ug/L	1		8260B	Total/NA
tert-Butylbenzene	1.8		1.0	0.63	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.58	JB	9.5	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: P114R-ROX-101420

Lab Sample ID: 400-194495-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.8		1.0	0.74	ug/L	1		8260B	Total/NA

Client Sample ID: MW13-ROX-101420

Lab Sample ID: 400-194495-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl teri-butyl ether	1.0		1.0	0.74	ug/L	1		8260B	Total/NA
Diethyl phthalate	0.40	JB	9.6	0.23	ug/L	1		8270D	Total/NA

Client Sample ID: MW16-ROX-101420

Lab Sample ID: 400-194495-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.58	J	1.0	0.38	ug/L	1		8260B	Total/NA
o-Xylene	0.73	J	5.0	0.60	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	1.3		1.0	0.82	ug/L	1		8260B	Total/NA
Xylenes, Total	1.9	J	10	1.6	ug/L	1		8260B	Total/NA

Client Sample ID: MW16-ROX-101420-EB

Lab Sample ID: 400-194495-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diethyl phthalate	0.24	JB	9.7	0.23	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: TB-ROX-101420-8260

Lab Sample ID: 400-194495-1

Date Collected: 10/14/20 00:00

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 14:48	1
Acrolein	ND		20	10	ug/L			10/21/20 14:48	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 14:48	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 14:48	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 14:48	1
Bromoform	ND		1.0	0.52	ug/L			10/21/20 14:48	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Bromoform	ND		5.0	0.71	ug/L			10/21/20 14:48	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 14:48	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 14:48	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 14:48	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 14:48	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 14:48	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 14:48	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 14:48	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 14:48	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 14:48	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 14:48	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 14:48	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 14:48	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 14:48	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 14:48	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 14:48	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 14:48	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 14:48	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 14:48	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 14:48	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 14:48	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 14:48	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 14:48	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 14:48	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 14:48	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 14:48	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 14:48	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/21/20 14:48	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 14:48	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 14:48	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/20 14:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 14:48	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 14:48	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/20 14:48	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 14:48	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 14:48	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: TB-ROX-101420-8260

Lab Sample ID: 400-194495-1

Date Collected: 10/14/20 00:00

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 14:48	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 14:48	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 14:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 14:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 14:48	1
Toluene	ND		1.0	0.41	ug/L			10/21/20 14:48	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 14:48	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 14:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 14:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 14:48	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 14:48	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 14:48	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 14:48	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 14:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 14:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 14:48	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 14:48	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 14:48	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/20 14:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		78 - 118					10/21/20 14:48	1
Dibromofluoromethane	103		81 - 121					10/21/20 14:48	1
Toluene-d8 (Surf)	102		80 - 120					10/21/20 14:48	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: TB-ROX-101420-8011

Lab Sample ID: 400-194495-2

Date Collected: 10/14/20 00:00

Matrix: Water

Date Received: 10/15/20 09:45

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/19/20 09:37	10/19/20 19:55	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/19/20 09:37	10/19/20 19:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		51 - 149				10/19/20 09:37	10/19/20 19:55	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW5-ROX-101420

Lab Sample ID: 400-194495-3

Date Collected: 10/14/20 09:20

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 21:00	1
Acrolein	ND		20	10	ug/L			10/21/20 21:00	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 21:00	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 21:00	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 21:00	1
Bromoform	ND		1.0	0.52	ug/L			10/21/20 21:00	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/21/20 21:00	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/21/20 21:00	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 21:00	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 21:00	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 21:00	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 21:00	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 21:00	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 21:00	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 21:00	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 21:00	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 21:00	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 21:00	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 21:00	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 21:00	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 21:00	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 21:00	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 21:00	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 21:00	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 21:00	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 21:00	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 21:00	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 21:00	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 21:00	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 21:00	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 21:00	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 21:00	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 21:00	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 21:00	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 21:00	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 21:00	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 21:00	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 21:00	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 21:00	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 21:00	1
Methyl tert-butyl ether	1.9		1.0	0.74	ug/L			10/21/20 21:00	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 21:00	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 21:00	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/20 21:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 21:00	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 21:00	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/20 21:00	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 21:00	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 21:00	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW5-ROX-101420

Lab Sample ID: 400-194495-3

Date Collected: 10/14/20 09:20

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 21:00	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 21:00	1
tert-Butylbenzene	1.8		1.0	0.63	ug/L			10/21/20 21:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 21:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 21:00	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 21:00	1
Toluene	ND		1.0	0.41	ug/L			10/21/20 21:00	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/21/20 21:00	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 21:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 21:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 21:00	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 21:00	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 21:00	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 21:00	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 21:00	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 21:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 21:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 21:00	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 21:00	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 21:00	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/20 21:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		78 - 118					10/21/20 21:00	1
Dibromofluoromethane	94		81 - 121					10/21/20 21:00	1
Toluene-d8 (Sur)	103		80 - 120					10/21/20 21:00	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Acenaphthylene	ND		0.19	0.043	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Anthracene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Chrysene	ND		0.19	0.070	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Fluoranthene	ND		0.19	0.064	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Fluorene	ND		0.19	0.10	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/21/20 10:41	10/27/20 17:52	1	
1-Methylnaphthalene	ND		0.19	0.070	ug/L		10/21/20 10:41	10/27/20 17:52	1	
2-Methylnaphthalene	ND		0.19	0.057	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Phenanthrene	ND		0.19	0.034	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Pyrene	ND		0.19	0.038	ug/L		10/21/20 10:41	10/27/20 17:52	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	60		15 - 122					10/21/20 10:41	10/27/20 17:52	1
Nitrobenzene-d5	67		19 - 130					10/21/20 10:41	10/27/20 17:52	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW5-ROX-101420
Date Collected: 10/14/20 09:20
Date Received: 10/15/20 09:45

Lab Sample ID: 400-194495-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	69		33 - 138	10/21/20 10:41	10/27/20 17:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	WJ	9.5	3.6	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Benzenethiol	ND	* WJ	9.5	1.6	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Benzoic acid	ND		28	6.9	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Benzyl alcohol	ND	WJ	9.5	1.9	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Bis(2-chloroethoxy)methane	ND	WJ	9.5	0.15	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L	10/21/20 10:41	10/26/20 23:30	1	
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L	10/21/20 10:41	10/26/20 23:30	1	
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Butyl benzyl phthalate	ND		9.5	0.18	ug/L	10/21/20 10:41	10/26/20 23:30	1	
4-Chloroaniline	ND		9.5	3.2	ug/L	10/21/20 10:41	10/26/20 23:30	1	
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L	10/21/20 10:41	10/26/20 23:30	1	
2-Chloronaphthalene	ND		9.5	0.13	ug/L	10/21/20 10:41	10/26/20 23:30	1	
2-Chlorophenol	ND		9.5	2.1	ug/L	10/21/20 10:41	10/26/20 23:30	1	
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Dibenzofuran	ND		9.5	0.16	ug/L	10/21/20 10:41	10/26/20 23:30	1	
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L	10/21/20 10:41	10/26/20 23:30	1	
2,4-Dichlorophenol	ND		9.5	2.8	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Diethyl phthalate	-0.58	J B WJ	9.5	0.23	ug/L	10/21/20 10:41	10/26/20 23:30	1	
2,4-Dimethylphenol	ND		9.5	3.3	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Dimethyl phthalate	ND		9.5	0.16	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Di-n-butyl phthalate	ND		9.5	2.6	ug/L	10/21/20 10:41	10/26/20 23:30	1	
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L	10/21/20 10:41	10/26/20 23:30	1	
2,4-Dinitrophenol	ND		28	3.2	ug/L	10/21/20 10:41	10/26/20 23:30	1	
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L	10/21/20 10:41	10/26/20 23:30	1	
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Di-n-octyl phthalate	ND		9.5	0.16	ug/L	10/21/20 10:41	10/26/20 23:30	1	
1,4-Dioxane	ND	WJ	9.5	0.95	ug/L	10/21/20 10:41	10/26/20 23:30	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Hexachlorobenzene	ND		9.5	0.16	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Hexachlorocyclopentadiene	ND	WJ	19	2.5	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Hexachloroethane	ND		9.5	4.0	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Indene	ND		9.5	0.95	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Isophorone	ND	WJ	9.5	0.13	ug/L	10/21/20 10:41	10/26/20 23:30	1	
2-Methylphenol	ND		9.5	1.7	ug/L	10/21/20 10:41	10/26/20 23:30	1	
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/21/20 10:41	10/26/20 23:30	1	
2-Nitroaniline	ND		9.5	2.1	ug/L	10/21/20 10:41	10/26/20 23:30	1	
3-Nitroaniline	ND		9.5	1.7	ug/L	10/21/20 10:41	10/26/20 23:30	1	
4-Nitroaniline	ND		9.5	1.4	ug/L	10/21/20 10:41	10/26/20 23:30	1	
Nitrobenzene	ND		9.5	0.12	ug/L	10/21/20 10:41	10/26/20 23:30	1	
2-Nitrophenol	ND		9.5	4.9	ug/L	10/21/20 10:41	10/26/20 23:30	1	
4-Nitrophenol	ND		9.5	2.0	ug/L	10/21/20 10:41	10/26/20 23:30	1	
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L	10/21/20 10:41	10/26/20 23:30	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW5-ROX-101420

Lab Sample ID: 400-194495-3

Date Collected: 10/14/20 09:20

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/21/20 10:41	10/26/20 23:30	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/21/20 10:41	10/26/20 23:30	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 23:30	1
Phenol	ND		9.5	2.5	ug/L		10/21/20 10:41	10/26/20 23:30	1
Pyridine	ND	US	9.5	3.0	ug/L		10/21/20 10:41	10/26/20 23:30	1
Quinoline	ND	US	9.5	4.3	ug/L		10/21/20 10:41	10/26/20 23:30	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/21/20 10:41	10/26/20 23:30	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 23:30	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		55		46 - 124			10/21/20 10:41	10/26/20 23:30	1
2-Fluorophenol		31		13 - 113			10/21/20 10:41	10/26/20 23:30	1
Nitrobenzene-d5		57		36 - 126			10/21/20 10:41	10/26/20 23:30	1
Phenol-d5		43		17 - 127			10/21/20 10:41	10/26/20 23:30	1
Terphenyl-d14		74		44 - 149			10/21/20 10:41	10/26/20 23:30	1
2,4,6-Tribromophenol		84		26 - 150			10/21/20 10:41	10/26/20 23:30	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/19/20 09:37	10/19/20 20:15	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/19/20 09:37	10/19/20 20:15	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene		111		51 - 149			10/19/20 09:37	10/19/20 20:15	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: P114R-ROX-101420

Lab Sample ID: 400-194495-4

Date Collected: 10/14/20 11:00

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 21:27	1
Acrolein	ND		20	10	ug/L			10/21/20 21:27	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 21:27	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 21:27	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 21:27	1
Bromoform	ND		1.0	0.52	ug/L			10/21/20 21:27	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/21/20 21:27	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/21/20 21:27	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 21:27	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 21:27	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 21:27	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 21:27	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 21:27	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 21:27	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 21:27	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 21:27	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 21:27	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 21:27	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 21:27	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 21:27	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 21:27	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 21:27	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 21:27	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 21:27	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 21:27	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 21:27	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 21:27	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 21:27	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 21:27	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 21:27	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 21:27	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 21:27	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 21:27	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 21:27	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 21:27	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 21:27	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 21:27	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 21:27	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 21:27	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 21:27	1
Methyl tert-butyl ether	1.8		1.0	0.74	ug/L			10/21/20 21:27	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 21:27	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 21:27	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/20 21:27	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 21:27	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 21:27	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/20 21:27	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 21:27	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 21:27	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: P114R-ROX-101420

Lab Sample ID: 400-194495-4

Date Collected: 10/14/20 11:00

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 21:27	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 21:27	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 21:27	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 21:27	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 21:27	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 21:27	1
Toluene	ND		1.0	0.41	ug/L			10/21/20 21:27	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/21/20 21:27	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 21:27	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 21:27	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 21:27	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 21:27	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 21:27	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 21:27	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 21:27	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 21:27	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 21:27	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 21:27	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 21:27	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 21:27	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/20 21:27	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	106		78 - 118					10/21/20 21:27	1
Dibromofluoromethane	95		81 - 121					10/21/20 21:27	1
Toluene-d8 (Surf)	103		80 - 120					10/21/20 21:27	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.21	0.033	ug/L			10/19/20 19:54	10/21/20 14:14	1
Acenaphthylene	ND		0.21	0.046	ug/L			10/19/20 19:54	10/21/20 14:14	1
Anthracene	ND		0.21	0.033	ug/L			10/19/20 19:54	10/21/20 14:14	1
Benzo[a]anthracene	ND		0.21	0.047	ug/L			10/19/20 19:54	10/21/20 14:14	1
Benzo[a]pyrene	ND *** <i>UJ</i>		0.21	0.043	ug/L			10/19/20 19:54	10/21/20 14:14	1
Benzo[b]fluoranthene	ND		0.21	0.035	ug/L			10/19/20 19:54	10/21/20 14:14	1
Benzo[g,h,i]perylene	ND		0.21	0.13	ug/L			10/19/20 19:54	10/21/20 14:14	1
Benzo[k]fluoranthene	ND		0.21	0.10	ug/L			10/19/20 19:54	10/21/20 14:14	1
Chrysene	ND		0.21	0.076	ug/L			10/19/20 19:54	10/21/20 14:14	1
Dibenz(a,h)anthracene	ND		0.21	0.051	ug/L			10/19/20 19:54	10/21/20 14:14	1
Fluoranthene	ND		0.21	0.070	ug/L			10/19/20 19:54	10/21/20 14:14	1
Fluorene	ND		0.21	0.11	ug/L			10/19/20 19:54	10/21/20 14:14	1
Indeno[1,2,3-cd]pyrene	ND		0.21	0.044	ug/L			10/19/20 19:54	10/21/20 14:14	1
1-Methylnaphthalene	ND		0.21	0.076	ug/L			10/19/20 19:54	10/21/20 14:14	1
2-Methylnaphthalene	ND		0.21	0.062	ug/L			10/19/20 19:54	10/21/20 14:14	1
Phenanthrene	ND		0.21	0.037	ug/L			10/19/20 19:54	10/21/20 14:14	1
Pyrene	ND		0.21	0.041	ug/L			10/19/20 19:54	10/21/20 14:14	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	76		15 - 122					10/19/20 19:54	10/21/20 14:14	1
Nitrobenzene-d5	90		19 - 130					10/19/20 19:54	10/21/20 14:14	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: P114R-ROX-101420

Lab Sample ID: 400-194495-4

Date Collected: 10/14/20 11:00

Matrix: Water

Date Received: 10/15/20 09:45

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	136		33 - 138	10/19/20 19:54	10/21/20 14:14	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	**1	10	3.9	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Benzenethiol	ND		10	1.7	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Benzoic acid	ND		31	7.5	ug/L	10/19/20 19:54	11/09/20 16:20	1	
Benzyl alcohol	ND	*1	10	2.1	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Bis(2-chloroethyl)methane	ND		10	0.16	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Bis(2-chloroethyl)ether	ND		10	2.8	ug/L	10/19/20 19:54	10/20/20 18:45	1	
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L	10/19/20 19:54	10/20/20 18:45	1	
4-Bromophenyl phenyl ether	ND		10	0.21	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Butyl benzyl phthalate	ND		10	0.20	ug/L	10/19/20 19:54	10/20/20 18:45	1	
4-Chloroaniline	ND	*	10	3.5	ug/L	10/19/20 19:54	10/20/20 18:45	1	
4-Chloro-3-methylphenol	ND		10	3.9	ug/L	10/19/20 19:54	10/20/20 18:45	1	
2-Choronaphthalene	ND		10	0.14	ug/L	10/19/20 19:54	10/20/20 18:45	1	
2-Chlorophenol	ND		10	2.3	ug/L	10/19/20 19:54	10/20/20 18:45	1	
4-Chlorophenyl phenyl ether	ND		10	2.1	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Dibenz[a,h]acridine	ND		10	1.0	ug/L	10/19/20 19:54	11/09/20 16:20	1	
Dibenzofuran	ND		10	0.17	ug/L	10/19/20 19:54	10/20/20 18:45	1	
3,3'-Dichlorobenzidine	ND		10	2.7	ug/L	10/19/20 19:54	10/20/20 18:45	1	
2,4-Dichlorophenol	ND		10	3.1	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Diethyl phthalate	ND		10	0.25	ug/L	10/19/20 19:54	10/20/20 18:45	1	
2,4-Dimethylphenol	ND		10	3.6	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Dimethyl phthalate	ND		10	0.17	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Di-n-butyl phthalate	ND		10	2.8	ug/L	10/19/20 19:54	10/20/20 18:45	1	
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L	10/19/20 19:54	10/20/20 18:45	1	
2,4-Dinitrophenol	ND		31	3.5	ug/L	10/19/20 19:54	10/20/20 18:45	1	
2,4-Dinitrotoluene	ND		10	2.0	ug/L	10/19/20 19:54	10/20/20 18:45	1	
2,6-Dinitrotoluene	ND		10	2.0	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Di-n-octyl phthalate	ND		10	0.17	ug/L	10/19/20 19:54	10/20/20 18:45	1	
1,4-Dioxane	ND	*1	10	1.0	ug/L	10/19/20 19:54	10/20/20 18:45	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Hexachlorobenzene	ND		10	0.17	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Hexachlorocyclopentadiene	ND		21	2.7	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Hexachloroethane	ND		10	4.3	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Indene	ND		10	1.0	ug/L	10/19/20 19:54	11/09/20 16:20	1	
Isophorone	ND		10	0.14	ug/L	10/19/20 19:54	10/20/20 18:45	1	
2-Methylphenol	ND		10	1.9	ug/L	10/19/20 19:54	10/20/20 18:45	1	
3 & 4 Methylphenol	ND		21	0.40	ug/L	10/19/20 19:54	10/20/20 18:45	1	
2-Nitroaniline	ND		10	2.3	ug/L	10/19/20 19:54	10/20/20 18:45	1	
3-Nitroaniline	ND	*	10	1.9	ug/L	10/19/20 19:54	10/20/20 18:45	1	
4-Nitroaniline	ND		10	1.5	ug/L	10/19/20 19:54	10/20/20 18:45	1	
Nitrobenzene	ND		10	0.13	ug/L	10/19/20 19:54	10/20/20 18:45	1	
2-Nitrophenol	ND		10	5.3	ug/L	10/19/20 19:54	10/20/20 18:45	1	
4-Nitrophenol	ND		10	2.2	ug/L	10/19/20 19:54	10/20/20 18:45	1	
N-Nitrosodimethylamine	ND		10	3.6	ug/L	10/19/20 19:54	10/20/20 18:45	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: P114R-ROX-101420

Lab Sample ID: 400-194495-4

Date Collected: 10/14/20 11:00

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L				1
N-Nitrosodiphenylamine	ND		10	0.19	ug/L				1
Pentachlorophenol	ND		21	1.4	ug/L				1
Phenol	ND *1		10	2.7	ug/L				1
Pyridine	ND *		10	3.3	ug/L				1
Quinoline	ND		10	4.6	ug/L				1
2,4,5-Trichlorophenol	ND <i>WT</i>		10	3.8	ug/L				1
2,4,6-Trichlorophenol	ND <i>WT</i>		10	3.6	ug/L				1

Surrogate

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	34 X		46 - 124	10/19/20 19:54	10/20/20 18:45	1
2-Fluorophenol	36		13 - 113	10/19/20 19:54	10/20/20 18:45	1
Nitrobenzene-d5	48		36 - 126	10/19/20 19:54	10/20/20 18:45	1
Phenol-d5	31		17 - 127	10/19/20 19:54	10/20/20 18:45	1
Terphenyl-d14	47		44 - 149	10/19/20 19:54	10/20/20 18:45	1
2,4,6-Tribromophenol	41		26 - 150	10/19/20 19:54	10/20/20 18:45	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND H	<i>WT</i>	9.5	3.6	ug/L				1
Benzethiol	ND H		9.5	1.6	ug/L				1
Benzoic acid	ND H		29	7.0	ug/L				1
4-Chloroaniline	ND H		9.5	3.2	ug/L				1
Dibenz[a,h]acridine	ND H		9.5	0.95	ug/L				1
Indene	ND H		9.5	0.95	ug/L				1
3-Nitroaniline	ND H		9.5	1.7	ug/L				1
Pyridine	ND H		9.5	3.1	ug/L				1
Quinoline	ND H		9.5	4.3	ug/L				1

Surrogate

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	52		46 - 124	11/03/20 16:41	11/06/20 19:48	1
2-Fluorophenol	44		13 - 113	11/03/20 16:41	11/06/20 19:48	1
Nitrobenzene-d5	61		36 - 126	11/03/20 16:41	11/06/20 19:48	1
Phenol-d5	58		17 - 127	11/03/20 16:41	11/06/20 19:48	1
Terphenyl-d14	80		44 - 149	11/03/20 16:41	11/06/20 19:48	1
2,4,6-Tribromophenol	66		26 - 150	11/03/20 16:41	11/06/20 19:48	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0054	ug/L				1
1,2-Dibromoethane	ND		0.020	0.0049	ug/L				1
Surrogate	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene	91		51 - 149						
				Prepared	Analyzed	Dil Fac			
				10/19/20 09:37	10/19/20 20:35	1			

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW13-ROX-101420

Lab Sample ID: 400-194495-5

Date Collected: 10/14/20 11:42

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 21:53	1
Acrolein	ND		20	10	ug/L			10/21/20 21:53	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 21:53	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 21:53	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 21:53	1
Bromochloromethane	ND		1.0	0.52	ug/L			10/21/20 21:53	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/20 21:53	1
Bromoform	ND		5.0	0.71	ug/L			10/21/20 21:53	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 21:53	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 21:53	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 21:53	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 21:53	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 21:53	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 21:53	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 21:53	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 21:53	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 21:53	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 21:53	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 21:53	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 21:53	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 21:53	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 21:53	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 21:53	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 21:53	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 21:53	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 21:53	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 21:53	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 21:53	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 21:53	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 21:53	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 21:53	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 21:53	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 21:53	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 21:53	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 21:53	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 21:53	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 21:53	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 21:53	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 21:53	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 21:53	1
Methyl tert-butyl ether	1.0		1.0	0.74	ug/L			10/21/20 21:53	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 21:53	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 21:53	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/20 21:53	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 21:53	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 21:53	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/20 21:53	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 21:53	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 21:53	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW13-ROX-101420

Lab Sample ID: 400-194495-5

Date Collected: 10/14/20 11:42

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 21:53	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 21:53	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 21:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 21:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 21:53	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 21:53	1
Toluene	ND		1.0	0.41	ug/L			10/21/20 21:53	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/21/20 21:53	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 21:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 21:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 21:53	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 21:53	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 21:53	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 21:53	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 21:53	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 21:53	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 21:53	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 21:53	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 21:53	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 21:53	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/20 21:53	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		78 - 118					10/21/20 21:53	1
Dibromofluoromethane	95		81 - 121					10/21/20 21:53	1
Toluene-d8 (Surf)	102		80 - 120					10/21/20 21:53	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L			10/21/20 10:41	10/27/20 18:10
Acenaphthylene	ND		0.19	0.043	ug/L			10/21/20 10:41	10/27/20 18:10
Anthracene	ND		0.19	0.031	ug/L			10/21/20 10:41	10/27/20 18:10
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/21/20 10:41	10/27/20 18:10
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/21/20 10:41	10/27/20 18:10
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L			10/21/20 10:41	10/27/20 18:10
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/21/20 10:41	10/27/20 18:10
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L			10/21/20 10:41	10/27/20 18:10
Chrysene	ND		0.19	0.071	ug/L			10/21/20 10:41	10/27/20 18:10
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L			10/21/20 10:41	10/27/20 18:10
Fluoranthene	ND		0.19	0.065	ug/L			10/21/20 10:41	10/27/20 18:10
Fluorene	ND		0.19	0.11	ug/L			10/21/20 10:41	10/27/20 18:10
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/21/20 10:41	10/27/20 18:10
1-Methylnaphthalene	ND		0.19	0.071	ug/L			10/21/20 10:41	10/27/20 18:10
2-Methylnaphthalene	ND		0.19	0.058	ug/L			10/21/20 10:41	10/27/20 18:10
Phenanthrene	ND		0.19	0.035	ug/L			10/21/20 10:41	10/27/20 18:10
Pyrene	ND		0.19	0.038	ug/L			10/21/20 10:41	10/27/20 18:10
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	56		15 - 122					10/21/20 10:41	10/27/20 18:10
Nitrobenzene-d5	59		19 - 130					10/21/20 10:41	10/27/20 18:10

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW13-ROX-101420

Lab Sample ID: 400-194495-5

Date Collected: 10/14/20 11:42

Matrix: Water

Date Received: 10/15/20 09:45

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	67		33 - 138	10/21/20 10:41	10/27/20 18:10	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	WT	9.6	3.6	ug/L	10/21/20 10:41	10/26/20 23:55		1
Benzenethiol	ND	WT	9.6	1.6	ug/L	10/21/20 10:41	10/26/20 23:55		1
Benzoic acid	ND		29	7.0	ug/L	10/21/20 10:41	10/26/20 23:55		1
Benzyl alcohol	ND	WT	9.6	1.9	ug/L	10/21/20 10:41	10/26/20 23:55		1
Bis(2-chloroethoxy)methane	ND	WT	9.6	0.15	ug/L	10/21/20 10:41	10/26/20 23:55		1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L	10/21/20 10:41	10/26/20 23:55		1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L	10/21/20 10:41	10/26/20 23:55		1
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L	10/21/20 10:41	10/26/20 23:55		1
4-Bromophenyl phenyl ether	ND		9.6	0.18	ug/L	10/21/20 10:41	10/26/20 23:55		1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L	10/21/20 10:41	10/26/20 23:55		1
4-Chloroaniline	ND		9.6	3.3	ug/L	10/21/20 10:41	10/26/20 23:55		1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L	10/21/20 10:41	10/26/20 23:55		1
2-Chloronaphthalene	ND		9.6	0.13	ug/L	10/21/20 10:41	10/26/20 23:55		1
2-Chlorophenol	ND		9.6	2.1	ug/L	10/21/20 10:41	10/26/20 23:55		1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L	10/21/20 10:41	10/26/20 23:55		1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L	10/21/20 10:41	10/26/20 23:55		1
Dibenzofuran	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 23:55		1
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L	10/21/20 10:41	10/26/20 23:55		1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L	10/21/20 10:41	10/26/20 23:55		1
Diethyl phthalate	0.40	J B W	9.6	0.23	ug/L	10/21/20 10:41	10/26/20 23:55		1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L	10/21/20 10:41	10/26/20 23:55		1
Dimethyl phthalate	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 23:55		1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L	10/21/20 10:41	10/26/20 23:55		1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L	10/21/20 10:41	10/26/20 23:55		1
2,4-Dinitrophenol	ND		29	3.3	ug/L	10/21/20 10:41	10/26/20 23:55		1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L	10/21/20 10:41	10/26/20 23:55		1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L	10/21/20 10:41	10/26/20 23:55		1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 23:55		1
1,4-Dioxane	ND	WT	9.6	0.96	ug/L	10/21/20 10:41	10/26/20 23:55		1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L	10/21/20 10:41	10/26/20 23:55		1
Hexachlorobenzene	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 23:55		1
Hexachlorocyclopentadiene	ND	WT	19	2.5	ug/L	10/21/20 10:41	10/26/20 23:55		1
Hexachloroethane	ND		9.6	4.0	ug/L	10/21/20 10:41	10/26/20 23:55		1
Indene	ND		9.6	0.96	ug/L	10/21/20 10:41	10/26/20 23:55		1
Isophorone	ND	WT	9.6	0.13	ug/L	10/21/20 10:41	10/26/20 23:55		1
2-Methylphenol	ND		9.6	1.7	ug/L	10/21/20 10:41	10/26/20 23:55		1
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/21/20 10:41	10/26/20 23:55		1
2-Nitroaniline	ND		9.6	2.1	ug/L	10/21/20 10:41	10/26/20 23:55		1
3-Nitroaniline	ND		9.6	1.7	ug/L	10/21/20 10:41	10/26/20 23:55		1
4-Nitroaniline	ND		9.6	1.4	ug/L	10/21/20 10:41	10/26/20 23:55		1
Nitrobenzene	ND		9.6	0.12	ug/L	10/21/20 10:41	10/26/20 23:55		1
2-Nitrophenol	ND		9.6	5.0	ug/L	10/21/20 10:41	10/26/20 23:55		1
4-Nitrophenol	ND		9.6	2.0	ug/L	10/21/20 10:41	10/26/20 23:55		1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L	10/21/20 10:41	10/26/20 23:55		1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW13-ROX-101420

Lab Sample ID: 400-194495-5

Date Collected: 10/14/20 11:42

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		10/21/20 10:41	10/26/20 23:55	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		10/21/20 10:41	10/26/20 23:55	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 23:55	1
Phenol	ND		9.6	2.5	ug/L		10/21/20 10:41	10/26/20 23:55	1
Pyridine	ND	WS	9.6	3.1	ug/L		10/21/20 10:41	10/26/20 23:55	1
Quinoline	ND	WS	9.6	4.3	ug/L		10/21/20 10:41	10/26/20 23:55	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		10/21/20 10:41	10/26/20 23:55	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		10/21/20 10:41	10/26/20 23:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	51		46 - 124	10/21/20 10:41	10/26/20 23:55	1
2-Fluorophenol	11 X		13 - 113	10/21/20 10:41	10/26/20 23:55	1
Nitrobenzene-d5	52		36 - 126	10/21/20 10:41	10/26/20 23:55	1
Phenol-d5	34		17 - 127	10/21/20 10:41	10/26/20 23:55	1
Terphenyl-d14	75		44 - 149	10/21/20 10:41	10/26/20 23:55	1
2,4,6-Tribromophenol	85		26 - 150	10/21/20 10:41	10/26/20 23:55	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/19/20 09:37	10/19/20 20:55	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/19/20 09:37	10/19/20 20:55	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	105		51 - 149	10/19/20 09:37	10/19/20 20:55	1			

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW16-ROX-101420

Lab Sample ID: 400-194495-6

Date Collected: 10/14/20 13:50

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/20 12:52	1
Acrolein	ND		20	10	ug/L			10/26/20 12:52	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/20 12:52	1
Benzene	0.58	J	1.0	0.38	ug/L			10/26/20 12:52	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/20 12:52	1
Bromochloromethane	ND		1.0	0.52	ug/L			10/26/20 12:52	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/26/20 12:52	1
Bromoform	ND		5.0	0.71	ug/L			10/26/20 12:52	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/20 12:52	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/20 12:52	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/20 12:52	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/26/20 12:52	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/26/20 12:52	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/26/20 12:52	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/20 12:52	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/20 12:52	1
Chloroform	ND		1.0	0.60	ug/L			10/26/20 12:52	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/26/20 12:52	1
Chloromethane	ND		1.0	0.83	ug/L			10/26/20 12:52	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 12:52	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 12:52	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/20 12:52	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/20 12:52	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/20 12:52	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/20 12:52	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 12:52	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 12:52	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 12:52	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 12:52	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 12:52	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 12:52	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/20 12:52	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/20 12:52	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/20 12:52	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/20 12:52	1
2-Hexanone	ND		25	3.1	ug/L			10/26/20 12:52	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/20 12:52	1
Methylene bromide	ND		5.0	0.59	ug/L			10/26/20 12:52	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/20 12:52	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/20 12:52	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/26/20 12:52	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/26/20 12:52	1
Naphthalene	ND		1.0	1.0	ug/L			10/26/20 12:52	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/20 12:52	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/20 12:52	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/20 12:52	1
o-Xylene	0.73	J	5.0	0.60	ug/L			10/26/20 12:52	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/20 12:52	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/20 12:52	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW16-ROX-101420

Lab Sample ID: 400-194495-6

Date Collected: 10/14/20 13:50

Matrix: Water

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/26/20 12:52	1
Styrene	ND		1.0	1.0	ug/L			10/26/20 12:52	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/20 12:52	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/26/20 12:52	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/20 12:52	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/26/20 12:52	1
Toluene	ND		1.0	0.41	ug/L			10/26/20 12:52	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 12:52	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 12:52	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/26/20 12:52	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/20 12:52	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/26/20 12:52	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/26/20 12:52	1
Trichloroethene	ND		1.0	0.50	ug/L			10/26/20 12:52	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/20 12:52	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/20 12:52	1
1,2,4-Trimethylbenzene	1.3		1.0	0.82	ug/L			10/26/20 12:52	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/20 12:52	1
Vinyl acetate	ND		25	2.0	ug/L			10/26/20 12:52	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/20 12:52	1
Xylenes, Total	1.9	J	10	1.6	ug/L			10/26/20 12:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		78 - 118		10/26/20 12:52	1
Dibromofluoromethane	92		81 - 121		10/26/20 12:52	1
Toluene-d8 (Surr)	112		80 - 120		10/26/20 12:52	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/27/20 18:28	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/21/20 10:41	10/27/20 18:28	1
Anthracene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/27/20 18:28	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		10/21/20 10:41	10/27/20 18:28	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L		10/21/20 10:41	10/27/20 18:28	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/21/20 10:41	10/27/20 18:28	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/21/20 10:41	10/27/20 18:28	1
Benzo[k]fluoranthene	ND		0.19	0.093	ug/L		10/21/20 10:41	10/27/20 18:28	1
Chrysene	ND		0.19	0.069	ug/L		10/21/20 10:41	10/27/20 18:28	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/21/20 10:41	10/27/20 18:28	1
Fluoranthene	ND		0.19	0.064	ug/L		10/21/20 10:41	10/27/20 18:28	1
Fluorene	ND		0.19	0.10	ug/L		10/21/20 10:41	10/27/20 18:28	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		10/21/20 10:41	10/27/20 18:28	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L		10/21/20 10:41	10/27/20 18:28	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L		10/21/20 10:41	10/27/20 18:28	1
Phenanthrene	ND		0.19	0.034	ug/L		10/21/20 10:41	10/27/20 18:28	1
Pyrene	ND		0.19	0.037	ug/L		10/21/20 10:41	10/27/20 18:28	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2-Fluorobiphenyl	58		15 - 122		10/21/20 10:41	10/27/20 18:28	1		
Nitrobenzene-d5	64		19 - 130		10/21/20 10:41	10/27/20 18:28	1		

Eurofins TestAmerica, Pensacola

Client Sample Results

Job ID: 400-194495-1

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

Client Sample ID: MW16-ROX-101420

Date Collected: 10/14/20 13:50

Date Received: 10/15/20 09:45

Lab Sample ID: 400-194495-6

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	74		33 - 138	10/21/20 10:41	10/27/20 18:28	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.3	3.6	ug/L				1
Benzenethiol	ND	UJ	9.3	1.6	ug/L				1
Benzoic acid	ND		28	6.8	ug/L				1
Benzyl alcohol	ND	UJ	9.3	1.9	ug/L				1
Bis(2-chloroethoxy)methane	ND	UJ	9.3	2.5	ug/L				1
Bis(2-chloroethyl)ether	ND		9.3	0.15	ug/L				1
bis (2-chloroisopropyl) ether	ND		9.3	4.7	ug/L				1
Bis(2-ethylhexyl) phthalate	ND		9.3	0.19	ug/L				1
4-Bromophenyl phenyl ether	ND		9.3	0.18	ug/L				1
Butyl benzyl phthalate	ND		9.3	0.18	ug/L				1
4-Chloroaniline	ND		9.3	3.2	ug/L				1
4-Chloro-3-methylphenol	ND		9.3	3.6	ug/L				1
2-Chloronaphthalene	ND		9.3	0.13	ug/L				1
2-Chlorophenol	ND		9.3	2.1	ug/L				1
4-Chlorophenyl phenyl ether	ND		9.3	1.9	ug/L				1
Dibenz[a,h]acridine	ND		9.3	0.93	ug/L				1
Dibenzofuran	ND		9.3	0.16	ug/L				1
3,3'-Dichlorobenzidine	ND		9.3	2.4	ug/L				1
2,4-Dichlorophenol	ND		9.3	2.8	ug/L				1
Diethyl phthalate	ND		9.3	0.22	ug/L				1
2,4-Dimethylphenol	ND		9.3	3.3	ug/L				1
Dimethyl phthalate	ND		9.3	0.16	ug/L				1
Di-n-butyl phthalate	ND		9.3	2.5	ug/L				1
4,6-Dinitro-ortho-cresol	ND		9.3	1.5	ug/L				1
2,4-Dinitrophenol	ND		28	3.2	ug/L				1
2,4-Dinitrotoluene	ND		9.3	1.8	ug/L				1
2,6-Dinitrotoluene	ND		9.3	1.8	ug/L				1
Di-n-octyl phthalate	ND		9.3	0.16	ug/L				1
1,4-Dioxane	ND	UJ	9.3	0.93	ug/L				1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.3	0.93	ug/L				1
Hexachlorobenzene	ND		9.3	0.16	ug/L				1
Hexachlorocyclopentadiene	ND	UJ	19	2.4	ug/L				1
Hexachloroethane	ND		9.3	3.9	ug/L				1
Indene	ND		9.3	0.93	ug/L				1
Isophorone	ND	UJ	9.3	0.13	ug/L				1
2-Methylphenol	ND		9.3	1.7	ug/L				1
3 & 4 Methylphenol	ND		19	0.36	ug/L				1
2-Nitroaniline	ND		9.3	2.1	ug/L				1
3-Nitroaniline	ND		9.3	1.7	ug/L				1
4-Nitroaniline	ND		9.3	1.4	ug/L				1
Nitrobenzene	ND		9.3	0.12	ug/L				1
2-Nitrophenol	ND		9.3	4.9	ug/L				1
4-Nitrophenol	ND		9.3	2.0	ug/L				1
N-Nitrosodimethylamine	ND		9.3	3.3	ug/L				1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW16-ROX-101420

Date Collected: 10/14/20 13:50

Date Received: 10/15/20 09:45

Lab Sample ID: 400-194495-6

Matrix: Water

6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.3	3.1	ug/L		10/21/20 10:41	10/27/20 00:21	1
N-Nitrosodiphenylamine	ND		9.3	0.17	ug/L		10/21/20 10:41	10/27/20 00:21	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/27/20 00:21	1
Phenol	ND		9.3	2.4	ug/L		10/21/20 10:41	10/27/20 00:21	1
Pyridine	ND	WS	9.3	3.0	ug/L		10/21/20 10:41	10/27/20 00:21	1
Quinoline	ND	WS	9.3	4.2	ug/L		10/21/20 10:41	10/27/20 00:21	1
2,4,5-Trichlorophenol	ND		9.3	3.5	ug/L		10/21/20 10:41	10/27/20 00:21	1
2,4,6-Trichlorophenol	ND		9.3	3.3	ug/L		10/21/20 10:41	10/27/20 00:21	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	52			46 - 124			10/21/20 10:41	10/27/20 00:21	1
2-Fluorophenol	13			13 - 113			10/21/20 10:41	10/27/20 00:21	1
Nitrobenzene-d5	52			36 - 126			10/21/20 10:41	10/27/20 00:21	1
Phenol-d5	29			17 - 127			10/21/20 10:41	10/27/20 00:21	1
Terphenyl-d14	70			44 - 149			10/21/20 10:41	10/27/20 00:21	1
2,4,6-Tribromophenol	67			26 - 150			10/21/20 10:41	10/27/20 00:21	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.0056	ug/L		10/19/20 09:37	10/19/20 21:15	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/19/20 09:37	10/19/20 21:15	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91			51 - 149			10/19/20 09:37	10/19/20 21:15	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW16-ROX-101420-EB

Lab Sample ID: 400-194495-7

Matrix: Water

Date Collected: 10/14/20 13:00

Date Received: 10/15/20 09:45

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/21/20 15:15	1
Acrolein	ND		20	10	ug/L			10/21/20 15:15	1
Acrylonitrile	ND		10	2.8	ug/L			10/21/20 15:15	1
Benzene	ND		1.0	0.38	ug/L			10/21/20 15:15	1
Bromobenzene	ND		1.0	0.54	ug/L			10/21/20 15:15	1
Bromoform	ND		1.0	0.52	ug/L			10/21/20 15:15	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Bromoform	ND		5.0	0.71	ug/L			10/21/20 15:15	1
Bromomethane	ND		1.0	0.98	ug/L			10/21/20 15:15	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/21/20 15:15	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Chloroethane	ND		1.0	0.76	ug/L			10/21/20 15:15	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/21/20 15:15	1
Chloroform	ND		1.0	0.60	ug/L			10/21/20 15:15	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/21/20 15:15	1
Chloromethane	ND		1.0	0.83	ug/L			10/21/20 15:15	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 15:15	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 15:15	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/21/20 15:15	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/21/20 15:15	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/21/20 15:15	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/21/20 15:15	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 15:15	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/21/20 15:15	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 15:15	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 15:15	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 15:15	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/21/20 15:15	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/21/20 15:15	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/21/20 15:15	1
2-Hexanone	ND		25	3.1	ug/L			10/21/20 15:15	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/21/20 15:15	1
Methylene bromide	ND		5.0	0.59	ug/L			10/21/20 15:15	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/21/20 15:15	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/21/20 15:15	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/21/20 15:15	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/21/20 15:15	1
Naphthalene	ND		1.0	1.0	ug/L			10/21/20 15:15	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/21/20 15:15	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/21/20 15:15	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/21/20 15:15	1
o-Xylene	ND		5.0	0.60	ug/L			10/21/20 15:15	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/21/20 15:15	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 15:15	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194495-1

Client Sample ID: MW16-ROX-101420-EB
Date Collected: 10/14/20 13:00
Date Received: 10/15/20 09:45

Lab Sample ID: 400-194495-7
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 15:15	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 15:15	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 15:15	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 15:15	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 15:15	1
Toluene	ND		1.0	0.41	ug/L			10/21/20 15:15	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/21/20 15:15	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 15:15	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 15:15	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 15:15	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 15:15	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 15:15	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 15:15	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 15:15	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 15:15	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 15:15	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 15:15	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 15:15	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/20 15:15	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		78 - 118					10/21/20 15:15	1
Dibromofluoromethane	103		81 - 121					10/21/20 15:15	1
Toluene-d8 (Sur)	102		80 - 120					10/21/20 15:15	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		10/21/20 10:41	10/27/20 18:45	1
Acenaphthylene	ND		0.19	0.044	ug/L		10/21/20 10:41	10/27/20 18:45	1
Anthracene	ND		0.19	0.031	ug/L		10/21/20 10:41	10/27/20 18:45	1
Benzo[a]anthracene	ND		0.19	0.045	ug/L		10/21/20 10:41	10/27/20 18:45	1
Benzo[a]pyrene	ND		0.19	0.041	ug/L		10/21/20 10:41	10/27/20 18:45	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		10/21/20 10:41	10/27/20 18:45	1
Benzo[g,h,i]perylene	ND		0.19	0.13	ug/L		10/21/20 10:41	10/27/20 18:45	1
Benzo[k]fluoranthene	ND		0.19	0.097	ug/L		10/21/20 10:41	10/27/20 18:45	1
Chrysene	ND		0.19	0.072	ug/L		10/21/20 10:41	10/27/20 18:45	1
Dibenz(a,h)anthracene	ND		0.19	0.049	ug/L		10/21/20 10:41	10/27/20 18:45	1
Fluoranthene	ND		0.19	0.066	ug/L		10/21/20 10:41	10/27/20 18:45	1
Fluorene	ND		0.19	0.11	ug/L		10/21/20 10:41	10/27/20 18:45	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.042	ug/L		10/21/20 10:41	10/27/20 18:45	1
1-Methylnaphthalene	ND		0.19	0.072	ug/L		10/21/20 10:41	10/27/20 18:45	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L		10/21/20 10:41	10/27/20 18:45	1
Phenanthrene	ND		0.19	0.035	ug/L		10/21/20 10:41	10/27/20 18:45	1
Pyrene	ND		0.19	0.039	ug/L		10/21/20 10:41	10/27/20 18:45	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	60		15 - 122				10/21/20 10:41	10/27/20 18:45	1
Nitrobenzene-d5	62		19 - 130				10/21/20 10:41	10/27/20 18:45	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Job ID: 400-194495-1

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

Client Sample ID: MW16-ROX-101420-EB

Date Collected: 10/14/20 13:00

Date Received: 10/15/20 09:45

Lab Sample ID: 400-194495-7

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
				10/21/20 10:41	10/27/20 18:45	1
Terphenyl-d14	72		33 - 138			

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.7	3.7	ug/L		10/21/20 10:41	11/01/20 12:36	1
Benzenethiol	ND *		9.7	1.7	ug/L		10/21/20 10:41	11/01/20 12:36	1
Benzoic acid	ND		29	7.1	ug/L		10/21/20 10:41	11/01/20 12:36	1
Benzyl alcohol	ND		9.7	1.9	ug/L		10/21/20 10:41	11/01/20 12:36	1
Bis(2-chloroethoxy)methane	ND		9.7	0.16	ug/L		10/21/20 10:41	11/01/20 12:36	1
Bis(2-chloroethyl)ether	ND		9.7	0.16	ug/L		10/21/20 10:41	11/01/20 12:36	1
bis (2-chloroisopropyl) ether	ND		9.7	4.9	ug/L		10/21/20 10:41	11/01/20 12:36	1
Bis(2-ethylhexyl) phthalate	ND		9.7	0.19	ug/L		10/21/20 10:41	11/01/20 12:36	1
4-Bromophenyl phenyl ether	ND		9.7	0.19	ug/L		10/21/20 10:41	11/01/20 12:36	1
Butyl benzyl phthalate	ND		9.7	3.3	ug/L		10/21/20 10:41	11/01/20 12:36	1
4-Chloroaniline	ND		9.7	3.7	ug/L		10/21/20 10:41	11/01/20 12:36	1
4-Chloro-3-methylphenol	ND		9.7	0.14	ug/L		10/21/20 10:41	11/01/20 12:36	1
2-Chloronaphthalene	ND		9.7	2.1	ug/L		10/21/20 10:41	11/01/20 12:36	1
2-Chlorophenol	ND		9.7	1.9	ug/L		10/21/20 10:41	11/01/20 12:36	1
4-Chlorophenyl phenyl ether	ND		9.7	0.97	ug/L		10/21/20 10:41	11/01/20 12:36	1
Dibenz[a,h]acridine	ND		9.7	0.17	ug/L		10/21/20 10:41	11/01/20 12:36	1
Dibenzofuran	ND		9.7	2.5	ug/L		10/21/20 10:41	11/01/20 12:36	1
3,3'-Dichlorobenzidine	ND		9.7	2.9	ug/L		10/21/20 10:41	11/01/20 12:36	1
2,4-Dichlorophenol	ND		9.7	0.23	ug/L		10/21/20 10:41	11/01/20 12:36	1
Diethyl phthalate	0.24 JB		9.7	3.4	ug/L		10/21/20 10:41	11/01/20 12:36	1
2,4-Dimethylphenol	ND		9.7	0.17	ug/L		10/21/20 10:41	11/01/20 12:36	1
Dimethyl phthalate	ND		9.7	2.6	ug/L		10/21/20 10:41	11/01/20 12:36	1
Di-n-butyl phthalate	ND		9.7	1.6	ug/L		10/21/20 10:41	11/01/20 12:36	1
4,6-Dinitro-ortho-cresol	ND		29	3.3	ug/L		10/21/20 10:41	11/01/20 12:36	1
2,4-Dinitrophenol	ND		9.7	1.9	ug/L		10/21/20 10:41	11/01/20 12:36	1
2,4-Dinitrotoluene	ND		9.7	1.9	ug/L		10/21/20 10:41	11/01/20 12:36	1
2,6-Dinitrotoluene	ND		9.7	0.17	ug/L		10/21/20 10:41	11/01/20 12:36	1
Di-n-octyl phthalate	ND		9.7	0.97	ug/L		10/21/20 10:41	11/01/20 12:36	1
1,4-Dioxane	ND		9.7	0.97	ug/L		10/21/20 10:41	11/01/20 12:36	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.7	0.17	ug/L		10/21/20 10:41	11/01/20 12:36	1
Hexachlorobenzene	ND		19	2.5	ug/L		10/21/20 10:41	11/01/20 12:36	1
Hexachlorocyclopentadiene	ND		9.7	4.1	ug/L		10/21/20 10:41	11/01/20 12:36	1
Hexachloroethane	ND		9.7	0.97	ug/L		10/21/20 10:41	11/01/20 12:36	1
Indene	ND		9.7	0.14	ug/L		10/21/20 10:41	11/01/20 12:36	1
Isophorone	ND		9.7	1.8	ug/L		10/21/20 10:41	11/01/20 12:36	1
2-Methylphenol	ND		19	0.38	ug/L		10/21/20 10:41	11/01/20 12:36	1
3 & 4 Methylphenol	ND		9.7	2.1	ug/L		10/21/20 10:41	11/01/20 12:36	1
2-Nitroaniline	ND		9.7	1.8	ug/L		10/21/20 10:41	11/01/20 12:36	1
3-Nitroaniline	ND		9.7	1.5	ug/L		10/21/20 10:41	11/01/20 12:36	1
4-Nitroaniline	ND		9.7	0.13	ug/L		10/21/20 10:41	11/01/20 12:36	1
Nitrobenzene	ND		9.7	5.1	ug/L		10/21/20 10:41	11/01/20 12:36	1
2-Nitrophenol	ND		9.7	2.0	ug/L		10/21/20 10:41	11/01/20 12:36	1
4-Nitrophenol	ND		9.7	3.4	ug/L		10/21/20 10:41	11/01/20 12:36	1
N-Nitrosodimethylamine	ND								

Eurofins TestAmerica, Pensacola

Client Sample Results

Job ID: 400-194495-1

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

Client Sample ID: MW16-ROX-101420-EB

Date Collected: 10/14/20 13:00

Date Received: 10/15/20 09:45

Lab Sample ID: 400-194495-7

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.7	3.2	ug/L	10/21/20 10:41	11/01/20 12:36		1
N-Nitrosodiphenylamine	ND		9.7	0.18	ug/L	10/21/20 10:41	11/01/20 12:36		1
Pentachlorophenol	ND		19	1.4	ug/L	10/21/20 10:41	11/01/20 12:36		1
Phenol	ND		9.7	2.5	ug/L	10/21/20 10:41	11/01/20 12:36		1
Pyridine	ND		9.7	3.1	ug/L	10/21/20 10:41	11/01/20 12:36		1
Quinoline	ND		9.7	4.4	ug/L	10/21/20 10:41	11/01/20 12:36		1
2,4,5-Trichlorophenol	ND		9.7	3.6	ug/L	10/21/20 10:41	11/01/20 12:36		1
2,4,6-Trichlorophenol	ND		9.7	3.4	ug/L	10/21/20 10:41	11/01/20 12:36		1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	56		46 - 124				10/21/20 10:41	11/01/20 12:36	1
2-Fluorophenol	35		13 - 113				10/21/20 10:41	11/01/20 12:36	1
Nitrobenzene-d5	59		36 - 126				10/21/20 10:41	11/01/20 12:36	1
Phenol-d5	58		17 - 127				10/21/20 10:41	11/01/20 12:36	1
Terphenyl-d14	78		44 - 149				10/21/20 10:41	11/01/20 12:36	1
2,4,6-Tribromophenol	54		26 - 150				10/21/20 10:41	11/01/20 12:36	1
Method: 8011 - EDB and DBCP in Water by Microextraction									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L	10/20/20 11:05	10/20/20 15:56		1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L	10/20/20 11:05	10/20/20 15:56		1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	124		51 - 149				10/20/20 11:05	10/20/20 15:56	1

Eurofins TestAmerica, Pensacola

Definitions/Glossary

Job ID: 400-194495-1

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

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*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.
X	Surrogate recovery exceeds control limits

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

#	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Eurofins TestAmerica, Pensacola

Surrogate Summary

Job ID: 400-194495-1

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

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

Prep Type: Total/NA

Matrix: Water

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194495-1	TB-ROX-101420-8260	101	103	102
400-194495-3	MW5-ROX-101420	103	94	103
400-194495-4	P114R-ROX-101420	106	95	103
400-194495-5	MW13-ROX-101420	107	95	102
400-194495-6	MW16-ROX-101420	98	92	112
400-194495-7	MW16-ROX-101420-EB	103	103	102
LCS 400-507587/1002	Lab Control Sample	94	99	98
LCS 400-508108/1002	Lab Control Sample	97	94	111
MB 400-507587/5	Method Blank	101	104	101
MB 400-508108/4	Method Blank	97	93	111

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

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

Prep Type: Total/NA

Matrix: Water

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194495-3	MW5-ROX-101420	55	31	57	43	74	84
400-194495-4	P114R-ROX-101420	34 X	36	48	31	47	41
400-194495-4 - RERA	P114R-ROX-101420	52	44	61	58	80	66
400-194495-5	MW13-ROX-101420	51	11 X	52	34	75	85
400-194495-6	MW16-ROX-101420	52	13	52	29	70	67
400-194495-7	MW16-ROX-101420-EB	56	35	59	58	78	54
LCS 400-507389/2-A	Lab Control Sample	52	54	82	45	79	89
LCS 400-507618/2-A	Lab Control Sample	57	25	56	42	87	87
LCS 400-507618/3-A	Lab Control Sample	57	21	57	41	86	69
LCS 400-509223/2-A	Lab Control Sample	63	56	71	70	89	42
LCS 400-509223/4-A	Lab Control Sample	55	54	61	66	80	65
LCSD 400-507389/3-A	Lab Control Sample Dup	56	59	92	65	77	32
LCSD 400-507618/4-A	Lab Control Sample Dup	55	5 X	55	23	81	63
LCSD 400-509223/3-A	Lab Control Sample Dup	58	56	62	67	100	48
LCSD 400-509223/5-A	Lab Control Sample Dup	63	63	68	73	77	56
MB 400-507389/1-A	Method Blank	54	52	72	41	85	88
MB 400-507618/1-A	Method Blank	58	17	59	36	100	44
MB 400-509223/1-A	Method Blank	59	54	64	67		

Surrogate Legend

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

PHL = Phenol-d5

TPHL = Terphenyl-d14

TBP = 2,4,6-Tribromophenol

Eurofins TestAmerica, Pensacola

11/10/2021

Surrogate Summary

Job ID: 400-194495-1

Client: AECOM Technical Services Inc.

Project/Site: ROXANA QUARTERLY GW

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

Prep Type: Total/NA

Matrix: Water

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194495-3	MW5-ROX-101420	60	67	69
400-194495-4	P114R-ROX-101420	76	90	136
400-194495-5	MW13-ROX-101420	56	59	67
400-194495-6	MW16-ROX-101420	58	64	74
400-194495-7	MW16-ROX-101420-EB	60	62	72
LCS 400-507389/2-A	Lab Control Sample	62	75	93
LCS 400-507618/2-A	Lab Control Sample	85	96	98
LCSD 400-507389/3-A	Lab Control Sample Dup	71	99	101
MB 400-507389/1-A	Method Blank	50	61	98
MB 400-507618/1-A	Method Blank	32	39	41

Surrogate Legend

FBP = 2-Fluorobiphenyl

NBZ = Nitrobenzene-d5

TPHL = Terphenyl-d14

Method: 8011 - EDB and DBCP in Water by Microextraction

Prep Type: Total/NA

Matrix: Water

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB2 (51-149)
400-194495-2	TB-ROX-101420-8011	96
400-194495-3	MW5-ROX-101420	111
400-194495-4	P114R-ROX-101420	91
400-194495-5	MW13-ROX-101420	105
400-194495-6	MW16-ROX-101420	91
400-194495-7	MW16-ROX-101420-EB	124
LCS 400-507275/2-A	Lab Control Sample	86
LCS 400-507450/2-A	Lab Control Sample	116
LCSD 400-507275/3-A	Lab Control Sample Dup	91
LCSD 400-507450/3-A	Lab Control Sample Dup	112
MB 400-507275/1-A	Method Blank	93
MB 400-507450/1-A	Method Blank	104

Surrogate Legend

BFB = 4-Bromofluorobenzene

Eurofins TestAmerica, Pensacola

Method Summary

Job ID: 400-194495-1

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

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

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, 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: 400-194495-1

Client Sample ID: TB-ROX-101420-8260

Lab Sample ID: 400-194495-1

Matrix: Water

Date Collected: 10/14/20 00:00

Date Received: 10/15/20 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	507587	10/21/20 14:48	AMB	TAL PEN

Client Sample ID: TB-ROX-101420-8011

Lab Sample ID: 400-194495-2

Matrix: Water

Date Collected: 10/14/20 00:00

Date Received: 10/15/20 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			34.9 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 19:55	DHJ	TAL PEN

Client Sample ID: MW5-ROX-101420

Lab Sample ID: 400-194495-3

Matrix: Water

Date Collected: 10/14/20 09:20

Date Received: 10/15/20 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	507587	10/21/20 21:00	AMB	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 23:30	VC1	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 17:52	KJA	TAL PEN
Total/NA	Prep	8011			35.2 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 20:15	DHJ	TAL PEN

Client Sample ID: P114R-ROX-101420

Lab Sample ID: 400-194495-4

Matrix: Water

Date Collected: 10/14/20 11:00

Date Received: 10/15/20 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	507587	10/21/20 21:27	AMB	TAL PEN
Total/NA	Prep	3520C			243 mL	1 mL	507389	10/19/20 19:54	NTH	TAL PEN
Total/NA	Analysis	8270D		1			507407	10/20/20 18:45	VC1	TAL PEN
Total/NA	Prep	3520C			243 mL	1 mL	507389	10/19/20 19:54	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509865	11/09/20 16:20	VC1	TAL PEN
Total/NA	Prep	3520C	RERA		262 mL	1 mL	509223	11/03/20 16:41	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			509593	11/06/20 19:48	S1B	TAL PEN
Total/NA	Prep	3520C			243 mL	1 mL	507389	10/19/20 19:54	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			507531	10/21/20 14:14	DS	TAL PEN
Total/NA	Prep	8011			35.5 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 20:35	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194495-1

Client Sample ID: MW13-ROX-101420

Date Collected: 10/14/20 11:42

Date Received: 10/15/20 09:45

Lab Sample ID: 400-194495-5

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	507587	10/21/20 21:53	AMB	TAL PEN
Total/NA	Prep	3520C			260.8 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 23:55	VC1	TAL PEN
Total/NA	Prep	3520C			260.8 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 18:10	KJA	TAL PEN
Total/NA	Prep	8011			34.7 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 20:55	DHJ	TAL PEN

Client Sample ID: MW16-ROX-101420

Date Collected: 10/14/20 13:50

Date Received: 10/15/20 09:45

Lab Sample ID: 400-194495-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	508108	10/26/20 12:52	WPD	TAL PEN
Total/NA	Prep	3520C			267.4 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/27/20 00:21	VC1	TAL PEN
Total/NA	Prep	3520C			267.4 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 18:28	KJA	TAL PEN
Total/NA	Prep	8011			34.4 mL	35 mL	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 21:15	DHJ	TAL PEN

Client Sample ID: MW16-ROX-101420-EB

Date Collected: 10/14/20 13:00

Date Received: 10/15/20 09:45

Lab Sample ID: 400-194495-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	507587	10/21/20 15:15	AMB	TAL PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508916	11/01/20 12:36	S1B	TAL PEN
Total/NA	Prep	3520C			256.6 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 18:45	KJA	TAL PEN
Total/NA	Prep	8011			34.7 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 15:56	DHJ	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-507275/1-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:16	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Job ID: 400-194495-1

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

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-507389/1-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	507389	10/19/20 19:54	NTH	TAL PEN
Total/NA	Analysis	8270D		1			507407	10/20/20 16:43	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507389	10/19/20 19:54	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			507531	10/21/20 10:51	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-507450/1-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	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 14:56	DHJ	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-507587/5

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	507587	10/21/20 12:09	AMB	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-507618/1-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 19:13	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508212	10/26/20 19:55	PP1	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-508108/4

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	508108	10/26/20 10:54	WPD	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-509223/1-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	509223	11/03/20 16:41	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509593	11/06/20 17:44	S1B	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Job ID: 400-194495-1

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

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507275/2-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:36	DHJ	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507389/2-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	507389	10/19/20 19:54	NTH	TAL PEN
Total/NA	Analysis	8270D		1			507407	10/20/20 17:07	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507389	10/19/20 19:54	NTH	TAL PEN
Total/NA	Analysis	8270D LL		5			507460	10/20/20 19:28	PP1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507450/2-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	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 15:16	DHJ	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507587/1002

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	507587	10/21/20 11:05	AMB	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507618/2-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 20:31	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			508212	10/26/20 20:13	PP1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507618/3-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 19:39	VC1	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Job ID: 400-194495-1

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

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-508108/1002
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	508108	10/26/20 09:57	WPD	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-509223/2-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	509223	11/03/20 16:41	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509593	11/06/20 18:04	S1B	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-509223/4-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	509223	11/03/20 16:41	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509593	11/06/20 18:46	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-507275/3-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	507275	10/19/20 09:37	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507289	10/19/20 16:56	DHJ	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-507389/3-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	507389	10/19/20 19:54	NTH	TAL PEN
Total/NA	Analysis	8270D		1			507407	10/20/20 17:32	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507389	10/19/20 19:54	NTH	TAL PEN
Total/NA	Analysis	8270D LL		5			507460	10/20/20 19:44	PP1	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-507450/3-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	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 15:36	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Job ID: 400-194495-1

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

Client Sample ID: Lab Control Sample Dup

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	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 20:05	VC1	TAL PEN

Client Sample ID: Lab Control Sample Dup

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	509223	11/03/20 16:41	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509593	11/06/20 18:25	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

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	509223	11/03/20 16:41	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509593	11/06/20 19:06	S1B	TAL PEN

Laboratory References:

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

Eurofins TestAmerica, Pensacola

QC Association Summary

Job ID: 400-194495-1

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

GC/MS VOA

Analysis Batch: 507587

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-1	TB-ROX-101420-8260	Total/NA	Water	8260B	
400-194495-3	MW5-ROX-101420	Total/NA	Water	8260B	
400-194495-4	P114R-ROX-101420	Total/NA	Water	8260B	
400-194495-5	MW13-ROX-101420	Total/NA	Water	8260B	
400-194495-7	MW16-ROX-101420-EB	Total/NA	Water	8260B	
MB 400-507587/5	Method Blank	Total/NA	Water	8260B	
LCS 400-507587/1002	Lab Control Sample	Total/NA	Water	8260B	

Analysis Batch: 508108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-6	MW16-ROX-101420	Total/NA	Water	8260B	
MB 400-508108/4	Method Blank	Total/NA	Water	8260B	
LCS 400-508108/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 507389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-4	P114R-ROX-101420	Total/NA	Water	3520C	
MB 400-507389/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-507389/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-507389/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 507407

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-4	P114R-ROX-101420	Total/NA	Water	8270D	507389
MB 400-507389/1-A	Method Blank	Total/NA	Water	8270D	507389
LCS 400-507389/2-A	Lab Control Sample	Total/NA	Water	8270D	507389
LCSD 400-507389/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	507389

Analysis Batch: 507460

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 400-507389/2-A	Lab Control Sample	Total/NA	Water	8270D LL	507389
LCSD 400-507389/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	507389

Analysis Batch: 507531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-4	P114R-ROX-101420	Total/NA	Water	8270D LL	507389
MB 400-507389/1-A	Method Blank	Total/NA	Water	8270D LL	507389

Prep Batch: 507618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-3	MW5-ROX-101420	Total/NA	Water	3520C	
400-194495-5	MW13-ROX-101420	Total/NA	Water	3520C	
400-194495-6	MW16-ROX-101420	Total/NA	Water	3520C	
400-194495-7	MW16-ROX-101420-EB	Total/NA	Water	3520C	
MB 400-507618/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-507618/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-507618/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Eurofins TestAmerica, Pensacola

QC Association Summary

Job ID: 400-194495-1

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

GC/MS Semi VOA

Analysis Batch: 508112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-3	MW5-ROX-101420	Total/NA	Water	8270D	507618
400-194495-5	MW13-ROX-101420	Total/NA	Water	8270D	507618
400-194495-6	MW16-ROX-101420	Total/NA	Water	8270D	507618
MB 400-507618/1-A	Method Blank	Total/NA	Water	8270D	507618
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	8270D	507618
LCS 400-507618/3-A	Lab Control Sample	Total/NA	Water	8270D	507618
LCSD 400-507618/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	507618

Analysis Batch: 508212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-507618/1-A	Method Blank	Total/NA	Water	8270D LL	507618
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	8270D LL	507618

Analysis Batch: 508361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-3	MW5-ROX-101420	Total/NA	Water	8270D LL	507618
400-194495-5	MW13-ROX-101420	Total/NA	Water	8270D LL	507618
400-194495-6	MW16-ROX-101420	Total/NA	Water	8270D LL	507618
400-194495-7	MW16-ROX-101420-EB	Total/NA	Water	8270D LL	507618

Analysis Batch: 508916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-7	MW16-ROX-101420-EB	Total/NA	Water	8270D	507618

Prep Batch: 509223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-4 - RERA	P114R-ROX-101420	Total/NA	Water	3520C	
MB 400-509223/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-509223/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-509223/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-509223/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-509223/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 509593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-4 - RERA	P114R-ROX-101420	Total/NA	Water	8270D	509223
MB 400-509223/1-A	Method Blank	Total/NA	Water	8270D	509223
LCS 400-509223/2-A	Lab Control Sample	Total/NA	Water	8270D	509223
LCS 400-509223/4-A	Lab Control Sample	Total/NA	Water	8270D	509223
LCSD 400-509223/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	509223
LCSD 400-509223/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	509223

Analysis Batch: 509865

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-4	P114R-ROX-101420	Total/NA	Water	8270D	507389

GC Semi VOA

Prep Batch: 507275

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-2	TB-ROX-101420-8011	Total/NA	Water	8011	

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194495-1

GC Semi VOA (Continued)

Prep Batch: 507275 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-3	MW5-ROX-101420	Total/NA	Water	8011	
400-194495-4	P114R-ROX-101420	Total/NA	Water	8011	
400-194495-5	MW13-ROX-101420	Total/NA	Water	8011	
400-194495-6	MW16-ROX-101420	Total/NA	Water	8011	
MB 400-507275/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-507275/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-507275/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 507289

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-2	TB-ROX-101420-8011	Total/NA	Water	8011	507275
400-194495-3	MW5-ROX-101420	Total/NA	Water	8011	507275
400-194495-4	P114R-ROX-101420	Total/NA	Water	8011	507275
400-194495-5	MW13-ROX-101420	Total/NA	Water	8011	507275
400-194495-6	MW16-ROX-101420	Total/NA	Water	8011	507275
MB 400-507275/1-A	Method Blank	Total/NA	Water	8011	507275
LCS 400-507275/2-A	Lab Control Sample	Total/NA	Water	8011	507275
LCSD 400-507275/3-A	Lab Control Sample Dup	Total/NA	Water	8011	507275

Prep Batch: 507450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-7	MW16-ROX-101420-EB	Total/NA	Water	8011	
MB 400-507450/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-507450/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-507450/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 507451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194495-7	MW16-ROX-101420-EB	Total/NA	Water	8011	507450
MB 400-507450/1-A	Method Blank	Total/NA	Water	8011	507450
LCS 400-507450/2-A	Lab Control Sample	Total/NA	Water	8011	507450
LCSD 400-507450/3-A	Lab Control Sample Dup	Total/NA	Water	8011	507450

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: MB 400-507587/5

Matrix: Water

Analysis Batch: 507587

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

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone		ND			25	10	ug/L			10/21/20 12:09	1
Acrolein		ND			20	10	ug/L			10/21/20 12:09	1
Acrylonitrile		ND			10	2.8	ug/L			10/21/20 12:09	1
Benzene		ND			1.0	0.38	ug/L			10/21/20 12:09	1
Bromobenzene		ND			1.0	0.54	ug/L			10/21/20 12:09	1
Bromoform		ND			1.0	0.52	ug/L			10/21/20 12:09	1
Bromomethane		ND			5.0	0.50	ug/L			10/21/20 12:09	1
2-Butanone (MEK)		ND			25	2.6	ug/L			10/21/20 12:09	1
Carbon disulfide		ND			1.0	0.50	ug/L			10/21/20 12:09	1
Carbon tetrachloride		ND			1.0	0.50	ug/L			10/21/20 12:09	1
Chlorobenzene		ND			1.0	0.50	ug/L			10/21/20 12:09	1
Dibromochloromethane		ND			1.0	0.50	ug/L			10/21/20 12:09	1
Chloroethane		ND			1.0	0.76	ug/L			10/21/20 12:09	1
2-Chloroethyl vinyl ether		ND			5.0	2.0	ug/L			10/21/20 12:09	1
Chloroform		ND			1.0	0.60	ug/L			10/21/20 12:09	1
1-Chlorohexane		ND			1.0	0.70	ug/L			10/21/20 12:09	1
Chloromethane		ND			1.0	0.83	ug/L			10/21/20 12:09	1
cis-1,2-Dichloroethene		ND			1.0	0.50	ug/L			10/21/20 12:09	1
cis-1,3-Dichloropropene		ND			5.0	0.50	ug/L			10/21/20 12:09	1
1,2-Dichlorobenzene		ND			1.0	0.50	ug/L			10/21/20 12:09	1
1,3-Dichlorobenzene		ND			1.0	0.54	ug/L			10/21/20 12:09	1
1,4-Dichlorobenzene		ND			1.0	0.64	ug/L			10/21/20 12:09	1
Dichlorodifluoromethane		ND			1.0	0.85	ug/L			10/21/20 12:09	1
1,1-Dichloroethane		ND			1.0	0.50	ug/L			10/21/20 12:09	1
1,2-Dichloroethane		ND			1.0	0.50	ug/L			10/21/20 12:09	1
1,1-Dichloroethene		ND			1.0	0.50	ug/L			10/21/20 12:09	1
1,2-Dichloropropane		ND			1.0	0.50	ug/L			10/21/20 12:09	1
1,3-Dichloropropane		ND			1.0	0.50	ug/L			10/21/20 12:09	1
2,2-Dichloropropane		ND			1.0	0.50	ug/L			10/21/20 12:09	1
1,1-Dichloropropene		ND			1.0	0.50	ug/L			10/21/20 12:09	1
Ethylbenzene		ND			1.0	0.50	ug/L			10/21/20 12:09	1
Ethyl methacrylate		ND			1.0	0.60	ug/L			10/21/20 12:09	1
Hexachlorobutadiene		ND			5.0	0.90	ug/L			10/21/20 12:09	1
2-Hexanone		ND			25	3.1	ug/L			10/21/20 12:09	1
Isopropylbenzene		ND			1.0	0.53	ug/L			10/21/20 12:09	1
Methylene bromide		ND			5.0	0.59	ug/L			10/21/20 12:09	1
Methylene Chloride		ND			5.0	3.0	ug/L			10/21/20 12:09	1
4-Methyl-2-pentanone (MIBK)		ND			25	1.8	ug/L			10/21/20 12:09	1
Methyl tert-butyl ether		ND			1.0	0.74	ug/L			10/21/20 12:09	1
m-Xylene & p-Xylene		ND			5.0	1.6	ug/L			10/21/20 12:09	1
Naphthalene		ND			1.0	1.0	ug/L			10/21/20 12:09	1
n-Butylbenzene		ND			1.0	0.76	ug/L			10/21/20 12:09	1
N-Propylbenzene		ND			1.0	0.69	ug/L			10/21/20 12:09	1
o-Chlorotoluene		ND			1.0	0.57	ug/L			10/21/20 12:09	1
o-Xylene		ND			5.0	0.60	ug/L			10/21/20 12:09	1
p-Chlorotoluene		ND			1.0	0.56	ug/L			10/21/20 12:09	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: MB 400-507587/5

Matrix: Water

Analysis Batch: 507587

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/21/20 12:09	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/21/20 12:09	1
Styrene	ND		1.0	1.0	ug/L			10/21/20 12:09	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/21/20 12:09	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/21/20 12:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/21/20 12:09	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/21/20 12:09	1
Toluene	ND		1.0	0.41	ug/L			10/21/20 12:09	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/21/20 12:09	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/21/20 12:09	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/21/20 12:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/21/20 12:09	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/21/20 12:09	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/21/20 12:09	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/21/20 12:09	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/21/20 12:09	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/21/20 12:09	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/21/20 12:09	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/21/20 12:09	1
Vinyl acetate	ND		25	2.0	ug/L			10/21/20 12:09	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/21/20 12:09	1
Xylenes, Total	ND		10	1.6	ug/L			10/21/20 12:09	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		78 - 118		10/21/20 12:09	1
Dibromofluoromethane	104		81 - 121		10/21/20 12:09	1
Toluene-d8 (Surrogate)	101		80 - 120		10/21/20 12:09	1

Lab Sample ID: LCS 400-507587/1002

Matrix: Water

Analysis Batch: 507587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acetone	200	229		ug/L		114	43 - 160
Acrolein	500	487		ug/L		97	38 - 180
Acrylonitrile	500	567		ug/L		113	64 - 142
Benzene	50.0	46.8		ug/L		94	70 - 130
Bromobenzene	50.0	46.1		ug/L		92	70 - 132
Bromochloromethane	50.0	48.6		ug/L		97	70 - 130
Bromodichloromethane	50.0	46.4		ug/L		93	67 - 133
Bromoform	50.0	55.7		ug/L		111	57 - 140
Bromomethane	50.0	48.7		ug/L		97	10 - 160
2-Butanone (MEK)	200	203		ug/L		101	61 - 145
Carbon disulfide	50.0	45.7		ug/L		91	61 - 137
Carbon tetrachloride	50.0	47.9		ug/L		96	61 - 137
Chlorobenzene	50.0	47.4		ug/L		95	70 - 130
Dibromochloromethane	50.0	51.2		ug/L		102	67 - 135
Chloroethane	50.0	41.7		ug/L		83	55 - 141

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

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: LCS 400-507587/1002

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

Matrix: Water

Analysis Batch: 507587

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloroethyl vinyl ether	50.0	43.0		ug/L	86	10 - 160	
Chloroform	50.0	46.3		ug/L	93	69 - 130	
1-Chlorohexane	50.0	49.1		ug/L	98	69 - 130	
Chloromethane	50.0	54.2		ug/L	108	58 - 137	
cis-1,2-Dichloroethene	50.0	48.2		ug/L	96	68 - 130	
cis-1,3-Dichloropropene	50.0	46.6		ug/L	93	69 - 132	
1,2-Dichlorobenzene	50.0	49.3		ug/L	99	67 - 130	
1,3-Dichlorobenzene	50.0	48.4		ug/L	97	70 - 130	
1,4-Dichlorobenzene	50.0	50.0		ug/L	100	70 - 130	
Dichlorodifluoromethane	50.0	51.6		ug/L	103	41 - 146	
1,1-Dichloroethane	50.0	47.8		ug/L	96	70 - 130	
1,2-Dichloroethane	50.0	48.0		ug/L	96	69 - 130	
1,1-Dichloroethylene	50.0	45.4		ug/L	91	63 - 134	
1,2-Dichloropropane	50.0	48.6		ug/L	97	70 - 130	
1,3-Dichloropropane	50.0	49.6		ug/L	99	70 - 130	
2,2-Dichloropropane	50.0	45.7		ug/L	91	52 - 135	
1,1-Dichloropropene	50.0	43.6		ug/L	87	70 - 130	
Ethylbenzene	50.0	45.6		ug/L	91	70 - 130	
Ethyl methacrylate	50.0	50.3		ug/L	101	68 - 130	
Hexachlorobutadiene	50.0	50.0		ug/L	100	53 - 140	
2-Hexanone	200	219		ug/L	109	65 - 137	
Isopropylbenzene	50.0	45.1		ug/L	90	70 - 130	
Methylene bromide	50.0	47.8		ug/L	96	70 - 130	
Methylene Chloride	50.0	48.6		ug/L	97	66 - 135	
4-Methyl-2-pentanone (MIBK)	200	210		ug/L	105	69 - 138	
Methyl tert-butyl ether	50.0	49.2		ug/L	98	66 - 130	
m-Xylene & p-Xylene	50.0	45.8		ug/L	92	70 - 130	
Naphthalene	50.0	45.0		ug/L	90	47 - 149	
n-Butylbenzene	50.0	53.0		ug/L	106	67 - 130	
N-Propylbenzene	50.0	47.6		ug/L	95	70 - 130	
o-Chlorotoluene	50.0	50.1		ug/L	100	70 - 130	
o-Xylene	50.0	45.9		ug/L	92	70 - 130	
p-Chlorotoluene	50.0	49.8		ug/L	100	70 - 130	
p-Isopropyltoluene	50.0	47.4		ug/L	95	65 - 130	
sec-Butylbenzene	50.0	46.6		ug/L	93	66 - 130	
Styrene	50.0	48.0		ug/L	96	70 - 130	
tert-Butylbenzene	50.0	45.6		ug/L	91	64 - 139	
1,1,1,2-Tetrachloroethane	50.0	50.4		ug/L	101	67 - 131	
1,1,2,2-Tetrachloroethane	50.0	51.6		ug/L	103	70 - 131	
Tetrachloroethylene	50.0	44.7		ug/L	89	65 - 130	
Toluene	50.0	46.9		ug/L	94	70 - 130	
trans-1,2-Dichloroethylene	50.0	47.2		ug/L	94	70 - 130	
trans-1,3-Dichloropropene	50.0	47.5		ug/L	95	63 - 130	
1,2,3-Trichlorobenzene	50.0	47.1		ug/L	94	60 - 138	
1,2,4-Trichlorobenzene	50.0	46.8		ug/L	94	60 - 140	
1,1,1-Trichloroethane	50.0	46.2		ug/L	92	68 - 130	
1,1,2-Trichloroethane	50.0	48.2		ug/L	96	70 - 130	
Trichloroethylene	50.0	44.4		ug/L	89	70 - 130	
Trichlorofluoromethane	50.0	42.0		ug/L	84	65 - 138	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: LCS 400-507587/1002

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

Matrix: Water

Analysis Batch: 507587

Analyte	Spike Added	LCS			Unit	D	%Rec	%Rec. Limits
		Result	Qualifier	Limits				
1,2,3-Trichloropropane	50.0	52.7		ug/L		105	70 - 130	
1,2,4-Trimethylbenzene	50.0	48.7		ug/L		97	70 - 130	
1,3,5-Trimethylbenzene	50.0	47.7		ug/L		95	69 - 130	
Vinyl acetate	100	95.9		ug/L		96	26 - 160	
Vinyl chloride	50.0	47.2		ug/L		94	59 - 136	
Xylenes, Total	100	91.7		ug/L		92	70 - 130	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	94		78 - 118
Dibromofluoromethane	99		81 - 121
Toluene-d8 (Surrogate)	98		80 - 120

Lab Sample ID: MB 400-508108/4

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

Matrix: Water

Analysis Batch: 508108

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	ND		25	10	ug/L			10/26/20 10:54	1
Acrolein	ND		20	10	ug/L			10/26/20 10:54	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/20 10:54	1
Benzene	ND		1.0	0.38	ug/L			10/26/20 10:54	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/20 10:54	1
Bromoform	ND		1.0	0.52	ug/L			10/26/20 10:54	1
Bromoform	ND		5.0	0.50	ug/L			10/26/20 10:54	1
Bromomethane	ND		1.0	0.71	ug/L			10/26/20 10:54	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/20 10:54	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/20 10:54	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/20 10:54	1
Chloroform	ND		1.0	0.60	ug/L			10/26/20 10:54	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/26/20 10:54	1
Chloromethane	ND		1.0	0.83	ug/L			10/26/20 10:54	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 10:54	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 10:54	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/20 10:54	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/20 10:54	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/20 10:54	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 10:54	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: MB 400-508108/4

Matrix: Water

Analysis Batch: 508108

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloropropene	ND				1.0	0.50	ug/L			10/26/20 10:54	1
Ethylbenzene	ND				1.0	0.50	ug/L			10/26/20 10:54	1
Ethyl methacrylate	ND				1.0	0.60	ug/L			10/26/20 10:54	1
Hexachlorobutadiene	ND				5.0	0.90	ug/L			10/26/20 10:54	1
2-Hexanone	ND				25	3.1	ug/L			10/26/20 10:54	1
Isopropylbenzene	ND				1.0	0.53	ug/L			10/26/20 10:54	1
Methylene bromide	ND				5.0	0.59	ug/L			10/26/20 10:54	1
Methylene Chloride	ND				5.0	3.0	ug/L			10/26/20 10:54	1
4-Methyl-2-pentanone (MIBK)	ND				25	1.8	ug/L			10/26/20 10:54	1
Methyl tert-butyl ether	ND				1.0	0.74	ug/L			10/26/20 10:54	1
m-Xylene & p-Xylene	ND				5.0	1.6	ug/L			10/26/20 10:54	1
Naphthalene	ND				1.0	1.0	ug/L			10/26/20 10:54	1
n-Butylbenzene	ND				1.0	0.76	ug/L			10/26/20 10:54	1
N-Propylbenzene	ND				1.0	0.69	ug/L			10/26/20 10:54	1
o-Chlorotoluene	ND				1.0	0.57	ug/L			10/26/20 10:54	1
o-Xylene	ND				5.0	0.60	ug/L			10/26/20 10:54	1
p-Chlorotoluene	ND				1.0	0.56	ug/L			10/26/20 10:54	1
p-Isopropyltoluene	ND				1.0	0.71	ug/L			10/26/20 10:54	1
sec-Butylbenzene	ND				1.0	0.70	ug/L			10/26/20 10:54	1
Styrene	ND				1.0	1.0	ug/L			10/26/20 10:54	1
tert-Butylbenzene	ND				1.0	0.63	ug/L			10/26/20 10:54	1
1,1,1,2-Tetrachloroethane	ND				1.0	0.52	ug/L			10/26/20 10:54	1
1,1,2,2-Tetrachloroethane	ND				1.0	0.50	ug/L			10/26/20 10:54	1
Tetrachloroethene	ND				1.0	0.58	ug/L			10/26/20 10:54	1
Toluene	ND				1.0	0.41	ug/L			10/26/20 10:54	1
trans-1,2-Dichloroethene	ND				1.0	0.50	ug/L			10/26/20 10:54	1
trans-1,3-Dichloropropene	ND				5.0	0.50	ug/L			10/26/20 10:54	1
1,2,3-Trichlorobenzene	ND				1.0	0.70	ug/L			10/26/20 10:54	1
1,2,4-Trichlorobenzene	ND				1.0	0.82	ug/L			10/26/20 10:54	1
1,1,1-Trichloroethane	ND				1.0	0.50	ug/L			10/26/20 10:54	1
1,1,2-Trichloroethane	ND				5.0	0.50	ug/L			10/26/20 10:54	1
Trichloroethene	ND				1.0	0.50	ug/L			10/26/20 10:54	1
Trichlorofluoromethane	ND				1.0	0.52	ug/L			10/26/20 10:54	1
1,2,3-Trichloropropane	ND				5.0	0.84	ug/L			10/26/20 10:54	1
1,2,4-Trimethylbenzene	ND				1.0	0.82	ug/L			10/26/20 10:54	1
1,3,5-Trimethylbenzene	ND				1.0	0.56	ug/L			10/26/20 10:54	1
Vinyl acetate	ND				25	2.0	ug/L			10/26/20 10:54	1
Vinyl chloride	ND				1.0	0.50	ug/L			10/26/20 10:54	1
Xylenes, Total	ND				10	1.6	ug/L			10/26/20 10:54	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78 - 118				10/26/20 10:54	1
Dibromofluoromethane	93		81 - 121				10/26/20 10:54	1
Toluene-d8 (Surr)	111		80 - 120				10/26/20 10:54	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: LCS 400-508108/1002

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

Matrix: Water

Analysis Batch: 508108

Analyte	Spike	LCS			%Rec.	Limits
	Added	Result	Qualifier	Unit		
Acetone	200	202		ug/L	101	43 - 160
Acrolein	500	472		ug/L	94	38 - 160
Acrylonitrile	500	400		ug/L	80	64 - 142
Benzene	50.0	43.9		ug/L	88	70 - 130
Bromobenzene	50.0	45.2		ug/L	90	70 - 132
Bromochloromethane	50.0	41.1		ug/L	82	70 - 130
Bromodichloromethane	50.0	42.0		ug/L	84	67 - 133
Bromoform	50.0	43.0		ug/L	86	57 - 140
Bromomethane	50.0	46.6		ug/L	93	10 - 160
2-Butanone (MEK)	200	210		ug/L	105	61 - 145
Carbon disulfide	50.0	37.5		ug/L	75	61 - 137
Carbon tetrachloride	50.0	37.6		ug/L	75	61 - 137
Chlorobenzene	50.0	48.3		ug/L	97	70 - 130
Dibromochloromethane	50.0	42.0		ug/L	84	67 - 135
Chloroethane	50.0	51.0		ug/L	102	55 - 141
2-Chloroethyl vinyl ether	50.0	37.0		ug/L	74	10 - 160
Chloroform	50.0	40.9		ug/L	82	69 - 130
1-Chlorohexane	50.0	52.4		ug/L	105	69 - 130
Chloromethane	50.0	40.1		ug/L	80	58 - 137
cis-1,2-Dichloroethene	50.0	42.5		ug/L	85	68 - 130
cis-1,3-Dichloropropene	50.0	47.0		ug/L	94	69 - 132
1,2-Dichlorobenzene	50.0	47.2		ug/L	94	67 - 130
1,3-Dichlorobenzene	50.0	48.3		ug/L	97	70 - 130
1,4-Dichlorobenzene	50.0	48.3		ug/L	97	70 - 130
Dichlorodifluoromethane	50.0	34.1		ug/L	68	41 - 146
1,1-Dichloroethane	50.0	42.0		ug/L	84	70 - 130
1,2-Dichloroethane	50.0	40.5		ug/L	81	69 - 130
1,1-Dichloroethene	50.0	40.4		ug/L	81	63 - 134
1,2-Dichloropropane	50.0	42.4		ug/L	85	70 - 130
1,3-Dichloropropane	50.0	52.0		ug/L	104	70 - 130
2,2-Dichloropropane	50.0	41.0		ug/L	82	52 - 135
1,1-Dichloropropene	50.0	43.1		ug/L	86	70 - 130
Ethylbenzene	50.0	49.5		ug/L	99	70 - 130
Ethyl methacrylate	50.0	52.0		ug/L	104	68 - 130
Hexachlorobutadiene	50.0	45.3		ug/L	91	53 - 140
2-Hexanone	200	215		ug/L	108	65 - 137
Isopropylbenzene	50.0	50.7		ug/L	101	70 - 130
Methylene bromide	50.0	41.0		ug/L	82	70 - 130
Methylene Chloride	50.0	41.5		ug/L	83	66 - 135
4-Methyl-2-pentanone (MIBK)	200	190		ug/L	95	69 - 138
Methyl tert-butyl ether	50.0	45.3		ug/L	91	66 - 130
m-Xylene & p-Xylene	50.0	47.8		ug/L	96	70 - 130
Naphthalene	50.0	46.3		ug/L	93	47 - 149
n-Butylbenzene	50.0	62.9		ug/L	126	67 - 130
N-Propylbenzene	50.0	52.1		ug/L	104	70 - 130
o-Chlorotoluene	50.0	51.4		ug/L	103	70 - 130
o-Xylene	50.0	48.0		ug/L	96	70 - 130
p-Chlorotoluene	50.0	51.7		ug/L	103	70 - 130

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: LCS 400-508108/1002

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

Matrix: Water

Analysis Batch: 508108

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
p-Isopropyltoluene	50.0	56.9		ug/L	114	65 - 130	
sec-Butylbenzene	50.0	53.4		ug/L	107	66 - 130	
Styrene	50.0	47.4		ug/L	95	70 - 130	
tert-Butylbenzene	50.0	49.9		ug/L	100	64 - 139	
1,1,1,2-Tetrachloroethane	50.0	45.1		ug/L	90	67 - 131	
1,1,2,2-Tetrachloroethane	50.0	52.1		ug/L	104	70 - 131	
Tetrachloroethene	50.0	44.2		ug/L	88	65 - 130	
Toluene	50.0	47.8		ug/L	96	70 - 130	
trans-1,2-Dichloroethene	50.0	41.3		ug/L	83	70 - 130	
trans-1,3-Dichloropropene	50.0	50.7		ug/L	101	63 - 130	
1,2,3-Trichlorobenzene	50.0	43.1		ug/L	86	60 - 138	
1,2,4-Trichlorobenzene	50.0	44.0		ug/L	88	60 - 140	
1,1,1-Trichloroethane	50.0	39.0		ug/L	78	68 - 130	
1,1,2-Trichloroethane	50.0	48.7		ug/L	97	70 - 130	
Trichloroethylene	50.0	39.9		ug/L	80	70 - 130	
Trichlorofluoromethane	50.0	46.6		ug/L	93	65 - 138	
1,2,3-Trichloropropane	50.0	47.9		ug/L	96	70 - 130	
1,2,4-Trimethylbenzene	50.0	49.4		ug/L	99	70 - 130	
1,3,5-Trimethylbenzene	50.0	48.7		ug/L	97	69 - 130	
Vinyl acetate	100	120		ug/L	120	26 - 160	
Vinyl chloride	50.0	47.3		ug/L	95	59 - 136	
Xylenes, Total	100	95.8		ug/L	96	70 - 130	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	97		78 - 118
Dibromofluoromethane	94		81 - 121
Toluene-d8 (Surr)	111		80 - 120

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

Lab Sample ID: MB 400-507389/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507407

Prep Batch: 507389

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aniline	ND		10	3.8	ug/L	10/19/20 19:54	10/20/20 16:43		1
Benzenethiol	ND		10	1.7	ug/L	10/19/20 19:54	10/20/20 16:43		1
Benzyl alcohol	ND		10	2.0	ug/L	10/19/20 19:54	10/20/20 16:43		1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L	10/19/20 19:54	10/20/20 16:43		1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L	10/19/20 19:54	10/20/20 16:43		1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L	10/19/20 19:54	10/20/20 16:43		1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L	10/19/20 19:54	10/20/20 16:43		1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L	10/19/20 19:54	10/20/20 16:43		1
Butyl benzyl phthalate	ND		10	0.19	ug/L	10/19/20 19:54	10/20/20 16:43		1
4-Chloroaniline	ND		10	3.4	ug/L	10/19/20 19:54	10/20/20 16:43		1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L	10/19/20 19:54	10/20/20 16:43		1
2-Chloronaphthalene	ND		10	0.14	ug/L	10/19/20 19:54	10/20/20 16:43		1
2-Chlorophenol	ND		10	2.2	ug/L	10/19/20 19:54	10/20/20 16:43		1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L	10/19/20 19:54	10/20/20 16:43		1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: MB 400-507389/1-A

Matrix: Water

Analysis Batch: 507407

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507389

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	ND				10	0.17	ug/L		10/19/20 19:54	10/20/20 16:43	1
3,3'-Dichlorobenzidine	ND				10	2.6	ug/L		10/19/20 19:54	10/20/20 16:43	1
2,4-Dichlorophenol	ND				10	3.0	ug/L		10/19/20 19:54	10/20/20 16:43	1
Diethyl phthalate	ND				10	0.24	ug/L		10/19/20 19:54	10/20/20 16:43	1
2,4-Dimethylphenol	ND				10	3.5	ug/L		10/19/20 19:54	10/20/20 16:43	1
Dimethyl phthalate	ND				10	0.17	ug/L		10/19/20 19:54	10/20/20 16:43	1
Di-n-butyl phthalate	ND				10	2.7	ug/L		10/19/20 19:54	10/20/20 16:43	1
4,6-Dinitro-ortho-cresol	ND				10	1.6	ug/L		10/19/20 19:54	10/20/20 16:43	1
2,4-Dinitrophenol	ND				30	3.4	ug/L		10/19/20 19:54	10/20/20 16:43	1
2,4-Dinitrotoluene	ND				10	1.9	ug/L		10/19/20 19:54	10/20/20 16:43	1
2,6-Dinitrotoluene	ND				10	1.9	ug/L		10/19/20 19:54	10/20/20 16:43	1
Di-n-octyl phthalate	ND				10	0.17	ug/L		10/19/20 19:54	10/20/20 16:43	1
1,4-Dioxane	ND				10	1.0	ug/L		10/19/20 19:54	10/20/20 16:43	1
1,2-Diphenylhydrazine (as Azobenzene)	ND				10	1.0	ug/L		10/19/20 19:54	10/20/20 16:43	1
Hexachlorobenzene	ND				10	0.17	ug/L		10/19/20 19:54	10/20/20 16:43	1
Hexachlorocyclopentadiene	ND				20	2.6	ug/L		10/19/20 19:54	10/20/20 16:43	1
Hexachloroethane	ND				10	4.2	ug/L		10/19/20 19:54	10/20/20 16:43	1
Isophorone	ND				10	0.14	ug/L		10/19/20 19:54	10/20/20 16:43	1
2-Methylphenol	ND				10	1.8	ug/L		10/19/20 19:54	10/20/20 16:43	1
3 & 4 Methylphenol	ND				20	0.39	ug/L		10/19/20 19:54	10/20/20 16:43	1
2-Nitroaniline	ND				10	2.2	ug/L		10/19/20 19:54	10/20/20 16:43	1
3-Nitroaniline	ND				10	1.8	ug/L		10/19/20 19:54	10/20/20 16:43	1
4-Nitroaniline	ND				10	1.5	ug/L		10/19/20 19:54	10/20/20 16:43	1
Nitrobenzene	ND				10	0.13	ug/L		10/19/20 19:54	10/20/20 16:43	1
2-Nitrophenol	ND				10	5.2	ug/L		10/19/20 19:54	10/20/20 16:43	1
4-Nitrophenol	ND				10	2.1	ug/L		10/19/20 19:54	10/20/20 16:43	1
N-Nitrosodimethylamine	ND				10	3.5	ug/L		10/19/20 19:54	10/20/20 16:43	1
N-Nitrosodi-n-propylamine	ND				10	3.3	ug/L		10/19/20 19:54	10/20/20 16:43	1
N-Nitrosodiphenylamine	ND				10	0.18	ug/L		10/19/20 19:54	10/20/20 16:43	1
Pentachlorophenol	ND				20	1.4	ug/L		10/19/20 19:54	10/20/20 16:43	1
Phenol	ND				10	2.6	ug/L		10/19/20 19:54	10/20/20 16:43	1
Pyridine	ND				10	3.2	ug/L		10/19/20 19:54	10/20/20 16:43	1
2,4,5-Trichlorophenol	ND				10	3.7	ug/L		10/19/20 19:54	10/20/20 16:43	1
2,4,6-Trichlorophenol	ND				10	3.5	ug/L		10/19/20 19:54	10/20/20 16:43	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl			54		46 - 124			1
2-Fluorophenol			52		13 - 113			1
Nitrobenzene-d5			72		36 - 126			1
Phenol-d5			41		17 - 127			1
Terphenyl-d14			77		44 - 149			1
2,4,6-Tribromophenol			56		26 - 150			1

Eurofins TestAmerica, Pensacola

QC Sample Results

Job ID: 400-194495-1

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

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

Lab Sample ID: LCS 400-507389/2-A

Matrix: Water

Analysis Batch: 507407

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507389
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Aniline	120	ND	*	ug/L		0.4	21 - 120
Benzyl alcohol	120	69.2		ug/L		58	28 - 120
Bis(2-chloroethoxy)methane	120	78.4		ug/L		65	47 - 120
Bis(2-chloroethyl)ether	120	65.3		ug/L		54	44 - 120
bis (2-chloroisopropyl) ether	120	105		ug/L		87	33 - 121
Bis(2-ethylhexyl) phthalate	120	109		ug/L		91	52 - 147
4-Bromophenyl phenyl ether	120	92.4		ug/L		77	54 - 122
Butyl benzyl phthalate	120	113		ug/L		94	54 - 133
4-Chloroaniline	120	17.5	*	ug/L		15	26 - 120
4-Chloro-3-methylphenol	120	94.1		ug/L		78	48 - 131
2-Chloronaphthalene	120	61.9		ug/L		52	52 - 121
2-Chlorophenol	120	85.5		ug/L		71	40 - 120
4-Chlorophenyl phenyl ether	120	81.1		ug/L		68	56 - 125
Dibenzofuran	120	68.0		ug/L		57	56 - 122
3,3'-Dichlorobenzidine	160	126		ug/L		79	36 - 132
2,4-Dichlorophenol	120	80.7		ug/L		67	49 - 120
Diethyl phthalate	120	94.1		ug/L		78	50 - 137
2,4-Dimethylphenol	120	95.4		ug/L		79	48 - 120
Dimethyl phthalate	120	88.4		ug/L		74	57 - 124
Di-n-butyl phthalate	120	109		ug/L		91	58 - 126
4,6-Dinitro-ortho-cresol	240	234		ug/L		97	23 - 148
2,4-Dinitrophenol	240	245		ug/L		102	10 - 150
2,4-Dinitrotoluene	120	80.1		ug/L		67	54 - 142
2,6-Dinitrotoluene	120	83.0		ug/L		69	55 - 130
Di-n-octyl phthalate	120	110		ug/L		91	57 - 138
1,4-Dioxane	120	46.9		ug/L		39	31 - 120
1,2-Diphenylhydrazine (as Azobenzene)	120	111		ug/L		93	45 - 124
Hexachlorobenzene	120	99.1		ug/L		83	52 - 129
Hexachlorocyclopentadiene	120	61.7		ug/L		51	10 - 134
Hexachloroethane	120	85.7		ug/L		71	20 - 120
Isophorone	120	95.6		ug/L		80	48 - 120
2-Methylphenol	120	93.1		ug/L		78	46 - 124
3 & 4 Methylphenol	120	84.0		ug/L		70	45 - 120
2-Nitroaniline	120	113		ug/L		95	51 - 145
3-Nitroaniline	120	30.7	*	ug/L		26	37 - 127
4-Nitroaniline	120	67.9		ug/L		57	36 - 137
Nitrobenzene	120	83.9		ug/L		70	45 - 120
2-Nitrophenol	120	70.3		ug/L		59	40 - 124
4-Nitrophenol	240	183		ug/L		76	23 - 146
N-Nitrosodimethylamine	120	69.9		ug/L		58	29 - 137
N-Nitrosodi-n-propylamine	120	109		ug/L		91	45 - 120
N-Nitrosodiphenylamine	119	79.4		ug/L		67	54 - 120
Pentachlorophenol	240	175		ug/L		73	31 - 130
Phenol	120	50.7		ug/L		42	11 - 120
Pyridine	240	ND	*	ug/L		0	16 - 120
2,4,5-Trichlorophenol	120	63.3		ug/L		53	51 - 136
2,4,6-Trichlorophenol	120	65.9		ug/L		55	50 - 127

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: LCS 400-507389/2-A

Matrix: Water

Analysis Batch: 507407

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507389

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	52				46 - 124
2-Fluorophenol	54				13 - 113
Nitrobenzene-d5	82				36 - 126
Phenol-d5	45				17 - 127
Terphenyl-d14	79				44 - 149
2,4,6-Tribromophenol	64				26 - 150

Lab Sample ID: LCSD 400-507389/3-A

Matrix: Water

Analysis Batch: 507407

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 507389

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aniline	120	ND	* *1	ug/L		1	21 - 120	86	30
Benzyl alcohol	120	101	*1	ug/L		84	28 - 120	37	30
Bis(2-chloroethoxy)methane	120	90.4		ug/L		75	47 - 120	14	30
Bis(2-chloroethyl)ether	120	77.2		ug/L		64	44 - 120	17	30
bis (2-chloroisopropyl) ether	120	127		ug/L		105	33 - 121	19	30
Bis(2-ethylhexyl) phthalate	120	118		ug/L		98	52 - 147	8	30
4-Bromophenyl phenyl ether	120	104		ug/L		87	54 - 122	12	30
Butyl benzyl phthalate	120	122		ug/L		101	54 - 133	8	30
4-Chloroaniline	120	20.8	*	ug/L		17	26 - 120	17	30
4-Chloro-3-methylphenol	120	105		ug/L		88	48 - 131	11	30
2-Choronaphthalene	120	72.1		ug/L		60	52 - 121	15	30
2-Chlorophenol	120	99.1		ug/L		83	40 - 120	15	30
4-Chlorophenyl phenyl ether	120	89.2		ug/L		74	56 - 125	10	30
Dibenzofuran	120	76.7		ug/L		64	56 - 122	12	30
3,3'-Dichlorobenzidine	160	138		ug/L		86	36 - 132	9	30
2,4-Dichlorophenol	120	92.0		ug/L		77	49 - 120	13	30
Diethyl phthalate	120	102		ug/L		85	50 - 137	8	30
2,4-Dimethylphenol	120	107		ug/L		89	48 - 120	12	30
Dimethyl phthalate	120	96.5		ug/L		80	57 - 124	9	30
Di-n-butyl phthalate	120	119		ug/L		100	58 - 126	9	30
4,6-Dinitro-ortho-cresol	240	263		ug/L		110	23 - 148	12	30
2,4-Dinitrophenol	240	255		ug/L		106	10 - 150	4	30
2,4-Dinitrotoluene	120	86.7		ug/L		72	54 - 142	8	30
2,6-Dinitrotoluene	120	91.4		ug/L		76	55 - 130	10	30
Di-n-octyl phthalate	120	119		ug/L		99	57 - 138	8	30
1,4-Dioxane	120	66.4	*1	ug/L		55	31 - 120	34	30
1,2-Diphenylhydrazine (as Azobenzene)	120	127		ug/L		106	45 - 124	13	30
Hexachlorobenzene	120	110		ug/L		92	52 - 129	11	30
Hexachlorocyclopentadiene	120	75.7		ug/L		63	10 - 134	20	30
Hexachloroethane	120	104		ug/L		87	20 - 120	19	30
Isophorone	120	107		ug/L		89	48 - 120	12	30
2-Methylphenol	120	111		ug/L		92	46 - 124	17	30
3 & 4 Methylphenol	120	98.2		ug/L		82	45 - 120	16	30
2-Nitroaniline	120	122		ug/L		102	51 - 145	7	30
3-Nitroaniline	120	39.3	*	ug/L		33	37 - 127	25	30
4-Nitroaniline	120	74.9		ug/L		62	36 - 137	10	30

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: LCSD 400-507389/3-A

Matrix: Water

Analysis Batch: 507407

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Nitrobenzene	120	103		ug/L		86	45 - 120	21	30
2-Nitrophenol	120	85.0		ug/L		71	40 - 124	19	30
4-Nitrophenol	240	234		ug/L		97	23 - 146	25	30
N-Nitrosodimethylamine	120	92.3		ug/L		77	29 - 137	28	30
N-Nitrosodi-n-propylamine	120	124		ug/L		104	45 - 120	13	30
N-Nitrosodiphenylamine	119	91.0		ug/L		76	54 - 120	14	30
Pentachlorophenol	240	196		ug/L		82	31 - 130	12	30
Phenol	120	78.5 *1		ug/L		65	11 - 120	43	30
Pyridine	240	ND *		ug/L		0	16 - 120	NC	30
2,4,5-Trichlorophenol	120	72.3		ug/L		60	51 - 136	13	30
2,4,6-Trichlorophenol	120	74.0		ug/L		62	50 - 127	12	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	56		46 - 124
2-Fluorophenol	59		13 - 113
Nitrobenzene-d5	92		36 - 126
Phenol-d5	65		17 - 127
Terphenyl-d14	80		44 - 149
2,4,6-Tribromophenol	65		26 - 150

Lab Sample ID: MB 400-507618/1-A

Matrix: Water

Analysis Batch: 508112

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aniline	ND		10	3.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
Benzanethiol	ND		10	1.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
Benzoic acid	ND		30	7.3	ug/L		10/21/20 10:40	10/26/20 19:13	1
Benzyl alcohol	ND		10	2.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/21/20 10:40	10/26/20 19:13	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/21/20 10:40	10/26/20 19:13	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/21/20 10:40	10/26/20 19:13	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Chloroaniline	ND		10	3.4	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Chlorophenol	ND		10	2.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Dibenzofuran	ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Diethyl phthalate	0.548 J		10	0.24	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/21/20 10:40	10/26/20 19:13	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: MB 400-507618/1-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507618

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/21/20 10:40	10/26/20 19:13	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
1,4-Dioxane	ND		10	1.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
Hexachloroethane	ND		10	4.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
Indene	ND		10	1.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Isophorone	ND		10	0.14	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Methylphenol	ND		10	1.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Nitroaniline	ND		10	2.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
3-Nitroaniline	ND		10	1.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Nitroaniline	ND		10	1.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
Nitrobenzene	ND		10	0.13	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Nitrophenol	ND		10	5.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Nitrophenol	ND		10	2.1	ug/L		10/21/20 10:40	10/26/20 19:13	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/21/20 10:40	10/26/20 19:13	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/21/20 10:40	10/26/20 19:13	1
Pentachlorophenol	ND		20	1.4	ug/L		10/21/20 10:40	10/26/20 19:13	1
Phenol	ND		10	2.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
Pyridine	ND		10	3.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
Quinoline	ND		10	4.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/21/20 10:40	10/26/20 19:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	58		46 - 124	10/21/20 10:40	10/26/20 19:13	1
2-Fluorophenol	17		13 - 113	10/21/20 10:40	10/26/20 19:13	1
Nitrobenzene-d5	59		36 - 126	10/21/20 10:40	10/26/20 19:13	1
Phenol-d5	36		17 - 127	10/21/20 10:40	10/26/20 19:13	1
Terphenyl-d14	85		44 - 149	10/21/20 10:40	10/26/20 19:13	1
2,4,6-Tribromophenol	88		26 - 150	10/21/20 10:40	10/26/20 19:13	1

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Aniline	120	52.7		ug/L		44	21 - 120
Benzoic acid	466	135		ug/L		29	10 - 144
Benzyl alcohol	120	51.4		ug/L		43	28 - 120
Bis(2-chloroethoxy)methane	120	56.8		ug/L		47	47 - 120
Bis(2-chloroethyl)ether	120	56.1		ug/L		47	44 - 120

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: LCS 400-507618/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508112

Prep Batch: 507618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
bis (2-chloroisopropyl) ether	120	47.4		ug/L	39	33 - 121	
Bis(2-ethylhexyl) phthalate	120	78.6		ug/L	66	52 - 147	
4-Bromophenyl phenyl ether	120	90.8		ug/L	76	54 - 122	
Butyl benzyl phthalate	120	71.9		ug/L	60	54 - 133	
4-Chloroaniline	120	39.5		ug/L	33	26 - 120	
4-Chloro-3-methylphenol	120	74.4		ug/L	62	48 - 131	
2-Chloronaphthalene	120	76.8		ug/L	64	52 - 121	
2-Chlorophenol	120	56.8		ug/L	47	40 - 120	
4-Chlorophenyl phenyl ether	120	91.8		ug/L	77	56 - 125	
Dibenz[a,h]acridine	120	104		ug/L	87	31 - 150	
Dibenzofuran	120	74.8		ug/L	62	56 - 122	
3,3'-Dichlorobenzidine	160	116		ug/L	73	36 - 132	
2,4-Dichlorophenol	120	72.1		ug/L	60	49 - 120	
Diethyl phthalate	120	97.6		ug/L	81	50 - 137	
2,4-Dimethylphenol	120	76.5		ug/L	64	48 - 120	
Dimethyl phthalate	120	82.4		ug/L	69	57 - 124	
Di-n-butyl phthalate	120	89.6		ug/L	75	58 - 126	
4,6-Dinitro-ortho-cresol	240	156		ug/L	65	23 - 148	
2,4-Dinitrophenol	240	170		ug/L	71	10 - 150	
2,4-Dinitrotoluene	120	82.1		ug/L	68	54 - 142	
2,6-Dinitrotoluene	120	76.2		ug/L	64	55 - 130	
Di-n-octyl phthalate	120	76.3		ug/L	64	57 - 138	
1,4-Dioxane	120	36.9		ug/L	31	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	120	71.4		ug/L	60	45 - 124	
Hexachlorobenzene	120	102		ug/L	85	52 - 129	
Hexachlorocyclopentadiene	120	34.1		ug/L	28	10 - 134	
Hexachloroethane	120	76.8		ug/L	64	20 - 120	
Indene	120	69.9		ug/L	58	49 - 120	
Isophorone	120	63.6		ug/L	53	48 - 120	
2-Methylphenol	120	78.6		ug/L	65	46 - 124	
3 & 4 Methylphenol	120	78.8		ug/L	66	45 - 120	
2-Nitroaniline	120	76.7		ug/L	64	51 - 145	
3-Nitroaniline	120	70.0		ug/L	58	37 - 127	
4-Nitroaniline	120	83.4		ug/L	70	36 - 137	
Nitrobenzene	120	67.7		ug/L	56	45 - 120	
2-Nitrophenol	120	68.8		ug/L	57	40 - 124	
4-Nitrophenol	240	261		ug/L	109	23 - 146	
N-Nitrosodimethylamine	120	92.2		ug/L	77	29 - 137	
N-Nitrosodi-n-propylamine	120	72.1		ug/L	60	45 - 120	
N-Nitrosodiphenylamine	119	73.6		ug/L	62	54 - 120	
Pentachlorophenol	240	128		ug/L	53	31 - 130	
Phenol	120	58.7		ug/L	49	11 - 120	
Pyridine	240	78.3		ug/L	33	16 - 120	
Quinoline	120	72.6		ug/L	61	49 - 130	
2,4,5-Trichlorophenol	120	85.3		ug/L	71	51 - 136	
2,4,6-Trichlorophenol	120	78.9		ug/L	66	50 - 127	

12

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507618

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	57		46 - 124
2-Fluorophenol	25		13 - 113
Nitrobenzene-d5	56		36 - 126
Phenol-d5	42		17 - 127
Terphenyl-d14	79		44 - 149
2,4,6-Tribromophenol	89		26 - 150

Lab Sample ID: LCS 400-507618/3-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Benzenethiol	120	2.99	J *	ug/L		2	10 - 120
<hr/>							
<hr/>							
<hr/>							
Surrogate	%Recovery	LCS Qualifier	Limits				
2-Fluorobiphenyl	57		46 - 124				
2-Fluorophenol	21		13 - 113				
Nitrobenzene-d5	57		36 - 126				
Phenol-d5	41		17 - 127				
Terphenyl-d14	87		44 - 149				
2,4,6-Tribromophenol	87		26 - 150				

Lab Sample ID: LCSD 400-507618/4-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507618

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD
Benzenethiol	120	ND	*	ug/L		0.8	NaN
<hr/>							
<hr/>							
<hr/>							
Surrogate	%Recovery	LCSD Qualifier	Limits				
2-Fluorobiphenyl	55		46 - 124				
2-Fluorophenol	5	X	13 - 113				
Nitrobenzene-d5	55		36 - 126				
Phenol-d5	23		17 - 127				
Terphenyl-d14	77		44 - 149				
2,4,6-Tribromophenol	32		26 - 150				

Lab Sample ID: MB 400-509223/1-A

Matrix: Water

Analysis Batch: 509593

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 509223

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		11/03/20 16:41	11/06/20 17:44	1
Benzenethiol	ND		10	1.7	ug/L		11/03/20 16:41	11/06/20 17:44	1
Benzoic acid	ND		30	7.3	ug/L		11/03/20 16:41	11/06/20 17:44	1
4-Chloroaniline	ND		10	3.4	ug/L		11/03/20 16:41	11/06/20 17:44	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		11/03/20 16:41	11/06/20 17:44	1
Indene	ND		10	1.0	ug/L		11/03/20 16:41	11/06/20 17:44	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: MB 400-509223/1-A

Matrix: Water

Analysis Batch: 509593

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifer							Prepared	Analyzed	Dil Fac
3-Nitroaniline	ND		ND		10	1.8	ug/L		11/03/20 16:41	11/06/20 17:44	1
Pyridine	ND		ND		10	3.2	ug/L		11/03/20 16:41	11/06/20 17:44	1
Quinoline	ND		ND		10	4.5	ug/L		11/03/20 16:41	11/06/20 17:44	1
Surrogate	MB	MB	%Recovery	Qualifer	Limits			D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifer							Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		59		46 - 124				11/03/20 16:41	11/06/20 17:44	1
2-Fluorophenol	54		54		13 - 113				11/03/20 16:41	11/06/20 17:44	1
Nitrobenzene-d5	64		64		36 - 126				11/03/20 16:41	11/06/20 17:44	1
Phenol-d5	67		67		17 - 127				11/03/20 16:41	11/06/20 17:44	1
Terphenyl-d14	100		100		44 - 149				11/03/20 16:41	11/06/20 17:44	1
2,4,6-Tribromophenol	44		44		26 - 150				11/03/20 16:41	11/06/20 17:44	1

Lab Sample ID: LCS 400-509223/2-A

Matrix: Water

Analysis Batch: 509593

Analyte	Spike	LCS	LCS	Added	Result	Qualifier	Unit	D	%Rec	Limits
	Added	Result	Qualifier							
Aniline		120	54.5				ug/L		45	21 - 120
Benzoic acid		466	119				ug/L		26	10 - 144
4-Chloroaniline		120	76.1				ug/L		63	26 - 120
Dibenz[a,h]acridine		120	110				ug/L		92	31 - 150
Indene		120	95.0				ug/L		79	49 - 120
3-Nitroaniline		120	86.1				ug/L		72	37 - 127
Pyridine		240	111				ug/L		46	16 - 120
Quinoline		120	88.7				ug/L		74	49 - 130
Surrogate	LCS	LCS	%Recovery	Qualifer	Limits			D	%Rec	Limits
	%Recovery	Qualifer								
2-Fluorobiphenyl	63		63		46 - 124					
2-Fluorophenol	56		56		13 - 113					
Nitrobenzene-d5	71		71		36 - 126					
Phenol-d5	70		70		17 - 127					
Terphenyl-d14	86		86		44 - 149					
2,4,6-Tribromophenol	69		69		26 - 150					

Lab Sample ID: LCS 400-509223/4-A

Matrix: Water

Analysis Batch: 509593

Analyte	Spike	LCS	LCS	Added	Result	Qualifier	Unit	D	%Rec	Limits
	Added	Result	Qualifier							
Benzenethiol		120	74.2				ug/L		62	10 - 120
Surrogate	LCS	LCS	%Recovery	Qualifer	Limits			D	%Rec	Limits
	%Recovery	Qualifer								
2-Fluorobiphenyl	55		55		46 - 124					
2-Fluorophenol	54		54		13 - 113					
Nitrobenzene-d5	61		61		36 - 126					
Phenol-d5	66		66		17 - 127					
Terphenyl-d14	89		89		44 - 149					
2,4,6-Tribromophenol	42		42		26 - 150					

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: LCSD 400-509223/3-A

Matrix: Water

Analysis Batch: 509593

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Aniline	120	63.1		ug/L		53	21 - 120	15	30
Benzoic acid	466	143		ug/L		31	10 - 144	19	30
4-Chloroaniline	120	75.9		ug/L		63	26 - 120	0	30
Dibenz[a,h]acridine	120	98.1		ug/L		82	31 - 150	11	30
Indene	120	89.1		ug/L		74	49 - 120	6	30
3-Nitroaniline	120	83.5		ug/L		70	37 - 127	3	30
Pyridine	240	107		ug/L		45	16 - 120	4	30
Quinoline	120	83.2		ug/L		70	49 - 130	6	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	58		46 - 124
2-Fluorophenol	56		13 - 113
Nitrobenzene-d5	62		36 - 126
Phenol-d5	67		17 - 127
Terphenyl-d14	81		44 - 149
2,4,6-Tribromophenol	63		26 - 150

Lab Sample ID: LCSD 400-509223/5-A

Matrix: Water

Analysis Batch: 509593

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Benzethiol	120	66.1		ug/L		55	10 - 120	12	30
Surrogate	LCSD	LCSD	Limits						
	%Recovery	Qualifier							
2-Fluorobiphenyl	63		46 - 124						
2-Fluorophenol	63		13 - 113						
Nitrobenzene-d5	68		36 - 126						
Phenol-d5	73		17 - 127						
Terphenyl-d14	100		44 - 149						
2,4,6-Tribromophenol	48		26 - 150						

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

Lab Sample ID: MB 400-507389/1-A

Matrix: Water

Analysis Batch: 507531

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		0.20	0.032	ug/L		10/19/20 19:54	10/21/20 10:51	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/19/20 19:54	10/21/20 10:51	1
Anthracene	ND		0.20	0.032	ug/L		10/19/20 19:54	10/21/20 10:51	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		10/19/20 19:54	10/21/20 10:51	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		10/19/20 19:54	10/21/20 10:51	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		10/19/20 19:54	10/21/20 10:51	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		10/19/20 19:54	10/21/20 10:51	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		10/19/20 19:54	10/21/20 10:51	1
Chrysene	ND		0.20	0.074	ug/L		10/19/20 19:54	10/21/20 10:51	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: MB 400-507389/1-A

Matrix: Water

Analysis Batch: 507531

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		ND		0.20	0.050	ug/L		10/19/20 19:54	10/21/20 10:51	1
Fluoranthene	ND		ND		0.20	0.068	ug/L		10/19/20 19:54	10/21/20 10:51	1
Fluorene	ND		ND		0.20	0.11	ug/L		10/19/20 19:54	10/21/20 10:51	1
Indeno[1,2,3-cd]pyrene	ND		ND		0.20	0.043	ug/L		10/19/20 19:54	10/21/20 10:51	1
1-Methylnaphthalene	ND		ND		0.20	0.074	ug/L		10/19/20 19:54	10/21/20 10:51	1
2-Methylnaphthalene	ND		ND		0.20	0.060	ug/L		10/19/20 19:54	10/21/20 10:51	1
Phenanthrene	ND		ND		0.20	0.036	ug/L		10/19/20 19:54	10/21/20 10:51	1
Pyrene	ND		ND		0.20	0.040	ug/L		10/19/20 19:54	10/21/20 10:51	1
Surrogate		MB	MB	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		50				15 - 122			10/19/20 19:54	10/21/20 10:51	1
Nitrobenzene-d5		61				19 - 130			10/19/20 19:54	10/21/20 10:51	1
Terphenyl-d14		98				33 - 138			10/19/20 19:54	10/21/20 10:51	1

Lab Sample ID: LCS 400-507389/2-A

Matrix: Water

Analysis Batch: 507460

Analyte	Spike Added	LC	LC	Result	Qualifier	Unit	D	%Rec	%Rec.	
		S	C						Limits	
Acenaphthene	120	98.9				ug/L		82	41 - 120	
Acenaphthylene	120	92.3				ug/L		77	44 - 120	
Anthracene	120	104				ug/L		87	49 - 120	
Benzo[a]anthracene	120	101				ug/L		84	61 - 135	
Benzo[a]pyrene	120	45.7	*			ug/L		38	52 - 120	
Benzo[b]fluoranthene	120	101				ug/L		84	53 - 134	
Benzo[g,h,i]perylene	120	109				ug/L		91	47 - 133	
Benzo[k]fluoranthene	120	105				ug/L		88	57 - 134	
Chrysene	120	101				ug/L		84	55 - 122	
Dibenz(a,h)anthracene	120	109				ug/L		90	48 - 146	
Fluoranthene	120	99.0				ug/L		82	54 - 128	
Fluorene	120	106				ug/L		89	45 - 125	
Indeno[1,2,3-cd]pyrene	120	109				ug/L		91	43 - 142	
1-Methylnaphthalene	120	84.3				ug/L		70	41 - 120	
2-Methylnaphthalene	120	79.0				ug/L		66	32 - 124	
Phenanthrene	120	105				ug/L		87	48 - 120	
Pyrene	120	108				ug/L		90	48 - 132	
Surrogate		LC	LC	%Recovery	Qualifier	Limits				
2-Fluorobiphenyl		62				15 - 122				
Nitrobenzene-d5		75				19 - 130				
Terphenyl-d14		93				33 - 138				

Lab Sample ID: LCSD 400-507389/3-A

Matrix: Water

Analysis Batch: 507460

Analyte	Spike Added	LC	LC	Result	Qualifier	Unit	D	%Rec	%Rec.	
		S	C						Limits	
Acenaphthene	120	115				ug/L		95	41 - 120	

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507389

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: LCSD 400-507389/3-A

Matrix: Water

Analysis Batch: 507460

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Acenaphthylene	120	111		ug/L	92	44 - 120	18	56	
Anthracene	120	120		ug/L	100	49 - 120	14	51	
Benz[a]anthracene	120	113		ug/L	94	61 - 135	12	49	
Benz[a]pyrene	120	115	*1	ug/L	96	52 - 120	86	50	
Benz[b]fluoranthene	120	110		ug/L	92	53 - 134	9	54	
Benz[g,h,i]perylene	120	120		ug/L	100	47 - 133	10	50	
Benz[k]fluoranthene	120	120		ug/L	100	57 - 134	13	52	
Chrysene	120	115		ug/L	96	55 - 122	13	50	
Dibenz(a,h)anthracene	120	123		ug/L	102	48 - 146	12	50	
Fluoranthene	120	111		ug/L	93	54 - 128	12	52	
Fluorene	120	116		ug/L	96	45 - 125	8	56	
Indeno[1,2,3-cd]pyrene	120	123		ug/L	103	43 - 142	12	51	
1-Methylnaphthalene	120	109		ug/L	91	41 - 120	26	55	
2-Methylnaphthalene	120	107		ug/L	89	32 - 124	30	57	
Phenanthrene	120	120		ug/L	100	48 - 120	13	56	
Pyrene	120	123		ug/L	103	48 - 132	13	52	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	71		15 - 122
Nitrobenzene-d5	99		19 - 130
Terphenyl-d14	101		33 - 138

Lab Sample ID: MB 400-507618/1-A

Matrix: Water

Analysis Batch: 508212

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L	10/21/20 10:40	10/26/20 19:55		1
Acenaphthylene	ND		0.20	0.045	ug/L	10/21/20 10:40	10/26/20 19:55		1
Anthracene	ND		0.20	0.032	ug/L	10/21/20 10:40	10/26/20 19:55		1
Benz[a]anthracene	ND		0.20	0.046	ug/L	10/21/20 10:40	10/26/20 19:55		1
Benz[a]pyrene	ND		0.20	0.042	ug/L	10/21/20 10:40	10/26/20 19:55		1
Benz[b]fluoranthene	ND		0.20	0.034	ug/L	10/21/20 10:40	10/26/20 19:55		1
Benz[g,h,i]perylene	ND		0.20	0.13	ug/L	10/21/20 10:40	10/26/20 19:55		1
Benz[k]fluoranthene	ND		0.20	0.10	ug/L	10/21/20 10:40	10/26/20 19:55		1
Chrysene	ND		0.20	0.074	ug/L	10/21/20 10:40	10/26/20 19:55		1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L	10/21/20 10:40	10/26/20 19:55		1
Fluoranthene	ND		0.20	0.068	ug/L	10/21/20 10:40	10/26/20 19:55		1
Fluorene	ND		0.20	0.11	ug/L	10/21/20 10:40	10/26/20 19:55		1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L	10/21/20 10:40	10/26/20 19:55		1
1-Methylnaphthalene	ND		0.20	0.074	ug/L	10/21/20 10:40	10/26/20 19:55		1
2-Methylnaphthalene	ND		0.20	0.060	ug/L	10/21/20 10:40	10/26/20 19:55		1
Phenanthrene	ND		0.20	0.036	ug/L	10/21/20 10:40	10/26/20 19:55		1
Pyrene	ND		0.20	0.040	ug/L	10/21/20 10:40	10/26/20 19:55		1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	32		15 - 122	10/21/20 10:40	10/26/20 19:55	1
Nitrobenzene-d5	39		19 - 130	10/21/20 10:40	10/26/20 19:55	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

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

Lab Sample ID: MB 400-507618/1-A

Matrix: Water

Analysis Batch: 508212

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	41		33 - 138	10/21/20 10:40	10/26/20 19:55	1

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508212

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	120	112		ug/L	93	41 - 120	
Acenaphthylene	120	107		ug/L	89	44 - 120	
Anthracene	120	131		ug/L	109	49 - 120	
Benzo[a]anthracene	120	100		ug/L	83	61 - 135	
Benzo[a]pyrene	120	114		ug/L	95	52 - 120	
Benzo[b]fluoranthene	120	98.8		ug/L	82	53 - 134	
Benzo[g,h,i]perylene	120	106		ug/L	88	47 - 133	
Benzo[k]fluoranthene	120	108		ug/L	90	57 - 134	
Chrysene	120	112		ug/L	93	55 - 122	
Dibenz(a,h)anthracene	120	117		ug/L	97	48 - 146	
Fluoranthene	120	121		ug/L	101	54 - 128	
Fluorene	120	118		ug/L	98	45 - 125	
Indeno[1,2,3-cd]pyrene	120	114		ug/L	95	43 - 142	
1-Methylnaphthalene	120	92.5		ug/L	77	41 - 120	
2-Methylnaphthalene	120	97.7		ug/L	81	32 - 124	
Phenanthrene	120	117		ug/L	97	48 - 120	
Pyrene	120	106		ug/L	88	48 - 132	

Surrogate	MB %Recovery	MB Qualifier	Limits
2-Fluorobiphenyl	85		15 - 122
Nitrobenzene-d5	96		19 - 130
Terphenyl-d14	98		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-507275/1-A

Matrix: Water

Analysis Batch: 507289

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L	10/19/20 09:37	10/19/20 16:16		1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L	10/19/20 09:37	10/19/20 16:16		1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		51 - 149				10/19/20 09:37	10/19/20 16:16	1

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507275

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-507275/2-A

Matrix: Water

Analysis Batch: 507289

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
1,2-Dibromo-3-Chloropropane	0.101	0.104		ug/L		103	60 - 140
1,2-Dibromoethane	0.101	0.0963		ug/L		96	60 - 140
Surrogate	LCS	LCS					
	%Recovery	Qualifier					
4-Bromofluorobenzene	86			51 - 149			

Lab Sample ID: LCSD 400-507275/3-A

Matrix: Water

Analysis Batch: 507289

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD
	Added	Result	Qualifier					
1,2-Dibromo-3-Chloropropane	0.101	0.106		ug/L		105	60 - 140	2
1,2-Dibromoethane	0.101	0.0947		ug/L		94	60 - 140	2
Surrogate	LCSD	LCSD						
	%Recovery	Qualifier						
4-Bromofluorobenzene	91			51 - 149				

Lab Sample ID: MB 400-507450/1-A

Matrix: Water

Analysis Batch: 507451

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/20/20 11:05	10/20/20 14:56	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/20/20 11:05	10/20/20 14:56	1
Surrogate	MB	MB							
	%Recovery	Qualifier							
4-Bromofluorobenzene	104			51 - 149			10/20/20 11:05	10/20/20 14:56	1

Lab Sample ID: LCS 400-507450/2-A

Matrix: Water

Analysis Batch: 507451

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.
	Added	Result	Qualifier				
1,2-Dibromo-3-Chloropropane	0.101	0.126		ug/L		126	60 - 140
1,2-Dibromoethane	0.101	0.126		ug/L		125	60 - 140
Surrogate	LCS	LCS					
	%Recovery	Qualifier					
4-Bromofluorobenzene	116			51 - 149			

Lab Sample ID: LCSD 400-507450/3-A

Matrix: Water

Analysis Batch: 507451

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD
	Added	Result	Qualifier					
1,2-Dibromo-3-Chloropropane	0.101	0.121		ug/L		120	60 - 140	5
1,2-Dibromoethane	0.101	0.122		ug/L		121	60 - 140	3

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194495-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-507450/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507451

Prep Batch: 507450

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
4-BromoFluorobenzene			112		51 - 149



AECOM

Shell Oil Products US Chain Of Custody Record

11/10/2020

Avery, Kathy

From: Kunkel, Elizabeth <elizabeth.kunkel@aecom.com>
Sent: Wednesday, October 14, 2020 4:25 PM
To: Klingensmith, Leah; Evans, Lauren; Avery, Kathy; Kennedy, Amelia
Cc: DAngelo, Mary; Howell, Brett; Remiger, Melissa; Pennington, Wendy; Pfeiffer, Brooks
Subject: #60643619-9-03-02F Roxana (4Q20) Quarterly Groundwater - COCs attached for samples arriving tomorrow (Thursday) morning in Pensacola

Attachments: 4Q20 ROX GW Sampling COC 101420.pdf

Importance: High

EXTERNAL EMAIL*

Leah,

Please see #60643619-9-03-02F Roxana (4Q20) Quarterly Groundwater - COCs attached for samples arriving tomorrow (Thursday) morning in Pensacola and let me know of any questions or concerns.

Please note that although not written on the COC included in the cooler, there is an equipment blank (MW16-ROX-101420-EB) collected (time of collection was 13:00) with sample containers included in the cooler for analysis. We do want you to proceed with analyses for this equipment blank.

Thank you,
Elizabeth

elizabeth.kunkel@aecom.com
AECOM St. Louis

* WARNING - EXTERNAL: This email originated from outside of Eurofins TestAmerica. Do not click any links or open any attachments unless you trust the sender and know that the content is safe!

LAB (LOCATION)

 ACQUET L. CALSCIENCE (TESTAMERICA (TestAmerica Pensacola, 3355 McLearen Dr Pensacola, FL 32514 (850-474-1001)) Other Lab Vendor # 1364588 (TestAmerica)

Shell Oil Products US Chain Of Custody Record

Please Check Appropriate Box:

<input type="checkbox"/> SGW FDG	<input type="checkbox"/> PIPELINE	<input type="checkbox"/> RETAIL
<input type="checkbox"/> CHEMICALS	<input type="checkbox"/> CONSULTANT	<input type="checkbox"/> LINES
<input type="checkbox"/> TRANSPORTATION	<input type="checkbox"/> OTHER _ENR. SERVICES	

Sampling Company:

AECOM

ADDRESS: 100 N. Broadway, 20th Floor, ST. LOUIS, MO 63102, USA

PROJECT CONTACT: Elizabeth Kunkel, Bob Billman, Melissa Rainiger, Wendy Pennington

TELEPHONE: 314-429-0100 FAX: 314-429-0462

Email To Contact EMAIL: mithsa.rainiger@aecom.com; elizabeth.kunkel@aecom.com;

bob_billman@aecom.com; melissa.rainiger@aecom.com; wendy.pennington@aecom.com;

SAMPLER NAME(S) (PWS): Elizabeth Kunkel, Bob Billman, Melissa Rainiger, Wendy Pennington

TURNAROUND TIME (CALENDAR DAYS): 5 DAYS

3 DAYS

2 DAYS

24 HOURS

ON WEEKEND

□ LA - PWOCB REPORT FORMAT

□ LEVEL 2

□ LEVEL 3

□ LEVEL 4

□ OTHER (SPECIFY) _____

Cookie #3

Cookie #3

□ SHELL CONTRACT RATE APPLIES

□ STATE REIMBURSEMENT RATE APPLIES

□ END NOT NEEDED

□ RECEIPT VERIFICATION REQUESTED

□ PROVIDE LED DISK

Field Sample Identification

DATE: 10/14/2020

TIME: 0

HATRA:

HCL:

HHD3:

IR304:

NONE:

OTHER:

No. of CONT.

PRESERVATIVE:

VOC C 8260

PAH 8270LL

VOC 8011

PAH 8270L

VOC 8011

PAH 8270LL

VOC 8011

PAH 8270L

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194495-1

Login Number: 194495

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Conrady, Hank W

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	3.3°C 0.5°C 3.7°C 1.3°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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

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

Job ID: 400-194495-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LA000307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194572-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/11/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-101520-8260	TB-ROX-101520-8011
MW26-ROX-101520	MW22-ROX-101520
MW12-ROX-101520	MW3-ROX-101520

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 diethyl phthalate was detected in the method blank. The SVOC LCS/LCSD recoveries for benzenethiol were outside evaluation criteria. The SVOC surrogate recovery for 2-fluorophenol was outside criteria in several investigative and quality control samples. Several VOC, SVOC, and VOC by 8011 MS/MSD recoveries and MS/MSD RPDs were outside evaluation criteria in sample MW22-ROX-101520. The PAH internal standard recovery for perylene-d₁₂ was outside criteria in sample MW3-ROX-101520. Continuing calibration verifications for several analytes were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

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

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

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

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
MB 400-507618/1-A	SVOCs	Diethyl phthalate	0.548 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
MW26-ROX-101520	SVOCs	Diethyl phthalate	-	U
MW22-ROX-101520	SVOCs	Diethyl phthalate	-	U
MW3-ROX-101520	SVOCs	Diethyl phthalate	-	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-507618/3-A/4-A	SVOCs	Benzenethiol	2/0.8	NaN	10-120/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Professional judgment was used to qualify, however not reject, data associated with benzenethiol; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW26-ROX-101520	SVOCs	Benzenethiol	UJ
MW22-ROX-101520	SVOCs	Benzenethiol	UJ
MW12-ROX-101520	SVOCs	Benzenethiol	UJ
MW3-ROX-101520	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW26-ROX-101520	SVOCs	2-Fluorophenol	6	13-113
MW22-ROX-101520	SVOCs	2-Fluorophenol	9	13-113
LCS 400-507618/4-A	SVOCs	2-Fluorophenol	5	13-113

Qualifications due to surrogate recoveries were not required if only one of three acid SVOC surrogate recoveries were outside evaluation criteria in the associated samples. Laboratory control samples 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 MW22-ROX-101520 was spiked and analyzed for VOCs, SVOCs, PAHs, and VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW22-ROX-101520	VOCs	2-Chloroethyl vinyl ether	0/0	NC	10-150/50
MW22-ROX-101520	SVOCs	1,4-Dioxane	32/29	9	50-150/40
MW22-ROX-101520	SVOCs	2-Nitroaniline	32/38	17	45-120/33
MW22-ROX-101520	VOCs by 8011	1,2-Dibromo-3-chloropropane	144/180	40	65-135/20

Analytical data that required qualification based on MS/MSD data are included in the table below. 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
MW22-ROX-101520	VOCs	2-Chloroethyl vinyl ether	UJ
MW22-ROX-101520	SVOCs	1,4-Dioxane	UJ
MW22-ROX-101520	SVOCs	2-Nitroaniline	UJ

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

No

Sample ID	Parameter	Analyte	IS Area Recovery	12/24 Hour Standard	IS Criteria
MW3-ROX-101520	PAHs	Perylene-d ₁₂	666079	329182	164591-658364

Confirmation run PAH analysis was used; confirmation run data was not associated with internal standard area recoveries that were outside evaluation criteria. No qualification of data was required.

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

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

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW26-ROX-101520	SVOCs	Aniline	UJ
MW26-ROX-101520	SVOCs	Benzyl alcohol	UJ
MW26-ROX-101520	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW26-ROX-101520	SVOCs	1,4-Dioxane	UJ
MW26-ROX-101520	SVOCs	Hexachlorocyclopentadiene	UJ
MW26-ROX-101520	SVOCs	Isophorone	UJ
MW26-ROX-101520	SVOCs	Pyridine	UJ
MW26-ROX-101520	SVOCs	Quinoline	UJ
MW22-ROX-101520	SVOCs	Aniline	UJ
MW22-ROX-101520	SVOCs	Benzyl alcohol	UJ
MW22-ROX-101520	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW22-ROX-101520	SVOCs	Hexachlorocyclopentadiene	UJ
MW22-ROX-101520	SVOCs	Isophorone	UJ
MW22-ROX-101520	SVOCs	Pyridine	UJ
MW22-ROX-101520	SVOCs	Quinoline	UJ
MW12-ROX-101520	SVOCs	Aniline	UJ
MW12-ROX-101520	SVOCs	Benzyl alcohol	UJ
MW12-ROX-101520	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW12-ROX-101520	SVOCs	1,4-Dioxane	UJ
MW12-ROX-101520	SVOCs	Hexachlorocyclopentadiene	UJ
MW12-ROX-101520	SVOCs	Isophorone	UJ
MW12-ROX-101520	SVOCs	Pyridine	UJ
MW12-ROX-101520	SVOCs	Quinoline	UJ
MW3-ROX-101520	SVOCs	Aniline	UJ
MW3-ROX-101520	SVOCs	Benzyl alcohol	UJ
MW3-ROX-101520	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW3-ROX-101520	SVOCs	1,4-Dioxane	UJ
MW3-ROX-101520	SVOCs	Hexachlorocyclopentadiene	UJ
MW3-ROX-101520	SVOCs	Isophorone	UJ
MW3-ROX-101520	SVOCs	Pyridine	UJ
MW3-ROX-101520	SVOCs	Quinoline	UJ



Environment Testing
America

ANALYTICAL REPORT

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

Laboratory Job ID: 400-194572-1
Client Project/Site: ROXANA QUARTERLY GW

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

Attn: Elizabeth Kunkel

Authorized for release by:
10/30/2020 12:37:05 PM

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

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Reviewed 11/11/2020
MR

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

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

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

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	7
Definitions	26
Surrogate Summary	27
Method Summary	29
Chronicle	30
QC Association	34
QC Sample Results	36
Chain of Custody	53
Receipt Checklists	54
Certification Summary	55

Case Narrative

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

Job ID: 400-194572-1

Job ID: 400-194572-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-194572-1

Comments

No additional comments.

Receipt

The samples were received on 10/16/2020 9:14 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.4° C, 0.4° C and 3.0° C.

GC/MS VOA

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-508108 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 400-508108 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-101520-8260 (400-194572-1), MW26-ROX-101520 (400-194572-3), MW22-ROX-101520 (400-194572-4), MW12-ROX-101520 (400-194572-5) and MW3-ROX-101520 (400-194572-6). 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 initial calibration verification (ICV) analyzed in batch 400-490802 was outside method criteria for the following analyte(s): 2-Chloroethyl vinyl ether. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

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: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW22-ROX-101520 (400-194572-4) and (LCSD 400-507618/4-A). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508112 recovered above the upper control limit for 4-Nitrophenol and N-Nitrosodimethylamine. 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 400-508112 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, Aniline, Benzyl alcohol, Bis(2-chloroethoxy)methane, Hexachlorocyclopentadiene, Isophorone, Pyridine and Quinoline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-507618 and 400-507618 and analytical batch 400-508112 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 400-507618 and analytical batch 400-508112 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 method blank for preparation batch 400-507618 and analytical batch 400-508112 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.

Case Narrative

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

Job ID: 400-194572-1

Job ID: 400-194572-1 (Continued)

Laboratory: Eurofins TestAmerica, 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 continuing calibration verification (CCV) associated with batch 400-507451 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 400-507451 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-507450 and analytical batch 400-507451 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 8011: The matrix spike / matrix spike duplicate (MS/MSD) precision for preparation batch 400-507450 and analytical batch 400-507451 was outside control limits. Sample matrix interference is suspected.

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: 400-194572-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194572-1	TB-ROX-101520-8260 ✓	Water	10/15/20 00:00	10/16/20 09:14	4
400-194572-2	TB-ROX-101520-8011 ✓	Water	10/15/20 00:00	10/16/20 09:14	5
400-194572-3	MW26-ROX-101520 ✓	Water	10/15/20 09:15	10/16/20 09:14	6
400-194572-4	MW22-ROX-101520 ✓	Water	10/15/20 10:25	10/16/20 09:14	7
400-194572-5	MW12-ROX-101520 ✓	Water	10/15/20 11:25	10/16/20 09:14	8
400-194572-6	MW3-ROX-101520 ✓	Water	10/15/20 12:15	10/16/20 09:14	9

Eurofins TestAmerica, Pensacola

Detection Summary

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

Job ID: 400-194572-1

Client Sample ID: TB-ROX-101520-8260

Lab Sample ID: 400-194572-1

No Detections.

Client Sample ID: TB-ROX-101520-8011

Lab Sample ID: 400-194572-2

No Detections.

Client Sample ID: MW26-ROX-101520

Lab Sample ID: 400-194572-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.3		1.0	0.82	ug/L	1	8260B		Total/NA
2-Methylnaphthalene	0.059	J	0.19	0.057	ug/L	1	8270D LL		Total/NA
Diethyl phthalate	0.25	JB <i>U</i>	9.5	0.23	ug/L	1	8270D		Total/NA

Client Sample ID: MW22-ROX-101520

Lab Sample ID: 400-194572-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.0	0.38	ug/L	1	8260B		Total/NA
Ethylbenzene	15		1.0	0.50	ug/L	1	8260B		Total/NA
Isopropylbenzene	4.1		1.0	0.53	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	19		5.0	1.6	ug/L	1	8260B		Total/NA
Naphthalene	6.9		1.0	1.0	ug/L	1	8260B		Total/NA
N-Propylbenzene	7.6		1.0	0.69	ug/L	1	8260B		Total/NA
o-Xylene	1.6	J	5.0	0.60	ug/L	1	8260B		Total/NA
sec-Butylbenzene	0.73	J	1.0	0.70	ug/L	1	8260B		Total/NA
tert-Butylbenzene	0.68	J	1.0	0.63	ug/L	1	8260B		Total/NA
Toluene	0.62	J	1.0	0.41	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	42		1.0	0.82	ug/L	1	8260B		Total/NA
1,3,5-Trimethylbenzene	11		1.0	0.56	ug/L	1	8260B		Total/NA
Xylenes, Total	20		10	1.6	ug/L	1	8260B		Total/NA
Benzo[a]pyrene	0.14	J	0.19	0.040	ug/L	1	8270D LL		Total/NA
Benzo[b]fluoranthene	0.082	J	0.19	0.032	ug/L	1	8270D LL		Total/NA
Benzo[k]fluoranthene	0.16	J	0.19	0.095	ug/L	1	8270D LL		Total/NA
Dibenz(a,h)anthracene	0.18	J	0.19	0.047	ug/L	1	8270D LL		Total/NA
Indeno[1,2,3-cd]pyrene	0.17	J	0.19	0.041	ug/L	1	8270D LL		Total/NA
1-Methylnaphthalene	0.51		0.19	0.070	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	0.41		0.19	0.057	ug/L	1	8270D LL		Total/NA
Diethyl phthalate	0.50	JB <i>U</i>	9.5	0.23	ug/L	1	8270D		Total/NA
Di-n-octyl phthalate	0.37	J	9.5	0.16	ug/L	1	8270D		Total/NA

Client Sample ID: MW12-ROX-101520

Lab Sample ID: 400-194572-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.3		1.0	0.82	ug/L	1	8260B		Total/NA

Client Sample ID: MW3-ROX-101520

Lab Sample ID: 400-194572-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.98	J	1.0	0.82	ug/L	1	8260B		Total/NA
Diethyl phthalate	0.24	JB <i>U</i>	9.4	0.23	ug/L	1	8270D		Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: TB-ROX-101520-8260
Date Collected: 10/15/20 00:00
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/20 17:38	1
Acrolein	ND		20	10	ug/L			10/26/20 17:38	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/20 17:38	1
Benzene	ND		1.0	0.38	ug/L			10/26/20 17:38	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/20 17:38	1
Bromoform	ND		1.0	0.52	ug/L			10/26/20 17:38	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Bromoform	ND		5.0	0.71	ug/L			10/26/20 17:38	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/20 17:38	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/20 17:38	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/20 17:38	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/20 17:38	1
Chloroform	ND		1.0	0.60	ug/L			10/26/20 17:38	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/26/20 17:38	1
Chloromethane	ND		1.0	0.83	ug/L			10/26/20 17:38	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 17:38	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 17:38	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/20 17:38	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/20 17:38	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/20 17:38	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/20 17:38	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 17:38	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 17:38	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 17:38	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 17:38	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 17:38	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 17:38	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/20 17:38	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/20 17:38	1
2-Hexanone	ND		25	3.1	ug/L			10/26/20 17:38	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/20 17:38	1
Methylene bromide	ND		5.0	0.59	ug/L			10/26/20 17:38	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/20 17:38	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/20 17:38	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/26/20 17:38	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/26/20 17:38	1
Naphthalene	ND		1.0	1.0	ug/L			10/26/20 17:38	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/20 17:38	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/20 17:38	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/20 17:38	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/20 17:38	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/20 17:38	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/20 17:38	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: TB-ROX-101520-8260
Date Collected: 10/15/20 00:00
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-1
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/26/20 17:38	1
Styrene	ND		1.0	1.0	ug/L			10/26/20 17:38	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/20 17:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/26/20 17:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/26/20 17:38	1
Toluene	ND		1.0	0.41	ug/L			10/26/20 17:38	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/26/20 17:38	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 17:38	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/26/20 17:38	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/20 17:38	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/26/20 17:38	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/26/20 17:38	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/20 17:38	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/20 17:38	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/26/20 17:38	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/20 17:38	1
Vinyl acetate	ND		25	2.0	ug/L			10/26/20 17:38	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/20 17:38	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/20 17:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		78 - 118					10/26/20 17:38	1
Dibromofluoromethane	96		81 - 121					10/26/20 17:38	1
Toluene-d8 (Surf)	110		80 - 120					10/26/20 17:38	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: TB-ROX-101520-8011

Lab Sample ID: 400-194572-2

Date Collected: 10/15/20 00:00

Matrix: Water

Date Received: 10/16/20 09:14

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.0054	ug/L		10/20/20 11:05	10/20/20 16:16	1
1,2-Dibromoethane	ND		0.020	0.0049	ug/L		10/20/20 11:05	10/20/20 16:16	1
Surrogate									
4-Bromofluorobenzene	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	110		51 - 149				10/20/20 11:05	10/20/20 16:16	1

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW26-ROX-101520
Date Collected: 10/15/20 09:15
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/20 19:29	1
Acrolein	ND		20	10	ug/L			10/26/20 19:29	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/20 19:29	1
Benzene	ND		1.0	0.38	ug/L			10/26/20 19:29	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/20 19:29	1
Bromoform	ND		1.0	0.52	ug/L			10/26/20 19:29	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/26/20 19:29	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/26/20 19:29	1
Bromoform	ND		5.0	0.98	ug/L			10/26/20 19:29	1
Bromomethane	ND		1.0	2.6	ug/L			10/26/20 19:29	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/20 19:29	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/26/20 19:29	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/26/20 19:29	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/26/20 19:29	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/20 19:29	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/20 19:29	1
Chloroform	ND		1.0	0.60	ug/L			10/26/20 19:29	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/26/20 19:29	1
Chloromethane	ND		1.0	0.83	ug/L			10/26/20 19:29	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 19:29	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 19:29	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/20 19:29	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/20 19:29	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/20 19:29	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/20 19:29	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 19:29	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 19:29	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 19:29	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 19:29	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 19:29	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 19:29	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/20 19:29	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/20 19:29	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/20 19:29	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/20 19:29	1
2-Hexanone	ND		25	3.1	ug/L			10/26/20 19:29	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/20 19:29	1
Methylene bromide	ND		5.0	0.59	ug/L			10/26/20 19:29	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/20 19:29	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/20 19:29	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/26/20 19:29	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/26/20 19:29	1
Naphthalene	ND		1.0	1.0	ug/L			10/26/20 19:29	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/20 19:29	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/20 19:29	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/20 19:29	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/20 19:29	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/20 19:29	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/20 19:29	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW26-ROX-101520
Date Collected: 10/15/20 09:15
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-3
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/26/20 19:29	1
Styrene	ND		1.0	1.0	ug/L			10/26/20 19:29	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/20 19:29	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/26/20 19:29	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/20 19:29	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/26/20 19:29	1
Toluene	ND		1.0	0.41	ug/L			10/26/20 19:29	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/26/20 19:29	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 19:29	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/26/20 19:29	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/20 19:29	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/26/20 19:29	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/26/20 19:29	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/26/20 19:29	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/20 19:29	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/20 19:29	1
1,2,4-Trimethylbenzene	1.3		1.0	0.82	ug/L			10/26/20 19:29	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/20 19:29	1
Vinyl acetate	ND		25	2.0	ug/L			10/26/20 19:29	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/20 19:29	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/20 19:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78 - 118					10/26/20 19:29	1
Dibromofluoromethane	93		81 - 121					10/26/20 19:29	1
Toluene-d8 (Surr)	113		80 - 120					10/26/20 19:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/26/20 21:24	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/21/20 10:41	10/26/20 21:24	1
Anthracene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/26/20 21:24	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/21/20 10:41	10/26/20 21:24	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/21/20 10:41	10/26/20 21:24	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/21/20 10:41	10/26/20 21:24	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/21/20 10:41	10/26/20 21:24	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		10/21/20 10:41	10/26/20 21:24	1
Chrysene	ND		0.19	0.070	ug/L		10/21/20 10:41	10/26/20 21:24	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/21/20 10:41	10/26/20 21:24	1
Fluoranthene	ND		0.19	0.065	ug/L		10/21/20 10:41	10/26/20 21:24	1
Fluorene	ND		0.19	0.10	ug/L		10/21/20 10:41	10/26/20 21:24	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/21/20 10:41	10/26/20 21:24	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		10/21/20 10:41	10/26/20 21:24	1
2-Methylnaphthalene	0.059	J	0.19	0.057	ug/L		10/21/20 10:41	10/26/20 21:24	1
Phenanthrene	ND		0.19	0.034	ug/L		10/21/20 10:41	10/26/20 21:24	1
Pyrene	ND		0.19	0.038	ug/L		10/21/20 10:41	10/26/20 21:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	34		15 - 122				10/21/20 10:41	10/26/20 21:24	1
Nitrobenzene-d5	39		19 - 130				10/21/20 10:41	10/26/20 21:24	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW26-ROX-101520
Date Collected: 10/15/20 09:15
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-3
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	37		33 - 138	10/21/20 10:41	10/26/20 21:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.5	3.6	ug/L		10/21/20 10:41	10/26/20 22:12	1
Benzenethiol	ND	UJ	9.5	1.6	ug/L		10/21/20 10:41	10/26/20 22:12	1
Benzoic acid	ND		29	6.9	ug/L		10/21/20 10:41	10/26/20 22:12	1
Benzyl alcohol	ND	UJ	9.5	1.9	ug/L		10/21/20 10:41	10/26/20 22:12	1
Bis(2-chloroethoxy)methane	ND	UJ	9.5	0.15	ug/L		10/21/20 10:41	10/26/20 22:12	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/21/20 10:41	10/26/20 22:12	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/21/20 10:41	10/26/20 22:12	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		10/21/20 10:41	10/26/20 22:12	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/21/20 10:41	10/26/20 22:12	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/21/20 10:41	10/26/20 22:12	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/21/20 10:41	10/26/20 22:12	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/21/20 10:41	10/26/20 22:12	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/21/20 10:41	10/26/20 22:12	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/21/20 10:41	10/26/20 22:12	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/21/20 10:41	10/26/20 22:12	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/21/20 10:41	10/26/20 22:12	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/21/20 10:41	10/26/20 22:12	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		10/21/20 10:41	10/26/20 22:12	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		10/21/20 10:41	10/26/20 22:12	1
Diethyl phthalate	ND	J B U	9.5	0.23	ug/L		10/21/20 10:41	10/26/20 22:12	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 22:12	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/21/20 10:41	10/26/20 22:12	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/21/20 10:41	10/26/20 22:12	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		10/21/20 10:41	10/26/20 22:12	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		10/21/20 10:41	10/26/20 22:12	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/21/20 10:41	10/26/20 22:12	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/21/20 10:41	10/26/20 22:12	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/21/20 10:41	10/26/20 22:12	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		10/21/20 10:41	10/26/20 22:12	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/21/20 10:41	10/26/20 22:12	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/21/20 10:41	10/26/20 22:12	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		10/21/20 10:41	10/26/20 22:12	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/21/20 10:41	10/26/20 22:12	1
Indene	ND		9.5	0.95	ug/L		10/21/20 10:41	10/26/20 22:12	1
Isophorone	ND	UJ	9.5	0.13	ug/L		10/21/20 10:41	10/26/20 22:12	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/21/20 10:41	10/26/20 22:12	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/21/20 10:41	10/26/20 22:12	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/21/20 10:41	10/26/20 22:12	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/21/20 10:41	10/26/20 22:12	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/21/20 10:41	10/26/20 22:12	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/21/20 10:41	10/26/20 22:12	1
2-Nitrophenol	ND		9.5	5.0	ug/L		10/21/20 10:41	10/26/20 22:12	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/21/20 10:41	10/26/20 22:12	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 22:12	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW26-ROX-101520

Lab Sample ID: 400-194572-3

Date Collected: 10/15/20 09:15

Matrix: Water

Date Received: 10/16/20 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/21/20 10:41	10/26/20 22:12	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/21/20 10:41	10/26/20 22:12	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 22:12	1
Phenol	ND		9.5	2.5	ug/L		10/21/20 10:41	10/26/20 22:12	1
Pyridine	ND	WS	9.5	3.0	ug/L		10/21/20 10:41	10/26/20 22:12	1
Quinoline	ND	WS	9.5	4.3	ug/L		10/21/20 10:41	10/26/20 22:12	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/21/20 10:41	10/26/20 22:12	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 22:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	48		46-124				10/21/20 10:41	10/26/20 22:12	1
2-Fluorophenol	6 X		13-113				10/21/20 10:41	10/26/20 22:12	1
Nitrobenzene-d5	52		36-126				10/21/20 10:41	10/26/20 22:12	1
Phenol-d5	19		17-127				10/21/20 10:41	10/26/20 22:12	1
Terphenyl-d14	72		44-149				10/21/20 10:41	10/26/20 22:12	1
2,4,6-Tribromophenol	57		26-150				10/21/20 10:41	10/26/20 22:12	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0054	ug/L		10/20/20 11:05	10/20/20 16:36	1
1,2-Dibromoethane	ND		0.020	0.0049	ug/L		10/20/20 11:05	10/20/20 16:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	113		51-149				10/20/20 11:05	10/20/20 16:36	1

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW22-ROX-101520
Date Collected: 10/15/20 10:25
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-4
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/20 13:16	1
Acrolein	ND		20	10	ug/L			10/26/20 13:16	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/20 13:16	1
Benzene	0.42	J	1.0	0.38	ug/L			10/26/20 13:16	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/20 13:16	1
Bromochloromethane	ND		1.0	0.52	ug/L			10/26/20 13:16	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/26/20 13:16	1
Bromoform	ND		5.0	0.71	ug/L			10/26/20 13:16	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/20 13:16	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/20 13:16	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/20 13:16	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/26/20 13:16	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/26/20 13:16	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/26/20 13:16	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/20 13:16	1
2-Chloroethyl vinyl ether	ND	F1 WJ	5.0	2.0	ug/L			10/26/20 13:16	1
Chloroform	ND		1.0	0.60	ug/L			10/26/20 13:16	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/26/20 13:16	1
Chloromethane	ND		1.0	0.83	ug/L			10/26/20 13:16	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 13:16	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 13:16	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/20 13:16	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/20 13:16	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/20 13:16	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/20 13:16	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 13:16	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 13:16	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 13:16	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 13:16	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 13:16	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 13:16	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/20 13:16	1
Ethylbenzene	15		1.0	0.50	ug/L			10/26/20 13:16	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/20 13:16	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/20 13:16	1
2-Hexanone	ND		25	3.1	ug/L			10/26/20 13:16	1
Isopropylbenzene	4.1		1.0	0.53	ug/L			10/26/20 13:16	1
Methylene bromide	ND		5.0	0.59	ug/L			10/26/20 13:16	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/20 13:16	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/20 13:16	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/26/20 13:16	1
m-Xylene & p-Xylene	19		5.0	1.6	ug/L			10/26/20 13:16	1
Naphthalene	6.9		1.0	1.0	ug/L			10/26/20 13:16	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/20 13:16	1
N-Propylbenzene	7.6		1.0	0.69	ug/L			10/26/20 13:16	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/20 13:16	1
o-Xylene	1.6	J	5.0	0.60	ug/L			10/26/20 13:16	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/20 13:16	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/20 13:16	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW22-ROX-101520

Lab Sample ID: 400-194572-4

Date Collected: 10/15/20 10:25

Matrix: Water

Date Received: 10/16/20 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	0.73	J	1.0	0.70	ug/L			10/26/20 13:16	1
Styrene	ND		1.0	1.0	ug/L			10/26/20 13:16	1
tert-Butylbenzene	0.68	J	1.0	0.63	ug/L			10/26/20 13:16	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/26/20 13:16	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/20 13:16	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/26/20 13:16	1
Toluene	0.62	J	1.0	0.41	ug/L			10/26/20 13:16	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/26/20 13:16	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 13:16	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/26/20 13:16	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/20 13:16	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/26/20 13:16	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/26/20 13:16	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/26/20 13:16	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/20 13:16	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/20 13:16	1
1,2,4-Trimethylbenzene	42		1.0	0.82	ug/L			10/26/20 13:16	1
1,3,5-Trimethylbenzene	11		1.0	0.56	ug/L			10/26/20 13:16	1
Vinyl acetate	ND		25	2.0	ug/L			10/26/20 13:16	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/20 13:16	1
Xylenes, Total	20		10	1.6	ug/L			10/26/20 13:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78 - 118					10/26/20 13:16	1
Dibromofluoromethane	93		81 - 121					10/26/20 13:16	1
Toluene-d8 (Surr)	112		80 - 120					10/26/20 13:16	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L			10/21/20 10:41	10/26/20 21:06	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/21/20 10:41	10/26/20 21:06	1
Anthracene	ND		0.19	0.030	ug/L			10/21/20 10:41	10/26/20 21:06	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/21/20 10:41	10/26/20 21:06	1
Benzo[a]pyrene	0.14	J	0.19	0.040	ug/L			10/21/20 10:41	10/26/20 21:06	1
Benzo[b]fluoranthene	0.082	J	0.19	0.032	ug/L			10/21/20 10:41	10/26/20 21:06	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/21/20 10:41	10/26/20 21:06	1
Benzo[k]fluoranthene	0.16	J	0.19	0.095	ug/L			10/21/20 10:41	10/26/20 21:06	1
Chrysene	ND		0.19	0.070	ug/L			10/21/20 10:41	10/26/20 21:06	1
Dibenz(a,h)anthracene	0.18	J	0.19	0.047	ug/L			10/21/20 10:41	10/26/20 21:06	1
Fluoranthene	ND		0.19	0.065	ug/L			10/21/20 10:41	10/26/20 21:06	1
Fluorene	ND		0.19	0.10	ug/L			10/21/20 10:41	10/26/20 21:06	1
Indeno[1,2,3-cd]pyrene	0.17	J	0.19	0.041	ug/L			10/21/20 10:41	10/26/20 21:06	1
1-Methylnaphthalene	0.51		0.19	0.070	ug/L			10/21/20 10:41	10/26/20 21:06	1
2-Methylnaphthalene	0.41		0.19	0.057	ug/L			10/21/20 10:41	10/26/20 21:06	1
Phenanthrene	ND		0.19	0.034	ug/L			10/21/20 10:41	10/26/20 21:06	1
Pyrene	ND		0.19	0.038	ug/L			10/21/20 10:41	10/26/20 21:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	34		15 - 122					10/21/20 10:41	10/26/20 21:06	1
Nitrobenzene-d5	38		19 - 130					10/21/20 10:41	10/26/20 21:06	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW22-ROX-101520
Date Collected: 10/15/20 10:25
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-4
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	41		33-138	10/21/20 10:41	10/26/20 21:06	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.5	3.6	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Benzenethiol	ND	* UJ	9.5	1.6	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Benzoic acid	ND		28	6.9	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Benzyl alcohol	ND	UJ	9.5	1.9	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Bis(2-chloroethyl)ether	ND	UJ	9.5	0.15	ug/L	10/21/20 10:41	10/26/20 21:47	1	
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L	10/21/20 10:41	10/26/20 21:47	1	
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Butyl benzyl phthalate	ND		9.5	0.18	ug/L	10/21/20 10:41	10/26/20 21:47	1	
4-Chloroaniline	ND		9.5	3.2	ug/L	10/21/20 10:41	10/26/20 21:47	1	
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L	10/21/20 10:41	10/26/20 21:47	1	
2-Chloronaphthalene	ND		9.5	0.13	ug/L	10/21/20 10:41	10/26/20 21:47	1	
2-Chlorophenol	ND		9.5	2.1	ug/L	10/21/20 10:41	10/26/20 21:47	1	
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Dibenzofuran	ND		9.5	0.16	ug/L	10/21/20 10:41	10/26/20 21:47	1	
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L	10/21/20 10:41	10/26/20 21:47	1	
2,4-Dichlorophenol	ND		9.5	2.8	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Diethyl phthalate	0.50	J B U	9.5	0.23	ug/L	10/21/20 10:41	10/26/20 21:47	1	
2,4-Dimethylphenol	ND		9.5	3.3	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Dimethyl phthalate	ND		9.5	0.16	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Di-n-butyl phthalate	ND		9.5	2.6	ug/L	10/21/20 10:41	10/26/20 21:47	1	
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L	10/21/20 10:41	10/26/20 21:47	1	
2,4-Dinitrophenol	ND		28	3.2	ug/L	10/21/20 10:41	10/26/20 21:47	1	
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L	10/21/20 10:41	10/26/20 21:47	1	
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Di-n-octyl phthalate	0.37	J	9.5	0.16	ug/L	10/21/20 10:41	10/26/20 21:47	1	
1,4-Dioxane	ND	F1 UJ	9.5	0.95	ug/L	10/21/20 10:41	10/26/20 21:47	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Hexachlorobenzene	ND		9.5	0.16	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Hexachloroethane	ND		9.5	4.0	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Indene	ND		9.5	0.95	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Isophorone	ND	UJ	9.5	0.13	ug/L	10/21/20 10:41	10/26/20 21:47	1	
2-Methylphenol	ND		9.5	1.7	ug/L	10/21/20 10:41	10/26/20 21:47	1	
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/21/20 10:41	10/26/20 21:47	1	
2-Nitroaniline	ND	F1 UJ	9.5	2.1	ug/L	10/21/20 10:41	10/26/20 21:47	1	
3-Nitroaniline	ND		9.5	1.7	ug/L	10/21/20 10:41	10/26/20 21:47	1	
4-Nitroaniline	ND		9.5	1.4	ug/L	10/21/20 10:41	10/26/20 21:47	1	
Nitrobenzene	ND		9.5	0.12	ug/L	10/21/20 10:41	10/26/20 21:47	1	
2-Nitrophenol	ND		9.5	4.9	ug/L	10/21/20 10:41	10/26/20 21:47	1	
4-Nitrophenol	ND		9.5	2.0	ug/L	10/21/20 10:41	10/26/20 21:47	1	
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L	10/21/20 10:41	10/26/20 21:47	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW22-ROX-101520

Lab Sample ID: 400-194572-4

Date Collected: 10/15/20 10:25

Matrix: Water

Date Received: 10/16/20 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/21/20 10:41	10/26/20 21:47	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/21/20 10:41	10/26/20 21:47	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 21:47	1
Phenol	ND		9.5	2.5	ug/L		10/21/20 10:41	10/26/20 21:47	1
Pyridine	ND	WS	9.5	3.0	ug/L		10/21/20 10:41	10/26/20 21:47	1
Quinoline	ND	WS	9.5	4.3	ug/L		10/21/20 10:41	10/26/20 21:47	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/21/20 10:41	10/26/20 21:47	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 21:47	1

Surrogate

	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	54		46 - 124	10/21/20 10:41	10/26/20 21:47	1
2-Fluorophenol	9	X	13 - 113	10/21/20 10:41	10/26/20 21:47	1
Nitrobenzene-d5	53		36 - 126	10/21/20 10:41	10/26/20 21:47	1
Phenol-d5	30		17 - 127	10/21/20 10:41	10/26/20 21:47	1
Terphenyl-d14	75		44 - 149	10/21/20 10:41	10/26/20 21:47	1
2,4,6-Tribromophenol	83		26 - 150	10/21/20 10:41	10/26/20 21:47	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	F2 F1	0.030	0.0056	ug/L		10/20/20 11:05	10/20/20 16:56	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/20/20 11:05	10/20/20 16:56	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	111		51 - 149	10/20/20 11:05	10/20/20 16:56	1			

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW12-ROX-101520
Date Collected: 10/15/20 11:25
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/26/20 19:57	1
Acrolein	ND		20	10	ug/L			10/26/20 19:57	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/20 19:57	1
Benzene	ND		1.0	0.38	ug/L			10/26/20 19:57	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/20 19:57	1
Bromoform	ND		1.0	0.52	ug/L			10/26/20 19:57	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/26/20 19:57	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/26/20 19:57	1
Bromoform	ND		1.0	0.98	ug/L			10/26/20 19:57	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/20 19:57	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/20 19:57	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/26/20 19:57	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/26/20 19:57	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/26/20 19:57	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/20 19:57	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/20 19:57	1
Chloroform	ND		1.0	0.60	ug/L			10/26/20 19:57	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/26/20 19:57	1
Chloromethane	ND		1.0	0.83	ug/L			10/26/20 19:57	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 19:57	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 19:57	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/20 19:57	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/20 19:57	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/20 19:57	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/20 19:57	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 19:57	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 19:57	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 19:57	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 19:57	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 19:57	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 19:57	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/20 19:57	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/20 19:57	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/20 19:57	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/20 19:57	1
2-Hexanone	ND		25	3.1	ug/L			10/26/20 19:57	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/20 19:57	1
Methylene bromide	ND		5.0	0.59	ug/L			10/26/20 19:57	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/20 19:57	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/20 19:57	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/26/20 19:57	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/26/20 19:57	1
Naphthalene	ND		1.0	1.0	ug/L			10/26/20 19:57	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/20 19:57	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/20 19:57	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/20 19:57	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/20 19:57	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/20 19:57	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/26/20 19:57	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW12-ROX-101520
Date Collected: 10/15/20 11:25
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-5
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/26/20 19:57	1
Styrene	ND		1.0	1.0	ug/L			10/26/20 19:57	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/20 19:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/26/20 19:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/20 19:57	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/26/20 19:57	1
Toluene	ND		1.0	0.41	ug/L			10/26/20 19:57	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/26/20 19:57	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 19:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/26/20 19:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/20 19:57	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/26/20 19:57	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/26/20 19:57	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/26/20 19:57	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/20 19:57	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/20 19:57	1
1,2,4-Trimethylbenzene	1.3		1.0	0.82	ug/L			10/26/20 19:57	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/20 19:57	1
Vinyl acetate	ND		25	2.0	ug/L			10/26/20 19:57	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/20 19:57	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/20 19:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		78-118					10/26/20 19:57	1
Dibromofluoromethane	95		81-121					10/26/20 19:57	1
Toluene-d8 (Surr)	112		80-120					10/26/20 19:57	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L			10/21/20 10:41	10/26/20 21:41	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/21/20 10:41	10/26/20 21:41	1
Anthracene	ND		0.19	0.030	ug/L			10/21/20 10:41	10/26/20 21:41	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/21/20 10:41	10/26/20 21:41	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/21/20 10:41	10/26/20 21:41	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/21/20 10:41	10/26/20 21:41	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/21/20 10:41	10/26/20 21:41	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L			10/21/20 10:41	10/26/20 21:41	1
Chrysene	ND		0.19	0.070	ug/L			10/21/20 10:41	10/26/20 21:41	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/21/20 10:41	10/26/20 21:41	1
Fluoranthene	ND		0.19	0.065	ug/L			10/21/20 10:41	10/26/20 21:41	1
Fluorene	ND		0.19	0.10	ug/L			10/21/20 10:41	10/26/20 21:41	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/21/20 10:41	10/26/20 21:41	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L			10/21/20 10:41	10/26/20 21:41	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L			10/21/20 10:41	10/26/20 21:41	1
Phenanthrene	ND		0.19	0.034	ug/L			10/21/20 10:41	10/26/20 21:41	1
Pyrene	ND		0.19	0.038	ug/L			10/21/20 10:41	10/26/20 21:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	33		15-122					10/21/20 10:41	10/26/20 21:41	1
Nitrobenzene-d5	38		19-130					10/21/20 10:41	10/26/20 21:41	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW12-ROX-101520
Date Collected: 10/15/20 11:25
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-5
Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	37		33- 138		10/21/20 10:41	10/26/20 21:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.5	3.6	ug/L				1
Benzenethiol	ND	UJ	9.5	1.6	ug/L				1
Benzoic acid	ND		28	6.9	ug/L				1
Benzyl alcohol	ND	UJ	9.5	1.9	ug/L				1
Bis(2-chloroethoxy)methane	ND	UJ	9.5	0.15	ug/L				1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L				1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L				1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L				1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L				1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L				1
4-Chloroaniline	ND		9.5	3.2	ug/L				1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L				1
2-Chloronaphthalene	ND		9.5	0.13	ug/L				1
2-Chlorophenol	ND		9.5	2.1	ug/L				1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L				1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L				1
Dibenzofuran	ND		9.5	0.16	ug/L				1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L				1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L				1
Diethyl phthalate	ND		9.5	0.23	ug/L				1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L				1
Dimethyl phthalate	ND		9.5	0.16	ug/L				1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L				1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L				1
2,4-Dinitrophenol	ND		28	3.2	ug/L				1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L				1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L				1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L				1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L				1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L				1
Hexachlorobenzene	ND		9.5	0.16	ug/L				1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L				1
Hexachloroethane	ND		9.5	4.0	ug/L				1
Indene	ND		9.5	0.95	ug/L				1
Isophorone	ND	UJ	9.5	0.13	ug/L				1
2-Methylphenol	ND		9.5	1.7	ug/L				1
3 & 4 Methylphenol	ND		19	0.37	ug/L				1
2-Nitroaniline	ND		9.5	2.1	ug/L				1
3-Nitroaniline	ND		9.5	1.7	ug/L				1
4-Nitroaniline	ND		9.5	1.4	ug/L				1
Nitrobenzene	ND		9.5	0.12	ug/L				1
2-Nitrophenol	ND		9.5	4.9	ug/L				1
4-Nitrophenol	ND		9.5	2.0	ug/L				1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L				1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW12-ROX-101520

Lab Sample ID: 400-194572-5

Date Collected: 10/15/20 11:25

Matrix: Water

Date Received: 10/16/20 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/21/20 10:41	10/26/20 22:38	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/21/20 10:41	10/26/20 22:38	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 22:38	1
Phenol	ND		9.5	2.5	ug/L		10/21/20 10:41	10/26/20 22:38	1
Pyridine	ND	WT	9.5	3.0	ug/L		10/21/20 10:41	10/26/20 22:38	1
Quinoline	ND	WT	9.5	4.3	ug/L		10/21/20 10:41	10/26/20 22:38	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/21/20 10:41	10/26/20 22:38	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 22:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	55		46 - 124				10/21/20 10:41	10/26/20 22:38	1
2-Fluorophenol	19		13 - 113				10/21/20 10:41	10/26/20 22:38	1
Nitrobenzene-d5	55		36 - 126				10/21/20 10:41	10/26/20 22:38	1
Phenol-d5	28		17 - 127				10/21/20 10:41	10/26/20 22:38	1
Terphenyl-d14	75		44 - 149				10/21/20 10:41	10/26/20 22:38	1
2,4,6-Tribromophenol	54		26 - 150				10/21/20 10:41	10/26/20 22:38	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0056	ug/L		10/20/20 11:05	10/20/20 17:56	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/20/20 11:05	10/20/20 17:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	119	p	51 - 149				10/20/20 11:05	10/20/20 17:56	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW3-ROX-101520

Date Collected: 10/15/20 12:15

Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-6

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil. Fac.
Acetone	ND		25	10	ug/L		10/26/20	20:24	1
Acrolein	ND		20	10	ug/L		10/26/20	20:24	1
Acrylonitrile	ND		10	2.8	ug/L		10/26/20	20:24	1
Benzene	ND		1.0	0.38	ug/L		10/26/20	20:24	1
Bromobenzene	ND		1.0	0.54	ug/L		10/26/20	20:24	1
Bromoform	ND		1.0	0.52	ug/L		10/26/20	20:24	1
Bromochloromethane	ND		1.0	0.50	ug/L		10/26/20	20:24	1
Bromodichloromethane	ND		1.0	0.50	ug/L		10/26/20	20:24	1
Bromoform	ND		5.0	0.71	ug/L		10/26/20	20:24	1
Bromomelthane	ND		1.0	0.98	ug/L		10/26/20	20:24	1
2-Butanone (MEK)	ND		25	2.6	ug/L		10/26/20	20:24	1
Carbon disulfide	ND		1.0	0.50	ug/L		10/26/20	20:24	1
Carbon tetrachloride	ND		1.0	0.50	ug/L		10/26/20	20:24	1
Chlorobenzene	ND		1.0	0.50	ug/L		10/26/20	20:24	1
Dibromochloromethane	ND		1.0	0.50	ug/L		10/26/20	20:24	1
Chloroethane	ND		1.0	0.76	ug/L		10/26/20	20:24	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L		10/26/20	20:24	1
Chloroform	ND		1.0	0.60	ug/L		10/26/20	20:24	1
1-Chlorohexane	ND		1.0	0.70	ug/L		10/26/20	20:24	1
Chloromelthane	ND		1.0	0.83	ug/L		10/26/20	20:24	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L		10/26/20	20:24	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L		10/26/20	20:24	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L		10/26/20	20:24	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L		10/26/20	20:24	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L		10/26/20	20:24	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L		10/26/20	20:24	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L		10/26/20	20:24	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L		10/26/20	20:24	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L		10/26/20	20:24	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L		10/26/20	20:24	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L		10/26/20	20:24	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L		10/26/20	20:24	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L		10/26/20	20:24	1
Ethylbenzene	ND		1.0	0.50	ug/L		10/26/20	20:24	1
Ethyl methacrylate	ND		1.0	0.60	ug/L		10/26/20	20:24	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L		10/26/20	20:24	1
2-Hexanone	ND		25	3.1	ug/L		10/26/20	20:24	1
Isopropylbenzene	ND		1.0	0.53	ug/L		10/26/20	20:24	1
Methylene bromide	ND		5.0	0.59	ug/L		10/26/20	20:24	1
Methylene Chloride	ND		5.0	3.0	ug/L		10/26/20	20:24	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L		10/26/20	20:24	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L		10/26/20	20:24	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L		10/26/20	20:24	1
Naphthalene	ND		1.0	1.0	ug/L		10/26/20	20:24	1
n-Butylbenzene	ND		1.0	0.76	ug/L		10/26/20	20:24	1
N-Propylbenzene	ND		1.0	0.69	ug/L		10/26/20	20:24	1
o-Chlorotoluene	ND		1.0	0.57	ug/L		10/26/20	20:24	1
o-Xylene	ND		5.0	0.60	ug/L		10/26/20	20:24	1
p-Chlorotoluene	ND		1.0	0.56	ug/L		10/26/20	20:24	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L		10/26/20	20:24	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW3-ROX-101520

Lab Sample ID: 400-194572-6

Date Collected: 10/15/20 12:15

Matrix: Water

Date Received: 10/16/20 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/26/20 20:24	1
Styrene	ND		1.0	1.0	ug/L			10/26/20 20:24	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/26/20 20:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/26/20 20:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/26/20 20:24	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/26/20 20:24	1
Toluene	ND		1.0	0.41	ug/L			10/26/20 20:24	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/26/20 20:24	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 20:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/26/20 20:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/26/20 20:24	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/26/20 20:24	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/26/20 20:24	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/26/20 20:24	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/26/20 20:24	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/26/20 20:24	1
1,2,4-Trimethylbenzene	0.98	J	1.0	0.82	ug/L			10/26/20 20:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/26/20 20:24	1
Vinyl acetate	ND		25	2.0	ug/L			10/26/20 20:24	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/26/20 20:24	1
Xylenes, Total	ND		10	1.6	ug/L			10/26/20 20:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		78 - 118		10/26/20 20:24	1
Dibromofluoromethane	94		81 - 121		10/26/20 20:24	1
Toluene-d8 (Sur)	113		80 - 120		10/26/20 20:24	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L			10/21/20 10:41	10/26/20 21:59	1
Acenaphthylene	ND		0.19	0.042	ug/L			10/21/20 10:41	10/26/20 21:59	1
Anthracene	ND		0.19	0.030	ug/L			10/21/20 10:41	10/26/20 21:59	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L			10/21/20 10:41	10/26/20 21:59	1
Chrysene	ND		0.19	0.070	ug/L			10/21/20 10:41	10/26/20 21:59	1
Fluoranthene	ND		0.19	0.064	ug/L			10/21/20 10:41	10/26/20 21:59	1
Fluorene	ND		0.19	0.10	ug/L			10/21/20 10:41	10/26/20 21:59	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L			10/21/20 10:41	10/26/20 21:59	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L			10/21/20 10:41	10/26/20 21:59	1
Phenanthrene	ND		0.19	0.034	ug/L			10/21/20 10:41	10/26/20 21:59	1
Pyrene	ND		0.19	0.038	ug/L			10/21/20 10:41	10/26/20 21:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	33		15 - 122		10/21/20 10:41	10/26/20 21:59	1
Nitrobenzene-d5	38		19 - 130		10/21/20 10:41	10/26/20 21:59	1
Terphenyl-d14	41		33 - 138		10/21/20 10:41	10/26/20 21:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/21/20 10:41	10/27/20 17:35	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/21/20 10:41	10/27/20 17:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW3-ROX-101520

Lab Sample ID: 400-194572-6

Date Collected: 10/15/20 12:15

Matrix: Water

Date Received: 10/16/20 09:14

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzog, h,i]perylene	ND		0.19	0.12	ug/L		10/21/20 10:41	10/27/20 17:35	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		10/21/20 10:41	10/27/20 17:35	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/21/20 10:41	10/27/20 17:35	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/21/20 10:41	10/27/20 17:35	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	WS	9.4	3.6	ug/L		10/21/20 10:41	10/26/20 23:04	1
Benzenethiol	ND	WS	9.4	1.6	ug/L		10/21/20 10:41	10/26/20 23:04	1
Benzoic acid	ND		28	6.9	ug/L		10/21/20 10:41	10/26/20 23:04	1
Benzyl alcohol	ND	WS	9.4	1.9	ug/L		10/21/20 10:41	10/26/20 23:04	1
Bis(2-chloroethoxy)methane	ND	WS	9.4	0.15	ug/L		10/21/20 10:41	10/26/20 23:04	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/21/20 10:41	10/26/20 23:04	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/21/20 10:41	10/26/20 23:04	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/21/20 10:41	10/26/20 23:04	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/21/20 10:41	10/26/20 23:04	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/21/20 10:41	10/26/20 23:04	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/21/20 10:41	10/26/20 23:04	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/21/20 10:41	10/26/20 23:04	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/21/20 10:41	10/26/20 23:04	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/21/20 10:41	10/26/20 23:04	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/21/20 10:41	10/26/20 23:04	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/21/20 10:41	10/26/20 23:04	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/21/20 10:41	10/26/20 23:04	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		10/21/20 10:41	10/26/20 23:04	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/21/20 10:41	10/26/20 23:04	1
Diethyl phthalate	0.24	J B 4	9.4	0.23	ug/L		10/21/20 10:41	10/26/20 23:04	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/21/20 10:41	10/26/20 23:04	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/21/20 10:41	10/26/20 23:04	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/21/20 10:41	10/26/20 23:04	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		10/21/20 10:41	10/26/20 23:04	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/21/20 10:41	10/26/20 23:04	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/21/20 10:41	10/26/20 23:04	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/21/20 10:41	10/26/20 23:04	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/21/20 10:41	10/26/20 23:04	1
1,4-Dioxane	ND	WS	9.4	0.94	ug/L		10/21/20 10:41	10/26/20 23:04	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/21/20 10:41	10/26/20 23:04	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		10/21/20 10:41	10/26/20 23:04	1
Hexachlorocyclopentadiene	ND	WS	19	2.5	ug/L		10/21/20 10:41	10/26/20 23:04	1
Hexachloroethane	ND		9.4	4.0	ug/L		10/21/20 10:41	10/26/20 23:04	1
Indene	ND		9.4	0.94	ug/L		10/21/20 10:41	10/26/20 23:04	1
Isophorone	ND	WS	9.4	0.13	ug/L		10/21/20 10:41	10/26/20 23:04	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/21/20 10:41	10/26/20 23:04	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/21/20 10:41	10/26/20 23:04	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/21/20 10:41	10/26/20 23:04	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/21/20 10:41	10/26/20 23:04	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/21/20 10:41	10/26/20 23:04	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/21/20 10:41	10/26/20 23:04	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/21/20 10:41	10/26/20 23:04	1

Eurofins TestAmerica, Pensacola

Client Sample Results

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

Job ID: 400-194572-1

Client Sample ID: MW3-ROX-101520
Date Collected: 10/15/20 12:15
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-6
Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitrophenol	ND		9.4	2.0	ug/L		10/21/20 10:41	10/26/20 23:04	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		10/21/20 10:41	10/26/20 23:04	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/21/20 10:41	10/26/20 23:04	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/21/20 10:41	10/26/20 23:04	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 23:04	1
Phenol	ND		9.4	2.5	ug/L		10/21/20 10:41	10/26/20 23:04	1
Pyridine	ND	WJ	9.4	3.0	ug/L		10/21/20 10:41	10/26/20 23:04	1
Quinoline	ND	WJ	9.4	4.2	ug/L		10/21/20 10:41	10/26/20 23:04	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/21/20 10:41	10/26/20 23:04	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/21/20 10:41	10/26/20 23:04	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		56		46 - 124			10/21/20 10:41	10/26/20 23:04	1
2-Fluorophenol		14		13 - 113			10/21/20 10:41	10/26/20 23:04	1
Nitrobenzene-d5		54		36 - 126			10/21/20 10:41	10/26/20 23:04	1
Phenol-d5		36		17 - 127			10/21/20 10:41	10/26/20 23:04	1
Terphenyl-d14		80		44 - 149			10/21/20 10:41	10/26/20 23:04	1
2,4,6-Tribromophenol		90		26 - 150			10/21/20 10:41	10/26/20 23:04	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.0057	ug/L		10/20/20 11:05	10/20/20 18:36	1
1,2-Dibromoethane	ND		0.021	0.0051	ug/L		10/20/20 11:05	10/20/20 18:36	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene		116		51 - 149			10/20/20 11:05	10/20/20 18:36	1

Definitions/Glossary

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

Job ID: 400-194572-1

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 or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
F1	MS and/or MSD recovery exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
P	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
%	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
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: 400-194572-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194572-1	TB-ROX-101520-8260	98	96	110
400-194572-3	MW26-ROX-101520	97	93	113
400-194572-4	MW22-ROX-101520	97	93	112
400-194572-4 MS	MW22-ROX-101520	102	94	113
400-194572-4 MSD	MW22-ROX-101520	100	95	113
400-194572-5	MW12-ROX-101520	100	95	112
400-194572-6	MW3-ROX-101520	98	94	113
LCS 400-508108/1002	Lab Control Sample	97	94	111
MB 400-508108/4	Method Blank	97	93	111

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Sur)

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194572-3	MW26-ROX-101520	48	6 X	52	19	72	57
400-194572-4	MW22-ROX-101520	54	9 X	53	30	75	83
400-194572-4 MS	MW22-ROX-101520	49	21	50	38	66	79
400-194572-4 MSD	MW22-ROX-101520	53	33	56	44	72	85
400-194572-5	MW12-ROX-101520	55	19	55	28	75	54
400-194572-6	MW3-ROX-101520	56	14	54	36	80	90
LCS 400-507618/2-A	Lab Control Sample	57	25	56	42	79	89
LCS 400-507618/3-A	Lab Control Sample	57	21	57	41	87	87
LCSD 400-507618/4-A	Lab Control Sample Dup	55	5 X	55	23	77	32
MB 400-507618/1-A	Method Blank	58	17	59	36	85	88

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194572-3	MW26-ROX-101520	34	39	37
400-194572-4	MW22-ROX-101520	34	38	41
400-194572-4 MS	MW22-ROX-101520	79	92	102
400-194572-4 MSD	MW22-ROX-101520	79	108	91
400-194572-5	MW12-ROX-101520	33	38	37

Eurofins TestAmerica, Pensacola

Surrogate Summary

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

Job ID: 400-194572-1

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194572-6	MW3-ROX-101520	33	38	41
LCS 400-507618/2-A	Lab Control Sample	85	96	98
MB 400-507618/1-A	Method Blank	32	39	41

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB2 (51-149)	
400-194572-2	TB-ROX-101520-8011	110	
400-194572-3	MW26-ROX-101520	113	
400-194572-4	MW22-ROX-101520	111	
400-194572-4 MS	MW22-ROX-101520	132	
400-194572-4 MSD	MW22-ROX-101520	110	
400-194572-5	MW12-ROX-101520	119 p	
400-194572-6	MW3-ROX-101520	116	
LCS 400-507450/2-A	Lab Control Sample	116	
LCSD 400-507450/3-A	Lab Control Sample Dup	112	
MB 400-507450/1-A	Method Blank	104	

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

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

Job ID: 400-194572-1

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

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

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

1
2
3
4
5
6
7
8
9

Lab Chronicle

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

Job ID: 400-194572-1

Client Sample ID: TB-ROX-101520-8260
Date Collected: 10/15/20 00:00
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-1
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	508108	10/26/20 17:38	WPD	TAL PEN

Client Sample ID: TB-ROX-101520-8011
Date Collected: 10/15/20 00:00
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.8 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 16:16	DHJ	TAL PEN

Client Sample ID: MW26-ROX-101520
Date Collected: 10/15/20 09:15
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-3
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	508108	10/26/20 19:29	WPD	TAL PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 22:12	VC1	TAL PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508212	10/26/20 21:24	PP1	TAL PEN
Total/NA	Prep	8011			35.5 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 16:36	DHJ	TAL PEN

Client Sample ID: MW22-ROX-101520
Date Collected: 10/15/20 10:25
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-4
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	508108	10/26/20 13:16	WPD	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 21:47	VC1	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508212	10/26/20 21:06	PP1	TAL PEN
Total/NA	Prep	8011			34.5 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 16:56	DHJ	TAL PEN

Client Sample ID: MW12-ROX-101520
Date Collected: 10/15/20 11:25
Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-5
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	508108	10/26/20 19:57	WPD	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 22:38	VC1	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194572-1

Client Sample ID: MW12-ROX-101520

Date Collected: 10/15/20 11:25

Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			263.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508212	10/26/20 21:41	PP1	TAL PEN
Total/NA	Prep	8011			34.5 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 17:56	DHJ	TAL PEN

Client Sample ID: MW3-ROX-101520

Date Collected: 10/15/20 12:15

Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	508108	10/26/20 20:24	WPD	TAL PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 23:04	VC1	TAL PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508212	10/26/20 21:59	PP1	TAL PEN
Total/NA	Prep	3520C	RA		265.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL	RA	1			508361	10/27/20 17:35	KJA	TAL PEN
Total/NA	Prep	8011			34 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 18:36	DHJ	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-507450/1-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	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 14:56	DHJ	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-507618/1-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 19:13	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508212	10/26/20 19:55	PP1	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-508108/4

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	508108	10/26/20 10:54	WPD	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194572-1

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 400-507450/2-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	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 15:16	DHJ	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 400-507618/2-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 20:31	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			508212	10/26/20 20:13	PP1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 400-507618/3-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 19:39	VC1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 400-508108/1002

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	508108	10/26/20 09:57	WPD	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCSD 400-507450/3-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	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 15:36	DHJ	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCSD 400-507618/4-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	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 20:05	VC1	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

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

Job ID: 400-194572-1

Client Sample ID: MW22-ROX-101520

Date Collected: 10/15/20 10:25

Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-4 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	508108	10/26/20 16:02	WPD	TAL PEN
Total/NA	Prep	3520C			264.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 20:56	VC1	TAL PEN
Total/NA	Prep	3520C			264.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			508212	10/26/20 20:31	PP1	TAL PEN
Total/NA	Prep	8011			35.3 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 17:16	DHJ	TAL PEN

Client Sample ID: MW22-ROX-101520

Date Collected: 10/15/20 10:25

Date Received: 10/16/20 09:14

Lab Sample ID: 400-194572-4 MSD

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	508108	10/26/20 16:25	WPD	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 21:22	VC1	TAL PEN
Total/NA	Prep	3520C			263.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			508212	10/26/20 20:49	PP1	TAL PEN
Total/NA	Prep	8011			35.5 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 17:36	DHJ	TAL PEN

Laboratory References:

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

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194572-1

GC/MS VOA

Analysis Batch: 508108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194572-1	TB-ROX-101520-8260	Total/NA	Water	8260B	
400-194572-3	MW26-ROX-101520	Total/NA	Water	8260B	
400-194572-4	MW22-ROX-101520	Total/NA	Water	8260B	
400-194572-5	MW12-ROX-101520	Total/NA	Water	8260B	
400-194572-6	MW3-ROX-101520	Total/NA	Water	8260B	
MB 400-508108/4	Method Blank	Total/NA	Water	8260B	
LCS 400-508108/1002	Lab Control Sample	Total/NA	Water	8260B	
400-194572-4 MS	MW22-ROX-101520	Total/NA	Water	8260B	
400-194572-4 MSD	MW22-ROX-101520	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 507618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194572-3	MW26-ROX-101520	Total/NA	Water	3520C	
400-194572-4	MW22-ROX-101520	Total/NA	Water	3520C	
400-194572-5	MW12-ROX-101520	Total/NA	Water	3520C	
400-194572-6 - RA	MW3-ROX-101520	Total/NA	Water	3520C	
400-194572-6	MW3-ROX-101520	Total/NA	Water	3520C	
MB 400-507618/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-507618/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-507618/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	
400-194572-4 MS	MW22-ROX-101520	Total/NA	Water	3520C	
400-194572-4 MSD	MW22-ROX-101520	Total/NA	Water	3520C	

Analysis Batch: 508112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194572-3	MW26-ROX-101520	Total/NA	Water	8270D	507618
400-194572-4	MW22-ROX-101520	Total/NA	Water	8270D	507618
400-194572-5	MW12-ROX-101520	Total/NA	Water	8270D	507618
400-194572-6	MW3-ROX-101520	Total/NA	Water	8270D	507618
MB 400-507618/1-A	Method Blank	Total/NA	Water	8270D	507618
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	8270D	507618
LCS 400-507618/3-A	Lab Control Sample	Total/NA	Water	8270D	507618
LCSD 400-507618/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	507618
400-194572-4 MS	MW22-ROX-101520	Total/NA	Water	8270D	507618
400-194572-4 MSD	MW22-ROX-101520	Total/NA	Water	8270D	507618

Analysis Batch: 508212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194572-3	MW26-ROX-101520	Total/NA	Water	8270D LL	507618
400-194572-4	MW22-ROX-101520	Total/NA	Water	8270D LL	507618
400-194572-5	MW12-ROX-101520	Total/NA	Water	8270D LL	507618
400-194572-6	MW3-ROX-101520	Total/NA	Water	8270D LL	507618
MB 400-507618/1-A	Method Blank	Total/NA	Water	8270D LL	507618
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	8270D LL	507618
400-194572-4 MS	MW22-ROX-101520	Total/NA	Water	8270D LL	507618
400-194572-4 MSD	MW22-ROX-101520	Total/NA	Water	8270D LL	507618

Eurofins TestAmerica, Pensacola

QC Association Summary

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

Job ID: 400-194572-1

GC/MS Semi VOA

Analysis Batch: 508361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194572-6 - RA	MW3-ROX-101520	Total/NA	Water	8270D LL	507618

GC Semi VOA

Prep Batch: 507450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194572-2	TB-ROX-101520-8011	Total/NA	Water	8011	
400-194572-3	MW26-ROX-101520	Total/NA	Water	8011	
400-194572-4	MW22-ROX-101520	Total/NA	Water	8011	
400-194572-5	MW12-ROX-101520	Total/NA	Water	8011	
400-194572-6	MW3-ROX-101520	Total/NA	Water	8011	
MB 400-507450/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-507450/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-507450/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-194572-4 MS	MW22-ROX-101520	Total/NA	Water	8011	
400-194572-4 MSD	MW22-ROX-101520	Total/NA	Water	8011	

Analysis Batch: 507451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194572-2	TB-ROX-101520-8011	Total/NA	Water	8011	507450
400-194572-3	MW26-ROX-101520	Total/NA	Water	8011	507450
400-194572-4	MW22-ROX-101520	Total/NA	Water	8011	507450
400-194572-5	MW12-ROX-101520	Total/NA	Water	8011	507450
400-194572-6	MW3-ROX-101520	Total/NA	Water	8011	507450
MB 400-507450/1-A	Method Blank	Total/NA	Water	8011	507450
LCS 400-507450/2-A	Lab Control Sample	Total/NA	Water	8011	507450
LCSD 400-507450/3-A	Lab Control Sample Dup	Total/NA	Water	8011	507450
400-194572-4 MS	MW22-ROX-101520	Total/NA	Water	8011	507450
400-194572-4 MSD	MW22-ROX-101520	Total/NA	Water	8011	507450

QC Sample Results

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

Job ID: 400-194572-1

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

Lab Sample ID: MB 400-508108/4

Matrix: Water

Analysis Batch: 508108

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			10/26/20 10:54	1
Acrolein	ND		20	10	ug/L			10/26/20 10:54	1
Acrylonitrile	ND		10	2.8	ug/L			10/26/20 10:54	1
Benzene	ND		1.0	0.38	ug/L			10/26/20 10:54	1
Bromobenzene	ND		1.0	0.54	ug/L			10/26/20 10:54	1
Bromoform	ND		1.0	0.52	ug/L			10/26/20 10:54	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/26/20 10:54	1
Bromomethane	ND		1.0	0.98	ug/L			10/26/20 10:54	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/26/20 10:54	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Chloroethane	ND		1.0	0.76	ug/L			10/26/20 10:54	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/26/20 10:54	1
Chloroform	ND		1.0	0.60	ug/L			10/26/20 10:54	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/26/20 10:54	1
Chloromethane	ND		1.0	0.83	ug/L			10/26/20 10:54	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 10:54	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/26/20 10:54	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/26/20 10:54	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/26/20 10:54	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/26/20 10:54	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/26/20 10:54	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/26/20 10:54	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/26/20 10:54	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/26/20 10:54	1
2-Hexanone	ND		25	3.1	ug/L			10/26/20 10:54	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/26/20 10:54	1
Methylene bromide	ND		5.0	0.59	ug/L			10/26/20 10:54	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/26/20 10:54	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/26/20 10:54	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/26/20 10:54	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/26/20 10:54	1
Naphthalene	ND		1.0	1.0	ug/L			10/26/20 10:54	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/26/20 10:54	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/26/20 10:54	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/26/20 10:54	1
o-Xylene	ND		5.0	0.60	ug/L			10/26/20 10:54	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/26/20 10:54	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194572-1

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

Lab Sample ID: MB 400-508108/4

Matrix: Water

Analysis Batch: 508108

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

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND				1.0	0.71	ug/L			10/26/20 10:54	1
sec-Butylbenzene	ND				1.0	0.70	ug/L			10/26/20 10:54	1
Styrene	ND				1.0	1.0	ug/L			10/26/20 10:54	1
tert-Butylbenzene	ND				1.0	0.63	ug/L			10/26/20 10:54	1
1,1,1,2-Tetrachloroethane	ND				1.0	0.52	ug/L			10/26/20 10:54	1
1,1,2,2-Tetrachloroethane	ND				1.0	0.50	ug/L			10/26/20 10:54	1
Tetrachloroethene	ND				1.0	0.58	ug/L			10/26/20 10:54	1
Toluene	ND				1.0	0.41	ug/L			10/26/20 10:54	1
trans-1,2-Dichloroethylene	ND				1.0	0.50	ug/L			10/26/20 10:54	1
trans-1,3-Dichloropropene	ND				5.0	0.50	ug/L			10/26/20 10:54	1
1,2,3-Trichlorobenzene	ND				1.0	0.70	ug/L			10/26/20 10:54	1
1,2,4-Trichlorobenzene	ND				1.0	0.82	ug/L			10/26/20 10:54	1
1,1,1-Trichloroethane	ND				1.0	0.50	ug/L			10/26/20 10:54	1
1,1,2-Trichloroethane	ND				5.0	0.50	ug/L			10/26/20 10:54	1
Trichloroethylene	ND				1.0	0.50	ug/L			10/26/20 10:54	1
Trichlorofluoromethane	ND				1.0	0.52	ug/L			10/26/20 10:54	1
1,2,3-Trichloropropane	ND				5.0	0.84	ug/L			10/26/20 10:54	1
1,2,4-Trimethylbenzene	ND				1.0	0.82	ug/L			10/26/20 10:54	1
1,3,5-Trimethylbenzene	ND				1.0	0.56	ug/L			10/26/20 10:54	1
Vinyl acetate	ND				25	2.0	ug/L			10/26/20 10:54	1
Vinyl chloride	ND				1.0	0.50	ug/L			10/26/20 10:54	1
Xylenes, Total	ND				10	1.6	ug/L			10/26/20 10:54	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		97		78 - 118			1
Dibromofluoromethane	93		93		81 - 121			1
Toluene-d8 (Surr)	111		111		80 - 120			1

Lab Sample ID: LCS 400-508108/1002

Matrix: Water

Analysis Batch: 508108

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

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added									
Acetone	200		202			ug/L		101	43 - 160	
Acrolein	500		472			ug/L		94	38 - 160	
Acrylonitrile	500		400			ug/L		80	64 - 142	
Benzene	50.0		43.9			ug/L		88	70 - 130	
Bromobenzene	50.0		45.2			ug/L		90	70 - 132	
Bromochloromethane	50.0		41.1			ug/L		82	70 - 130	
Bromodichloromethane	50.0		42.0			ug/L		84	67 - 133	
Bromoform	50.0		43.0			ug/L		86	57 - 140	
Bromomethane	50.0		46.6			ug/L		93	10 - 160	
2-Butanone (MEK)	200		210			ug/L		105	61 - 145	
Carbon disulfide	50.0		37.5			ug/L		75	61 - 137	
Carbon tetrachloride	50.0		37.6			ug/L		75	61 - 137	
Chlorobenzene	50.0		48.3			ug/L		97	70 - 130	
Dibromochloromethane	50.0		42.0			ug/L		84	67 - 135	
Chloroethane	50.0		51.0			ug/L		102	55 - 141	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194572-1

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

Lab Sample ID: LCS 400-508108/1002
Matrix: Water
Analysis Batch: 508108

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	37.0		ug/L		74	10 - 160
Chloroform	50.0	40.9		ug/L		82	69 - 130
1-Chlorohexane	50.0	52.4		ug/L		105	69 - 130
Chloromethane	50.0	40.1		ug/L		80	58 - 137
cis-1,2-Dichloroethene	50.0	42.5		ug/L		85	68 - 130
cis-1,3-Dichloropropene	50.0	47.0		ug/L		94	69 - 132
1,2-Dichlorobenzene	50.0	47.2		ug/L		94	67 - 130
1,3-Dichlorobenzene	50.0	48.3		ug/L		97	70 - 130
1,4-Dichlorobenzene	50.0	48.3		ug/L		97	70 - 130
Dichlorodifluoromethane	50.0	34.1		ug/L		68	41 - 146
1,1-Dichloroethane	50.0	42.0		ug/L		84	70 - 130
1,2-Dichloroethane	50.0	40.5		ug/L		81	69 - 130
1,1-Dichloroethene	50.0	40.4		ug/L		81	63 - 134
1,2-Dichloropropane	50.0	42.4		ug/L		85	70 - 130
1,3-Dichloropropane	50.0	52.0		ug/L		104	70 - 130
2,2-Dichloropropane	50.0	41.0		ug/L		82	52 - 135
1,1-Dichloropropene	50.0	43.1		ug/L		86	70 - 130
Ethylbenzene	50.0	49.5		ug/L		99	70 - 130
Ethyl methacrylate	50.0	52.0		ug/L		104	68 - 130
Hexachlorobutadiene	50.0	45.3		ug/L		91	53 - 140
2-Hexanone	200	215		ug/L		108	65 - 137
Isopropylbenzene	50.0	50.7		ug/L		101	70 - 130
Methylene bromide	50.0	41.0		ug/L		82	70 - 130
Methylene Chloride	50.0	41.5		ug/L		83	66 - 135
4-Methyl-2-pentanone (MIBK)	200	190		ug/L		95	69 - 138
Methyl tert-butyl ether	50.0	45.3		ug/L		91	66 - 130
m-Xylene & p-Xylene	50.0	47.8		ug/L		96	70 - 130
Naphthalene	50.0	46.3		ug/L		93	47 - 149
n-Butylbenzene	50.0	62.9		ug/L		126	67 - 130
N-Propylbenzene	50.0	52.1		ug/L		104	70 - 130
o-Chlorotoluene	50.0	51.4		ug/L		103	70 - 130
o-Xylene	50.0	48.0		ug/L		96	70 - 130
p-Chlorotoluene	50.0	51.7		ug/L		103	70 - 130
p-Isopropyltoluene	50.0	56.9		ug/L		114	65 - 130
sec-Butylbenzene	50.0	53.4		ug/L		107	66 - 130
Styrene	50.0	47.4		ug/L		95	70 - 130
tert-Butylbenzene	50.0	49.9		ug/L		100	64 - 139
1,1,1,2-Tetrachloroethane	50.0	45.1		ug/L		90	67 - 131
1,1,2,2-Tetrachloroethane	50.0	52.1		ug/L		104	70 - 131
Tetrachloroethene	50.0	44.2		ug/L		88	65 - 130
Toluene	50.0	47.8		ug/L		96	70 - 130
trans-1,2-Dichloroethene	50.0	41.3		ug/L		83	70 - 130
trans-1,3-Dichloropropene	50.0	50.7		ug/L		101	63 - 130
1,2,3-Trichlorobenzene	50.0	43.1		ug/L		86	60 - 138
1,2,4-Trichlorobenzene	50.0	44.0		ug/L		88	60 - 140
1,1,1-Trichloroethane	50.0	39.0		ug/L		78	68 - 130
1,1,2-Trichloroethane	50.0	48.7		ug/L		97	70 - 130
Trichloroethene	50.0	39.9		ug/L		80	70 - 130
Trichlorofluoromethane	50.0	46.6		ug/L		93	65 - 138

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194572-1

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

Lab Sample ID: LCS 400-508108/1002

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

Matrix: Water

Analysis Batch: 508108

Analyte	Spike	LCS			%Rec.	Limits
	Added	Result	Qualifier	Unit		
1,2,3-Trichloropropane	50.0	47.9		ug/L	96	70 - 130
1,2,4-Trimethylbenzene	50.0	49.4		ug/L	99	70 - 130
1,3,5-Trimethylbenzene	50.0	48.7		ug/L	97	69 - 130
Vinyl acetate	100	120		ug/L	120	26 - 160
Vinyl chloride	50.0	47.3		ug/L	95	59 - 136
Xylenes, Total	100	95.8		ug/L	96	70 - 130
Surrogate	LCS	LCS	%Rec.	Limits	Limits	Limits
	%Recovery	Qualifier				
4-Bromofluorobenzene	97		78 - 118			
Dibromofluoromethane	94		81 - 121			
Toluene-d8 (Surr)	111		80 - 120			

Lab Sample ID: 400-194572-4 MS

Client Sample ID: MW22-ROX-101520
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 508108

Analyte	Sample	Sample	Spike	MS			%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier	Unit		
Acetone	ND		200	199		ug/L	99	43 - 150
Acrolein	ND		500	425		ug/L	85	38 - 150
Acrylonitrile	ND		500	407		ug/L	81	62 - 149
Benzene	0.42 J		50.0	43.6		ug/L	86	56 - 142
Bromobenzene	ND		50.0	46.0		ug/L	92	59 - 136
Bromoform	ND		50.0	40.6		ug/L	81	64 - 140
Bromochloromethane	ND		50.0	41.1		ug/L	82	59 - 143
Bromodichloromethane	ND		50.0	44.0		ug/L	88	50 - 140
Bromomethane	ND		50.0	42.1		ug/L	84	10 - 150
2-Butanone (MEK)	ND		200	193		ug/L	96	55 - 150
Carbon disulfide	ND		50.0	36.5		ug/L	73	48 - 150
Carbon tetrachloride	ND		50.0	35.7		ug/L	71	55 - 145
Chlorobenzene	ND		50.0	47.8		ug/L	96	64 - 130
Dibromochloromethane	ND		50.0	42.4		ug/L	85	56 - 143
Chloroethane	ND		50.0	48.8		ug/L	98	50 - 150
2-Chloroethyl vinyl ether	ND F1		50.0	ND F1		ug/L	0	10 - 150
Chloroform	ND		50.0	42.6		ug/L	85	60 - 141
1-Chlorohexane	ND		50.0	50.2		ug/L	100	56 - 136
Chloromethane	ND		50.0	36.7		ug/L	73	49 - 148
cis-1,2-Dichloroethene	ND		50.0	42.7		ug/L	85	59 - 143
cis-1,3-Dichloropropene	ND		50.0	45.5		ug/L	91	57 - 140
1,2-Dichlorobenzene	ND		50.0	47.0		ug/L	94	52 - 137
1,3-Dichlorobenzene	ND		50.0	49.2		ug/L	98	54 - 135
1,4-Dichlorobenzene	ND		50.0	49.5		ug/L	99	53 - 135
Dichlorodifluoromethane	ND		50.0	31.0		ug/L	62	16 - 150
1,1-Dichloroethane	ND		50.0	43.0		ug/L	86	61 - 144
1,2-Dichloroethane	ND		50.0	39.0		ug/L	78	60 - 141
1,1-Dichloroethene	ND		50.0	38.8		ug/L	78	54 - 147
1,2-Dichloropropane	ND		50.0	43.6		ug/L	87	66 - 137
1,3-Dichloropropane	ND		50.0	52.2		ug/L	104	66 - 133
2,2-Dichloropropane	ND		50.0	41.5		ug/L	83	42 - 144

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194572-1

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

Lab Sample ID: 400-194572-4 MS

Matrix: Water

Analysis Batch: 508108

Client Sample ID: MW22-ROX-101520
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,1-Dichloropropene	ND		50.0	43.5		ug/L		87	65 - 136
Ethylbenzene	15		50.0	62.5		ug/L		95	58 - 131
Ethyl methacrylate	ND		50.0	54.6		ug/L		109	64 - 130
Hexachlorobutadiene	ND		50.0	42.3		ug/L		85	31 - 149
2-Hexanone	ND		200	215		ug/L		108	65 - 140
Isopropylbenzene	4.1		50.0	52.7		ug/L		97	56 - 140
Methylene bromide	ND		50.0	40.5		ug/L		81	56 - 133
Methylene Chloride	ND		50.0	41.6		ug/L		83	60 - 146
4-Methyl-2-pentanone (MIBK)	ND		200	193		ug/L		97	63 - 146
Methyl tert-butyl ether	ND		50.0	46.3		ug/L		93	59 - 137
m-Xylene & p-Xylene	19		50.0	64.1		ug/L		91	57 - 130
Naphthalene	6.9		50.0	55.4		ug/L		97	25 - 150
n-Butylbenzene	ND		50.0	62.8		ug/L		126	41 - 142
N-Propylbenzene	7.6		50.0	58.8		ug/L		102	51 - 138
o-Chlorotoluene	ND		50.0	54.8		ug/L		110	53 - 134
o-Xylene	1.6 J		50.0	49.2		ug/L		95	61 - 130
p-Chlorotoluene	ND		50.0	51.9		ug/L		104	54 - 133
p-Isopropyltoluene	ND		50.0	58.3		ug/L		117	48 - 139
sec-Butylbenzene	0.73 J		50.0	54.4		ug/L		107	50 - 138
Styrene	ND		50.0	46.5		ug/L		93	58 - 131
tert-Butylbenzene	0.68 J		50.0	53.4		ug/L		105	54 - 146
1,1,1,2-Tetrachloroethane	ND		50.0	46.5		ug/L		93	59 - 137
1,1,2,2-Tetrachloroethane	ND		50.0	53.1		ug/L		106	66 - 135
Tetrachloroethene	ND		50.0	41.2		ug/L		82	52 - 133
Toluene	0.62 J		50.0	48.6		ug/L		96	65 - 130
trans-1,2-Dichloroethene	ND		50.0	40.7		ug/L		81	61 - 143
trans-1,3-Dichloropropene	ND		50.0	50.9		ug/L		102	53 - 133
1,2,3-Trichlorobenzene	ND		50.0	42.7		ug/L		85	43 - 145
1,2,4-Trichlorobenzene	ND		50.0	43.0		ug/L		86	39 - 148
1,1,1-Trichloroethane	ND		50.0	38.4		ug/L		77	57 - 142
1,1,2-Trichloroethane	ND		50.0	49.2		ug/L		98	66 - 131
Trichloroethene	ND		50.0	40.5		ug/L		81	64 - 136
Trichlorofluoromethane	ND		50.0	39.6		ug/L		79	54 - 150
1,2,3-Trichloropropane	ND		50.0	47.9		ug/L		96	65 - 133
1,2,4-Trimethylbenzene	42		50.0	90.0		ug/L		95	50 - 139
1,3,5-Trimethylbenzene	11		50.0	60.2		ug/L		99	52 - 135
Vinyl acetate	ND		100	106		ug/L		106	26 - 150
Vinyl chloride	ND		50.0	42.0		ug/L		84	46 - 150
Xylenes, Total	20		100	113		ug/L		93	59 - 130
Surrogate	MS %Recovery	MS Qualifier		Limits					
4-Bromo fluoro benzene	102			78 - 118					
Dibromo fluoro methane	94			81 - 121					
Toluene-d8 (Surf)	113			80 - 120					

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194572-1

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

Lab Sample ID: 400-194572-4 MSD

Matrix: Water

Analysis Batch: 508108

Client Sample ID: MW22-ROX-101520

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
Acetone	ND		200	218		ug/L	109	43 - 150	9	30	
Acrolein	ND		500	462		ug/L	92	38 - 150	8	31	
Acrylonitrile	ND		500	451		ug/L	90	62 - 149	10	30	
Benzene	0.42 J		50.0	47.3		ug/L	94	56 - 142	8	30	
Bromobenzene	ND		50.0	48.3		ug/L	97	59 - 136	5	30	
Bromoform	ND		50.0	46.1		ug/L	92	64 - 140	13	30	
Bromomethane	ND		50.0	44.3		ug/L	89	59 - 143	7	30	
2-Butanone (MEK)	ND		200	221		ug/L	110	55 - 150	13	30	
Carbon disulfide	ND		50.0	40.5		ug/L	81	48 - 150	10	30	
Carbon tetrachloride	ND		50.0	40.0		ug/L	80	55 - 145	12	30	
Chlorobenzene	ND		50.0	50.3		ug/L	101	64 - 130	5	30	
Dibromochloromethane	ND		50.0	46.7		ug/L	93	56 - 143	10	30	
Chloroethane	ND		50.0	50.3		ug/L	101	50 - 150	3	30	
2-Chloroethyl vinyl ether	ND F1		50.0	ND F1		ug/L	0	10 - 150	NC	50	
Chloroform	ND		50.0	44.8		ug/L	90	60 - 141	5	30	
1-Chlorohexane	ND		50.0	52.8		ug/L	106	56 - 136	5	30	
Chloromethane	ND		50.0	38.4		ug/L	77	49 - 148	4	31	
cis-1,2-Dichloroethylene	ND		50.0	45.9		ug/L	92	59 - 143	7	30	
cis-1,3-Dichloropropene	ND		50.0	50.6		ug/L	101	57 - 140	11	30	
1,2-Dichlorobenzene	ND		50.0	48.5		ug/L	97	52 - 137	3	30	
1,3-Dichlorobenzene	ND		50.0	48.1		ug/L	96	54 - 135	2	30	
1,4-Dichlorobenzene	ND		50.0	47.9		ug/L	96	53 - 135	3	30	
Dichlorodifluoromethane	ND		50.0	32.5		ug/L	65	16 - 150	5	31	
1,1-Dichloroethane	ND		50.0	45.7		ug/L	91	61 - 144	6	30	
1,2-Dichloroethane	ND		50.0	43.2		ug/L	86	60 - 141	10	30	
1,1-Dichloroethene	ND		50.0	43.0		ug/L	86	54 - 147	10	30	
1,2-Dichloropropane	ND		50.0	48.1		ug/L	96	66 - 137	10	30	
1,3-Dichloropropane	ND		50.0	58.9		ug/L	118	66 - 133	12	30	
2,2-Dichloropropane	ND		50.0	41.9		ug/L	84	42 - 144	1	31	
1,1-Dichloropropene	ND		50.0	46.1		ug/L	92	65 - 136	6	30	
Ethylbenzene	15		50.0	64.9		ug/L	100	58 - 131	4	30	
Ethyl methacrylate	ND		50.0	59.5		ug/L	119	64 - 130	9	30	
Hexachlorobutadiene	ND		50.0	39.7		ug/L	79	31 - 149	6	36	
2-Hexanone	ND		200	236		ug/L	118	65 - 140	9	30	
Isopropylbenzene	4.1		50.0	54.9		ug/L	102	56 - 133	4	30	
Methylene bromide	ND		50.0	45.2		ug/L	90	63 - 138	11	30	
Methylene Chloride	ND		50.0	45.8		ug/L	92	60 - 146	10	32	
4-Methyl-2-pentanone (MIBK)	ND		200	216		ug/L	108	63 - 146	11	30	
Methyl tert-butyl ether	ND		50.0	51.3		ug/L	103	59 - 137	10	30	
m-Xylene & p-Xylene	19		50.0	65.4		ug/L	93	57 - 130	2	30	
Naphthalene	6.9		50.0	58.4		ug/L	103	25 - 150	5	30	
n-Butylbenzene	ND		50.0	59.9		ug/L	120	41 - 142	5	31	
N-Propylbenzene	7.6		50.0	59.0		ug/L	103	51 - 138	0	30	
o-Chlorotoluene	ND		50.0	55.7		ug/L	111	53 - 134	2	30	
o-Xylene	1.6 J		50.0	50.6		ug/L	98	61 - 130	3	30	
p-Chlorotoluene	ND		50.0	51.1		ug/L	102	54 - 133	1	30	

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-194572-1

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

Lab Sample ID: 400-194572-4 MSD

Matrix: Water

Analysis Batch: 508108

Client Sample ID: MW22-ROX-101520

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec.	Limits	RPD	RPD Limit
p-Isopropyltoluene	ND		50.0	54.9		ug/L		110	48 - 139	6	30
sec-Butylbenzene	0.73 J		50.0	53.8		ug/L		106	50 - 138	1	30
Styrene	ND		50.0	48.5		ug/L		97	58 - 131	4	30
tert-Butylbenzene	0.68 J		50.0	52.2		ug/L		103	54 - 146	2	30
1,1,1,2-Tetrachloroethane	ND		50.0	48.7		ug/L		97	59 - 137	5	30
1,1,2,2-Tetrachloroethane	ND		50.0	61.6		ug/L		123	66 - 135	15	30
Tetrachloroethene	ND		50.0	42.1		ug/L		84	52 - 133	2	30
Toluene	0.62 J		50.0	51.6		ug/L		102	65 - 130	6	30
trans-1,2-Dichloroethene	ND		50.0	45.2		ug/L		90	61 - 143	11	30
trans-1,3-Dichloropropene	ND		50.0	55.1		ug/L		110	53 - 133	8	30
1,2,3-Trichlorobenzene	ND		50.0	42.1		ug/L		84	43 - 145	1	30
1,2,4-Trichlorobenzene	ND		50.0	41.6		ug/L		83	39 - 148	3	30
1,1,1-Trichloroethane	ND		50.0	41.5		ug/L		83	57 - 142	8	30
1,1,2-Trichloroethane	ND		50.0	54.5		ug/L		109	66 - 131	10	30
Trichloroethylene	ND		50.0	41.9		ug/L		84	64 - 136	3	30
Trichlorofluoromethane	ND		50.0	42.7		ug/L		85	54 - 150	8	30
1,2,3-Trichloropropane	ND		50.0	58.7		ug/L		113	65 - 133	17	30
1,2,4-Trimethylbenzene	42		50.0	88.5		ug/L		92	50 - 139	2	30
1,3,5-Trimethylbenzene	11		50.0	59.1		ug/L		97	52 - 135	2	30
Vinyl acetate	ND		100	120		ug/L		120	26 - 150	13	33
Vinyl chloride	ND		50.0	44.9		ug/L		90	46 - 150	7	30
Xylenes, Total	20		100	116		ug/L		96	59 - 130	2	30
<hr/>											
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene	100		78 - 118								
Dibromofluoromethane	95		81 - 121								
Toluene-d8 (Surr)	113		80 - 120								

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

Lab Sample ID: MB 400-507618/1-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507618

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
Benzenethiol	ND		10	1.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
Benzoic acid	ND		30	7.3	ug/L		10/21/20 10:40	10/26/20 19:13	1
Benzyl alcohol	ND		10	2.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/21/20 10:40	10/26/20 19:13	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/21/20 10:40	10/26/20 19:13	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/21/20 10:40	10/26/20 19:13	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Chloroaniline	ND		10	3.4	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Chlorophenol	ND		10	2.2	ug/L		10/21/20 10:40	10/26/20 19:13	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194572-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-507618/1-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507618

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		ND		10	2.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Dibenz[a,h]acridine	ND		ND		10	1.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Dibenzofuran	ND		ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
3,3'-Dichlorobenzidine	ND		ND		10	2.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dichlorophenol	ND		ND		10	3.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Diethyl phthalate	0.548	U	0.548	U	10	0.24	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dimethylphenol	ND		ND		10	3.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
Dimethyl phthalate	ND		ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
Di-n-butyl phthalate	ND		ND		10	2.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
4,6-Dinitro-ortho-cresol	ND		ND		10	1.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dinitrophenol	ND		ND		30	3.4	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dinitrotoluene	ND		ND		10	1.9	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,6-Dinitrotoluene	ND		ND		10	1.9	ug/L		10/21/20 10:40	10/26/20 19:13	1
Di-n-octyl phthalate	ND		ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
1,4-Dioxane	ND		ND		10	1.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		ND		10	1.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Hexachlorobenzene	ND		ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
Hexachlorocyclopentadiene	ND		ND		20	2.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
Hexachloroethane	ND		ND		10	4.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
Indene	ND		ND		10	1.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Isophorone	ND		ND		10	0.14	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Methylphenol	ND		ND		10	1.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
3 & 4 Methylphenol	ND		ND		20	0.39	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Nitroaniline	ND		ND		10	2.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
3-Nitroaniline	ND		ND		10	1.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Nitroaniline	ND		ND		10	1.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
Nitrobenzene	ND		ND		10	0.13	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Nitrophenol	ND		ND		10	5.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Nitrophenol	ND		ND		10	2.1	ug/L		10/21/20 10:40	10/26/20 19:13	1
N-Nitrosodimethylamine	ND		ND		10	3.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
N-Nitrosodi-n-propylamine	ND		ND		10	3.3	ug/L		10/21/20 10:40	10/26/20 19:13	1
N-Nitrosodiphenylamine	ND		ND		10	0.18	ug/L		10/21/20 10:40	10/26/20 19:13	1
Pentachlorophenol	ND		ND		20	1.4	ug/L		10/21/20 10:40	10/26/20 19:13	1
Phenol	ND		ND		10	2.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
Pyridine	ND		ND		10	3.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
Quinoline	ND		ND		10	4.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4,5-Trichlorophenol	ND		ND		10	3.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4,6-Trichlorophenol	ND		ND		10	3.5	ug/L		10/21/20 10:40	10/26/20 19:13	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl			58		46 - 124			
2-Fluorophenol			17		13 - 113			
Nitrobenzene-d5			59		36 - 126			
Phenol-d5			36		17 - 127			
Terphenyl-d14			85		44 - 149			
2,4,6-Tribromophenol			88		26 - 150			

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194572-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508112

Analyte	Spike Added	LCS			D	%Rec	Client Sample ID; Lab Control Sample	
		Result	Qualifier	Unit			Prep Type: Total/NA	Prep Batch: 507618
Aniline	120	52.7		ug/L		44	21 - 120	
Benzoic acid	466	135		ug/L		29	10 - 144	
Benzyl alcohol	120	51.4		ug/L		43	28 - 120	
Bis(2-chloroethoxy)methane	120	56.8		ug/L		47	47 - 120	
Bis(2-chloroethyl)ether	120	56.1		ug/L		47	44 - 120	
bis (2-chloroisopropyl) ether	120	47.4		ug/L		39	33 - 121	
Bis(2-ethylhexyl) phthalate	120	78.6		ug/L		66	52 - 147	
4-Bromophenyl phenyl ether	120	90.8		ug/L		76	54 - 122	
Butyl benzyl phthalate	120	71.9		ug/L		60	54 - 133	
4-Chloroaniline	120	39.5		ug/L		33	26 - 120	
4-Chloro-3-methylphenol	120	74.4		ug/L		62	48 - 131	
2-Chloronaphthalene	120	76.8		ug/L		64	52 - 121	
2-Chlorophenol	120	56.8		ug/L		47	40 - 120	
4-Chlorophenyl phenyl ether	120	91.8		ug/L		77	56 - 125	
Dibenz[a,h]acridine	120	104		ug/L		87	31 - 150	
Dibenzofuran	120	74.8		ug/L		62	56 - 122	
3,3'-Dichlorobenzidine	160	116		ug/L		73	36 - 132	
2,4-Dichlorophenol	120	72.1		ug/L		60	49 - 120	
Diethyl phthalate	120	97.6		ug/L		81	50 - 137	
2,4-Dimethylphenol	120	76.5		ug/L		64	48 - 120	
Dimethyl phthalate	120	82.4		ug/L		69	57 - 124	
Di-n-butyl phthalate	120	89.6		ug/L		75	58 - 126	
4,6-Dinitro-ortho-cresol	240	156		ug/L		65	23 - 148	
2,4-Dinitrophenol	240	170		ug/L		71	10 - 150	
2,4-Dinitrotoluene	120	82.1		ug/L		68	54 - 142	
2,6-Dinitrotoluene	120	76.2		ug/L		64	55 - 130	
Di-n-octyl phthalate	120	76.3		ug/L		64	57 - 138	
1,4-Dioxane	120	36.9		ug/L		31	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	120	71.4		ug/L		60	45 - 124	
Hexachlorobenzene	120	102		ug/L		85	52 - 129	
Hexachlorocyclopentadiene	120	34.1		ug/L		28	10 - 134	
Hexachloroethane	120	76.8		ug/L		64	20 - 120	
Indene	120	69.9		ug/L		58	49 - 120	
Isophorone	120	63.6		ug/L		53	48 - 120	
2-Methylphenol	120	78.6		ug/L		65	46 - 124	
3 & 4 Methylphenol	120	78.8		ug/L		66	45 - 120	
2-Nitroaniline	120	76.7		ug/L		64	51 - 145	
3-Nitroaniline	120	70.0		ug/L		58	37 - 127	
4-Nitroaniline	120	83.4		ug/L		70	36 - 137	
Nitrobenzene	120	67.7		ug/L		56	45 - 120	
2-Nitrophenol	120	68.8		ug/L		57	40 - 124	
4-Nitrophenol	240	261		ug/L		109	23 - 146	
N-Nitrosodimethylamine	120	92.2		ug/L		77	29 - 137	
N-Nitrosodi-n-propylamine	120	72.1		ug/L		60	45 - 120	
N-Nitrosodiphenylamine	119	73.6		ug/L		62	54 - 120	
Pentachlorophenol	240	128		ug/L		53	31 - 130	
Phenol	120	58.7		ug/L		49	11 - 120	
Pyridine	240	78.3		ug/L		33	16 - 120	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194572-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508112

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Quinoline	120	72.6		ug/L		61	49 - 130
2,4,5-Trichlorophenol	120	85.3		ug/L		71	51 - 136
2,4,6-Trichlorophenol	120	78.9		ug/L		66	50 - 127

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	57		46 - 124
2-Fluorophenol	25		13 - 113
Nitrobenzene-d5	56		36 - 126
Phenol-d5	42		17 - 127
Terphenyl-d14	79		44 - 149
2,4,6-Tribromophenol	89		26 - 150

Lab Sample ID: LCS 400-507618/3-A

Matrix: Water

Analysis Batch: 508112

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Benzeneethiol	120	2.99	J *	ug/L		2	10 - 120
Surrogate	LCS	LCS					
2-Fluorobiphenyl	57		46 - 124				
2-Fluorophenol	21		13 - 113				
Nitrobenzene-d5	57		36 - 126				
Phenol-d5	41		17 - 127				
Terphenyl-d14	87		44 - 149				
2,4,6-Tribromophenol	87		26 - 150				

Lab Sample ID: LCSD 400-507618/4-A

Matrix: Water

Analysis Batch: 508112

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	RPD
	Added	Result	Qualifier				
Benzeneethiol	120	ND	*	ug/L		0.8	10 - 120
Surrogate	LCSD	LCSD					
2-Fluorobiphenyl	55		46 - 124				
2-Fluorophenol	5	X	13 - 113				
Nitrobenzene-d5	55		36 - 126				
Phenol-d5	23		17 - 127				
Terphenyl-d14	77		44 - 149				
2,4,6-Tribromophenol	32		26 - 150				

Lab Sample ID: 400-194572-4 MS

Matrix: Water

Analysis Batch: 508112

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec
	Result	Qualifier	Added	Result	Qualifier			
Aniline	ND		114	47.3		ug/L	42	10 - 120

Client Sample ID: MW22-ROX-101520

Prep Type: Total/NA

Prep Batch: 507618

%Rec.

Limits

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194572-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194572-4 MS

Matrix: Water

Analysis Batch: 508112

Client Sample ID: MW22-ROX-101520

Prep Type: Total/NA

Prep Batch: 507618

%Rec.

Limits

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Benzoid acid	ND		441	195		ug/L	44	10 - 149	
Benzyl alcohol	ND		114	48.8		ug/L	43	33 - 120	
Bis(2-chloroethoxy)methane	ND		114	47.9		ug/L	42	26 - 120	
Bis(2-chloroethyl)ether	ND		114	48.5		ug/L	43	42 - 120	
bis (2-chloroisopropyl) ether	ND		114	41.2		ug/L	36	28 - 120	
Bis(2-ethylhexyl) phthalate	ND		114	62.8		ug/L	55	39 - 120	
4-Bromophenyl phenyl ether	ND		114	79.3		ug/L	70	40 - 120	
Butyl benzyl phthalate	ND		114	60.2		ug/L	53	45 - 120	
4-Chloroaniline	ND		114	26.6		ug/L	23	10 - 120	
4-Chloro-3-methylphenol	ND		114	63.5		ug/L	56	34 - 120	
2-Chloronaphthalene	ND		114	64.6		ug/L	57	39 - 120	
2-Chlorophenol	ND		114	50.4		ug/L	44	25 - 120	
4-Chlorophenyl phenyl ether	ND		114	74.0		ug/L	65	44 - 120	
Dibenz[a,h]acridine	ND		113	81.6		ug/L	72	50 - 150	
Dibenzofuran	ND		114	60.6		ug/L	53	25 - 130	
3,3'-Dichlorobenzidine	ND		151	29.4		ug/L	19	10 - 120	
2,4-Dichlorophenol	ND		114	62.2		ug/L	55	31 - 120	
Dielhyl phthalate	0.50	J B	114	77.6		ug/L	68	46 - 120	
2,4-Dimethylphenol	ND		114	63.9		ug/L	56	21 - 120	
Dimethyl phthalate	ND		114	67.7		ug/L	60	38 - 120	
Di-n-butyl phthalate	ND		114	70.7		ug/L	62	49 - 120	
4,6-Dinitro-ortho-cresol	ND		227	158		ug/L	70	25 - 120	
2,4-Dinitrophenol	ND		227	163		ug/L	72	15 - 140	
2,4-Dinitrotoluene	ND		114	66.2		ug/L	58	53 - 120	
2,6-Dinitrotoluene	ND		114	66.6		ug/L	59	43 - 120	
Di-n-octyl phthalate	0.37	J	114	63.5		ug/L	56	35 - 121	
1,4-Dioxane	ND	F1	114	35.8	F1	ug/L	32	50 - 150	
1,2-Diphenylhydrazine (as Azobenzene)	ND		114	65.1		ug/L	57	50 - 150	
Hexachlorobenzene	ND		114	89.6		ug/L	79	38 - 122	
Hexachlorocyclopentadiene	ND		114	28.7		ug/L	25	10 - 120	
Hexachloroethane	ND		114	70.5		ug/L	62	10 - 150	
Indene	ND		114	61.7		ug/L	54	50 - 150	
Isophorone	ND		114	54.0		ug/L	48	42 - 120	
2-Methylphenol	ND		114	70.2		ug/L	62	28 - 120	
3 & 4 Methylphenol	ND		114	67.1		ug/L	59	31 - 120	
2-Nitroaniline	ND	F1	114	36.3	F1	ug/L	32	45 - 120	
3-Nitroaniline	ND		114	48.0		ug/L	42	10 - 130	
4-Nitroaniline	ND		114	39.5		ug/L	35	10 - 132	
Nitrobenzene	ND		114	82.4		ug/L	73	39 - 120	
2-Nitrophenol	ND		114	55.1		ug/L	48	33 - 120	
4-Nitrophenol	ND		227	255		ug/L	112	10 - 120	
N-Nitrosodimethylamine	ND		114	93.4		ug/L	82	10 - 139	
N-Nitrosodi-n-propylamine	ND		114	62.5		ug/L	55	37 - 124	
N-Nitrosodiphenylamine	ND		113	64.6		ug/L	57	10 - 150	
Pentachlorophenol	ND		227	144		ug/L	63	29 - 130	
Phenol	ND		114	51.1		ug/L	45	10 - 150	
Pyridine	ND		227	73.4		ug/L	32	10 - 120	
Quinoline	ND		113	62.7		ug/L	55	51 - 120	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194572-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194572-4 MS

Matrix: Water

Analysis Batch: 508112

Client Sample ID: MW22-ROX-101520

Prep Type: Total/NA

Prep Batch: 507618

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
2,4,5-Trichlorophenol	ND		114	69.5		ug/L		61	34 - 120
2,4,6-Trichlorophenol	ND		114	66.4		ug/L		58	33 - 120
Surrogate									
2-Fluorobiphenyl	49			46 - 124					
2-Fluorophenol	21			13 - 113					
Nitrobenzene-d5	50			36 - 126					
Phenol-d5	38			17 - 127					
Terphenyl-d14	66			44 - 149					
2,4,6-Tribromophenol	79			26 - 150					

Lab Sample ID: 400-194572-4 MSD

Matrix: Water

Analysis Batch: 508112

Client Sample ID: MW22-ROX-101520

Prep Type: Total/NA

Prep Batch: 507618

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Aniline	ND		114	41.4		ug/L		36	10 - 120	13	63
Benzoic acid	ND		442	195		ug/L		44	10 - 149	0	49
Benzyl alcohol	ND		114	56.1		ug/L		49	33 - 120	14	37
Bis(2-chloroethoxy)methane	ND		114	51.9		ug/L		46	26 - 120	8	70
Bis(2-chloroethyl)ether	ND		114	62.3		ug/L		55	42 - 120	25	42
bis (2-chloroisopropyl) ether	ND		114	44.5		ug/L		39	28 - 120	8	41
Bis(2-ethylhexyl) phthalate	ND		114	66.9		ug/L		59	39 - 120	6	35
4-Bromophenyl phenyl ether	ND		114	81.2		ug/L		71	40 - 120	2	30
Butyl benzyl phthalate	ND		114	63.8		ug/L		56	45 - 120	6	32
4-Chloroaniline	ND		114	29.6		ug/L		26	10 - 120	11	94
4-Chloro-3-methylphenol	ND		114	67.5		ug/L		59	34 - 120	6	40
2-Chloronaphthalene	ND		114	69.6		ug/L		61	39 - 120	7	29
2-Chlorophenol	ND		114	60.6		ug/L		53	25 - 120	18	42
4-Chlorophenyl phenyl ether	ND		114	81.9		ug/L		72	44 - 120	10	27
Dibenz[a,h]acridine	ND		114	84.6		ug/L		74	50 - 150	4	40
Dibenzofuran	ND		114	67.9		ug/L		60	25 - 130	11	29
3,3'-Dichlorobenzidine	ND		152	38.2		ug/L		25	10 - 120	26	58
2,4-Dichlorophenol	ND		114	70.8		ug/L		62	31 - 120	13	43
Diethyl phthalate	0.50 J B		114	84.6		ug/L		74	46 - 120	9	40
2,4-Dimethylphenol	ND		114	69.4		ug/L		61	21 - 120	8	47
Dimethyl phthalate	ND		114	71.5		ug/L		63	38 - 120	5	36
Di-n-butyl phthalate	ND		114	79.0		ug/L		69	49 - 120	11	32
4,6-Dinitro-ortho-cresol	ND		228	170		ug/L		75	25 - 120	7	42
2,4-Dinitrophenol	ND		228	187		ug/L		82	15 - 140	14	36
2,4-Dinitrotoluene	ND		114	73.6		ug/L		65	53 - 120	11	28
2,6-Dinitrotoluene	ND		114	69.3		ug/L		61	43 - 120	4	28
Di-n-octyl phthalate	0.37 J		114	71.1		ug/L		62	35 - 121	11	35
1,4-Dioxane	ND F1		114	32.7 F1		ug/L		29	50 - 150	9	40
1,2-Diphenylhydrazine (as Azobenzene)	ND		114	67.1		ug/L		59	50 - 150	3	40
Hexachlorobenzene	ND		114	94.6		ug/L		83	38 - 122	5	33
Hexachlorocyclopentadiene	ND		114	30.4		ug/L		27	10 - 120	6	50
Hexachloroethane	ND		114	71.7		ug/L		63	10 - 150	2	41

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194572-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194572-4 MSD

Client Sample ID: MW22-ROX-101520

Matrix: Water

Analysis Batch: 508112

Prep Type: Total/NA

Prep Batch: 507618

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Indene	ND		114	65.0		ug/L	57	50 - 150	5	40	
Isophorone	ND		114	55.7		ug/L	49	42 - 120	3	33	
2-Methylphenol	ND		114	71.5		ug/L	63	28 - 120	2	47	
3 & 4 Methylphenol	ND		114	68.0		ug/L	60	31 - 120	1	47	
2-Nitroaniline	ND F1		114	42.9 F1		ug/L	38	45 - 120	17	33	
3-Nitroaniline	ND		114	53.9		ug/L	47	10 - 130	11	39	
4-Nitroaniline	ND		114	44.7		ug/L	39	10 - 132	12	50	
Nitrobenzene	ND		114	84.2		ug/L	74	39 - 120	2	35	
2-Nitrophenol	ND		114	64.4		ug/L	57	33 - 120	16	43	
4-Nitrophenol	ND		228	256		ug/L	112	10 - 120	0	82	
N-Nitrosodimethylamine	ND		114	96.7		ug/L	85	10 - 139	3	62	
N-Nitrosodi-n-propylamine	ND		114	65.0		ug/L	57	37 - 124	4	36	
N-Nitrosodiphenylamine	ND		113	67.4		ug/L	60	10 - 150	4	34	
Pentachlorophenol	ND		228	150		ug/L	66	29 - 130	4	42	
Phenol	ND		114	58.1		ug/L	51	10 - 150	13	52	
Pyridine	ND		228	79.3		ug/L	35	10 - 120	8	55	
Quinoline	ND		114	67.4		ug/L	59	51 - 120	7	40	
2,4,5-Trichlorophenol	ND		114	75.2		ug/L	66	34 - 120	8	42	
2,4,6-Trichlorophenol	ND		114	73.2		ug/L	64	33 - 120	10	44	
Surrogate		MSD	MSD								
		%Recovery	Qualifier								
2-Fluorobiphenyl		53		46 - 124							
2-Fluorophenol		33		13 - 113							
Nitrobenzene-d5		56		36 - 126							
Phenol-d5		44		17 - 127							
Terphenyl-d14		72		44 - 149							
2,4,6-Tribromophenol		85		26 - 150							

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-507618/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508212

Prep Batch: 507618

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		0.20	0.032	ug/L	10/21/20 10:40	10/26/20 19:55		1
Acenaphthylene	ND		0.20	0.045	ug/L	10/21/20 10:40	10/26/20 19:55		1
Anthracene	ND		0.20	0.032	ug/L	10/21/20 10:40	10/26/20 19:55		1
Benzo[a]anthracene	ND		0.20	0.046	ug/L	10/21/20 10:40	10/26/20 19:55		1
Benzo[a]pyrene	ND		0.20	0.042	ug/L	10/21/20 10:40	10/26/20 19:55		1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L	10/21/20 10:40	10/26/20 19:55		1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L	10/21/20 10:40	10/26/20 19:55		1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L	10/21/20 10:40	10/26/20 19:55		1
Chrysene	ND		0.20	0.074	ug/L	10/21/20 10:40	10/26/20 19:55		1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L	10/21/20 10:40	10/26/20 19:55		1
Fluoranthene	ND		0.20	0.068	ug/L	10/21/20 10:40	10/26/20 19:55		1
Fluorene	ND		0.20	0.11	ug/L	10/21/20 10:40	10/26/20 19:55		1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L	10/21/20 10:40	10/26/20 19:55		1
1-Methylnaphthalene	ND		0.20	0.074	ug/L	10/21/20 10:40	10/26/20 19:55		1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194572-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-507618/1-A

Matrix: Water

Analysis Batch: 508212

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507618

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	ND		0.20	0.060	ug/L		10/21/20 10:40	10/26/20 19:55	1
Phenanthrene	ND		0.20	0.036	ug/L		10/21/20 10:40	10/26/20 19:55	1
Pyrene	ND		0.20	0.040	ug/L		10/21/20 10:40	10/26/20 19:55	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	32		15 - 122				10/21/20 10:40	10/26/20 19:55	1
Nitrobenzene-d5	39		19 - 130				10/21/20 10:40	10/26/20 19:55	1
Terphenyl-d14	41		33 - 138				10/21/20 10:40	10/26/20 19:55	1

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	120	112		ug/L		93	41 - 120
Acenaphthylene	120	107		ug/L		89	44 - 120
Anthracene	120	131		ug/L		109	49 - 120
Benzo[a]anthracene	120	100		ug/L		83	61 - 135
Benzo[a]pyrene	120	114		ug/L		95	52 - 120
Benzo[b]fluoranthene	120	98.8		ug/L		82	53 - 134
Benzo[g,h,i]perylene	120	106		ug/L		88	47 - 133
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134
Chrysene	120	112		ug/L		93	55 - 122
Dibenz(a,h)anthracene	120	117		ug/L		97	48 - 146
Fluoranthene	120	121		ug/L		101	54 - 128
Fluorene	120	118		ug/L		98	45 - 125
Indeno[1,2,3-cd]pyrene	120	114		ug/L		95	43 - 142
1-Methylnaphthalene	120	92.5		ug/L		77	41 - 120
2-Methylnaphthalene	120	97.7		ug/L		81	32 - 124
Phenanthrene	120	117		ug/L		97	48 - 120
Pyrene	120	106		ug/L		88	48 - 132
Surrogate	%Recovery	LCS Qualifier	Limits				
2-Fluorobiphenyl	85		15 - 122				
Nitrobenzene-d5	96		19 - 130				
Terphenyl-d14	98		33 - 138				

Lab Sample ID: 400-194572-4 MS

Matrix: Water

Analysis Batch: 508212

Client Sample ID: MW22-ROX-101520
Prep Type: Total/NA
Prep Batch: 507618

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	ND		114	98.8		ug/L		87	35 - 113
Acenaphthylene	ND		114	91.9		ug/L		81	41 - 118
Anthracene	ND		114	113		ug/L		99	45 - 122
Benzo[a]anthracene	ND		114	106		ug/L		94	55 - 133
Benzo[a]pyrene	0.14 J		114	104		ug/L		92	50 - 108
Benzo[b]fluoranthene	0.082 J		114	101		ug/L		89	50 - 128

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194572-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: 400-194572-4 MS

Client Sample ID: MW22-ROX-101520

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508212

Prep Batch: 507618

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
Benzo[g,h,i]perylene	ND		114	106		ug/L		93	46 - 133
Benzo[k]fluoranthene	0.16	J	114	102		ug/L		90	52 - 128
Chrysene	ND		114	115		ug/L		101	52 - 116
Dibenz(a,h)anthracene	0.18	J	114	110		ug/L		97	52 - 143
Fluoranthene	ND		114	97.6		ug/L		86	32 - 150
Fluorene	ND		114	104		ug/L		91	15 - 150
Indeno[1,2,3-cd]pyrene	0.17	J	114	108		ug/L		95	41 - 141
1-Methylnaphthalene	0.51		114	92.8		ug/L		81	10 - 150
2-Methylnaphthalene	0.41		114	90.5		ug/L		79	10 - 150
Phenanthrene	ND		114	107		ug/L		94	36 - 125
Pyrene	ND		114	105		ug/L		92	41 - 127
Surrogate		MS	MS						
		%Recovery	Qualifier		Limits				
2-Fluorobiphenyl		79		15 - 122					
Nitrobenzene-d5		92		19 - 130					
Terphenyl-d14		102		33 - 138					

Lab Sample ID: 400-194572-4 MSD

Client Sample ID: MW22-ROX-101520

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508212

Prep Batch: 507618

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	
	Result	Qualifier	Added	Result	Qualifier						
Acenaphthene	ND		114	95.8		ug/L		84	35 - 113	3	49
Acenaphthylene	ND		114	94.0		ug/L		82	41 - 118	2	48
Anthracene	ND		114	104		ug/L		91	45 - 122	8	56
Benzo[a]anthracene	ND		114	102		ug/L		89	55 - 133	4	57
Benzo[a]pyrene	0.14	J	114	107		ug/L		94	50 - 108	3	59
Benzo[b]fluoranthene	0.082	J	114	102		ug/L		89	50 - 128	1	62
Benzo[g,h,i]perylene	ND		114	108		ug/L		95	46 - 133	2	58
Benzo[k]fluoranthene	0.16	J	114	109		ug/L		95	52 - 128	6	58
Chrysene	ND		114	107		ug/L		94	52 - 116	7	59
Dibenz(a,h)anthracene	0.18	J	114	107		ug/L		94	52 - 143	2	60
Fluoranthene	ND		114	103		ug/L		91	32 - 150	6	59
Fluorene	ND		114	98.7		ug/L		87	15 - 150	5	49
Indeno[1,2,3-cd]pyrene	0.17	J	114	110		ug/L		97	41 - 141	2	58
1-Methylnaphthalene	0.51		114	93.0		ug/L		81	10 - 150	0	66
2-Methylnaphthalene	0.41		114	89.3		ug/L		78	10 - 150	1	66
Phenanthrene	ND		114	104		ug/L		91	36 - 125	3	69
Pyrene	ND		114	97.8		ug/L		86	41 - 127	7	58
Surrogate		MSD	MSD								
		%Recovery	Qualifier	Limits							
2-Fluorobiphenyl		79		15 - 122							
Nitrobenzene-d5		108		19 - 130							
Terphenyl-d14		91		33 - 138							

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194572-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-507450/1-A

Matrix: Water

Analysis Batch: 507451

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L				
1,2-Dibromoethane	ND		0.020	0.0050	ug/L				
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		51 - 149				10/20/20 11:05	10/20/20 14:56	1

Lab Sample ID: LCS 400-507450/2-A

Matrix: Water

Analysis Batch: 507451

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	
1,2-Dibromo-3-Chloropropane	0.101	0.126		ug/L		126	60 - 140	
1,2-Dibromoethane	0.101	0.126		ug/L		125	60 - 140	
Surrogate	%Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene	116		51 - 149					

Lab Sample ID: LCSD 400-507450/3-A

Matrix: Water

Analysis Batch: 507451

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2-Dibromo-3-Chloropropane	0.101	0.121		ug/L		120	60 - 140	5	30
1,2-Dibromoethane	0.101	0.122		ug/L		121	60 - 140	3	30
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	112		51 - 149						

Lab Sample ID: 400-194572-4 MS

Matrix: Water

Analysis Batch: 507451

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
1,2-Dibromo-3-Chloropropane	ND		0.0996	0.144	F1	ug/L		144	65 - 135
1,2-Dibromoethane	ND	F2 F1	0.0999	0.121		ug/L		121	65 - 135
Surrogate	%Recovery	MS Qualifier	Limits						
4-Bromofluorobenzene	132		51 - 149						

Lab Sample ID: 400-194572-4 MSD

Matrix: Water

Analysis Batch: 507451

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,2-Dibromo-3-Chloropropane	ND	F2 F1	0.0991	0.178	F1 F2	ug/L		180	65 - 135	40	20
1,2-Dibromoethane	ND		0.0993	0.125		ug/L		126	65 - 135	10	20

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507450

Client Sample ID: MW22-ROX-101520

Prep Type: Total/NA

Prep Batch: 507450

%Rec.

Limits

RPD

Limit

Client Sample ID: MW22-ROX-101520

Prep Type: Total/NA

Prep Batch: 507450

%Rec.

Limits

RPD

Limit

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194572-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-194572-4 MSD

Matrix: Water

Analysis Batch: 507451

Client Sample ID: MW22-ROX-101520

Prep Type: Total/NA

Prep Batch: 507450

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	110		51 - 149

LAB (LOCATION)

 ACCOUNT CAUSCEICE TESTAMERICA (TestAmerica Pensacola, 3355 Mclement Dr Pensacola, FL 32514 (850) 474-1001) Other Lab Vendor # 1364389 (TestAmerica))

SAMPLING COMPANY

ACOM

ADDRESS:

100 N. Broadway, 20th Floor ST. LOUIS, MO 63102 USA
PROJECT CONTACT Name(s) or POC Report to:
Elizabeth Kunkel, Bob Billmann, Melissa Reminger, Wendy Pennington

TELEPHONE:

314-429-0100

314-429-0462

FAX:

5 DAYS

3 DAYS

2 DAYS

RESULTS NEEDED

ON WEEKEND

24 HOURS

RESULTS NEEDED

ON WEEKEND

DELIVERABLES.

 LEVEL 2 LEVEL 3 LEVEL 4 OTHER (SPECIFY) EOD

Cooler #3

SHELL CONTRACT RATE APPLIES

 STATE REIMBURSEMENT RATE APPLIES EDO NOT NEEDED RECEIPT VERIFICATION REQUESTED PROVIDE LEDO DISK

AECOM

Shell Oil Products US Chain Of Custody Record

<input type="checkbox"/> Please Check Appropriate Box:		Print Bill To Contact Name:		PlaNet Site or Project ID	
<input type="checkbox"/> SEW FG <input type="checkbox"/> PIPELINE <input type="checkbox"/> CONSULTANT <input type="checkbox"/> CHEMICALS <input type="checkbox"/> OTHER ENV. SERVICES <input type="checkbox"/> TRANSPORTATION		<input type="checkbox"/> RETAIL <input type="checkbox"/> LUBES		<input type="checkbox"/> Bob Mooshegian PO # 60643618 - 9-03-02F	
				GSAP Project ID USPCG00114/R/02	
				AECOM Project Task Number: Roxana Quarterly GW	
				Site Address: Street and City 900 South Central Ave, ROXANA Elf General Office Roxana Office Lease Elizabeth Kunkel, AECOM, St. Louis, MO Reminger, Bob Billmann, Wendy Pennington <small>SAMPLER NAMES: FWD</small>	
				State IL	
				Phone (HQ) 80643618 - 9-03-02F <small>Elizabth Kunkel, AECOM, Roxana Office Melissa Reminger, AECOM, St. Louis, MO Bob Billmann, Wendy Pennington, AECOM, Roxana Quarterly GW</small>	
				LAB USE ONLY	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	
				TEMPERATURE ON RECEIPT C° 3.0°C May	
				CONTAINER PID Readings or Laboratory Notes	
				REQUESTED ANALYSIS	
				NON-UNIT COST 60643618 - 9-03-02F	
				UNIT COST 60643618 - 9-03-02F	
					
				400-194572 COC	
				VOC 8011	
				PAH 8270LL	
				VOC 8260	
				SVC 8270	
				VOC 8260	
				PAH 8270LL	
				VOC 8011	
				400-194572 COC	
				FIELD NOTES:	

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194572-1

Login Number: 194572

List Number: 1

Creator: Perez, Trina M

List Source: Eurofins TestAmerica, 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	1194840,1194841,1994842,1194843,1194844,1194845
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	0.4°C, 0.4°C, 3.0°C R-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: 400-194572-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-20
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

Eurofins TestAmerica, Pensacola

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194608-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/11/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-101620-8260	TB-ROX-101620-8011
MW14-ROX-101620	P66-ROX-101620
P66-ROX-101620-Dup	ROST4PZG-ROX-101620-EB
ROST4PZG-ROX-101620	MW2-ROX-101620

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 diethyl phthalate was detected in the method blank; although not indicated in the laboratory case narrative, diethyl phthalate was detected in the equipment blank. The SVOC LCS/LCSD recoveries for n-butylbenzene and benzenethiol were outside evaluation criteria. The SVOC surrogate recoveries for 2-fluorophenol and 2-fluorobiphenyl were outside criteria in several investigative and quality control samples. The VOC MS/MSD recoveries for 2-chloroethyl vinyl ether were outside evaluation criteria in sample MW14-ROX-101620. Continuing calibration verifications for several analytes were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

Yes

Blank ID	Parameter	Analyte	Concentration /Amount
ROST4PZG-ROX-101620-EB	SVOCs	Diethyl phthalate	0.31 µg/L
MB 400-507618/1-A	SVOCs	Diethyl phthalate	0.548 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 400-508257/1002	VOCs	n-Butylbenzene	145	NA	67-130
LCS/LCSD 400-507618/3-A/4-A	SVOCs	Benzenethiol	2/0.8	105	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; benzenethiol has been identified as a poor performing analyte under Method 8270.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-101620	SVOCs	Benzenethiol	UJ
P66-ROX-101620	SVOCs	Benzenethiol	UJ
P66-ROX-101620-Dup	SVOCs	Benzenethiol	UJ
ROST4PZG-ROX-101620	SVOCs	Benzenethiol	UJ
MW2-ROX-101620	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
MW14-ROX-101620	SVOCs	2-Fluorobiphenyl	43	46-124
MW14-ROX-101620	SVOCs	2-Fluorophenol	7	13-113
P66-ROX-101620	SVOCs	2-Fluorobiphenyl	43	46-124
P66-ROX-101620	SVOCs	2-Fluorophenol	9	13-113
P66-ROX-101620-Dup	SVOCs	2-Fluorobiphenyl	41	46-124
P66-ROX-101620-Dup	SVOCs	2-Fluorophenol	9	13-113
ROST4PZG-ROX-101620-EB	SVOCs	2-Fluorophenol	5	13-113
ROST4PZG-ROX-101620	SVOCs	Terphenyl-d ₁₄	33	44-149

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
LCSD 400-507618/4-A	SVOCs	2-Fluorophenol	5	13-113

Qualifications due to surrogate recoveries were not required if only one of three acid and/or base neutral SVOC surrogate recoveries were outside evaluation criteria in the associated samples. LCSDs are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, although not requested, sample MW14-ROX-101620 was spiked and analyzed for VOCs, SVOCs, PAHs, and VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
MW14-ROX-101620	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.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-101620	VOCs	2-Chloroethyl vinyl ether	UJ

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; samples analyzed did not require dilution.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
MW14-ROX-101620	SVOCs	Aniline	UJ
MW14-ROX-101620	SVOCs	Benzyl alcohol	UJ
MW14-ROX-101620	SVOCs	bis(2-Chloroethoxy)methane	UJ
MW14-ROX-101620	SVOCs	bis(2-Chloroethyl)ether	UJ
MW14-ROX-101620	SVOCs	4,6-Dinitro-ortho-cresol	UJ
MW14-ROX-101620	SVOCs	1,4-Dioxane	UJ
MW14-ROX-101620	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
MW14-ROX-101620	SVOCs	Hexachlorocyclopentadiene	UJ
MW14-ROX-101620	SVOCs	Isophorone	UJ
MW14-ROX-101620	SVOCs	Phenol	UJ
MW14-ROX-101620	SVOCs	Pyridine	UJ
MW14-ROX-101620	SVOCs	Quinoline	UJ
P66-ROX-101620	SVOCs	Aniline	UJ
P66-ROX-101620	SVOCs	Benzyl alcohol	UJ
P66-ROX-101620	SVOCs	bis(2-Chloroethoxy)methane	UJ
P66-ROX-101620	SVOCs	bis(2-Chloroethyl)ether	UJ
P66-ROX-101620	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P66-ROX-101620	SVOCs	1,4-Dioxane	UJ
P66-ROX-101620	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
P66-ROX-101620	SVOCs	Hexachlorocyclopentadiene	UJ
P66-ROX-101620	SVOCs	Isophorone	UJ
P66-ROX-101620	SVOCs	Phenol	UJ
P66-ROX-101620	SVOCs	Pyridine	UJ
P66-ROX-101620	SVOCs	Quinoline	UJ
P66-ROX-101620-Dup	SVOCs	Aniline	UJ
P66-ROX-101620-Dup	SVOCs	Benzyl alcohol	UJ
P66-ROX-101620-Dup	SVOCs	bis(2-Chloroethoxy)methane	UJ
P66-ROX-101620-Dup	SVOCs	bis(2-Chloroethyl)ether	UJ
P66-ROX-101620-Dup	SVOCs	4,6-Dinitro-ortho-cresol	UJ
P66-ROX-101620-Dup	SVOCs	1,4-Dioxane	UJ
P66-ROX-101620-Dup	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
P66-ROX-101620-Dup	SVOCs	Hexachlorocyclopentadiene	UJ
P66-ROX-101620-Dup	SVOCs	Isophorone	UJ
P66-ROX-101620-Dup	SVOCs	Phenol	UJ
P66-ROX-101620-Dup	SVOCs	Pyridine	UJ
P66-ROX-101620-Dup	SVOCs	Quinoline	UJ
ROST4PZG-ROX-101620	SVOCs	Aniline	UJ
ROST4PZG-ROX-101620	SVOCs	Benzyl alcohol	UJ

Sample ID	Parameter	Analyte	Qualification
ROST4PZG-ROX-101620	SVOCs	bis(2-Chloroethoxy)methane	UJ
ROST4PZG-ROX-101620	SVOCs	bis(2-Chloroethyl)ether	UJ
ROST4PZG-ROX-101620	SVOCs	4,6-Dinitro-ortho-cresol	UJ
ROST4PZG-ROX-101620	SVOCs	1,4-Dioxane	UJ
ROST4PZG-ROX-101620	SVOCs	1,2-Diphenylhydrazine (as Azobenzene)	UJ
ROST4PZG-ROX-101620	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZG-ROX-101620	SVOCs	Isophorone	UJ
ROST4PZG-ROX-101620	SVOCs	Phenol	UJ
ROST4PZG-ROX-101620	SVOCs	Pyridine	UJ
ROST4PZG-ROX-101620	SVOCs	Quinoline	UJ
MW2-ROX-101620	SVOCs	Aniline	UJ
MW2-ROX-101620	SVOCs	Benzyl alcohol	UJ
MW2-ROX-101620	SVOCs	Hexachlorocyclopentadiene	UJ
MW2-ROX-101620	SVOCs	4-Nitrophenol	UJ
MW2-ROX-101620	SVOCs	Pyridine	UJ



Environment Testing
America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-194608-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Elizabeth Kunkel

Authorized for release by:
11/3/2020 1:49:19 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@Eurofinset.com

LINKS

Review your project
results through

TotalAccess

Have a Question?

Ask
The
Expert

Visit us at:

www.eurofinsus.com/Env

Reviewed 11/11/2020
MR

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	8
Definitions	35
Surrogate Summary	36
Method Summary	38
Chronicle	39
QC Association	44
QC Sample Results	46
Chain of Custody	59
Receipt Checklists	60
Certification Summary	61

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Job ID: 400-194608-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-194608-1

Comments

No additional comments.

Receipt

The samples were received on 10/17/2020 9:12 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 4 coolers at receipt time were 0.3° C, 0.7° C, 2.3° C and 3.7° C.

GC/MS VOA

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-490802 was outside method criteria for the following analyte(s): 2-Chloroethyl vinyl ether. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-508257 recovered outside control limits for the following analyte: n-Butylbenzene. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-508257 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 400-508257 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-101620-8260 (400-194608-1), MW14-ROX-101620 (400-194608-3), P66-ROX-101620 (400-194608-4), P66-ROX-101620-DUP (400-194608-5), ROST4PZG-ROX-101620-EB (400-194608-6), ROST4PZG-ROX-101620 (400-194608-7) and MW2-ROX-101620 (400-194608-8). The requested target analyte list include 2-chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrade in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508132 recovered outside acceptance criteria, low biased, for Aniline, Bis(2-chloroethyl)ether, Phenol, Isophorone, Azobenzene, Hexachlorocyclopentadiene, 1,4-Dioxane, Pyridine, Bis(2-chloroethoxy)methane, Benzyl alcohol and Quinoline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508355 recovered outside acceptance criteria, low biased, for 4,6-Dinitro-2-methylphenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: MW14-ROX-101620 (400-194608-3), P66-ROX-101620 (400-194608-4) and P66-ROX-101620-DUP (400-194608-5). These results have been reported and qualified.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: ROST4PZG-ROX-101620-EB (400-194608-6) and ROST4PZG-ROX-101620 (400-194608-7). These results have been reported and qualified.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-507618 and analytical batch

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Job ID: 400-194608-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

400-508112 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 laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-507618 and 400-507618 and analytical batch 400-508112 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 400-507618 and analytical batch 400-508112 recovered outside control limits for the following analytes: Benzenethiol.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: (LCSD 400-507618/4-A) and (400-194572-H-4-A). These results have been reported and qualified.

Method 8270D: The method blank for preparation batch 400-507618 and analytical batch 400-508112 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508112 recovered above the upper control limit for 4-Nitrophenol and N-Nitrosodimethylamine. 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 400-508112 recovered outside acceptance criteria, low biased, for Quinoline, Pyridine, Isophorone, Hexachlorocyclopentadiene, 1,4-Dioxane, Aniline, Benzyl alcohol and Bis(2-chloroethoxy)methane. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508916 recovered above the upper control limit for Benzenethiol. 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 400-508916 recovered outside acceptance criteria, low biased, for 4-Nitrophenol, Hexachlorocyclopentadiene, Pyridine, Aniline and Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-507451 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 400-507451 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194608-1	TB-ROX-101620-8260	Water	10/16/20 00:00	10/17/20 09:12	
400-194608-2	TB-ROX-101620-8011	Water	10/16/20 00:00	10/17/20 09:12	
400-194608-3	MW14-ROX-101620	Water	10/16/20 09:40	10/17/20 09:12	
400-194608-4	P66-ROX-101620	Water	10/16/20 10:20	10/17/20 09:12	
400-194608-5	P66-ROX-101620-DUP	Water	10/16/20 10:20	10/17/20 09:12	
400-194608-6	ROST4PZG-ROX-101620-EB	Water	10/16/20 11:50	10/17/20 09:12	
400-194608-7	ROST4PZG-ROX-101620	Water	10/16/20 12:15	10/17/20 09:12	
400-194608-8	MW2-ROX-101620	Water	10/16/20 13:05	10/17/20 09:12	

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: TB-ROX-101620-8260

Lab Sample ID: 400-194608-1

No Detections.

Client Sample ID: TB-ROX-101620-8011

Lab Sample ID: 400-194608-2

No Detections.

Client Sample ID: MW14-ROX-101620

Lab Sample ID: 400-194608-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.5		1.0	0.82	ug/L	1	8260B		Total/NA
Xylenes, Total	1.6 J		10	1.6	ug/L	1	8260B		Total/NA

Client Sample ID: P66-ROX-101620

Lab Sample ID: 400-194608-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.86	J	1.0	0.38	ug/L	1	8260B		Total/NA
Chlorobenzene	0.66	J	1.0	0.50	ug/L	1	8260B		Total/NA
Ethylbenzene	1.3		1.0	0.50	ug/L	1	8260B		Total/NA
Isopropylbenzene	110		1.0	0.53	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	1.6 J		5.0	1.6	ug/L	1	8260B		Total/NA
Naphthalene	94		1.0	1.0	ug/L	1	8260B		Total/NA
N-Propylbenzene	210		1.0	0.69	ug/L	1	8260B		Total/NA
o-Xylene	2.0 J		5.0	0.60	ug/L	1	8260B		Total/NA
sec-Butylbenzene	17		1.0	0.70	ug/L	1	8260B		Total/NA
tert-Butylbenzene	9.2		1.0	0.63	ug/L	1	8260B		Total/NA
Toluene	0.97 J		1.0	0.41	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	2.2		1.0	0.82	ug/L	1	8260B		Total/NA
Xylenes, Total	3.6 J		10	1.6	ug/L	1	8260B		Total/NA
n-Butylbenzene - RA	6.7		1.0	0.76	ug/L	1	8260B		Total/NA
Acenaphthene	1.4		0.19	0.031	ug/L	1	8270D LL		Total/NA
Fluorene	0.94		0.19	0.10	ug/L	1	8270D LL		Total/NA
1-Methylnaphthalene	46		0.19	0.071	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	12		0.19	0.057	ug/L	1	8270D LL		Total/NA
Phenanthrene	0.24		0.19	0.034	ug/L	1	8270D LL		Total/NA
Dibenzofuran	0.79 J		9.5	0.16	ug/L	1	8270D		Total/NA

Client Sample ID: P66-ROX-101620-DUP

Lab Sample ID: 400-194608-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.82	J	1.0	0.38	ug/L	1	8260B		Total/NA
Ethylbenzene	1.6		1.0	0.50	ug/L	1	8260B		Total/NA
Isopropylbenzene	120		1.0	0.53	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	1.6 J		5.0	1.6	ug/L	1	8260B		Total/NA
Naphthalene	99		1.0	1.0	ug/L	1	8260B		Total/NA
N-Propylbenzene	220		1.0	0.69	ug/L	1	8260B		Total/NA
o-Xylene	1.9 J		5.0	0.60	ug/L	1	8260B		Total/NA
sec-Butylbenzene	18		1.0	0.70	ug/L	1	8260B		Total/NA
tert-Butylbenzene	10		1.0	0.63	ug/L	1	8260B		Total/NA
Toluene	0.95 J		1.0	0.41	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	2.3		1.0	0.82	ug/L	1	8260B		Total/NA
1,3,5-Trimethylbenzene	0.58 J		1.0	0.56	ug/L	1	8260B		Total/NA
Xylenes, Total	3.6 J		10	1.6	ug/L	1	8260B		Total/NA
n-Butylbenzene - RA	5.9		1.0	0.76	ug/L	1	8260B		Total/NA
Acenaphthene	0.94		0.19	0.030	ug/L	1	8270D LL		Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: P66-ROX-101620-DUP (Continued)

Lab Sample ID: 400-194608-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	0.80		0.19	0.10	ug/L	1	8270D LL		Total/NA
1-Methylnaphthalene	40		0.19	0.070	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	10		0.19	0.057	ug/L	1	8270D LL		Total/NA

Client Sample ID: ROST4PZG-ROX-101620-EB

Lab Sample ID: 400-194608-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diethyl phthalate	0.31	J B	9.6	0.23	ug/L	1	8270D		Total/NA

Client Sample ID: ROST4PZG-ROX-101620

Lab Sample ID: 400-194608-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1.8		1.0	0.38	ug/L	1	8260B		Total/NA
Ethylbenzene	5.6		1.0	0.50	ug/L	1	8260B		Total/NA
Isopropylbenzene	5.1		1.0	0.53	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	8.9		5.0	1.6	ug/L	1	8260B		Total/NA
N-Propylbenzene	7.9		1.0	0.69	ug/L	1	8260B		Total/NA
o-Xylene	1.0	J	5.0	0.60	ug/L	1	8260B		Total/NA
sec-Butylbenzene	0.78	J	1.0	0.70	ug/L	1	8260B		Total/NA
Toluene	2.4		1.0	0.41	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	2.2		1.0	0.82	ug/L	1	8260B		Total/NA
1,3,5-Trimethylbenzene	1.6		1.0	0.56	ug/L	1	8260B		Total/NA
Xylenes, Total	10		10	1.6	ug/L	1	8260B		Total/NA
3 & 4 Methylphenol	34		19	0.37	ug/L	1	8270D		Total/NA

Client Sample ID: MW2-ROX-101620

Lab Sample ID: 400-194608-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.5		1.0	0.38	ug/L	1	8260B		Total/NA
Ethylbenzene	110		1.0	0.50	ug/L	1	8260B		Total/NA
Isopropylbenzene	74		1.0	0.53	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	47		5.0	1.6	ug/L	1	8260B		Total/NA
Naphthalene	17		1.0	1.0	ug/L	1	8260B		Total/NA
N-Propylbenzene	140		1.0	0.69	ug/L	1	8260B		Total/NA
o-Xylene	6.1		5.0	0.60	ug/L	1	8260B		Total/NA
p-Isopropyltoluene	11		1.0	0.71	ug/L	1	8260B		Total/NA
sec-Butylbenzene	13		1.0	0.70	ug/L	1	8260B		Total/NA
tert-Butylbenzene	1.3		1.0	0.63	ug/L	1	8260B		Total/NA
Toluene	8.5		1.0	0.41	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	16		1.0	0.82	ug/L	1	8260B		Total/NA
1,3,5-Trimethylbenzene	35		1.0	0.56	ug/L	1	8260B		Total/NA
Xylenes, Total	53		10	1.6	ug/L	1	8260B		Total/NA
n-Butylbenzene - RA	9.4		1.0	0.76	ug/L	1	8260B		Total/NA
1-Methylnaphthalene	6.6		0.19	0.070	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	5.2		0.19	0.057	ug/L	1	8270D LL		Total/NA
Bis(2-ethylhexyl) phthalate	4.9	J	9.4	4.7	ug/L	1	8270D		Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: TB-ROX-101620-8260

Lab Sample ID: 400-194608-1

Date Collected: 10/16/20 00:00

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/27/20 11:34	1
Acrolein	ND		20	10	ug/L			10/27/20 11:34	1
Acrylonitrile	ND		10	2.8	ug/L			10/27/20 11:34	1
Benzene	ND		1.0	0.38	ug/L			10/27/20 11:34	1
Bromobenzene	ND		1.0	0.54	ug/L			10/27/20 11:34	1
Bromoform	ND		1.0	0.52	ug/L			10/27/20 11:34	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/27/20 11:34	1
Bromodichloromethane	ND		1.0	0.71	ug/L			10/27/20 11:34	1
Bromoform	ND		5.0	0.98	ug/L			10/27/20 11:34	1
Bromomethane	ND		1.0	0.50	ug/L			10/27/20 11:34	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/27/20 11:34	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/27/20 11:34	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/27/20 11:34	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/27/20 11:34	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/27/20 11:34	1
Chloroethane	ND		1.0	0.76	ug/L			10/27/20 11:34	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/27/20 11:34	1
Chloroform	ND		1.0	0.60	ug/L			10/27/20 11:34	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/27/20 11:34	1
Chloromethane	ND		1.0	0.83	ug/L			10/27/20 11:34	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 11:34	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 11:34	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/27/20 11:34	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/27/20 11:34	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/27/20 11:34	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/27/20 11:34	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 11:34	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 11:34	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 11:34	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 11:34	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 11:34	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 11:34	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/27/20 11:34	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/27/20 11:34	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/27/20 11:34	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/27/20 11:34	1
2-Hexanone	ND		25	3.1	ug/L			10/27/20 11:34	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/27/20 11:34	1
Methylene bromide	ND		5.0	0.59	ug/L			10/27/20 11:34	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/27/20 11:34	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/27/20 11:34	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/27/20 11:34	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/27/20 11:34	1
Naphthalene	ND		1.0	1.0	ug/L			10/27/20 11:34	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/27/20 11:34	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/27/20 11:34	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/27/20 11:34	1
o-Xylene	ND		5.0	0.60	ug/L			10/27/20 11:34	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/27/20 11:34	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/27/20 11:34	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: TB-ROX-101620-8260

Lab Sample ID: 400-194608-1

Date Collected: 10/16/20 00:00

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/27/20 11:34	1
Styrene	ND		1.0	1.0	ug/L			10/27/20 11:34	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/27/20 11:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/27/20 11:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/27/20 11:34	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/27/20 11:34	1
Toluene	ND		1.0	0.41	ug/L			10/27/20 11:34	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 11:34	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 11:34	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/27/20 11:34	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/27/20 11:34	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/27/20 11:34	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/27/20 11:34	1
Trichloroethene	ND		1.0	0.50	ug/L			10/27/20 11:34	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/27/20 11:34	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/27/20 11:34	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/27/20 11:34	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/27/20 11:34	1
Vinyl acetate	ND		25	2.0	ug/L			10/27/20 11:34	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/27/20 11:34	1
Xylenes, Total	ND		10	1.6	ug/L			10/27/20 11:34	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98			78 - 118				10/27/20 11:34	1
Dibromofluoromethane	93			81 - 121				10/27/20 11:34	1
Toluene-d8 (Sur)	111			80 - 120				10/27/20 11:34	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: TB-ROX-101620-8011

Lab Sample ID: 400-194608-2

Date Collected: 10/16/20 00:00

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/20/20 11:05	10/20/20 18:57	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/20/20 11:05	10/20/20 18:57	1
Surrogate									
4-Bromofluorobenzene	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	119		51 - 149				10/20/20 11:05	10/20/20 18:57	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: MW14-ROX-101620

Date Collected: 10/16/20 09:40

Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/27/20 11:59	1
Acrolein	ND		20	10	ug/L			10/27/20 11:59	1
Acrylonitrile	ND		10	2.8	ug/L			10/27/20 11:59	1
Benzene	ND		1.0	0.38	ug/L			10/27/20 11:59	1
Bromobenzene	ND		1.0	0.54	ug/L			10/27/20 11:59	1
Bromoform	ND		1.0	0.52	ug/L			10/27/20 11:59	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Bromoform	ND		5.0	0.71	ug/L			10/27/20 11:59	1
Bromomethane	ND		1.0	0.98	ug/L			10/27/20 11:59	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/27/20 11:59	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Chloroethane	ND		1.0	0.76	ug/L			10/27/20 11:59	1
2-Chloroethyl vinyl ether	ND	F1 WS	5.0	2.0	ug/L			10/27/20 11:59	1
Chloroform	ND		1.0	0.60	ug/L			10/27/20 11:59	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/27/20 11:59	1
Chloromethane	ND		1.0	0.83	ug/L			10/27/20 11:59	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 11:59	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 11:59	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/27/20 11:59	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/27/20 11:59	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/27/20 11:59	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/27/20 11:59	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 11:59	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 11:59	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 11:59	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 11:59	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 11:59	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 11:59	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/27/20 11:59	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/27/20 11:59	1
2-Hexanone	ND		25	3.1	ug/L			10/27/20 11:59	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/27/20 11:59	1
Methylene bromide	ND		5.0	0.59	ug/L			10/27/20 11:59	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/27/20 11:59	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/27/20 11:59	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/27/20 11:59	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/27/20 11:59	1
Naphthalene	ND		1.0	1.0	ug/L			10/27/20 11:59	1
n-Butylbenzene	ND	*	1.0	0.76	ug/L			10/27/20 11:59	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/27/20 11:59	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/27/20 11:59	1
o-Xylene	ND		5.0	0.60	ug/L			10/27/20 11:59	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/27/20 11:59	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/27/20 11:59	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: MW14-ROX-101620
Date Collected: 10/16/20 09:40
Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/27/20 11:59	1
Styrene	ND		1.0	1.0	ug/L			10/27/20 11:59	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/27/20 11:59	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/27/20 11:59	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/27/20 11:59	1
Toluene	ND		1.0	0.41	ug/L			10/27/20 11:59	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 11:59	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 11:59	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/27/20 11:59	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/27/20 11:59	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/27/20 11:59	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/27/20 11:59	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/27/20 11:59	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/27/20 11:59	1
1,2,4-Trimethylbenzene	1.5		1.0	0.82	ug/L			10/27/20 11:59	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/27/20 11:59	1
Vinyl acetate	ND		25	2.0	ug/L			10/27/20 11:59	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/27/20 11:59	1
Xylenes, Total	1.6	J	10	1.6	ug/L			10/27/20 11:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		78 - 118		10/27/20 11:59	1
Dibromofluoromethane	95		81 - 121		10/27/20 11:59	1
Toluene-d8 (Surr)	113		80 - 120		10/27/20 11:59	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		10/21/20 10:41	10/27/20 19:03	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/21/20 10:41	10/27/20 19:03	1
Anthracene	ND		0.19	0.031	ug/L		10/21/20 10:41	10/27/20 19:03	1
Benzo[a]antracene	ND		0.19	0.044	ug/L		10/21/20 10:41	10/27/20 19:03	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/21/20 10:41	10/27/20 19:03	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L		10/21/20 10:41	10/27/20 19:03	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/21/20 10:41	10/27/20 19:03	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		10/21/20 10:41	10/27/20 19:03	1
Chrysene	ND		0.19	0.071	ug/L		10/21/20 10:41	10/27/20 19:03	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/21/20 10:41	10/27/20 19:03	1
Fluoranthene	ND		0.19	0.065	ug/L		10/21/20 10:41	10/27/20 19:03	1
Fluorene	ND		0.19	0.11	ug/L		10/21/20 10:41	10/27/20 19:03	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/21/20 10:41	10/27/20 19:03	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		10/21/20 10:41	10/27/20 19:03	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		10/21/20 10:41	10/27/20 19:03	1
Phenanthrene	ND		0.19	0.034	ug/L		10/21/20 10:41	10/27/20 19:03	1
Pyrene	ND		0.19	0.038	ug/L		10/21/20 10:41	10/27/20 19:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	58		15 - 122		10/27/20 19:03	1	
Nitrobenzene-d5	60		19 - 130		10/21/20 10:41	10/27/20 19:03	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: MW14-ROX-101620

Lab Sample ID: 400-194608-3

Date Collected: 10/16/20 09:40

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	69		33 - 138	10/21/20 10:41	10/27/20 19:03	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.6	3.6	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Benzenethiol	ND	**1 UJ	9.6	1.6	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Benzoic acid	ND		29	7.0	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Benzyl alcohol	ND	UJ	9.6	1.9	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Bis(2-chloroethoxy)methane	ND	UJ	9.6	0.15	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Bis(2-chloroethyl)ether	ND	UJ	9.6	2.6	ug/L	10/21/20 10:41	10/26/20 19:26	1	
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L	10/21/20 10:41	10/26/20 19:26	1	
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Butyl benzyl phthalate	ND		9.6	0.18	ug/L	10/21/20 10:41	10/26/20 19:26	1	
4-Chloroaniline	ND		9.6	3.3	ug/L	10/21/20 10:41	10/26/20 19:26	1	
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L	10/21/20 10:41	10/26/20 19:26	1	
2-Choronaphthalene	ND		9.6	0.13	ug/L	10/21/20 10:41	10/26/20 19:26	1	
2-Chlorophenol	ND		9.6	2.1	ug/L	10/21/20 10:41	10/26/20 19:26	1	
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Dibenzofuran	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 19:26	1	
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L	10/21/20 10:41	10/26/20 19:26	1	
2,4-Dichlorophenol	ND		9.6	2.9	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Diethyl phthalate	ND		9.6	0.23	ug/L	10/21/20 10:41	10/26/20 19:26	1	
2,4-Dimethylphenol	ND		9.6	3.3	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Dimethyl phthalate	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Di-n-butyl phthalate	ND		9.6	2.6	ug/L	10/21/20 10:41	10/26/20 19:26	1	
4,6-Dinitro-ortho-cresol	ND	UJ	9.6	1.5	ug/L	10/21/20 10:41	10/27/20 17:49	1	
2,4-Dinitrophenol	ND		29	3.3	ug/L	10/21/20 10:41	10/26/20 19:26	1	
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L	10/21/20 10:41	10/26/20 19:26	1	
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Di-n-octyl phthalate	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 19:26	1	
1,4-Dioxane	ND	UJ	9.6	0.96	ug/L	10/21/20 10:41	10/26/20 19:26	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.6	0.96	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Hexachlorobenzene	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Hexachloroethane	ND		9.6	4.0	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Indene	ND		9.6	0.96	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Isophorone	ND	UJ	9.6	0.13	ug/L	10/21/20 10:41	10/26/20 19:26	1	
2-Methylphenol	ND		9.6	1.7	ug/L	10/21/20 10:41	10/26/20 19:26	1	
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/21/20 10:41	10/26/20 19:26	1	
2-Nitroaniline	ND		9.6	2.1	ug/L	10/21/20 10:41	10/26/20 19:26	1	
3-Nitroaniline	ND		9.6	1.7	ug/L	10/21/20 10:41	10/26/20 19:26	1	
4-Nitroaniline	ND		9.6	1.4	ug/L	10/21/20 10:41	10/26/20 19:26	1	
Nitrobenzene	ND		9.6	0.12	ug/L	10/21/20 10:41	10/26/20 19:26	1	
2-Nitrophenol	ND		9.6	5.0	ug/L	10/21/20 10:41	10/26/20 19:26	1	
4-Nitrophenol	ND		9.6	2.0	ug/L	10/21/20 10:41	10/26/20 19:26	1	
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L	10/21/20 10:41	10/26/20 19:26	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: MW14-ROX-101620

Lab Sample ID: 400-194608-3

Date Collected: 10/16/20 09:40

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		10/21/20 10:41	10/26/20 19:26	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		10/21/20 10:41	10/26/20 19:26	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 19:26	1
Phenol	ND	WT	9.6	2.5	ug/L		10/21/20 10:41	10/26/20 19:26	1
Pyridine	ND	WT	9.6	3.1	ug/L		10/21/20 10:41	10/26/20 19:26	1
Quinoline	ND	WT	9.6	4.3	ug/L		10/21/20 10:41	10/26/20 19:26	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		10/21/20 10:41	10/26/20 19:26	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		10/21/20 10:41	10/26/20 19:26	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	43	X		46 - 124			10/21/20 10:41	10/27/20 17:49	1
2-Fluorophenol	7	X		13 - 113			10/21/20 10:41	10/27/20 17:49	1
Nitrobenzene-d5	63			36 - 126			10/21/20 10:41	10/27/20 17:49	1
Phenol-d5	24			17 - 127			10/21/20 10:41	10/27/20 17:49	1
Terphenyl-d14	68			44 - 149			10/21/20 10:41	10/27/20 17:49	1
2,4,6-Tribromophenol	35			26 - 150			10/21/20 10:41	10/27/20 17:49	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/20/20 11:05	10/20/20 19:17	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/20/20 11:05	10/20/20 19:17	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	116			51 - 149			10/20/20 11:05	10/20/20 19:17	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: P66-ROX-101620
Date Collected: 10/16/20 10:20
Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/27/20 12:22	1
Acrolein	ND		20	10	ug/L			10/27/20 12:22	1
Acrylonitrile	ND		10	2.8	ug/L			10/27/20 12:22	1
Benzene	0.86	J	1.0	0.38	ug/L			10/27/20 12:22	1
Bromobenzene	ND		1.0	0.54	ug/L			10/27/20 12:22	1
Bromoform	ND		1.0	0.52	ug/L			10/27/20 12:22	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/27/20 12:22	1
Bromodichloromethane	ND		5.0	0.71	ug/L			10/27/20 12:22	1
Bromoform	ND		1.0	0.98	ug/L			10/27/20 12:22	1
Bromomethane	ND		25	2.6	ug/L			10/27/20 12:22	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/27/20 12:22	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/27/20 12:22	1
Chlorobenzene	0.66	J	1.0	0.50	ug/L			10/27/20 12:22	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/27/20 12:22	1
Chloroethane	ND		1.0	0.76	ug/L			10/27/20 12:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/27/20 12:22	1
Chloroform	ND		1.0	0.60	ug/L			10/27/20 12:22	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/27/20 12:22	1
Chloromethane	ND		1.0	0.83	ug/L			10/27/20 12:22	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 12:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 12:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/27/20 12:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/27/20 12:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/27/20 12:22	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/27/20 12:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 12:22	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 12:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 12:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 12:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 12:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 12:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/27/20 12:22	1
Ethylbenzene	1.3		1.0	0.50	ug/L			10/27/20 12:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/27/20 12:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/27/20 12:22	1
2-Hexanone	ND		25	3.1	ug/L			10/27/20 12:22	1
Isopropylbenzene	110		1.0	0.53	ug/L			10/27/20 12:22	1
Methylene bromide	ND		5.0	0.59	ug/L			10/27/20 12:22	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/27/20 12:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/27/20 12:22	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/27/20 12:22	1
m-Xylene & p-Xylene	1.6	J	5.0	1.6	ug/L			10/27/20 12:22	1
Naphthalene	94		1.0	1.0	ug/L			10/27/20 12:22	1
N-Propylbenzene	210		1.0	0.69	ug/L			10/27/20 12:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/27/20 12:22	1
o-Xylene	2.0	J	5.0	0.60	ug/L			10/27/20 12:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/27/20 12:22	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/27/20 12:22	1
sec-Butylbenzene	17		1.0	0.70	ug/L			10/27/20 12:22	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: P66-ROX-101620

Lab Sample ID: 400-194608-4

Date Collected: 10/16/20 10:20

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			10/27/20 12:22	1
tert-Butylbenzene	9.2		1.0	0.63	ug/L			10/27/20 12:22	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/27/20 12:22	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/27/20 12:22	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/27/20 12:22	1
Toluene	0.97	J	1.0	0.41	ug/L			10/27/20 12:22	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/27/20 12:22	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 12:22	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/27/20 12:22	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/27/20 12:22	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/27/20 12:22	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/27/20 12:22	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/27/20 12:22	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/27/20 12:22	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/27/20 12:22	1
1,2,4-Trimethylbenzene	2.2		1.0	0.82	ug/L			10/27/20 12:22	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/27/20 12:22	1
Vinyl acetate	ND		25	2.0	ug/L			10/27/20 12:22	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/27/20 12:22	1
Xylenes, Total	3.6	J	10	1.6	ug/L			10/27/20 12:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		78 - 118		10/27/20 12:22	1
Dibromofluoromethane	99		81 - 121		10/27/20 12:22	1
Toluene-d8 (Surr)	111		80 - 120		10/27/20 12:22	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	6.7		1.0	0.76	ug/L			10/29/20 16:53	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	97		78 - 118		10/29/20 16:53	1			
Dibromofluoromethane	104		81 - 121		10/29/20 16:53	1			
Toluene-d8 (Surr)	101		80 - 120		10/29/20 16:53	1			

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1.4		0.19	0.031	ug/L		10/21/20 10:41	10/27/20 19:21	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/21/20 10:41	10/27/20 19:21	1
Anthracene	ND		0.19	0.031	ug/L		10/21/20 10:41	10/27/20 19:21	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/21/20 10:41	10/27/20 19:21	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/21/20 10:41	10/27/20 19:21	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/21/20 10:41	10/27/20 19:21	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/21/20 10:41	10/27/20 19:21	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		10/21/20 10:41	10/27/20 19:21	1
Chrysene	ND		0.19	0.071	ug/L		10/21/20 10:41	10/27/20 19:21	1
Dibenzo(a,h)anthracene	ND		0.19	0.048	ug/L		10/21/20 10:41	10/27/20 19:21	1
Fluoranthene	ND		0.19	0.065	ug/L		10/21/20 10:41	10/27/20 19:21	1
Fluorene	0.94		0.19	0.10	ug/L		10/21/20 10:41	10/27/20 19:21	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/21/20 10:41	10/27/20 19:21	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: P66-ROX-101620
Date Collected: 10/16/20 10:20
Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	46		0.19	0.071	ug/L		10/21/20 10:41	10/27/20 19:21	1
2-Methylnaphthalene	12		0.19	0.057	ug/L		10/21/20 10:41	10/27/20 19:21	1
Phenanthrene	0.24		0.19	0.034	ug/L		10/21/20 10:41	10/27/20 19:21	1
Pyrene	ND		0.19	0.038	ug/L		10/21/20 10:41	10/27/20 19:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	51		15 - 122				10/21/20 10:41	10/27/20 19:21	1
Nitrobenzene-d5	51		19 - 130				10/21/20 10:41	10/27/20 19:21	1
Terphenyl-d14	66		33 - 138				10/21/20 10:41	10/27/20 19:21	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.5	3.6	ug/L		10/21/20 10:41	10/26/20 19:48	1
Benzenethiol	ND	**1 UJ	9.5	1.6	ug/L		10/21/20 10:41	10/26/20 19:48	1
Benzoic acid	ND		29	7.0	ug/L		10/21/20 10:41	10/26/20 19:48	1
Benzyl alcohol	ND	UJ	9.5	1.9	ug/L		10/21/20 10:41	10/26/20 19:48	1
Bis(2-chloroethoxy)methane	ND	UJ	9.5	0.15	ug/L		10/21/20 10:41	10/26/20 19:48	1
Bis(2-chloroethyl)ether	ND	UJ	9.5	2.6	ug/L		10/21/20 10:41	10/26/20 19:48	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/21/20 10:41	10/26/20 19:48	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		10/21/20 10:41	10/26/20 19:48	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/21/20 10:41	10/26/20 19:48	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/21/20 10:41	10/26/20 19:48	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/21/20 10:41	10/26/20 19:48	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/21/20 10:41	10/26/20 19:48	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/21/20 10:41	10/26/20 19:48	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/21/20 10:41	10/26/20 19:48	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/21/20 10:41	10/26/20 19:48	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/21/20 10:41	10/26/20 19:48	1
Dibenzofuran	0.79	J	9.5	0.16	ug/L		10/21/20 10:41	10/26/20 19:48	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		10/21/20 10:41	10/26/20 19:48	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		10/21/20 10:41	10/26/20 19:48	1
Diethyl phthalate	ND		9.5	0.23	ug/L		10/21/20 10:41	10/26/20 19:48	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 19:48	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/21/20 10:41	10/26/20 19:48	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/21/20 10:41	10/26/20 19:48	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.5	1.5	ug/L		10/21/20 10:41	10/27/20 18:13	1
2,4-Dinitrophenol	ND		29	3.2	ug/L		10/21/20 10:41	10/26/20 19:48	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/21/20 10:41	10/26/20 19:48	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/21/20 10:41	10/26/20 19:48	1
Di-n-octyl phthalate	ND	UJ	9.5	0.16	ug/L		10/21/20 10:41	10/26/20 19:48	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		10/21/20 10:41	10/26/20 19:48	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.5	0.95	ug/L		10/21/20 10:41	10/26/20 19:48	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/21/20 10:41	10/26/20 19:48	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		10/21/20 10:41	10/26/20 19:48	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/21/20 10:41	10/26/20 19:48	1
Indene	ND		9.5	0.95	ug/L		10/21/20 10:41	10/26/20 19:48	1
Isophorone	ND	UJ	9.5	0.13	ug/L		10/21/20 10:41	10/26/20 19:48	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/21/20 10:41	10/26/20 19:48	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/21/20 10:41	10/26/20 19:48	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: P66-ROX-101620

Lab Sample ID: 400-194608-4

Date Collected: 10/16/20 10:20

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.5	2.1	ug/L		10/21/20 10:41	10/26/20 19:48	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/21/20 10:41	10/26/20 19:48	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/21/20 10:41	10/26/20 19:48	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/21/20 10:41	10/26/20 19:48	1
2-Nitrophenol	ND		9.5	5.0	ug/L		10/21/20 10:41	10/26/20 19:48	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/21/20 10:41	10/26/20 19:48	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 19:48	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/21/20 10:41	10/26/20 19:48	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/21/20 10:41	10/26/20 19:48	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 19:48	1
Phenol	ND	WS	9.5	2.5	ug/L		10/21/20 10:41	10/26/20 19:48	1
Pyridine	ND	WS	9.5	3.1	ug/L		10/21/20 10:41	10/26/20 19:48	1
Quinoline	ND	WS	9.5	4.3	ug/L		10/21/20 10:41	10/26/20 19:48	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/21/20 10:41	10/26/20 19:48	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 19:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	43	X	46 - 124		10/21/20 10:41	10/27/20 18:13	1
2-Fluorophenol	9	X	13 - 113		10/21/20 10:41	10/27/20 18:13	1
Nitrobenzene-d5	60		36 - 126		10/21/20 10:41	10/27/20 18:13	1
Phenol-d5	31		17 - 127		10/21/20 10:41	10/27/20 18:13	1
Terphenyl-d14	59		44 - 149		10/21/20 10:41	10/27/20 18:13	1
2,4,6-Tribromophenol	45		26 - 150		10/21/20 10:41	10/27/20 18:13	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.0056	ug/L		10/20/20 11:05	10/20/20 19:37	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/20/20 11:05	10/20/20 19:37	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	107		51 - 149		10/20/20 11:05	10/20/20 19:37	1		

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: P66-ROX-101620-DUP

Lab Sample ID: 400-194608-5

Date Collected: 10/16/20 10:20

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/27/20 12:45	1
Acrolein	ND		20	10	ug/L			10/27/20 12:45	1
Acrylonitrile	ND		10	2.8	ug/L			10/27/20 12:45	1
Benzene	0.82	J	1.0	0.38	ug/L			10/27/20 12:45	1
Bromobenzene	ND		1.0	0.54	ug/L			10/27/20 12:45	1
Bromochloromethane	ND		1.0	0.52	ug/L			10/27/20 12:45	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/27/20 12:45	1
Bromoform	ND		5.0	0.71	ug/L			10/27/20 12:45	1
Bromomethane	ND		1.0	0.98	ug/L			10/27/20 12:45	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/27/20 12:45	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/27/20 12:45	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/27/20 12:45	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/27/20 12:45	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/27/20 12:45	1
Chloroethane	ND		1.0	0.76	ug/L			10/27/20 12:45	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/27/20 12:45	1
Chloroform	ND		1.0	0.60	ug/L			10/27/20 12:45	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/27/20 12:45	1
Chloromethane	ND		1.0	0.83	ug/L			10/27/20 12:45	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 12:45	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 12:45	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/27/20 12:45	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/27/20 12:45	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/27/20 12:45	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/27/20 12:45	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 12:45	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 12:45	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 12:45	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 12:45	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 12:45	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 12:45	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/27/20 12:45	1
Ethylbenzene	1.6		1.0	0.50	ug/L			10/27/20 12:45	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/27/20 12:45	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/27/20 12:45	1
2-Hexanone	ND		25	3.1	ug/L			10/27/20 12:45	1
Isopropylbenzene	120		1.0	0.53	ug/L			10/27/20 12:45	1
Methylene bromide	ND		5.0	0.59	ug/L			10/27/20 12:45	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/27/20 12:45	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/27/20 12:45	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/27/20 12:45	1
m-Xylene & p-Xylene	1.6	J	5.0	1.6	ug/L			10/27/20 12:45	1
Naphthalene	99		1.0	1.0	ug/L			10/27/20 12:45	1
N-Propylbenzene	220		1.0	0.69	ug/L			10/27/20 12:45	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/27/20 12:45	1
o-Xylene	1.9	J	5.0	0.60	ug/L			10/27/20 12:45	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/27/20 12:45	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/27/20 12:45	1
sec-Butylbenzene	18		1.0	0.70	ug/L			10/27/20 12:45	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: P66-ROX-101620-DUP

Lab Sample ID: 400-194608-5

Date Collected: 10/16/20 10:20

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			10/27/20 12:45	1
tert-Butylbenzene	10		1.0	0.63	ug/L			10/27/20 12:45	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/27/20 12:45	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/27/20 12:45	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/27/20 12:45	1
Toluene	0.95	J	1.0	0.41	ug/L			10/27/20 12:45	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 12:45	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 12:45	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/27/20 12:45	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/27/20 12:45	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/27/20 12:45	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/27/20 12:45	1
Trichloroethene	ND		1.0	0.50	ug/L			10/27/20 12:45	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/27/20 12:45	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/27/20 12:45	1
1,2,4-Trimethylbenzene	2.3		1.0	0.82	ug/L			10/27/20 12:45	1
1,3,5-Trimethylbenzene	0.58	J	1.0	0.56	ug/L			10/27/20 12:45	1
Vinyl acetate	ND		25	2.0	ug/L			10/27/20 12:45	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/27/20 12:45	1
Xylenes, Total	3.6	J	10	1.6	ug/L			10/27/20 12:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	.97		78 - 118		10/27/20 12:45	1
Dibromofluoromethane	.96		81 - 121		10/27/20 12:45	1
Toluene-d8 (Surr)	113		80 - 120		10/27/20 12:45	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	5.9		1.0	0.76	ug/L			10/29/20 17:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	.98		78 - 118					10/29/20 17:17	1
Dibromofluoromethane	104		81 - 121					10/29/20 17:17	1
Toluene-d8 (Surr)	102		80 - 120					10/29/20 17:17	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.94		0.19	0.030	ug/L		10/21/20 10:41	10/27/20 19:38	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/21/20 10:41	10/27/20 19:38	1
Anthracene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/27/20 19:38	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		10/21/20 10:41	10/27/20 19:38	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/21/20 10:41	10/27/20 19:38	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/21/20 10:41	10/27/20 19:38	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/21/20 10:41	10/27/20 19:38	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		10/21/20 10:41	10/27/20 19:38	1
Chrysene	ND		0.19	0.070	ug/L		10/21/20 10:41	10/27/20 19:38	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/21/20 10:41	10/27/20 19:38	1
Fluoranthene	ND		0.19	0.064	ug/L		10/21/20 10:41	10/27/20 19:38	1
Fluorene	0.80		0.19	0.10	ug/L		10/21/20 10:41	10/27/20 19:38	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/21/20 10:41	10/27/20 19:38	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: P66-ROX-101620-DUP

Lab Sample ID: 400-194608-5

Date Collected: 10/16/20 10:20

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	40		0.19	0.070	ug/L		10/21/20 10:41	10/27/20 19:38	1
2-Methylnaphthalene	10		0.19	0.057	ug/L		10/21/20 10:41	10/27/20 19:38	1
Phenanthrene	ND		0.19	0.034	ug/L		10/21/20 10:41	10/27/20 19:38	1
Pyrene	ND		0.19	0.038	ug/L		10/21/20 10:41	10/27/20 19:38	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		44		15 - 122			10/21/20 10:41	10/27/20 19:38	1
Nitrobenzene-d5		49		19 - 130			10/21/20 10:41	10/27/20 19:38	1
Terphenyl-d14		48		33 - 138			10/21/20 10:41	10/27/20 19:38	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	WT	9.4	3.6	ug/L		10/21/20 10:41	10/26/20 20:09	1
Benzenethiol	ND	**1 WT	9.4	1.6	ug/L		10/21/20 10:41	10/26/20 20:09	1
Benzoic acid	ND		28	6.9	ug/L		10/21/20 10:41	10/26/20 20:09	1
Benzyl alcohol	ND	WT	9.4	1.9	ug/L		10/21/20 10:41	10/26/20 20:09	1
Bis(2-chloroethoxy)methane	ND	WT	9.4	0.15	ug/L		10/21/20 10:41	10/26/20 20:09	1
Bis(2-chloroethyl)ether	ND	WT	9.4	2.6	ug/L		10/21/20 10:41	10/26/20 20:09	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/21/20 10:41	10/26/20 20:09	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/21/20 10:41	10/26/20 20:09	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/21/20 10:41	10/26/20 20:09	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/21/20 10:41	10/26/20 20:09	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/21/20 10:41	10/26/20 20:09	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/21/20 10:41	10/26/20 20:09	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/21/20 10:41	10/26/20 20:09	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/21/20 10:41	10/26/20 20:09	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/21/20 10:41	10/26/20 20:09	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/21/20 10:41	10/26/20 20:09	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/21/20 10:41	10/26/20 20:09	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		10/21/20 10:41	10/26/20 20:09	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/21/20 10:41	10/26/20 20:09	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/21/20 10:41	10/26/20 20:09	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/21/20 10:41	10/26/20 20:09	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/21/20 10:41	10/26/20 20:09	1
Di-n-butyl phthalate	ND		9.4	2.6	ug/L		10/21/20 10:41	10/26/20 20:09	1
4,6-Dinitro-ortho-cresol	ND	WT	9.4	1.5	ug/L		10/21/20 10:41	10/27/20 18:37	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/21/20 10:41	10/26/20 20:09	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/21/20 10:41	10/26/20 20:09	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/21/20 10:41	10/26/20 20:09	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/21/20 10:41	10/26/20 20:09	1
1,4-Dioxane	ND		9.4	0.94	ug/L		10/21/20 10:41	10/26/20 20:09	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	WT	9.4	0.94	ug/L		10/21/20 10:41	10/26/20 20:09	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		10/21/20 10:41	10/26/20 20:09	1
Hexachlorocyclopentadiene	ND	WT	19	2.5	ug/L		10/21/20 10:41	10/26/20 20:09	1
Hexachloroethane	ND		9.4	4.0	ug/L		10/21/20 10:41	10/26/20 20:09	1
Indene	ND		9.4	0.94	ug/L		10/21/20 10:41	10/26/20 20:09	1
Isophorone	ND	WT	9.4	0.13	ug/L		10/21/20 10:41	10/26/20 20:09	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/21/20 10:41	10/26/20 20:09	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/21/20 10:41	10/26/20 20:09	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: P66-ROX-101620-DUP

Lab Sample ID: 400-194608-5

Date Collected: 10/16/20 10:20

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.4	2.1	ug/L		10/21/20 10:41	10/26/20 20:09	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/21/20 10:41	10/26/20 20:09	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/21/20 10:41	10/26/20 20:09	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/21/20 10:41	10/26/20 20:09	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/21/20 10:41	10/26/20 20:09	1
4-Nitrophenol	ND		9.4	2.0	ug/L		10/21/20 10:41	10/26/20 20:09	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		10/21/20 10:41	10/26/20 20:09	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/21/20 10:41	10/26/20 20:09	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/21/20 10:41	10/26/20 20:09	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 20:09	1
Phenol	ND	WJ	9.4	2.5	ug/L		10/21/20 10:41	10/26/20 20:09	1
Pyridine	ND	WJ	9.4	3.0	ug/L		10/21/20 10:41	10/26/20 20:09	1
Quinoline	ND	WJ	9.4	4.3	ug/L		10/21/20 10:41	10/26/20 20:09	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/21/20 10:41	10/26/20 20:09	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/21/20 10:41	10/26/20 20:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	41	X	46 - 124	10/21/20 10:41	10/27/20 18:37	1
2-Fluorophenol	9	X	13 - 113	10/21/20 10:41	10/27/20 18:37	1
Nitrobenzene-d5	58		36 - 126	10/21/20 10:41	10/27/20 18:37	1
Phenol-d5	27		17 - 127	10/21/20 10:41	10/27/20 18:37	1
Terphenyl-d14	50		44 - 149	10/21/20 10:41	10/27/20 18:37	1
2,4,6-Tribromophenol	41		26 - 150	10/21/20 10:41	10/27/20 18:37	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/20/20 11:05	10/20/20 19:57	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/20/20 11:05	10/20/20 19:57	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	105		51 - 149	10/20/20 11:05	10/20/20 19:57	1			

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: ROST4PZG-ROX-101620-EB

Lab Sample ID: 400-194608-6

Date Collected: 10/16/20 11:50

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/27/20 11:10	1
Acrolein	ND		20	10	ug/L			10/27/20 11:10	1
Acrylonitrile	ND		10	2.8	ug/L			10/27/20 11:10	1
Benzene	ND		1.0	0.38	ug/L			10/27/20 11:10	1
Bromobenzene	ND		1.0	0.54	ug/L			10/27/20 11:10	1
Bromoform	ND		1.0	0.52	ug/L			10/27/20 11:10	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/27/20 11:10	1
Bromoform	ND		5.0	0.71	ug/L			10/27/20 11:10	1
Bromomethane	ND		1.0	0.98	ug/L			10/27/20 11:10	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/27/20 11:10	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/27/20 11:10	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/27/20 11:10	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/27/20 11:10	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/27/20 11:10	1
Chloroethane	ND		1.0	0.76	ug/L			10/27/20 11:10	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/27/20 11:10	1
Chloroform	ND		1.0	0.60	ug/L			10/27/20 11:10	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/27/20 11:10	1
Chloromethane	ND		1.0	0.83	ug/L			10/27/20 11:10	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 11:10	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 11:10	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/27/20 11:10	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/27/20 11:10	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/27/20 11:10	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/27/20 11:10	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 11:10	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 11:10	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 11:10	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 11:10	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 11:10	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 11:10	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/27/20 11:10	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/27/20 11:10	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/27/20 11:10	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/27/20 11:10	1
2-Hexanone	ND		25	3.1	ug/L			10/27/20 11:10	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/27/20 11:10	1
Methylene bromide	ND		5.0	0.59	ug/L			10/27/20 11:10	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/27/20 11:10	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/27/20 11:10	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/27/20 11:10	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/27/20 11:10	1
Naphthalene	ND		1.0	1.0	ug/L			10/27/20 11:10	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/27/20 11:10	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/27/20 11:10	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/27/20 11:10	1
o-Xylene	ND		5.0	0.60	ug/L			10/27/20 11:10	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/27/20 11:10	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/27/20 11:10	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: ROST4PZG-ROX-101620-EB

Lab Sample ID: 400-194608-6

Date Collected: 10/16/20 11:50

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/27/20 11:10	1
Styrene	ND		1.0	1.0	ug/L			10/27/20 11:10	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/27/20 11:10	1
1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/27/20 11:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/27/20 11:10	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/27/20 11:10	1
Toluene	ND		1.0	0.41	ug/L			10/27/20 11:10	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 11:10	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 11:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/27/20 11:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/27/20 11:10	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/27/20 11:10	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/27/20 11:10	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/27/20 11:10	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/27/20 11:10	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/27/20 11:10	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/27/20 11:10	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/27/20 11:10	1
Vinyl acetate	ND		25	2.0	ug/L			10/27/20 11:10	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/27/20 11:10	1
Xylenes, Total	ND		10	1.6	ug/L			10/27/20 11:10	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		78 - 118					10/27/20 11:10	1
Dibromofluoromethane	95		81 - 121					10/27/20 11:10	1
Toluene-d8 (Surr)	111		80 - 120					10/27/20 11:10	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.031	ug/L			10/21/20 10:41	10/27/20 19:56	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/21/20 10:41	10/27/20 19:56	1
Anthracene	ND		0.19	0.031	ug/L			10/21/20 10:41	10/27/20 19:56	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/21/20 10:41	10/27/20 19:56	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/21/20 10:41	10/27/20 19:56	1
Benzo[b]fluoranthene	ND		0.19	0.033	ug/L			10/21/20 10:41	10/27/20 19:56	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/21/20 10:41	10/27/20 19:56	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L			10/21/20 10:41	10/27/20 19:56	1
Chrysene	ND		0.19	0.071	ug/L			10/21/20 10:41	10/27/20 19:56	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L			10/21/20 10:41	10/27/20 19:56	1
Fluoranthene	ND		0.19	0.065	ug/L			10/21/20 10:41	10/27/20 19:56	1
Fluorene	ND		0.19	0.11	ug/L			10/21/20 10:41	10/27/20 19:56	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/21/20 10:41	10/27/20 19:56	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L			10/21/20 10:41	10/27/20 19:56	1
2-Methylnaphthalene	ND		0.19	0.058	ug/L			10/21/20 10:41	10/27/20 19:56	1
Phenanthrene	ND		0.19	0.035	ug/L			10/21/20 10:41	10/27/20 19:56	1
Pyrene	ND		0.19	0.038	ug/L			10/21/20 10:41	10/27/20 19:56	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	63		15 - 122					10/21/20 10:41	10/27/20 19:56	1
Nitrobenzene-d5	63		19 - 130					10/21/20 10:41	10/27/20 19:56	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: ROST4PZG-ROX-101620-EB
Date Collected: 10/16/20 11:50
Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	80		33 - 138	10/21/20 10:41	10/27/20 19:56	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Benzenethiol	ND	**1	9.6	1.6	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Benzoic acid	ND		29	7.0	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Benzyl alcohol	ND		9.6	1.9	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Bis(2-chloroethyl)ether	ND		9.6	0.15	ug/L	10/21/20 10:41	10/26/20 20:31	1	
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Bis(2-ethylhexyl) phthalate	ND		9.6	4.8	ug/L	10/21/20 10:41	10/26/20 20:31	1	
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Butyl benzyl phthalate	ND		9.6	0.18	ug/L	10/21/20 10:41	10/26/20 20:31	1	
4-Chloroaniline	ND		9.6	3.3	ug/L	10/21/20 10:41	10/26/20 20:31	1	
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L	10/21/20 10:41	10/26/20 20:31	1	
2-Choronaphthalene	ND		9.6	0.13	ug/L	10/21/20 10:41	10/26/20 20:31	1	
2-Chlorophenol	ND		9.6	2.1	ug/L	10/21/20 10:41	10/26/20 20:31	1	
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Dibenzofuran	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 20:31	1	
3,3'-Dichlorobenzidine	ND		9.6	2.5	ug/L	10/21/20 10:41	10/26/20 20:31	1	
2,4-Dichlorophenol	ND		9.6	2.9	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Diethyl phthalate	0.31	J B	9.6	0.23	ug/L	10/21/20 10:41	10/26/20 20:31	1	
2,4-Dimethylphenol	ND		9.6	3.4	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Dimethyl phthalate	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Di-n-butyl phthalate	ND		9.6	2.6	ug/L	10/21/20 10:41	10/26/20 20:31	1	
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L	10/21/20 10:41	10/27/20 19:02	1	
2,4-Dinitrophenol	ND		29	3.3	ug/L	10/21/20 10:41	10/26/20 20:31	1	
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L	10/21/20 10:41	10/26/20 20:31	1	
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Di-n-octyl phthalate	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 20:31	1	
1,4-Dioxane	ND		9.6	0.96	ug/L	10/21/20 10:41	10/26/20 20:31	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Hexachlorobenzene	ND		9.6	0.16	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Hexachlorocyclopentadiene	ND		19	2.5	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Hexachloroethane	ND		9.6	4.0	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Indene	ND		9.6	0.96	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Isophorone	ND		9.6	0.13	ug/L	10/21/20 10:41	10/26/20 20:31	1	
2-Methylphenol	ND		9.6	1.7	ug/L	10/21/20 10:41	10/26/20 20:31	1	
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/21/20 10:41	10/26/20 20:31	1	
2-Nitroaniline	ND		9.6	2.1	ug/L	10/21/20 10:41	10/26/20 20:31	1	
3-Nitroaniline	ND		9.6	1.7	ug/L	10/21/20 10:41	10/26/20 20:31	1	
4-Nitroaniline	ND		9.6	1.4	ug/L	10/21/20 10:41	10/26/20 20:31	1	
Nitrobenzene	ND		9.6	0.12	ug/L	10/21/20 10:41	10/26/20 20:31	1	
2-Nitrophenol	ND		9.6	5.0	ug/L	10/21/20 10:41	10/26/20 20:31	1	
4-Nitrophenol	ND		9.6	2.0	ug/L	10/21/20 10:41	10/26/20 20:31	1	
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L	10/21/20 10:41	10/26/20 20:31	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: ROST4PZG-ROX-101620-EB

Lab Sample ID: 400-194608-6

Date Collected: 10/16/20 11:50

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		10/21/20 10:41	10/26/20 20:31	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		10/21/20 10:41	10/26/20 20:31	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 20:31	1
Phenol	ND		9.6	2.5	ug/L		10/21/20 10:41	10/26/20 20:31	1
Pyridine	ND		9.6	3.1	ug/L		10/21/20 10:41	10/26/20 20:31	1
Quinoline	ND		9.6	4.3	ug/L		10/21/20 10:41	10/26/20 20:31	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		10/21/20 10:41	10/26/20 20:31	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		10/21/20 10:41	10/26/20 20:31	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl		49		46 - 124			10/21/20 10:41	10/27/20 19:02	1
2-Fluorophenol		5 X		13 - 113			10/21/20 10:41	10/27/20 19:02	1
Nitrobenzene-d5		72		36 - 126			10/21/20 10:41	10/27/20 19:02	1
Phenol-d5		22		17 - 127			10/21/20 10:41	10/27/20 19:02	1
Terphenyl-d14		74		44 - 149			10/21/20 10:41	10/27/20 19:02	1
2,4,6-Tribromophenol		34		26 - 150			10/21/20 10:41	10/27/20 19:02	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.0054	ug/L		10/20/20 11:05	10/20/20 20:17	1
1,2-Dibromoethane	ND		0.019	0.0049	ug/L		10/20/20 11:05	10/20/20 20:17	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene		112		51 - 149			10/20/20 11:05	10/20/20 20:17	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: ROST4PZG-ROX-101620

Lab Sample ID: 400-194608-7

Date Collected: 10/16/20 12:15

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/27/20 13:08	1
Acrolein	ND		20	10	ug/L			10/27/20 13:08	1
Acrylonitrile	ND		10	2.8	ug/L			10/27/20 13:08	1
Benzene	1.8		1.0	0.38	ug/L			10/27/20 13:08	1
Bromobenzene	ND		1.0	0.54	ug/L			10/27/20 13:08	1
Bromochloromethane	ND		1.0	0.52	ug/L			10/27/20 13:08	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/27/20 13:08	1
Bromoform	ND		5.0	0.71	ug/L			10/27/20 13:08	1
Bromomethane	ND		1.0	0.98	ug/L			10/27/20 13:08	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/27/20 13:08	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/27/20 13:08	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/27/20 13:08	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/27/20 13:08	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/27/20 13:08	1
Chloroethane	ND		1.0	0.76	ug/L			10/27/20 13:08	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/27/20 13:08	1
Chloroform	ND		1.0	0.60	ug/L			10/27/20 13:08	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/27/20 13:08	1
Chloromethane	ND		1.0	0.83	ug/L			10/27/20 13:08	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 13:08	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 13:08	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/27/20 13:08	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/27/20 13:08	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/27/20 13:08	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/27/20 13:08	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 13:08	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 13:08	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 13:08	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 13:08	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 13:08	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 13:08	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/27/20 13:08	1
Ethylbenzene	5.6		1.0	0.50	ug/L			10/27/20 13:08	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/27/20 13:08	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/27/20 13:08	1
2-Hexanone	ND		25	3.1	ug/L			10/27/20 13:08	1
Isopropylbenzene	5.1		1.0	0.53	ug/L			10/27/20 13:08	1
Methylene bromide	ND		5.0	0.59	ug/L			10/27/20 13:08	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/27/20 13:08	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/27/20 13:08	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/27/20 13:08	1
m-Xylene & p-Xylene	8.9		5.0	1.6	ug/L			10/27/20 13:08	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/27/20 13:08	1
N-Propylbenzene	7.9		1.0	0.69	ug/L			10/27/20 13:08	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/27/20 13:08	1
o-Xylene	1.0 J		5.0	0.60	ug/L			10/27/20 13:08	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/27/20 13:08	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/27/20 13:08	1
sec-Butylbenzene	0.78 J		1.0	0.70	ug/L			10/27/20 13:08	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: ROST4PZG-ROX-101620

Lab Sample ID: 400-194608-7

Date Collected: 10/16/20 12:15

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			10/27/20 13:08	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/27/20 13:08	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/27/20 13:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/27/20 13:08	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/27/20 13:08	1
Toluene	2.4		1.0	0.41	ug/L			10/27/20 13:08	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 13:08	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 13:08	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/27/20 13:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/27/20 13:08	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/27/20 13:08	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/27/20 13:08	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/27/20 13:08	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/27/20 13:08	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/27/20 13:08	1
1,2,4-Trimethylbenzene	2.2		1.0	0.82	ug/L			10/27/20 13:08	1
1,3,5-Trimethylbenzene	1.6		1.0	0.56	ug/L			10/27/20 13:08	1
Vinyl acetate	ND		25	2.0	ug/L			10/27/20 13:08	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/27/20 13:08	1
Xylenes, Total	10		10	1.6	ug/L			10/27/20 13:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		78 - 118		10/27/20 13:08	1
Dibromofluoromethane	91		81 - 121		10/27/20 13:08	1
Toluene-d8 (Surr)	112		80 - 120		10/27/20 13:08	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	1.0	ug/L			10/29/20 16:27	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	100		78 - 118		10/29/20 16:27	1			
Dibromofluoromethane	105		81 - 121		10/29/20 16:27	1			
Toluene-d8 (Surr)	101		80 - 120		10/29/20 16:27	1			

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/27/20 20:14	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/21/20 10:41	10/27/20 20:14	1
Anthracene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/27/20 20:14	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/21/20 10:41	10/27/20 20:14	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/21/20 10:41	10/27/20 20:14	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/21/20 10:41	10/27/20 20:14	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/21/20 10:41	10/27/20 20:14	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		10/21/20 10:41	10/27/20 20:14	1
Chrysene	ND		0.19	0.070	ug/L		10/21/20 10:41	10/27/20 20:14	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/21/20 10:41	10/27/20 20:14	1
Fluoranthene	ND		0.19	0.064	ug/L		10/21/20 10:41	10/27/20 20:14	1
Fluorene	ND		0.19	0.10	ug/L		10/21/20 10:41	10/27/20 20:14	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/21/20 10:41	10/27/20 20:14	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: ROST4PZG-ROX-101620

Lab Sample ID: 400-194608-7

Date Collected: 10/16/20 12:15

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	ND		0.19	0.070	ug/L		10/21/20 10:41	10/27/20 20:14	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		10/21/20 10:41	10/27/20 20:14	1
Phenanthrene	ND		0.19	0.034	ug/L		10/21/20 10:41	10/27/20 20:14	1
Pyrene	ND		0.19	0.038	ug/L		10/21/20 10:41	10/27/20 20:14	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	58			15-122			10/21/20 10:41	10/27/20 20:14	1
Nitrobenzene-d5	66			19-130			10/21/20 10:41	10/27/20 20:14	1
Terphenyl-d14	37			33-138			10/21/20 10:41	10/27/20 20:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	UJ	9.5	3.6	ug/L		10/21/20 10:41	10/26/20 20:52	1
Benzenethiol	ND	**1 UJ	9.5	1.6	ug/L		10/21/20 10:41	10/26/20 20:52	1
Benzoic acid	ND		28	6.9	ug/L		10/21/20 10:41	10/26/20 20:52	1
Benzyl alcohol	ND	UJ	9.5	1.9	ug/L		10/21/20 10:41	10/26/20 20:52	1
Bis(2-chloroethoxy)methane	ND	UJ	9.5	0.15	ug/L		10/21/20 10:41	10/26/20 20:52	1
Bis(2-chloroethyl)ether	ND	UJ	9.5	2.6	ug/L		10/21/20 10:41	10/26/20 20:52	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/21/20 10:41	10/26/20 20:52	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		10/21/20 10:41	10/26/20 20:52	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/21/20 10:41	10/26/20 20:52	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/21/20 10:41	10/26/20 20:52	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/21/20 10:41	10/26/20 20:52	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/21/20 10:41	10/26/20 20:52	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/21/20 10:41	10/26/20 20:52	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/21/20 10:41	10/26/20 20:52	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/21/20 10:41	10/26/20 20:52	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/21/20 10:41	10/26/20 20:52	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/21/20 10:41	10/26/20 20:52	1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L		10/21/20 10:41	10/26/20 20:52	1
2,4-Dichlorophenol	ND		9.5	2.8	ug/L		10/21/20 10:41	10/26/20 20:52	1
Diethyl phthalate	ND		9.5	0.23	ug/L		10/21/20 10:41	10/26/20 20:52	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 20:52	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/21/20 10:41	10/26/20 20:52	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/21/20 10:41	10/26/20 20:52	1
4,6-Dinitro-ortho-cresol	ND	UJ	9.5	1.5	ug/L		10/21/20 10:41	10/27/20 19:26	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/21/20 10:41	10/26/20 20:52	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/21/20 10:41	10/26/20 20:52	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/21/20 10:41	10/26/20 20:52	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/21/20 10:41	10/26/20 20:52	1
1,4-Dioxane	ND	UJ	9.5	0.95	ug/L		10/21/20 10:41	10/26/20 20:52	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	UJ	9.5	0.95	ug/L		10/21/20 10:41	10/26/20 20:52	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/21/20 10:41	10/26/20 20:52	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		10/21/20 10:41	10/26/20 20:52	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/21/20 10:41	10/26/20 20:52	1
Indene	ND		9.5	0.95	ug/L		10/21/20 10:41	10/26/20 20:52	1
Isophorone	ND	UJ	9.5	0.13	ug/L		10/21/20 10:41	10/26/20 20:52	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/21/20 10:41	10/26/20 20:52	1
3 & 4 Methylphenol	34		19	0.37	ug/L		10/21/20 10:41	10/26/20 20:52	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: ROST4PZG-ROX-101620

Lab Sample ID: 400-194608-7

Date Collected: 10/16/20 12:15

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.5	2.1	ug/L		10/21/20 10:41	10/26/20 20:52	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/21/20 10:41	10/26/20 20:52	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/21/20 10:41	10/26/20 20:52	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/21/20 10:41	10/26/20 20:52	1
2-Nitrophenol	ND		9.5	4.9	ug/L		10/21/20 10:41	10/26/20 20:52	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/21/20 10:41	10/26/20 20:52	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 20:52	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/21/20 10:41	10/26/20 20:52	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/21/20 10:41	10/26/20 20:52	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 10:41	10/26/20 20:52	1
Phenol	ND	WT	9.5	2.5	ug/L		10/21/20 10:41	10/26/20 20:52	1
Pyridine	ND	WT	9.5	3.0	ug/L		10/21/20 10:41	10/26/20 20:52	1
Quinoline	ND	WT	9.5	4.3	ug/L		10/21/20 10:41	10/26/20 20:52	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/21/20 10:41	10/26/20 20:52	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/21/20 10:41	10/26/20 20:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	49		46 - 124		10/21/20 10:41	10/27/20 19:26
2-Fluorophenol	16		13 - 113		10/21/20 10:41	10/27/20 19:26
Nitrobenzene-d5	72		36 - 126		10/21/20 10:41	10/27/20 19:26
Phenol-d5	38		17 - 127		10/21/20 10:41	10/27/20 19:26
Terphenyl-d14	33 X		44 - 149		10/21/20 10:41	10/27/20 19:26
2,4,6-Tribromophenol	48		26 - 150		10/21/20 10:41	10/27/20 19:26

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.031	0.0058	ug/L		10/20/20 11:05	10/20/20 20:37	1
1,2-Dibromoethane	ND		0.021	0.0052	ug/L		10/20/20 11:05	10/20/20 20:37	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	116		51 - 149		10/20/20 11:05	10/20/20 20:37	1		

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: MW2-ROX-101620

Lab Sample ID: 400-194608-8

Date Collected: 10/16/20 13:05
Date Received: 10/17/20 09:12

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/27/20 13:31	1
Acrolein	ND		20	10	ug/L			10/27/20 13:31	1
Acrylonitrile	ND		10	2.8	ug/L			10/27/20 13:31	1
Benzene	3.5		1.0	0.38	ug/L			10/27/20 13:31	1
Bromobenzene	ND		1.0	0.54	ug/L			10/27/20 13:31	1
Bromo(chloromethane)	ND		1.0	0.52	ug/L			10/27/20 13:31	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/27/20 13:31	1
Bromoform	ND		5.0	0.71	ug/L			10/27/20 13:31	1
Bromomethane	ND		1.0	0.98	ug/L			10/27/20 13:31	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/27/20 13:31	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/27/20 13:31	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/27/20 13:31	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/27/20 13:31	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/27/20 13:31	1
Chloroethane	ND		1.0	0.76	ug/L			10/27/20 13:31	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/27/20 13:31	1
Chloroform	ND		1.0	0.60	ug/L			10/27/20 13:31	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/27/20 13:31	1
Chloromethane	ND		1.0	0.83	ug/L			10/27/20 13:31	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 13:31	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 13:31	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/27/20 13:31	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/27/20 13:31	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/27/20 13:31	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/27/20 13:31	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 13:31	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 13:31	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 13:31	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 13:31	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 13:31	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 13:31	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/27/20 13:31	1
Ethylbenzene	110		1.0	0.50	ug/L			10/27/20 13:31	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/27/20 13:31	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/27/20 13:31	1
2-Hexanone	ND		25	3.1	ug/L			10/27/20 13:31	1
Isopropylbenzene	74		1.0	0.53	ug/L			10/27/20 13:31	1
Methylene bromide	ND		5.0	0.59	ug/L			10/27/20 13:31	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/27/20 13:31	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/27/20 13:31	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/27/20 13:31	1
m-Xylene & p-Xylene	47		5.0	1.6	ug/L			10/27/20 13:31	1
Naphthalene	17		1.0	1.0	ug/L			10/27/20 13:31	1
N-Propylbenzene	140		1.0	0.69	ug/L			10/27/20 13:31	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/27/20 13:31	1
o-Xylene	6.1		5.0	0.60	ug/L			10/27/20 13:31	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/27/20 13:31	1
p-Isopropyltoluene	11		1.0	0.71	ug/L			10/27/20 13:31	1
sec-Butylbenzene	13		1.0	0.70	ug/L			10/27/20 13:31	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: MW2-ROX-101620

Lab Sample ID: 400-194608-8

Date Collected: 10/16/20 13:05

Matrix: Water

Date Received: 10/17/20 09:12

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L			10/27/20 13:31	1
tert-Butylbenzene	1.3		1.0	0.63	ug/L			10/27/20 13:31	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/27/20 13:31	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/27/20 13:31	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/27/20 13:31	1
Toluene	8.5		1.0	0.41	ug/L			10/27/20 13:31	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 13:31	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 13:31	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/27/20 13:31	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/27/20 13:31	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/27/20 13:31	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/27/20 13:31	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/27/20 13:31	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/27/20 13:31	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/27/20 13:31	1
1,2,4-Trimethylbenzene	16		1.0	0.82	ug/L			10/27/20 13:31	1
1,3,5-Tri(methylbenzene	35		1.0	0.56	ug/L			10/27/20 13:31	1
Vinyl acetate	ND		25	2.0	ug/L			10/27/20 13:31	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/27/20 13:31	1
Xylenes, Total	53		10	1.6	ug/L			10/27/20 13:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		78 - 118		10/27/20 13:31	1
Dibromofluoromethane	97		81 - 121		10/27/20 13:31	1
Toluene-d8 (Surr)	113		80 - 120		10/27/20 13:31	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	9.4		1.0	0.76	ug/L			10/29/20 17:41	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	102		78 - 118		10/29/20 17:41	1			
Dibromofluoromethane	104		81 - 121		10/29/20 17:41	1			
Toluene-d8 (Surr)	103		80 - 120		10/29/20 17:41	1			

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/27/20 20:31	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/21/20 10:41	10/27/20 20:31	1
Anthracene	ND		0.19	0.030	ug/L		10/21/20 10:41	10/27/20 20:31	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		10/21/20 10:41	10/27/20 20:31	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/21/20 10:41	10/27/20 20:31	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/21/20 10:41	10/27/20 20:31	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/21/20 10:41	10/27/20 20:31	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		10/21/20 10:41	10/27/20 20:31	1
Chrysene	ND		0.19	0.070	ug/L		10/21/20 10:41	10/27/20 20:31	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/21/20 10:41	10/27/20 20:31	1
Fluoranthene	ND		0.19	0.064	ug/L		10/21/20 10:41	10/27/20 20:31	1
Fluorene	ND		0.19	0.10	ug/L		10/21/20 10:41	10/27/20 20:31	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/21/20 10:41	10/27/20 20:31	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: MW2-ROX-101620
Date Collected: 10/16/20 13:05
Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-8
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	6.6		0.19	0.070	ug/L		10/21/20 10:41	10/27/20 20:31	1
2-Methylnaphthalene	5.2		0.19	0.057	ug/L		10/21/20 10:41	10/27/20 20:31	1
Phenanthrene	ND		0.19	0.034	ug/L		10/21/20 10:41	10/27/20 20:31	1
Pyrene	ND		0.19	0.038	ug/L		10/21/20 10:41	10/27/20 20:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	51		15 - 122				10/21/20 10:41	10/27/20 20:31	1
Nitrobenzene-d5	61		19 - 130				10/21/20 10:41	10/27/20 20:31	1
Terphenyl-d14	70		33 - 138				10/21/20 10:41	10/27/20 20:31	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	WS	9.4	3.6	ug/L		10/21/20 10:41	11/01/20 12:16	1
Benzenethiol	ND	**1 WS	9.4	1.6	ug/L		10/21/20 10:41	11/01/20 12:16	1
Benzoic acid	ND		28	6.9	ug/L		10/21/20 10:41	11/01/20 12:16	1
Benzyl alcohol	ND	WS	9.4	1.9	ug/L		10/21/20 10:41	11/01/20 12:16	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/21/20 10:41	11/01/20 12:16	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/21/20 10:41	11/01/20 12:16	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/21/20 10:41	11/01/20 12:16	1
Bis(2-ethylhexyl) phthalate	4.9 J		9.4	4.7	ug/L		10/21/20 10:41	11/01/20 12:16	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/21/20 10:41	11/01/20 12:16	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/21/20 10:41	11/01/20 12:16	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/21/20 10:41	11/01/20 12:16	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/21/20 10:41	11/01/20 12:16	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/21/20 10:41	11/01/20 12:16	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/21/20 10:41	11/01/20 12:16	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/21/20 10:41	11/01/20 12:16	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/21/20 10:41	11/01/20 12:16	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/21/20 10:41	11/01/20 12:16	1
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L		10/21/20 10:41	11/01/20 12:16	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/21/20 10:41	11/01/20 12:16	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/21/20 10:41	11/01/20 12:16	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/21/20 10:41	11/01/20 12:16	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/21/20 10:41	11/01/20 12:16	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/21/20 10:41	11/01/20 12:16	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		10/21/20 10:41	11/01/20 12:16	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/21/20 10:41	11/01/20 12:16	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/21/20 10:41	11/01/20 12:16	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/21/20 10:41	11/01/20 12:16	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/21/20 10:41	11/01/20 12:16	1
1,4-Dioxane	ND		9.4	0.94	ug/L		10/21/20 10:41	11/01/20 12:16	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/21/20 10:41	11/01/20 12:16	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		10/21/20 10:41	11/01/20 12:16	1
Hexachlorocyclopentadiene	ND	WS	19	2.5	ug/L		10/21/20 10:41	11/01/20 12:16	1
Hexachloroethane	ND		9.4	4.0	ug/L		10/21/20 10:41	11/01/20 12:16	1
Indene	ND		9.4	0.94	ug/L		10/21/20 10:41	11/01/20 12:16	1
Isophorone	ND		9.4	0.13	ug/L		10/21/20 10:41	11/01/20 12:16	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/21/20 10:41	11/01/20 12:16	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/21/20 10:41	11/01/20 12:16	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: MW2-ROX-101620
Date Collected: 10/16/20 13:05
Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-8
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	ND		9.4	2.1	ug/L	10/21/20	10:41	11/01/20 12:16	1
3-Nitroaniline	ND		9.4	1.7	ug/L	10/21/20	10:41	11/01/20 12:16	1
4-Nitroaniline	ND		9.4	1.4	ug/L	10/21/20	10:41	11/01/20 12:16	1
Nitrobenzene	ND		9.4	0.12	ug/L	10/21/20	10:41	11/01/20 12:16	1
2-Nitrophenol	ND		9.4	4.8	ug/L	10/21/20	10:41	11/01/20 12:16	1
4-Nitrophenol	ND	WT	9.4	2.0	ug/L	10/21/20	10:41	11/01/20 12:16	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L	10/21/20	10:41	11/01/20 12:16	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L	10/21/20	10:41	11/01/20 12:16	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L	10/21/20	10:41	11/01/20 12:16	1
Pentachlorophenol	ND		19	1.3	ug/L	10/21/20	10:41	11/01/20 12:16	1
Phenol	ND		9.4	2.5	ug/L	10/21/20	10:41	11/01/20 12:16	1
Pyridine	ND	WT	9.4	3.0	ug/L	10/21/20	10:41	11/01/20 12:16	1
Quinoline	ND		9.4	4.2	ug/L	10/21/20	10:41	11/01/20 12:16	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L	10/21/20	10:41	11/01/20 12:16	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L	10/21/20	10:41	11/01/20 12:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	59		46 - 124				10/21/20 10:41	11/01/20 12:16	1
2-Fluorophenol	18		13 - 113				10/21/20 10:41	11/01/20 12:16	1
Nitrobenzene-d5	62		36 - 126				10/21/20 10:41	11/01/20 12:16	1
Phenol-d5	44		17 - 127				10/21/20 10:41	11/01/20 12:16	1
Terphenyl-d14	77		44 - 149				10/21/20 10:41	11/01/20 12:16	1
2,4,6-Tribromophenol	62		26 - 150				10/21/20 10:41	11/01/20 12:16	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.0054	ug/L	10/20/20	11:05	10/20/20 20:57	1
1,2-Dibromoethane	ND		0.020	0.0049	ug/L	10/20/20	11:05	10/20/20 20:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		51 - 149				10/20/20 11:05	10/20/20 20:57	1

Eurofins TestAmerica, Pensacola

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
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 or LCSD is outside acceptance limits.
*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.
X	Surrogate recovery exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
d	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: 400-194608-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194608-1	TB-ROX-101620-8260	98	93	111
400-194608-3	MW14-ROX-101620	98	95	113
400-194608-3 MS	MW14-ROX-101620	100	91	112
400-194608-3 MSD	MW14-ROX-101620	100	93	113
400-194608-4	P66-ROX-101620	94	99	111
400-194608-4 - RA	P66-ROX-101620	97	104	101
400-194608-5	P66-ROX-101620-DUP	97	96	113
400-194608-5 - RA	P66-ROX-101620-DUP	98	104	102
400-194608-6	ROST4PZG-ROX-101620-EB	96	95	111
400-194608-7	ROST4PZG-ROX-101620	98	91	112
400-194608-7 - RA	ROST4PZG-ROX-101620	100	105	101
400-194608-8	MW2-ROX-101620	101	97	113
400-194608-8 - RA	MW2-ROX-101620	102	104	103
LCS 400-508257/1002	Lab Control Sample	100	93	113
LCS 400-508560/1002	Lab Control Sample	94	115	90
MB 400-508257/4	Method Blank	94	92	112
MB 400-508560/4	Method Blank	95	112	91

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Sur)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194608-3	MW14-ROX-101620	43 X	7 X	63	24	68	35
400-194608-4	P66-ROX-101620	43 X	9 X	80	31	59	45
400-194608-5	P66-ROX-101620-DUP	41 X	9 X	58	27	50	41
400-194608-6	ROST4PZG-ROX-101620-EB	49	5 X	72	22	74	34
400-194608-7	ROST4PZG-ROX-101620	49	16	72	38	33 X	48
400-194608-8	MW2-ROX-101620	59	18	62	44	77	62
LCS 400-507618/2-A	Lab Control Sample	57	25	56	42	79	89
LCS 400-507618/3-A	Lab Control Sample	57	21	57	41	87	87
LCSD 400-507618/4-A	Lab Control Sample Dup	55	5 X	55	23	77	32
MB 400-507618/1-A	Method Blank	58	17	59	36	85	88

Surrogate Legend

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

PHL = Phenol-d5

TPHL = Terphenyl-d14

TBP = 2,4,6-Tribromophenol

Eurofins TestAmerica, Pensacola

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194608-3	MW14-ROX-101620	58	60	69
400-194608-4	P66-ROX-101620	51	51	66
400-194608-5	P66-ROX-101620-DUP	44	49	48
400-194608-6	ROST4PZG-ROX-101620-EB	63	63	80
400-194608-7	ROST4PZG-ROX-101620	58	66	37
400-194608-8	MW2-ROX-101620	51	61	70
LCS 400-507618/2-A	Lab Control Sample	85	96	98
MB 400-507618/1-A	Method Blank	32	39	41

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB2 (51-149)	
400-194608-2	TB-ROX-101620-8011	119	
400-194608-3	MW14-ROX-101620	116	
400-194608-4	P66-ROX-101620	107	
400-194608-5	P66-ROX-101620-DUP	105	
400-194608-6	ROST4PZG-ROX-101620-EB	112	
400-194608-7	ROST4PZG-ROX-101620	116	
400-194608-8	MW2-ROX-101620	101	
LCS 400-507450/2-A	Lab Control Sample	116	
LCSD 400-507450/3-A	Lab Control Sample Dup	112	
MB 400-507450/1-A	Method Blank	104	

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, 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: 400-194608-1

Client Sample ID: TB-ROX-101620-8260

Lab Sample ID: 400-194608-1

Date Collected: 10/16/20 00:00

Matrix: Water

Date Received: 10/17/20 09:12

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	508257	10/27/20 11:34	WPD	TAL PEN

Client Sample ID: TB-ROX-101620-8011

Lab Sample ID: 400-194608-2

Date Collected: 10/16/20 00:00

Matrix: Water

Date Received: 10/17/20 09:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			34.9 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 18:57	DHJ	TAL PEN

Client Sample ID: MW14-ROX-101620

Lab Sample ID: 400-194608-3

Date Collected: 10/16/20 09:40

Matrix: Water

Date Received: 10/17/20 09:12

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	508257	10/27/20 11:59	WPD	TAL PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508355	10/27/20 17:49	S1B	TAL PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508132	10/26/20 19:26	VC1	TAL PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 19:03	KJA	TAL PEN
Total/NA	Prep	8011			35.1 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 19:17	DHJ	TAL PEN

Client Sample ID: P66-ROX-101620

Lab Sample ID: 400-194608-4

Date Collected: 10/16/20 10:20

Matrix: Water

Date Received: 10/17/20 09:12

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	508560	10/29/20 16:53	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	508257	10/27/20 12:22	WPD	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508355	10/27/20 18:13	S1B	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508132	10/26/20 19:48	VC1	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 19:21	KJA	TAL PEN
Total/NA	Prep	8011			34.3 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 19:37	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: P66-ROX-101620-DUP

Date Collected: 10/16/20 10:20

Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-5

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	RA	1	5 mL	5 mL	508560	10/29/20 17:17	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	508257	10/27/20 12:45	WPD	TAL PEN
Total/NA	Prep	3520C			264.6 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508355	10/27/20 18:37	S1B	TAL PEN
Total/NA	Prep	3520C			264.6 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508132	10/26/20 20:09	VC1	TAL PEN
Total/NA	Prep	3520C			264.6 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 19:38	KJA	TAL PEN
Total/NA	Prep	8011			35.3 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 19:57	DHJ	TAL PEN

Client Sample ID: ROST4PZG-ROX-101620-EB

Date Collected: 10/16/20 11:50

Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	508257	10/27/20 11:10	WPD	TAL PEN
Total/NA	Prep	3520C			260.8 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508355	10/27/20 19:02	S1B	TAL PEN
Total/NA	Prep	3520C			260.8 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508132	10/26/20 20:31	VC1	TAL PEN
Total/NA	Prep	3520C			260.8 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 19:56	KJA	TAL PEN
Total/NA	Prep	8011			35.9 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 20:17	DHJ	TAL PEN

Client Sample ID: ROST4PZG-ROX-101620

Date Collected: 10/16/20 12:15

Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	RA	1	5 mL	5 mL	508560	10/29/20 16:27	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	508257	10/27/20 13:08	WPD	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508355	10/27/20 19:26	S1B	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508132	10/26/20 20:52	VC1	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 20:14	KJA	TAL PEN
Total/NA	Prep	8011			33.4 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 20:37	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: MW2-ROX-101620

Lab Sample ID: 400-194608-8

Date Collected: 10/16/20 13:05

Matrix: Water

Date Received: 10/17/20 09:12

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	508560	10/29/20 17:41	WPD	TAL PEN
Total/NA	Analysis	8260B		1	5 mL	5 mL	508257	10/27/20 13:31	WPD	TAL PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508916	11/01/20 12:16	S1B	TAL PEN
Total/NA	Prep	3520C			265.2 mL	1 mL	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 20:31	KJA	TAL PEN
Total/NA	Prep	8011			35.8 mL	35 mL	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 20:57	DHJ	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-507450/1-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	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 14:56	DHJ	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-507618/1-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 19:13	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508212	10/26/20 19:55	PP1	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-508257/4

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	508257	10/27/20 10:20	WPD	TAL PEN

Client Sample ID: Method Blank

Lab Sample ID: MB 400-508560/4

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	508560	10/29/20 10:17	WPD	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 400-507450/2-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	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 15:16	DHJ	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 400-507618/2-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 20:31	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			508212	10/26/20 20:13	PP1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 400-507618/3-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 19:39	VC1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 400-508257/1002

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	508257	10/27/20 09:24	WPD	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 400-508560/1002

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	508560	10/29/20 09:26	WPD	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCSD 400-507450/3-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	507450	10/20/20 11:05	DHJ	TAL PEN
Total/NA	Analysis	8011		1			507451	10/20/20 15:36	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-507618/4-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	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 20:05	VC1	TAL PEN

Client Sample ID: MW14-ROX-101620

Date Collected: 10/16/20 09:40
Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-3 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	508257	10/27/20 15:10	WPD	TAL PEN

Client Sample ID: MW14-ROX-101620

Date Collected: 10/16/20 09:40
Date Received: 10/17/20 09:12

Lab Sample ID: 400-194608-3 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	508257	10/27/20 15:33	WPD	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

GC/MS VOA

Analysis Batch: 508257

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194608-1	TB-ROX-101620-8260	Total/NA	Water	8260B	
400-194608-3	MW14-ROX-101620	Total/NA	Water	8260B	
400-194608-4	P66-ROX-101620	Total/NA	Water	8260B	
400-194608-5	P66-ROX-101620-DUP	Total/NA	Water	8260B	
400-194608-6	ROST4PZG-ROX-101620-EB	Total/NA	Water	8260B	
400-194608-7	ROST4PZG-ROX-101620	Total/NA	Water	8260B	
400-194608-8	MW2-ROX-101620	Total/NA	Water	8260B	
MB 400-508257/4	Method Blank	Total/NA	Water	8260B	
LCS 400-508257/1002	Lab Control Sample	Total/NA	Water	8260B	
400-194608-3 MS	MW14-ROX-101620	Total/NA	Water	8260B	
400-194608-3 MSD	MW14-ROX-101620	Total/NA	Water	8260B	

Analysis Batch: 508560

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194608-4 - RA	P66-ROX-101620	Total/NA	Water	8260B	
400-194608-5 - RA	P66-ROX-101620-DUP	Total/NA	Water	8260B	
400-194608-7 - RA	ROST4PZG-ROX-101620	Total/NA	Water	8260B	
400-194608-8 - RA	MW2-ROX-101620	Total/NA	Water	8260B	
MB 400-508560/4	Method Blank	Total/NA	Water	8260B	
LCS 400-508560/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 507618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194608-3	MW14-ROX-101620	Total/NA	Water	3520C	
400-194608-4	P66-ROX-101620	Total/NA	Water	3520C	
400-194608-5	P66-ROX-101620-DUP	Total/NA	Water	3520C	
400-194608-6	ROST4PZG-ROX-101620-EB	Total/NA	Water	3520C	
400-194608-7	ROST4PZG-ROX-101620	Total/NA	Water	3520C	
400-194608-8	MW2-ROX-101620	Total/NA	Water	3520C	
MB 400-507618/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-507618/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-507618/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 508112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-507618/1-A	Method Blank	Total/NA	Water	8270D	507618
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	8270D	507618
LCS 400-507618/3-A	Lab Control Sample	Total/NA	Water	8270D	507618
LCSD 400-507618/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	507618

Analysis Batch: 508132

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194608-3	MW14-ROX-101620	Total/NA	Water	8270D	507618
400-194608-4	P66-ROX-101620	Total/NA	Water	8270D	507618
400-194608-5	P66-ROX-101620-DUP	Total/NA	Water	8270D	507618
400-194608-6	ROST4PZG-ROX-101620-EB	Total/NA	Water	8270D	507618
400-194608-7	ROST4PZG-ROX-101620	Total/NA	Water	8270D	507618

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

GC/MS Semi VOA

Analysis Batch: 508212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-507618/1-A	Method Blank	Total/NA	Water	8270D LL	507618
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	8270D LL	507618

Analysis Batch: 508355

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194608-3	MW14-ROX-101620	Total/NA	Water	8270D	507618
400-194608-4	P66-ROX-101620	Total/NA	Water	8270D	507618
400-194608-5	P66-ROX-101620-DUP	Total/NA	Water	8270D	507618
400-194608-6	ROST4PZG-ROX-101620-EB	Total/NA	Water	8270D	507618
400-194608-7	ROST4PZG-ROX-101620	Total/NA	Water	8270D	507618

Analysis Batch: 508361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194608-3	MW14-ROX-101620	Total/NA	Water	8270D LL	507618
400-194608-4	P66-ROX-101620	Total/NA	Water	8270D LL	507618
400-194608-5	P66-ROX-101620-DUP	Total/NA	Water	8270D LL	507618
400-194608-6	ROST4PZG-ROX-101620-EB	Total/NA	Water	8270D LL	507618
400-194608-7	ROST4PZG-ROX-101620	Total/NA	Water	8270D LL	507618
400-194608-8	MW2-ROX-101620	Total/NA	Water	8270D LL	507618

Analysis Batch: 508916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194608-8	MW2-ROX-101620	Total/NA	Water	8270D	507618

GC Semi VOA

Prep Batch: 507450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194608-2	TB-ROX-101620-8011	Total/NA	Water	8011	
400-194608-3	MW14-ROX-101620	Total/NA	Water	8011	
400-194608-4	P66-ROX-101620	Total/NA	Water	8011	
400-194608-5	P66-ROX-101620-DUP	Total/NA	Water	8011	
400-194608-6	ROST4PZG-ROX-101620-EB	Total/NA	Water	8011	
400-194608-7	ROST4PZG-ROX-101620	Total/NA	Water	8011	
400-194608-8	MW2-ROX-101620	Total/NA	Water	8011	
MB 400-507450/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-507450/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-507450/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 507451

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194608-2	TB-ROX-101620-8011	Total/NA	Water	8011	507450
400-194608-3	MW14-ROX-101620	Total/NA	Water	8011	507450
400-194608-4	P66-ROX-101620	Total/NA	Water	8011	507450
400-194608-5	P66-ROX-101620-DUP	Total/NA	Water	8011	507450
400-194608-6	ROST4PZG-ROX-101620-EB	Total/NA	Water	8011	507450
400-194608-7	ROST4PZG-ROX-101620	Total/NA	Water	8011	507450
400-194608-8	MW2-ROX-101620	Total/NA	Water	8011	507450
MB 400-507450/1-A	Method Blank	Total/NA	Water	8011	507450
LCS 400-507450/2-A	Lab Control Sample	Total/NA	Water	8011	507450
LCSD 400-507450/3-A	Lab Control Sample Dup	Total/NA	Water	8011	507450

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-508257/4

Matrix: Water

Analysis Batch: 508257

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			10/27/20 10:20	1
Acrolein	ND		20	10	ug/L			10/27/20 10:20	1
Acrylonitrile	ND		10	2.8	ug/L			10/27/20 10:20	1
Benzene	ND		1.0	0.38	ug/L			10/27/20 10:20	1
Bromobenzene	ND		1.0	0.54	ug/L			10/27/20 10:20	1
Bromo(chloromethane)	ND		1.0	0.52	ug/L			10/27/20 10:20	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/27/20 10:20	1
Bromoform	ND		5.0	0.71	ug/L			10/27/20 10:20	1
Bromomethane	ND		1.0	0.98	ug/L			10/27/20 10:20	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/27/20 10:20	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/27/20 10:20	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/27/20 10:20	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/27/20 10:20	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/27/20 10:20	1
Chloroethane	ND		1.0	0.76	ug/L			10/27/20 10:20	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/27/20 10:20	1
Chloroform	ND		1.0	0.60	ug/L			10/27/20 10:20	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/27/20 10:20	1
Chloromethane	ND		1.0	0.83	ug/L			10/27/20 10:20	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 10:20	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/27/20 10:20	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/27/20 10:20	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/27/20 10:20	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/27/20 10:20	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/27/20 10:20	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 10:20	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/27/20 10:20	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/27/20 10:20	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 10:20	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 10:20	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/27/20 10:20	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/27/20 10:20	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/27/20 10:20	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/27/20 10:20	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/27/20 10:20	1
2-Hexanone	ND		25	3.1	ug/L			10/27/20 10:20	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/27/20 10:20	1
Methylene bromide	ND		5.0	0.59	ug/L			10/27/20 10:20	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/27/20 10:20	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/27/20 10:20	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/27/20 10:20	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/27/20 10:20	1
Naphthalene	ND		1.0	1.0	ug/L			10/27/20 10:20	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/27/20 10:20	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/27/20 10:20	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/27/20 10:20	1
o-Xylene	ND		5.0	0.60	ug/L			10/27/20 10:20	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/27/20 10:20	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-508257/4

Matrix: Water

Analysis Batch: 508257

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene		ND			1.0	0.71	ug/L			10/27/20 10:20	1
sec-Butylbenzene		ND			1.0	0.70	ug/L			10/27/20 10:20	1
Styrene		ND			1.0	1.0	ug/L			10/27/20 10:20	1
tert-Butylbenzene		ND			1.0	0.63	ug/L			10/27/20 10:20	1
1,1,1,2-Tetrachloroethane		ND			1.0	0.52	ug/L			10/27/20 10:20	1
1,1,2,2-Tetrachloroethane		ND			1.0	0.50	ug/L			10/27/20 10:20	1
Tetrachloroethylene		ND			1.0	0.58	ug/L			10/27/20 10:20	1
Toluene		ND			1.0	0.41	ug/L			10/27/20 10:20	1
trans-1,2-Dichloroethene		ND			1.0	0.50	ug/L			10/27/20 10:20	1
trans-1,3-Dichloropropene		ND			5.0	0.50	ug/L			10/27/20 10:20	1
1,2,3-Trichlorobenzene		ND			1.0	0.70	ug/L			10/27/20 10:20	1
1,2,4-Trichlorobenzene		ND			1.0	0.82	ug/L			10/27/20 10:20	1
1,1,1-Trichloroethane		ND			1.0	0.50	ug/L			10/27/20 10:20	1
1,1,2-Trichloroethane		ND			5.0	0.50	ug/L			10/27/20 10:20	1
Trichloroethylene		ND			1.0	0.50	ug/L			10/27/20 10:20	1
Trichlorofluoromethane		ND			1.0	0.52	ug/L			10/27/20 10:20	1
1,2,3-Trichloropropane		ND			5.0	0.84	ug/L			10/27/20 10:20	1
1,2,4-Trimethylbenzene		ND			1.0	0.82	ug/L			10/27/20 10:20	1
1,3,5-Trimethylbenzene		ND			1.0	0.56	ug/L			10/27/20 10:20	1
Vinyl acetate		ND			25	2.0	ug/L			10/27/20 10:20	1
Vinyl chloride		ND			1.0	0.50	ug/L			10/27/20 10:20	1
Xylenes, Total		ND			10	1.6	ug/L			10/27/20 10:20	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene		94			78 - 118		10/27/20 10:20	1
Dibromofluoromethane		92			81 - 121		10/27/20 10:20	1
Toluene-d8 (Surr)		112			80 - 120		10/27/20 10:20	1

Lab Sample ID: LCS 400-508257/1002

Matrix: Water

Analysis Batch: 508257

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS				%Rec.	
	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acetone	200	226		ug/L		113	43 - 160
Acrolein	500	459		ug/L		92	38 - 160
Acrylonitrile	500	449		ug/L		90	64 - 142
Benzene	50.0	47.3		ug/L		95	70 - 130
Bromobenzene	50.0	52.1		ug/L		104	70 - 132
Bromochloromethane	50.0	42.9		ug/L		86	70 - 130
Bromodichloromethane	50.0	45.7		ug/L		91	67 - 133
Bromoform	50.0	48.6		ug/L		97	57 - 140
Bromomethane	50.0	45.0		ug/L		90	10 - 160
2-Butanone (MEK)	200	226		ug/L		113	61 - 145
Carbon disulfide	50.0	40.2		ug/L		80	61 - 137
Carbon tetrachloride	50.0	39.4		ug/L		79	61 - 137
Chlorobenzene	50.0	54.9		ug/L		110	70 - 130
Dibromochloromethane	50.0	47.0		ug/L		94	67 - 135
Chloroethane	50.0	49.3		ug/L		99	55 - 141

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508257/1002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 508257

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloroethyl vinyl ether	50.0	23.0		ug/L		46	10 - 160
Chloroform	50.0	45.3		ug/L		91	69 - 130
1-Chlorohexane	50.0	58.7		ug/L		117	69 - 130
Chloromethane	50.0	39.7		ug/L		79	58 - 137
cis-1,2-Dichloroethene	50.0	45.7		ug/L		91	68 - 130
cis-1,3-Dichloropropene	50.0	52.4		ug/L		105	69 - 132
1,2-Dichlorobenzene	50.0	54.4		ug/L		109	67 - 130
1,3-Dichlorobenzene	50.0	55.2		ug/L		110	70 - 130
1,4-Dichlorobenzene	50.0	56.6		ug/L		113	70 - 130
Dichlorodifluoromethane	50.0	33.8		ug/L		68	41 - 146
1,1-Dichloroethane	50.0	47.1		ug/L		94	70 - 130
1,2-Dichloroethane	50.0	43.4		ug/L		87	69 - 130
1,1-Dichloroethene	50.0	41.6		ug/L		83	63 - 134
1,2-Dichloropropane	50.0	48.0		ug/L		96	70 - 130
1,3-Dichloropropane	50.0	59.0		ug/L		118	70 - 130
2,2-Dichloropropane	50.0	43.5		ug/L		87	52 - 135
1,1-Dichloropropene	50.0	47.6		ug/L		95	70 - 130
Ethylbenzene	50.0	55.6		ug/L		111	70 - 130
Ethyl methacrylate	50.0	60.5		ug/L		121	68 - 130
Hexachlorobutadiene	50.0	51.5		ug/L		103	53 - 140
2-Hexanone	200	245		ug/L		123	65 - 137
Isopropylbenzene	50.0	56.8		ug/L		114	70 - 130
Methylene bromide	50.0	45.1		ug/L		90	70 - 130
Methylene Chloride	50.0	44.9		ug/L		90	66 - 135
4-Methyl-2-pentanone (MIBK)	200	208		ug/L		104	69 - 138
Methyl tert-butyl ether	50.0	49.3		ug/L		99	66 - 130
m-Xylene & p-Xylene	50.0	54.8		ug/L		110	70 - 130
Naphthalene	50.0	53.6		ug/L		107	47 - 149
n-Butylbenzene	50.0	72.5 *		ug/L		145	67 - 130
N-Propylbenzene	50.0	58.0		ug/L		110	70 - 130
o-Chlorotoluene	50.0	59.3		ug/L		119	70 - 130
o-Xylene	50.0	54.2		ug/L		108	70 - 130
p-Chlorotoluene	50.0	57.3		ug/L		115	70 - 130
p-Isopropyltoluene	50.0	64.2		ug/L		128	65 - 130
sec-Butylbenzene	50.0	59.7		ug/L		119	66 - 130
Styrene	50.0	54.4		ug/L		109	70 - 130
tert-Butylbenzene	50.0	56.7		ug/L		113	64 - 139
1,1,1,2-Tetrachloroethane	50.0	51.4		ug/L		103	67 - 131
1,1,2,2-Tetrachloroethane	50.0	59.3		ug/L		119	70 - 131
Tetrachloroethene	50.0	47.8		ug/L		96	65 - 130
Toluene	50.0	53.7		ug/L		107	70 - 130
trans-1,2-Dichloroethene	50.0	44.5		ug/L		89	70 - 130
trans-1,3-Dichloropropene	50.0	58.2		ug/L		116	63 - 130
1,2,3-Trichlorobenzene	50.0	49.9		ug/L		100	60 - 138
1,2,4-Trichlorobenzene	50.0	52.0		ug/L		104	60 - 140
1,1,1-Trichloroethane	50.0	40.9		ug/L		82	68 - 130
1,1,2-Trichloroethane	50.0	56.1		ug/L		112	70 - 130
Trichloroethene	50.0	43.5		ug/L		87	70 - 130
Trichlorofluoromethane	50.0	42.8		ug/L		86	65 - 138

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508257/1002
Matrix: Water
Analysis Batch: 508257

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	53.6		ug/L		107	70 - 130
1,2,4-Trimethylbenzene	50.0	56.1		ug/L		112	70 - 130
1,3,5-Trimethylbenzene	50.0	55.3		ug/L		111	69 - 130
Vinyl acetate	100	113		ug/L		113	26 - 160
Vinyl chloride	50.0	45.3		ug/L		91	59 - 136
Xylenes, Total	100	109		ug/L		109	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	100		78 - 118				
Dibromofluoromethane	93		81 - 121				
Toluene-d8 (Surr)	113		80 - 120				

Lab Sample ID: 400-194608-3 MS
Matrix: Water
Analysis Batch: 508257

Client Sample ID: MW14-ROX-101620
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.
									Limits
Acetone	ND		200	213		ug/L		106	43 - 150
Acrolein	ND		500	401		ug/L		80	38 - 150
Acrylonitrile	ND		500	459		ug/L		92	62 - 149
Benzene	ND		50.0	49.1		ug/L		98	56 - 142
Bromobenzene	ND		50.0	52.4		ug/L		105	59 - 136
Bromochloromethane	ND		50.0	47.5		ug/L		95	64 - 140
Bromodichloromethane	ND		50.0	47.6		ug/L		95	59 - 143
Bromoform	ND		50.0	49.9		ug/L		100	50 - 140
Bromomethane	ND		50.0	48.6		ug/L		97	10 - 150
2-Butanone (MEK)	ND		200	220		ug/L		110	55 - 150
Carbon disulfide	ND		50.0	42.2		ug/L		84	48 - 150
Carbon tetrachloride	ND		50.0	41.3		ug/L		83	55 - 145
Chlorobenzene	ND		50.0	54.2		ug/L		108	64 - 130
Dibromochloromethane	ND		50.0	48.2		ug/L		96	56 - 143
Chloroethane	ND		50.0	42.5		ug/L		85	50 - 150
2-Chloroethyl vinyl ether	ND F1		50.0	ND F1		ug/L		0	10 - 150
Chloroform	ND		50.0	48.2		ug/L		96	60 - 141
1-Chlorohexane	ND		50.0	58.0		ug/L		116	56 - 136
Chloromethane	ND		50.0	33.6		ug/L		67	49 - 148
cis-1,2-Dichloroethene	ND		50.0	50.1		ug/L		100	59 - 143
cis-1,3-Dichloropropene	ND		50.0	53.3		ug/L		107	57 - 140
1,2-Dichlorobenzene	ND		50.0	53.7		ug/L		107	52 - 137
1,3-Dichlorobenzene	ND		50.0	54.2		ug/L		108	54 - 135
1,4-Dichlorobenzene	ND		50.0	54.4		ug/L		109	53 - 135
Dichlorodifluoromethane	ND		50.0	28.3		ug/L		57	16 - 150
1,1-Dichloroethane	ND		50.0	48.4		ug/L		97	61 - 144
1,2-Dichloroethane	ND		50.0	45.0		ug/L		90	60 - 141
1,1-Dichloroethene	ND		50.0	44.0		ug/L		88	54 - 147
1,2-Dichloropropane	ND		50.0	48.7		ug/L		97	66 - 137
1,3-Dichloropropane	ND		50.0	60.4		ug/L		121	66 - 133
2,2-Dichloropropane	ND		50.0	46.3		ug/L		93	42 - 144

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194608-3 MS

Client Sample ID: MW14-ROX-101620

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508257

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1-Dichloropropene	ND		50.0	49.7		ug/L	99	65 - 136	
Ethylbenzene	ND		50.0	55.6		ug/L	111	58 - 131	
Ethyl methacrylate	ND		50.0	61.5		ug/L	123	64 - 130	
Hexachlorobutadiene	ND		50.0	48.0		ug/L	96	31 - 149	
2-Hexanone	ND		200	249		ug/L	125	65 - 140	
Isopropylbenzene	ND		50.0	56.3		ug/L	113	56 - 133	
Methylene bromide	ND		50.0	47.3		ug/L	95	63 - 138	
Methylene Chloride	ND		50.0	48.5		ug/L	97	60 - 146	
4-Methyl-2-pentanone (MIBK)	ND		200	219		ug/L	110	63 - 146	
Methyl tert-butyl ether	ND		50.0	53.4		ug/L	107	59 - 137	
m-Xylene & p-Xylene	ND		50.0	55.7		ug/L	111	57 - 130	
Naphthalene	ND		50.0	53.4		ug/L	107	25 - 150	
n-Butylbenzene	ND		50.0	66.1		ug/L	132	41 - 142	
N-Propylbenzene	ND		50.0	58.6		ug/L	117	51 - 138	
o-Chlorotoluene	ND		50.0	56.2		ug/L	112	53 - 134	
o-Xylene	ND		50.0	54.3		ug/L	109	61 - 130	
p-Chlorotoluene	ND		50.0	57.2		ug/L	114	54 - 133	
p-Isopropyltoluene	ND		50.0	63.0		ug/L	126	48 - 139	
sec-Butylbenzene	ND		50.0	59.0		ug/L	118	50 - 138	
Styrene	ND		50.0	52.9		ug/L	106	58 - 131	
tert-Butylbenzene	ND		50.0	57.9		ug/L	116	54 - 146	
1,1,1,2-Tetrachloroethane	ND		50.0	52.2		ug/L	104	59 - 137	
1,1,2,2-Tetrachloroethane	ND		50.0	60.6		ug/L	121	66 - 135	
Tetrachloroethene	ND		50.0	46.5		ug/L	93	52 - 133	
Toluene	ND		50.0	54.4		ug/L	109	65 - 130	
trans-1,2-Dichloroethene	ND		50.0	47.1		ug/L	94	61 - 143	
trans-1,3-Dichloropropene	ND		50.0	58.1		ug/L	116	53 - 133	
1,2,3-Trichlorobenzene	ND		50.0	46.5		ug/L	93	43 - 145	
1,2,4-Trichlorobenzene	ND		50.0	48.4		ug/L	97	39 - 148	
1,1,1-Trichloroethane	ND		50.0	43.9		ug/L	88	57 - 142	
1,1,2-Trichloroethane	ND		50.0	55.7		ug/L	111	66 - 131	
Trichloroethene	ND		50.0	44.7		ug/L	89	64 - 136	
Trichlorofluoromethane	ND		50.0	38.0		ug/L	76	54 - 150	
1,2,3-Trichloropropane	ND		50.0	57.3		ug/L	115	65 - 133	
1,2,4-Trimethylbenzene	1.5		50.0	55.8		ug/L	109	50 - 139	
1,3,5-Trimethylbenzene	ND		50.0	56.0		ug/L	112	52 - 135	
Vinyl acetate	ND		100	106		ug/L	106	26 - 150	
Vinyl chloride	ND		50.0	39.3		ug/L	79	46 - 150	
Xylenes, Total	1.6	J	100	110		ug/L	110	59 - 130	
Surrogate		MS	MS						
		%Recovery	Qualifier	Limits					
4-Bromofluorobenzene		100		78 - 118					
Dibromofluoromethane		91		81 - 121					
Toluene-d8 (Sur)		112		80 - 120					

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194608-3 MSD

Client Sample ID: MW14-ROX-101620

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508257

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acetone	ND		200	215		ug/L	107	43 - 150	1	30	
Acrolein	ND		500	464		ug/L	93	38 - 150	15	31	
Acrylonitrile	ND		500	488		ug/L	98	62 - 149	6	30	
Benzene	ND		50.0	48.7		ug/L	97	56 - 142	1	30	
Bromobenzene	ND		50.0	51.0		ug/L	102	59 - 136	3	30	
Bromoform	ND		50.0	49.3		ug/L	99	64 - 140	4	30	
Bromodichloromethane	ND		50.0	46.3		ug/L	93	59 - 143	3	30	
Bromoform	ND		50.0	51.4		ug/L	103	50 - 140	3	30	
Bromomethane	ND		50.0	52.7		ug/L	105	10 - 150	8	50	
2-Butanone (MEK)	ND		200	226		ug/L	113	55 - 150	3	30	
Carbon disulfide	ND		50.0	42.2		ug/L	84	48 - 150	0	30	
Carbon tetrachloride	ND		50.0	40.6		ug/L	81	55 - 145	2	30	
Chlorobenzene	ND		50.0	52.7		ug/L	105	64 - 130	3	30	
Dibromochloromethane	ND		50.0	48.2		ug/L	96	56 - 143	0	30	
Chloroethane	ND		50.0	51.6		ug/L	103	50 - 150	19	30	
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L	0	10 - 150	NC	50	
Chloroform	ND		50.0	46.4		ug/L	93	60 - 141	4	30	
1-Chlorohexane	ND		50.0	55.2		ug/L	110	56 - 136	5	30	
Chloromethane	ND		50.0	37.7		ug/L	75	49 - 148	11	31	
cis-1,2-Dichloroethene	ND		50.0	48.0		ug/L	96	59 - 143	4	30	
cis-1,3-Dichloropropene	ND		50.0	53.0		ug/L	106	57 - 140	1	30	
1,2-Dichlorobenzene	ND		50.0	52.6		ug/L	105	52 - 137	2	30	
1,3-Dichlorobenzene	ND		50.0	52.3		ug/L	105	54 - 135	4	30	
1,4-Dichlorobenzene	ND		50.0	51.4		ug/L	103	53 - 135	6	30	
Dichlorodifluoromethane	ND		50.0	32.4		ug/L	65	16 - 150	14	31	
1,1-Dichloroethane	ND		50.0	49.1		ug/L	98	61 - 144	1	30	
1,2-Dichloroethane	ND		50.0	46.3		ug/L	93	60 - 141	3	30	
1,1-Dichloroethene	ND		50.0	42.8		ug/L	86	54 - 147	3	30	
1,2-Dichloropropane	ND		50.0	49.0		ug/L	98	66 - 137	1	30	
1,3-Dichloropropane	ND		50.0	61.3		ug/L	123	66 - 133	1	30	
2,2-Dichloropropane	ND		50.0	46.2		ug/L	92	42 - 144	0	31	
1,1-Dichloropropene	ND		50.0	48.2		ug/L	96	65 - 136	3	30	
Ethylbenzene	ND		50.0	53.9		ug/L	108	58 - 131	3	30	
Ethyl methacrylate	ND		50.0	63.1		ug/L	126	64 - 130	3	30	
Hexachlorobutadiene	ND		50.0	44.2		ug/L	88	31 - 149	8	36	
2-Hexanone	ND		200	261		ug/L	130	65 - 140	5	30	
Isopropylbenzene	ND		50.0	53.4		ug/L	107	56 - 133	5	30	
Methylene bromide	ND		50.0	48.8		ug/L	98	63 - 138	3	30	
Methylene Chloride	ND		50.0	47.5		ug/L	95	60 - 146	2	32	
4-Methyl-2-pentanone (MIBK)	ND		200	228		ug/L	114	63 - 146	4	30	
Methyl tert-butyl ether	ND		50.0	54.2		ug/L	108	59 - 137	2	30	
m-Xylene & p-Xylene	ND		50.0	52.6		ug/L	105	57 - 130	6	30	
Naphthalene	ND		50.0	55.8		ug/L	112	25 - 150	4	30	
n-Butylbenzene	ND		50.0	63.5		ug/L	127	41 - 142	4	31	
N-Propylbenzene	ND		50.0	55.8		ug/L	112	51 - 138	5	30	
o-Chlorotoluene	ND		50.0	55.4		ug/L	111	53 - 134	1	30	
o-Xylene	ND		50.0	52.0		ug/L	104	61 - 130	4	30	
p-Chlorotoluene	ND		50.0	54.8		ug/L	110	54 - 133	4	30	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194608-3 MSD

Matrix: Water

Analysis Batch: 508257

Client Sample ID: MW14-ROX-101620

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
p-Isopropyltoluene	ND		50.0	59.1		ug/L		118	48 - 139	6	30
sec-Butylbenzene	ND		50.0	56.2		ug/L		112	50 - 138	5	30
Styrene	ND		50.0	51.6		ug/L		103	58 - 131	3	30
tert-Butylbenzene	ND		50.0	54.9		ug/L		110	54 - 146	5	30
1,1,1,2-Tetrachloroethane	ND		50.0	52.1		ug/L		104	59 - 137	0	30
1,1,2,2-Tetrachloroethane	ND		50.0	63.2		ug/L		126	66 - 135	4	30
Tetrachloroethylene	ND		50.0	44.9		ug/L		90	52 - 133	3	30
Toluene	ND		50.0	54.4		ug/L		109	65 - 130	0	30
trans-1,2-Dichloroethylene	ND		50.0	46.2		ug/L		92	61 - 143	2	30
trans-1,3-Dichloropropene	ND		50.0	57.8		ug/L		116	53 - 133	1	30
1,2,3-Trichlorobenzene	ND		50.0	47.2		ug/L		94	43 - 145	1	30
1,2,4-Trichlorobenzene	ND		50.0	44.6		ug/L		89	39 - 148	8	30
1,1,1-Trichloroethane	ND		50.0	43.1		ug/L		86	57 - 142	2	30
1,1,2-Trichloroethane	ND		50.0	58.0		ug/L		116	66 - 131	4	30
Trichloroethylene	ND		50.0	44.9		ug/L		90	64 - 136	1	30
Trichlorofluoromethane	ND		50.0	43.5		ug/L		87	54 - 150	14	30
1,2,3-Trichloropropane	ND		50.0	59.8		ug/L		120	65 - 133	4	30
1,2,4-Trimethylbenzene	1.5		50.0	53.2		ug/L		103	50 - 139	5	30
1,3,5-Trimethylbenzene	ND		50.0	53.3		ug/L		107	52 - 135	5	30
Vinyl acetate	ND		100	119		ug/L		119	26 - 150	11	33
Vinyl chloride	ND		50.0	44.8		ug/L		90	46 - 150	13	30
Xylenes, Total	1.6	J	100	105		ug/L		105	59 - 130	5	30

Surrogate	MSD	MSD	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	100		78 - 118
Dibromofluoromethane	93		81 - 121
Toluene-d8 (Surr)	113		80 - 120

Lab Sample ID: MB 400-508560/4

Matrix: Water

Analysis Batch: 508560

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		1.0	1.0	ug/L			10/29/20 10:17	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/29/20 10:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		78 - 118					10/29/20 10:17	1
Dibromofluoromethane	112		81 - 121					10/29/20 10:17	1
Toluene-d8 (Surr)	91		80 - 120					10/29/20 10:17	1

Lab Sample ID: LCS 400-508560/1002

Matrix: Water

Analysis Batch: 508560

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Naphthalene	50.0	50.4		ug/L		101	47 - 149
n-Butylbenzene	50.0	53.3		ug/L		107	67 - 130

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508560/1002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 508560

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	94				78 - 118
Dibromofluoromethane	115				81 - 121
Toluene-d8 (Surr)	90				80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-507618/1-A

Client Sample ID: Method Blank

Matrix: Water

Analysis Batch: 508112

Prep Type: Total/NA

Prep Batch: 507618

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline			ND		10	3.8	ug/L	10/21/20 10:40	10/26/20 19:13		1
Benzenethiol			ND		10	1.7	ug/L	10/21/20 10:40	10/26/20 19:13		1
Benzoic acid			ND		30	7.3	ug/L	10/21/20 10:40	10/26/20 19:13		1
Benzyl alcohol			ND		10	2.0	ug/L	10/21/20 10:40	10/26/20 19:13		1
Bis(2-chloroethoxy)methane			ND		10	0.16	ug/L	10/21/20 10:40	10/26/20 19:13		1
Bis(2-chloroethyl)ether			ND		10	2.7	ug/L	10/21/20 10:40	10/26/20 19:13		1
bis (2-chloroisopropyl) ether			ND		10	0.16	ug/L	10/21/20 10:40	10/26/20 19:13		1
Bis(2-ethylhexyl) phthalate			ND		10	5.0	ug/L	10/21/20 10:40	10/26/20 19:13		1
4-Bromophenyl phenyl ether			ND		10	0.20	ug/L	10/21/20 10:40	10/26/20 19:13		1
Butyl benzyl phthalate			ND		10	0.19	ug/L	10/21/20 10:40	10/26/20 19:13		1
4-Chloroaniline			ND		10	3.4	ug/L	10/21/20 10:40	10/26/20 19:13		1
4-Chloro-3-methylphenol			ND		10	3.8	ug/L	10/21/20 10:40	10/26/20 19:13		1
2-Chloronaphthalene			ND		10	0.14	ug/L	10/21/20 10:40	10/26/20 19:13		1
2-Chlorophenol			ND		10	2.2	ug/L	10/21/20 10:40	10/26/20 19:13		1
4-Chlorophenyl phenyl ether			ND		10	2.0	ug/L	10/21/20 10:40	10/26/20 19:13		1
Dibenz[a,h]acridine			ND		10	1.0	ug/L	10/21/20 10:40	10/26/20 19:13		1
Dibenzofuran			ND		10	0.17	ug/L	10/21/20 10:40	10/26/20 19:13		1
3,3'-Dichlorobenzidine			ND		10	2.6	ug/L	10/21/20 10:40	10/26/20 19:13		1
2,4-Dichlorophenol			ND		10	3.0	ug/L	10/21/20 10:40	10/26/20 19:13		1
Diethyl phthalate			0.548	J	10	0.24	ug/L	10/21/20 10:40	10/26/20 19:13		1
2,4-Dimethylphenol			ND		10	3.5	ug/L	10/21/20 10:40	10/26/20 19:13		1
Dimethyl phthalate			ND		10	0.17	ug/L	10/21/20 10:40	10/26/20 19:13		1
Di-n-butyl phthalate			ND		10	2.7	ug/L	10/21/20 10:40	10/26/20 19:13		1
4,6-Dinitro-ortho-cresol			ND		10	1.6	ug/L	10/21/20 10:40	10/26/20 19:13		1
2,4-Dinitrophenol			ND		30	3.4	ug/L	10/21/20 10:40	10/26/20 19:13		1
2,4-Dinitrotoluene			ND		10	1.9	ug/L	10/21/20 10:40	10/26/20 19:13		1
2,6-Dinitrotoluene			ND		10	1.9	ug/L	10/21/20 10:40	10/26/20 19:13		1
Di-n-octyl phthalate			ND		10	0.17	ug/L	10/21/20 10:40	10/26/20 19:13		1
1,4-Dioxane			ND		10	1.0	ug/L	10/21/20 10:40	10/26/20 19:13		1
1,2-Diphenylhydrazine (as Azobenzene)			ND		10	1.0	ug/L	10/21/20 10:40	10/26/20 19:13		1
Hexachlorobenzene			ND		10	0.17	ug/L	10/21/20 10:40	10/26/20 19:13		1
Hexachlorocyclopentadiene			ND		20	2.6	ug/L	10/21/20 10:40	10/26/20 19:13		1
Hexachloroethane			ND		10	4.2	ug/L	10/21/20 10:40	10/26/20 19:13		1
Indene			ND		10	1.0	ug/L	10/21/20 10:40	10/26/20 19:13		1
Isophorone			ND		10	0.14	ug/L	10/21/20 10:40	10/26/20 19:13		1
2-Methylphenol			ND		10	1.8	ug/L	10/21/20 10:40	10/26/20 19:13		1
3 & 4 Methylphenol			ND		20	0.39	ug/L	10/21/20 10:40	10/26/20 19:13		1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-507618/1-A

Matrix: Water

Analysis Batch: 508112

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline		ND			10	2.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
3-Nitroaniline		ND			10	1.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Nitroaniline		ND			10	1.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
Nitrobenzene		ND			10	0.13	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Nitrophenol		ND			10	5.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Nitrophenol		ND			10	2.1	ug/L		10/21/20 10:40	10/26/20 19:13	1
N-Nitrosodimethylamine		ND			10	3.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
N-Nitrosodi-n-propylamine		ND			10	3.3	ug/L		10/21/20 10:40	10/26/20 19:13	1
N-Nitrosodiphenylamine		ND			10	0.18	ug/L		10/21/20 10:40	10/26/20 19:13	1
Pentachlorophenol		ND			20	1.4	ug/L		10/21/20 10:40	10/26/20 19:13	1
Phenol		ND			10	2.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
Pyridine		ND			10	3.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
Quinoline		ND			10	4.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4,5-Trichlorophenol		ND			10	3.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4,6-Trichlorophenol		ND			10	3.5	ug/L		10/21/20 10:40	10/26/20 19:13	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl			58		46 - 124		10/21/20 10:40	10/26/20 19:13	1
2-Fluorophenol			17		13 - 113		10/21/20 10:40	10/26/20 19:13	1
Nitrobenzene-d5			59		36 - 126		10/21/20 10:40	10/26/20 19:13	1
Phenol-d5			36		17 - 127		10/21/20 10:40	10/26/20 19:13	1
Terphenyl-d14			85		44 - 149		10/21/20 10:40	10/26/20 19:13	1
2,4,6-Tribromophenol			88		26 - 150		10/21/20 10:40	10/26/20 19:13	1

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508112

Analyte	Spike	LCS	LCS	Added	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
Aniline				120	52.7		ug/L		44	21 - 120	
Benzoic acid				466	135		ug/L		29	10 - 144	
Benzyl alcohol				120	51.4		ug/L		43	28 - 120	
Bis(2-chloroethoxy)methane				120	56.8		ug/L		47	47 - 120	
Bis(2-chloroethyl)ether				120	56.1		ug/L		47	44 - 120	
bis (2-chloroisopropyl) ether				120	47.4		ug/L		39	33 - 121	
Bis(2-ethylhexyl) phthalate				120	78.6		ug/L		66	52 - 147	
4-Bromophenyl phenyl ether				120	90.8		ug/L		76	54 - 122	
Butyl benzyl phthalate				120	71.9		ug/L		60	54 - 133	
4-Chloroaniline				120	39.5		ug/L		33	26 - 120	
4-Chloro-3-methyphenol				120	74.4		ug/L		62	48 - 131	
2-Chloronaphthalene				120	76.8		ug/L		64	52 - 121	
2-Chlorophenol				120	56.8		ug/L		47	40 - 120	
4-Chlorophenyl phenyl ether				120	91.8		ug/L		77	56 - 125	
Dibenz[a,h]acridine				120	104		ug/L		87	31 - 150	
Dibenzofuran				120	74.8		ug/L		62	56 - 122	
3,3'-Dichlorobenzidine				160	116		ug/L		73	36 - 132	
2,4-Dichlorophenol				120	72.1		ug/L		60	49 - 120	
Diethyl phthalate				120	97.6		ug/L		81	50 - 137	

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507618

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507618

%Rec.

Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	
2,4-Dimethylphenol	120	76.5		ug/L	64	48 - 120	
Dimethyl phthalate	120	82.4		ug/L	69	57 - 124	
Di-n-butyl phthalate	120	89.6		ug/L	75	58 - 126	
4,6-Dinitro-ortho-cresol	240	156		ug/L	65	23 - 148	
2,4-Dinitrophenol	240	170		ug/L	71	10 - 150	
2,4-Dinitrotoluene	120	82.1		ug/L	68	54 - 142	
2,6-Dinitrotoluene	120	76.2		ug/L	64	55 - 130	
Di-n-octyl phthalate	120	76.3		ug/L	64	57 - 138	
1,4-Dioxane	120	36.9		ug/L	31	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	120	71.4		ug/L	60	45 - 124	
Hexachlorobenzene	120	102		ug/L	85	52 - 129	
Hexachlorocyclopentadiene	120	34.1		ug/L	28	10 - 134	
Hexachloroethane	120	78.8		ug/L	64	20 - 120	
Indene	120	69.9		ug/L	58	49 - 120	
Isophorone	120	63.6		ug/L	53	48 - 120	
2-Methylphenol	120	78.6		ug/L	65	46 - 124	
3 & 4 Methylphenol	120	78.8		ug/L	66	45 - 120	
2-Nitroaniline	120	76.7		ug/L	64	51 - 145	
3-Nitroaniline	120	70.0		ug/L	58	37 - 127	
4-Nitroaniline	120	83.4		ug/L	70	36 - 137	
Nitrobenzene	120	67.7		ug/L	56	45 - 120	
2-Nitrophenol	120	68.8		ug/L	57	40 - 124	
4-Nitrophenol	240	261		ug/L	109	23 - 146	
N-Nitrosodimethylamine	120	92.2		ug/L	77	29 - 137	
N-Nitrosodi-n-propylamine	120	72.1		ug/L	60	45 - 120	
N-Nitrosodiphenylamine	119	73.6		ug/L	62	54 - 120	
Pentachlorophenol	240	128		ug/L	53	31 - 130	
Phenol	120	58.7		ug/L	49	11 - 120	
Pyridine	240	78.3		ug/L	33	16 - 120	
Quinoline	120	72.6		ug/L	61	49 - 130	
2,4,5-Trichlorophenol	120	85.3		ug/L	71	51 - 136	
2,4,6-Trichlorophenol	120	78.9		ug/L	66	50 - 127	
Surrogate		LCS	LCS				
		%Recovery	Qualifier	Limits			
2-Fluorobiphenyl		57		46 - 124			
2-Fluorophenol		25		13 - 113			
Nitrobenzene-d5		56		36 - 126			
Phenol-d5		42		17 - 127			
Terphenyl-d14		79		44 - 149			
2,4,6-Tribromophenol		89		26 - 150			

Lab Sample ID: LCS 400-507618/3-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507618

%Rec.

Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	
Benzene-thiol	120	2.99	J *	ug/L	2	10 - 120	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-507618/3-A
Matrix: Water
Analysis Batch: 508112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507618

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
2-Fluorobiphenyl			57		46 - 124
2-Fluorophenol			21		13 - 113
Nitrobenzene-d5			57		36 - 126
Phenol-d5			41		17 - 127
Terphenyl-d14			87		44 - 149
2,4,6-Tribromophenol			87		26 - 150

Lab Sample ID: LCSD 400-507618/4-A
Matrix: Water
Analysis Batch: 508112

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 507618

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit
Benzethiol	120	ND	**1	ug/L		0.8	105	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	55		46 - 124
2-Fluorophenol	5	X	13 - 113
Nitrobenzene-d5	55		36 - 126
Phenol-d5	23		17 - 127
Terphenyl-d14	77		44 - 149
2,4,6-Tribromophenol	32		26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-507618/1-A
Matrix: Water
Analysis Batch: 508212

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507618

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		10/21/20 10:40	10/26/20 19:55	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/21/20 10:40	10/26/20 19:55	1
Anthracene	ND		0.20	0.032	ug/L		10/21/20 10:40	10/26/20 19:55	1
Benz[a]anthracene	ND		0.20	0.046	ug/L		10/21/20 10:40	10/26/20 19:55	1
Benz[a]pyrene	ND		0.20	0.042	ug/L		10/21/20 10:40	10/26/20 19:55	1
Benz[b]fluoranthene	ND		0.20	0.034	ug/L		10/21/20 10:40	10/26/20 19:55	1
Benz[g,h,i]perylene	ND		0.20	0.13	ug/L		10/21/20 10:40	10/26/20 19:55	1
Benz[k]fluoranthene	ND		0.20	0.10	ug/L		10/21/20 10:40	10/26/20 19:55	1
Chrysene	ND		0.20	0.074	ug/L		10/21/20 10:40	10/26/20 19:55	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		10/21/20 10:40	10/26/20 19:55	1
Fluoranthene	ND		0.20	0.068	ug/L		10/21/20 10:40	10/26/20 19:55	1
Fluorene	ND		0.20	0.11	ug/L		10/21/20 10:40	10/26/20 19:55	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		10/21/20 10:40	10/26/20 19:55	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		10/21/20 10:40	10/26/20 19:55	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		10/21/20 10:40	10/26/20 19:55	1
Phenanthrene	ND		0.20	0.036	ug/L		10/21/20 10:40	10/26/20 19:55	1
Pyrene	ND		0.20	0.040	ug/L		10/21/20 10:40	10/26/20 19:55	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-507618/1-A
Matrix: Water
Analysis Batch: 508212

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507618

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl			32		15 - 122	10/21/20 10:40	10/26/20 19:55	1
Nitrobenzene-d5			39		19 - 130	10/21/20 10:40	10/26/20 19:55	1
Terphenyl-d14			41		33 - 138	10/21/20 10:40	10/26/20 19:55	1

Lab Sample ID: LCS 400-507618/2-A
Matrix: Water
Analysis Batch: 508212

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	120	112		ug/L		93	41 - 120
Acenaphthylene	120	107		ug/L		89	44 - 120
Anthracene	120	131		ug/L		109	49 - 120
Benzo[a]anthracene	120	100		ug/L		83	61 - 135
Benzo[a]pyrene	120	114		ug/L		95	52 - 120
Benzo[b]fluoranthene	120	98.8		ug/L		82	53 - 134
Benzo[g,h,i]perylene	120	106		ug/L		88	47 - 133
Benzo[k]fluoranthene	120	108		ug/L		90	57 - 134
Chrysene	120	112		ug/L		93	55 - 122
Dibenz(a,h)anthracene	120	117		ug/L		97	48 - 146
Fluoranthene	120	121		ug/L		101	54 - 128
Fluorene	120	118		ug/L		98	45 - 125
Indeno[1,2,3-cd]pyrene	120	114		ug/L		95	43 - 142
1-Methylnaphthalene	120	92.5		ug/L		77	41 - 120
2-Methylnaphthalene	120	97.7		ug/L		81	32 - 124
Phenanthrene	120	117		ug/L		97	48 - 120
Pyrene	120	106		ug/L		88	48 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	85		15 - 122
Nitrobenzene-d5	96		19 - 130
Terphenyl-d14	98		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-507450/1-A
Matrix: Water
Analysis Batch: 507451

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507450

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/20/20 11:05	10/20/20 14:56	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/20/20 11:05	10/20/20 14:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		51 - 149	10/20/20 11:05	10/20/20 14:56	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194608-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCS 400-507450/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507451

Prep Batch: 507450

Analyte		Spike	LCS	LCS	Unit	D	%Rec	%Rec.
		Added	Result	Qualifier				
1,2-Dibromo-3-Chloropropane		0.101	0.128		ug/L		126	60 - 140
1,2-Dibromoethane		0.101	0.126		ug/L		125	60 - 140
Surrogate		LCS	LCS					
		%Recovery	Qualifier		Limits			
4-Bromofluorobenzene		116			51 - 149			

Lab Sample ID: LCSD 400-507450/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 507451

Prep Batch: 507450

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD
		Added	Result	Qualifier					
1,2-Dibromo-3-Chloropropane		0.101	0.121		ug/L		120	60 - 140	5
1,2-Dibromoethane		0.101	0.122		ug/L		121	60 - 140	3
Surrogate		LCSD	LCSD						
		%Recovery	Qualifier		Limits				
4-Bromofluorobenzene		112			51 - 149				

Eurofins TestAmerica, Pensacola



Shell Oil Products US Chain Of Custody Record

AECOM

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194608-1

Login Number: 194608

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Hinrichsen, Megan E

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	0.3°C, 0.7°C, 3.7°C, 2.3°C IR-7
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: 400-194608-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194661-1-Rev. 1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 12/1/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-101920-8260	TB-ROX-101920-8011
ROST3MW-ROX-101920	ROST4PZC-ROX-101920
ROST4PZE-ROX-101920	MW28-ROX-101920

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 bis(2-ethylhexyl) phthalate was re-extracted outside extraction time criteria. Diethyl phthalate was detected in the method blank. Several LCS/LCD recoveries and/or LCS/LCSD RPDs were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in several investigative and quality control samples. VOCs in sample ROST4PZE-ROX-101920 were diluted to bring analytes into calibration range of the instrument. Continuing calibration verifications for several analytes, and the initial calibration verification for 1,4-dioxane, were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review. Additionally, the laboratory report was revised to include confirmation bis(2-ethylhexyl) phthalate results.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

No, bis(2-ethylhexyl) phthalate was re-extracted 11 days outside extraction time criteria (7 days) to confirm initial detections. Professional judgement was used to qualify as estimated, however, not reject the out of holding time data. Holding time exceedances were not greater than two times (2X) criteria; data requiring qualification is summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
ROST3MW-ROX-101920 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	J
ROST4PZC-ROX-101920 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	J

Sample ID	Parameter	Analyte	Qualification
ROST4PZE-ROX-101920 – RERA	SVOCs	bis(2-Ethylhexyl) phthalate	UJ
MW28-ROX-101920 – 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 400-507618/1-A	SVOCs	Diethyl phthalate	0.548 µg/L

Qualifications due to blank contamination are included in the table below. Analytical data that were reported non-detect or at concentrations greater than five times (5X) the associated blank concentration did not require qualification.

Sample ID	Parameter	Analyte	New Reporting Limit (RL)	Qualification
ROST4PZC-ROX-101920	SVOCs	Diethyl phthalate	-	U

5.0 Laboratory Control Sample

Were LCS recoveries within evaluation criteria?

No

LCS/LCSD ID	Parameter	Analyte	LCS/LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS 400-508579/1003	VOCs	n-Butylbenzene	136	NA	67-130
LCS/LCSD 400-507618/3-A/4-A	SVOCs	Benzenethiol	2/0.8	105	10-120/30
LCS/LCSD 400-507961/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	107/63	52	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Benzenethiol was qualified in Section 3.0 of this data review due to holding time criteria; no further qualification of previously qualified SVOCs was required.

Sample ID	Parameter	Analyte	Qualification
ROST3MW-ROX-101920	SVOCs	Benzenethiol	UJ
ROST4PZC-ROX-101920	SVOCs	Benzenethiol	UJ
ROST4PZE-ROX-101920	SVOCs	Benzenethiol	UJ
MW28-ROX-101920	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
ROST3MW-ROX-101920	SVOCs	2-Fluorobiphenyl	28	46-124
ROST3MW-ROX-101920	SVOCs	2-Fluorophenol	9	13-113
ROST4PZC-ROX-101920	SVOCs	2-Fluorobiphenyl	32	46-124
MW28-ROX-101920	SVOCs	2-Fluorobiphenyl	33	46-124
LCSD 400-507618/4-A	SVOCs	2-Fluorophenol	5	13-113
MB 400-509677/1-A	SVOCs	2,4,6-Tribromophenol	188	26-150
LCSD 400-509677/3-A	SVOCs	2,4,6-Tribromophenol	170	26-150

Qualifications due to surrogate recoveries were not required if only one of three acid or base/neutral SVOC surrogate recoveries were outside evaluation criteria in the associated samples. Method blanks and LCSDs are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

No

8.0 Internal Standard (IS) Recoveries

Were internal standard area recoveries within evaluation criteria?

Yes

9.0 Laboratory Duplicate Results

Were laboratory duplicate samples analyzed as part of this SDG?

No

10.0 Field Duplicate Results

Were field duplicate samples collected as part of this SDG?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes, and the initial calibration verification for 1,4-dioxane, were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
ROST3MW-ROX-101920	SVOCs	1,4-Dioxane	UJ
ROST3MW-ROX-101920	SVOCs	Aniline	UJ
ROST3MW-ROX-101920	SVOCs	Benzyl alcohol	UJ
ROST3MW-ROX-101920	SVOCs	Hexachlorocyclopentadiene	UJ
ROST3MW-ROX-101920	SVOCs	4-Nitrophenol	UJ

Sample ID	Parameter	Analyte	Qualification
ROST3MW-ROX-101920	SVOCs	Pyridine	UJ
ROST4PZC-ROX-101920	SVOCs	1,4-Dioxane	UJ
ROST4PZC-ROX-101920	SVOCs	Aniline	UJ
ROST4PZC-ROX-101920	SVOCs	Benzyl alcohol	UJ
ROST4PZC-ROX-101920	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZC-ROX-101920	SVOCs	4-Nitrophenol	UJ
ROST4PZC-ROX-101920	SVOCs	Pyridine	UJ
ROST4PZE-ROX-101920	SVOCs	1,4-Dioxane	UJ
ROST4PZE-ROX-101920	SVOCs	Aniline	UJ
ROST4PZE-ROX-101920	SVOCs	Benzyl alcohol	UJ
ROST4PZE-ROX-101920	SVOCs	Hexachlorocyclopentadiene	UJ
ROST4PZE-ROX-101920	SVOCs	4-Nitrophenol	UJ
ROST4PZE-ROX-101920	SVOCs	Pyridine	UJ
MW28-ROX-101920	SVOCs	1,4-Dioxane	UJ
MW28-ROX-101920	SVOCs	Aniline	UJ
MW28-ROX-101920	SVOCs	Benzyl alcohol	UJ
MW28-ROX-101920	SVOCs	Hexachlorocyclopentadiene	UJ
MW28-ROX-101920	SVOCs	4-Nitrophenol	UJ
MW28-ROX-101920	SVOCs	Pyridine	UJ



Environment Testing
America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-194661-1

Client Project/Site: ROXANA QUARTERLY GW
Revision: 1

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Elizabeth Kunkel

Authorized for release by:
11/30/2020 5:58:29 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@Eurofinset.com

LINKS

Review your project
results through

Total Access

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Reviewed 12/1/2020
MR

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	6
Detection Summary	7
Client Sample Results	9
Definitions	28
Surrogate Summary	29
Method Summary	31
Chronicle	32
QC Association	36
QC Sample Results	39
Chain of Custody	49
Receipt Checklists	50
Certification Summary	51

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Job ID: 400-194661-1

3

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

**Job Narrative
400-194661-1**

Comments

Revised Report

Report revised to include out of hold confirmation results for Bis(2-ethylhexyl) phthalate.

Supersedes report dated 11-5-2020.

Receipt

The samples were received on 10/20/2020 9:46 AM; 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 4.2° C.

GC/MS VOA

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-490802 was outside method criteria for the following analyte: 2-Chloroethyl vinyl ether. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: ROST4PZE-ROX-101920 (400-194661-5). Elevated reporting limits (RLs) are provided.

Method 8260B: The laboratory control sample (LCS) for analytical batch 400-508579 recovered outside control limits for the following analytes: 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 one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-101920-8260 (400-194661-1), ROST3MW-ROX-101920 (400-194661-3), ROST4PZC-ROX-101920 (400-194661-4), ROST4PZE-ROX-101920 (400-194661-5) and MW28-ROX-101920 (400-194661-6). The requested target analyte list includes 2-Chloroethyl vinyl ether, Acrolein and Acrylonitrile, which are acid-labile compounds that degrades in an acidic medium.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508112 recovered above the upper control limit for 4-Nitrophenol and N-Nitrosodimethylamine. 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 400-508112 recovered outside acceptance criteria, low biased, for 1,4-Dioxane, Aniline, Benzyl alcohol, Bis(2-chloroethoxy)methane, Hexachlorocyclopentadiene, Isophorone, Pyridine and Quinoline. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-507618 and 400-507618 and analytical batch 400-508112 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Batch precision also exceeded control limits for these analyte(s). These results have been reported and qualified.

Method 8270D: The method blank for preparation batch 400-507618 and analytical batch 400-508112 contained Diethyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method 8270D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-507618 and analytical batch 400-508112 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.

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Job ID: 400-194661-1 (Continued)

3

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-507618 and analytical batch 400-508112 recovered outside control limits for the following analytes: Benzenethiol.

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: (400-194572-H-4-A). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-508916 recovered above the upper control limit for Benzenethiol. 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 400-508916 recovered outside acceptance criteria, low biased, for 4-Nitrophenol, Hexachlorocyclopentadiene, Pyridine, Aniline and Benzyl alcohol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been 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 samples contained an allowable number of surrogate compounds outside limits: ROST4PZC-ROX-101920 (400-194661-4) and MW28-ROX-101920 (400-194661-6). These results have been reported and qualified.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows one acid and one base of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: ROST3MW-ROX-101920 (400-194661-3). These results have been reported and qualified.

Method 8270D: Samples ROST3MW-ROX-101920 (400-194661-3), ROST4PZC-ROX-101920 (400-194661-4), ROST4PZE-ROX-101920 (400-194661-5) and MW28-ROX-101920 (400-194661-6) were re-extracted and re-analyzed to confirm a detection of Bis(2-ethylhexyl) phthalate. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. Both sets of data have been 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 samples contained an allowable number of surrogate compounds outside limits: (LCS 400-509677/2-A), (LCSD 400-509677/3-A) and (MB 400-509677/1-A). These results have been reported and qualified.

Method 8270D: The initial calibration verification (ICV) analyzed in batch 400-504644 was outside method criteria for the following analyte(s): 1,4-Dioxane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D: Samples ROST3MW-ROX-101920 (400-194661-3) and MW28-ROX-101920 (400-194661-6) were re-extracted and re-analyzed to confirm a detection of Bis(2-ethylhexyl) phthalate. The associated sample(s) was re-prepared and/or re-analyzed outside holding time. The re-extracts confirm original results. Both sets of data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-508627 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-507961 and analytical batch 400-508279 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane.

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

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Job ID: 400-194661-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

3

5

7

9

10

11

13

14

15

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194661-1	TB-ROX-101920-8260	Water	10/19/20 00:00	10/20/20 09:46	
400-194661-2	TB-ROX-101920-8011	Water	10/19/20 00:00	10/20/20 09:46	
400-194661-3	ROST3MW-ROX-101920	Water	10/19/20 09:10	10/20/20 09:46	
400-194661-4	ROST4PZC-ROX-101920	Water	10/19/20 10:10	10/20/20 09:46	
400-194661-5	ROST4PZE-ROX-101920	Water	10/19/20 11:10	10/20/20 09:46	
400-194661-6	MW28-ROX-101920	Water	10/19/20 12:50	10/20/20 09:46	

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: TB-ROX-101920-8260

Lab Sample ID: 400-194661-1

No Detections.

Client Sample ID: TB-ROX-101920-8011

Lab Sample ID: 400-194661-2

No Detections.

Client Sample ID: ROST3MW-ROX-101920

Lab Sample ID: 400-194661-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	0.67	J	1.0	0.50	ug/L	1	8260B	Total/NA	
1,2,4-Trimethylbenzene	0.87	J	1.0	0.82	ug/L	1	8260B	Total/NA	
Bis(2-ethylhexyl) phthalate	6.6	J	9.4	4.7	ug/L	1	8270D	Total/NA	
Bis(2-ethylhexyl) phthalate - RERA	4.7	J H <i>5</i>	9.4	4.7	ug/L	1	8270D	Total/NA	

Client Sample ID: ROST4PZC-ROX-101920

Lab Sample ID: 400-194661-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.9		1.0	0.38	ug/L	1	8260B	Total/NA	
Ethylbenzene	22		1.0	0.50	ug/L	1	8260B	Total/NA	
Isopropylbenzene	7.5		1.0	0.53	ug/L	1	8260B	Total/NA	
m-Xylene & p-Xylene	83		5.0	1.6	ug/L	1	8260B	Total/NA	
Naphthalene	55		1.0	1.0	ug/L	1	8260B	Total/NA	
N-Propylbenzene	12		1.0	0.69	ug/L	1	8260B	Total/NA	
o-Xylene	0.92	J	5.0	0.60	ug/L	1	8260B	Total/NA	
p-Isopropyltoluene	0.93	J	1.0	0.71	ug/L	1	8260B	Total/NA	
sec-Butylbenzene	0.81	J	1.0	0.70	ug/L	1	8260B	Total/NA	
Toluene	9.1		1.0	0.41	ug/L	1	8260B	Total/NA	
1,2,4-Trimethylbenzene	28		1.0	0.82	ug/L	1	8260B	Total/NA	
1,3,5-Trimethylbenzene	6.4		1.0	0.56	ug/L	1	8260B	Total/NA	
Xylenes, Total	84		10	1.6	ug/L	1	8260B	Total/NA	
Acenaphthene	1.9		0.19	0.030	ug/L	1	8270D LL	Total/NA	
Anthracene	1.0		0.19	0.030	ug/L	1	8270D LL	Total/NA	
Fluoranthene	0.19		0.19	0.064	ug/L	1	8270D LL	Total/NA	
Fluorene	1.7		0.19	0.10	ug/L	1	8270D LL	Total/NA	
1-Methylnaphthalene	49		0.19	0.070	ug/L	1	8270D LL	Total/NA	
2-Methylnaphthalene	57		0.19	0.056	ug/L	1	8270D LL	Total/NA	
Phenanthrene	7.2		0.19	0.034	ug/L	1	8270D LL	Total/NA	
Pyrene	0.50		0.19	0.038	ug/L	1	8270D LL	Total/NA	
Bis(2-ethylhexyl) phthalate	46		9.4	4.7	ug/L	1	8270D	Total/NA	
Dibenzofuran	0.71	J	9.4	0.16	ug/L	1	8270D	Total/NA	
Diethyl phthalate	0.51	J B <i>U</i>	9.4	0.23	ug/L	1	8270D	Total/NA	
Di-n-butyl phthalate	2.5	J	9.4	2.5	ug/L	1	8270D	Total/NA	
Bis(2-ethylhexyl) phthalate - RERA	6.0	J H <i>5</i>	9.5	4.7	ug/L	1	8270D	Total/NA	

Client Sample ID: ROST4PZE-ROX-101920

Lab Sample ID: 400-194661-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	97		5.0	1.9	ug/L	5	8260B	Total/NA	
Ethylbenzene	410		5.0	2.5	ug/L	5	8260B	Total/NA	
Isopropylbenzene	15		5.0	2.7	ug/L	5	8260B	Total/NA	
m-Xylene & p-Xylene	450		25	8.0	ug/L	5	8260B	Total/NA	
Naphthalene	150		5.0	5.0	ug/L	5	8260B	Total/NA	
N-Propylbenzene	27		5.0	3.5	ug/L	5	8260B	Total/NA	
o-Xylene	71		25	3.0	ug/L	5	8260B	Total/NA	

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST4PZE-ROX-101920 (Continued)

Lab Sample ID: 400-194661-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	42		5.0	2.1	ug/L	5		8260B	Total/NA
1,2,4-Trimethylbenzene	160		5.0	4.1	ug/L	5		8260B	Total/NA
1,3,5-Trimethylbenzene	31		5.0	2.8	ug/L	5		8260B	Total/NA
Xylenes, Total	520		50	8.0	ug/L	5		8260B	Total/NA
Acenaphthene	1.3		0.19	0.030	ug/L	1		8270D LL	Total/NA
Anthracene	0.37		0.19	0.030	ug/L	1		8270D LL	Total/NA
Fluoranthene	0.089 J		0.19	0.064	ug/L	1		8270D LL	Total/NA
Fluorene	1.0		0.19	0.10	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	31		0.19	0.069	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	18		0.19	0.056	ug/L	1		8270D LL	Total/NA
Phenanthrene	3.1		0.19	0.034	ug/L	1		8270D LL	Total/NA
Pyrene	0.097 J		0.19	0.038	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	200		9.4	4.7	ug/L	1		8270D	Total/NA
Dibenzofuran	1.2 J		9.4	0.16	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	2.7 J		9.4	2.5	ug/L	1		8270D	Total/NA
Indene	5.7 J		9.4	0.94	ug/L	1		8270D	Total/NA
3 & 4 Methylphenol	4.5 J		19	0.37	ug/L	1		8270D	Total/NA

Client Sample ID: MW28-ROX-101920

Lab Sample ID: 400-194661-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	5.2		1.0	0.38	ug/L	1		8260B	Total/NA
Methyl tert-butyl ether	45		1.0	0.74	ug/L	1		8260B	Total/NA
Naphthalene	1.0		1.0	1.0	ug/L	1		8260B	Total/NA
o-Xylene	0.70 J		5.0	0.60	ug/L	1		8260B	Total/NA
sec-Butylbenzene	2.2		1.0	0.70	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.71 J		1.0	0.63	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	1.4		1.0	0.82	ug/L	1		8260B	Total/NA
Bis(2-ethylhexyl) phthalate	8.3 J		9.4	4.7	ug/L	1		8270D	Total/NA
Di-n-butyl phthalate	2.7 J		9.4	2.5	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate - RERA	5.5 J H 5		9.4	4.7	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: TB-ROX-101920-8260

Lab Sample ID: 400-194661-1

Date Collected: 10/19/20 00:00

Matrix: Water

Date Received: 10/20/20 09:46

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/29/20 20:46	1
Acrolein	ND		20	10	ug/L			10/29/20 20:46	1
Acrylonitrile	ND		10	2.8	ug/L			10/29/20 20:46	1
Benzene	ND		1.0	0.38	ug/L			10/29/20 20:46	1
Bromobenzene	ND		1.0	0.54	ug/L			10/29/20 20:46	1
Bromoform	ND		5.0	0.71	ug/L			10/29/20 20:46	1
Bromomethane	ND		1.0	0.98	ug/L			10/29/20 20:46	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/29/20 20:46	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/29/20 20:46	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/29/20 20:46	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/29/20 20:46	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/29/20 20:46	1
Chloroethane	ND		1.0	0.76	ug/L			10/29/20 20:46	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/29/20 20:46	1
Chloroform	ND		1.0	0.60	ug/L			10/29/20 20:46	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/29/20 20:46	1
Chloromethane	ND		1.0	0.83	ug/L			10/29/20 20:46	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 20:46	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/29/20 20:46	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/29/20 20:46	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/29/20 20:46	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/29/20 20:46	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/29/20 20:46	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/29/20 20:46	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/29/20 20:46	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 20:46	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 20:46	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 20:46	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 20:46	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/29/20 20:46	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/29/20 20:46	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/29/20 20:46	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/29/20 20:46	1
2-Hexanone	ND		25	3.1	ug/L			10/29/20 20:46	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/29/20 20:46	1
Methylene bromide	ND		5.0	0.59	ug/L			10/29/20 20:46	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/29/20 20:46	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/29/20 20:46	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/29/20 20:46	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/29/20 20:46	1
Naphthalene	ND		1.0	1.0	ug/L			10/29/20 20:46	1
n-Butylbenzene	ND	*	1.0	0.76	ug/L			10/29/20 20:46	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/29/20 20:46	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/29/20 20:46	1
o-Xylene	ND		5.0	0.60	ug/L			10/29/20 20:46	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/29/20 20:46	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/29/20 20:46	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: TB-ROX-101920-8260

Lab Sample ID: 400-194661-1

Matrix: Water

Date Collected: 10/19/20 00:00

Date Received: 10/20/20 09:46

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/29/20 20:46	1
Styrene	ND		1.0	1.0	ug/L			10/29/20 20:46	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/29/20 20:46	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/29/20 20:46	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/29/20 20:46	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/29/20 20:46	1
Toluene	ND		1.0	0.41	ug/L			10/29/20 20:46	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 20:46	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/29/20 20:46	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/29/20 20:46	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/29/20 20:46	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/29/20 20:46	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/29/20 20:46	1
Trichloroethene	ND		1.0	0.50	ug/L			10/29/20 20:46	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/29/20 20:46	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/29/20 20:46	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/29/20 20:46	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/29/20 20:46	1
Vinyl acetate	ND		25	2.0	ug/L			10/29/20 20:46	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/29/20 20:46	1
Xylenes, Total	ND		10	1.6	ug/L			10/29/20 20:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		78 - 118			1
Dibromofluoromethane	95		81 - 121			1
Toluene-d8 (Sur)	111		80 - 120			1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: TB-ROX-101920-8011

Lab Sample ID: 400-194661-2

Date Collected: 10/19/20 00:00

Matrix: Water

Date Received: 10/20/20 09:46

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0056	ug/L		10/23/20 11:33	10/29/20 14:39	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/23/20 11:33	10/27/20 15:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	131		51 - 149				10/23/20 11:33	10/27/20 15:40	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST3MW-ROX-101920

Lab Sample ID: 400-194661-3

Date Collected: 10/19/20 09:10

Matrix: Water

Date Received: 10/20/20 09:46

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L		10/29/20 21:14	10/29/20 21:14	1
Acrolein	ND		20	10	ug/L		10/29/20 21:14	10/29/20 21:14	1
Acrylonitrile	ND		10	2.8	ug/L		10/29/20 21:14	10/29/20 21:14	1
Benzene	ND		1.0	0.38	ug/L		10/29/20 21:14	10/29/20 21:14	1
Bromobenzene	ND		1.0	0.54	ug/L		10/29/20 21:14	10/29/20 21:14	1
Bromoform	ND		1.0	0.52	ug/L		10/29/20 21:14	10/29/20 21:14	1
Bromochloromethane	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
Bromodichloromethane	ND		1.0	0.71	ug/L		10/29/20 21:14	10/29/20 21:14	1
Bromoform	ND		5.0	0.98	ug/L		10/29/20 21:14	10/29/20 21:14	1
Bromomethane	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
2-Butanone (MEK)	ND		25	2.6	ug/L		10/29/20 21:14	10/29/20 21:14	1
Carbon disulfide	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
Carbon tetrachloride	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
Chlorobenzene	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
Dibromochloromethane	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
Chloroethane	ND		1.0	0.76	ug/L		10/29/20 21:14	10/29/20 21:14	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L		10/29/20 21:14	10/29/20 21:14	1
Chloroform	ND		1.0	0.60	ug/L		10/29/20 21:14	10/29/20 21:14	1
1-Chlorohexane	ND		1.0	0.70	ug/L		10/29/20 21:14	10/29/20 21:14	1
Chloromethane	ND		1.0	0.83	ug/L		10/29/20 21:14	10/29/20 21:14	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L		10/29/20 21:14	10/29/20 21:14	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L		10/29/20 21:14	10/29/20 21:14	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L		10/29/20 21:14	10/29/20 21:14	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
Ethylbenzene	0.67	J	1.0	0.50	ug/L		10/29/20 21:14	10/29/20 21:14	1
Ethyl methacrylate	ND		1.0	0.60	ug/L		10/29/20 21:14	10/29/20 21:14	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L		10/29/20 21:14	10/29/20 21:14	1
2-Hexanone	ND		25	3.1	ug/L		10/29/20 21:14	10/29/20 21:14	1
Isopropylbenzene	ND		1.0	0.53	ug/L		10/29/20 21:14	10/29/20 21:14	1
Methylene bromide	ND		5.0	0.59	ug/L		10/29/20 21:14	10/29/20 21:14	1
Methylene Chloride	ND		5.0	3.0	ug/L		10/29/20 21:14	10/29/20 21:14	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L		10/29/20 21:14	10/29/20 21:14	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L		10/29/20 21:14	10/29/20 21:14	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L		10/29/20 21:14	10/29/20 21:14	1
Naphthalene	ND		1.0	1.0	ug/L		10/29/20 21:14	10/29/20 21:14	1
n-Butylbenzene	ND *		1.0	0.76	ug/L		10/29/20 21:14	10/29/20 21:14	1
N-Propylbenzene	ND		1.0	0.69	ug/L		10/29/20 21:14	10/29/20 21:14	1
o-Chlorotoluene	ND		1.0	0.57	ug/L		10/29/20 21:14	10/29/20 21:14	1
o-Xylene	ND		5.0	0.60	ug/L		10/29/20 21:14	10/29/20 21:14	1
p-Chlorotoluene	ND		1.0	0.56	ug/L		10/29/20 21:14	10/29/20 21:14	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L		10/29/20 21:14	10/29/20 21:14	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST3MW-ROX-101920
Date Collected: 10/19/20 09:10
Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/29/20 21:14	1
Styrene	ND		1.0	1.0	ug/L			10/29/20 21:14	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/29/20 21:14	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/29/20 21:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/29/20 21:14	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/29/20 21:14	1
Toluene	ND		1.0	0.41	ug/L			10/29/20 21:14	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 21:14	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/29/20 21:14	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/29/20 21:14	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/29/20 21:14	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/29/20 21:14	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/29/20 21:14	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/29/20 21:14	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/29/20 21:14	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/29/20 21:14	1
1,2,4-Trimethylbenzene	0.87	J	1.0	0.82	ug/L			10/29/20 21:14	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/29/20 21:14	1
Vinyl acetate	ND		25	2.0	ug/L			10/29/20 21:14	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/29/20 21:14	1
Xylenes, Total	ND		10	1.6	ug/L			10/29/20 21:14	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		78 - 118					10/29/20 21:14	1
Dibromofluoromethane	96		81 - 121					10/29/20 21:14	1
Toluene-d8 (Surr)	111		80 - 120					10/29/20 21:14	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L			10/21/20 11:06	10/27/20 20:49	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/21/20 11:06	10/27/20 20:49	1
Anthracene	ND		0.19	0.030	ug/L			10/21/20 11:06	10/27/20 20:49	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L			10/21/20 11:06	10/27/20 20:49	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/21/20 11:06	10/27/20 20:49	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/21/20 11:06	10/27/20 20:49	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/21/20 11:06	10/27/20 20:49	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L			10/21/20 11:06	10/27/20 20:49	1
Chrysene	ND		0.19	0.070	ug/L			10/21/20 11:06	10/27/20 20:49	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/21/20 11:06	10/27/20 20:49	1
Fluoranthene	ND		0.19	0.064	ug/L			10/21/20 11:06	10/27/20 20:49	1
Fluorene	ND		0.19	0.10	ug/L			10/21/20 11:06	10/27/20 20:49	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/21/20 11:06	10/27/20 20:49	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L			10/21/20 11:06	10/27/20 20:49	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L			10/21/20 11:06	10/27/20 20:49	1
Phenanthrene	ND		0.19	0.034	ug/L			10/21/20 11:06	10/27/20 20:49	1
Pyrene	ND		0.19	0.038	ug/L			10/21/20 11:06	10/27/20 20:49	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	52		15 - 122					10/21/20 11:06	10/27/20 20:49	1
Nitrobenzene-d5	56		19 - 130					10/21/20 11:06	10/27/20 20:49	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST3MW-ROX-101920
Date Collected: 10/19/20 09:10
Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	62		33 - 138		10/21/20 11:06	10/27/20 20:49	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	WS	9.4	3.6	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Benzenethiol	ND	**1 WS	9.4	1.6	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Benzoic acid	ND		28	6.9	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Benzyl alcohol	ND	WS	9.4	1.9	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Bis(2-chloroethyl)ether	ND		9.4	2.6	ug/L	10/21/20 11:06	11/01/20 10:53	1	
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Bis(2-ethylhexyl) phthalate	6.6 J		9.4	4.7	ug/L	10/21/20 11:06	11/01/20 10:53	1	
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Butyl benzyl phthalate	ND		9.4	0.18	ug/L	10/21/20 11:06	11/01/20 10:53	1	
4-Chloroaniline	ND		9.4	3.2	ug/L	10/21/20 11:06	11/01/20 10:53	1	
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L	10/21/20 11:06	11/01/20 10:53	1	
2-Chloronaphthalene	ND		9.4	0.13	ug/L	10/21/20 11:06	11/01/20 10:53	1	
2-Chlorophenol	ND		9.4	2.1	ug/L	10/21/20 11:06	11/01/20 10:53	1	
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Dibenzofuran	ND		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 10:53	1	
3,3'-Dichlorobenzidine	ND		9.4	2.5	ug/L	10/21/20 11:06	11/01/20 10:53	1	
2,4-Dichlorophenol	ND		9.4	2.8	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Diethyl phthalate	ND		9.4	0.23	ug/L	10/21/20 11:06	11/01/20 10:53	1	
2,4-Dimethylphenol	ND		9.4	3.3	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Dimethyl phthalate	ND		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Di-n-butyl phthalate	ND		9.4	2.6	ug/L	10/21/20 11:06	11/01/20 10:53	1	
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L	10/21/20 11:06	11/01/20 10:53	1	
2,4-Dinitrophenol	ND		28	3.2	ug/L	10/21/20 11:06	11/01/20 10:53	1	
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L	10/21/20 11:06	11/01/20 10:53	1	
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Di-n-octyl phthalate	ND		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 10:53	1	
1,4-Dioxane	ND	WS	9.4	0.94	ug/L	10/21/20 11:06	11/01/20 10:53	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Hexachlorobenzene	ND		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Hexachlorocyclopentadiene	ND	WS	19	2.5	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Hexachloroethane	ND		9.4	4.0	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Indene	ND		9.4	0.94	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Isophorone	ND		9.4	0.13	ug/L	10/21/20 11:06	11/01/20 10:53	1	
2-Methylphenol	ND		9.4	1.7	ug/L	10/21/20 11:06	11/01/20 10:53	1	
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/21/20 11:06	11/01/20 10:53	1	
2-Nitroaniline	ND		9.4	2.1	ug/L	10/21/20 11:06	11/01/20 10:53	1	
3-Nitroaniline	ND		9.4	1.7	ug/L	10/21/20 11:06	11/01/20 10:53	1	
4-Nitroaniline	ND		9.4	1.4	ug/L	10/21/20 11:06	11/01/20 10:53	1	
Nitrobenzene	ND		9.4	0.12	ug/L	10/21/20 11:06	11/01/20 10:53	1	
2-Nitrophenol	ND		9.4	4.9	ug/L	10/21/20 11:06	11/01/20 10:53	1	
4-Nitrophenol	ND	WS	9.4	2.0	ug/L	10/21/20 11:06	11/01/20 10:53	1	
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L	10/21/20 11:06	11/01/20 10:53	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST3MW-ROX-101920
Date Collected: 10/19/20 09:10
Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-3
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/21/20 11:06	11/01/20 10:53	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/21/20 11:06	11/01/20 10:53	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 11:06	11/01/20 10:53	1
Phenol	ND		9.4	2.5	ug/L		10/21/20 11:06	11/01/20 10:53	1
Pyridine	ND	WS	9.4	3.0	ug/L		10/21/20 11:06	11/01/20 10:53	1
Quinoline	ND		9.4	4.3	ug/L		10/21/20 11:06	11/01/20 10:53	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/21/20 11:06	11/01/20 10:53	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/21/20 11:06	11/01/20 10:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	53		46 - 124				10/21/20 11:06	11/01/20 10:53	1
2-Fluorophenol	30		13 - 113				10/21/20 11:06	11/01/20 10:53	1
Nitrobenzene-d5	55		36 - 126				10/21/20 11:06	11/01/20 10:53	1
Phenol-d5	49		17 - 127				10/21/20 11:06	11/01/20 10:53	1
Terphenyl-d14	70		44 - 149				10/21/20 11:06	11/01/20 10:53	1
2,4,6-Tribromophenol	53		26 - 150				10/21/20 11:06	11/01/20 10:53	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	4.7	J H JS	9.4	4.7	ug/L		11/06/20 14:10	11/10/20 17:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	28 X		46 - 124				11/06/20 14:10	11/10/20 17:32	1
2-Fluorophenol	9 X		13 - 113				11/06/20 14:10	11/10/20 17:32	1
Nitrobenzene-d5	40		36 - 126				11/06/20 14:10	11/10/20 17:32	1
Phenol-d5	28		17 - 127				11/06/20 14:10	11/10/20 17:32	1
Terphenyl-d14	54		44 - 149				11/06/20 14:10	11/10/20 17:32	1
2,4,6-Tribromophenol	41		26 - 150				11/06/20 14:10	11/10/20 17:32	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.029	0.0054	ug/L		10/23/20 11:33	10/29/20 15:01	1
1,2-Dibromoethane	ND		0.020	0.0049	ug/L		10/23/20 11:33	10/27/20 16:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	129		51 - 149				10/23/20 11:33	10/27/20 16:00	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST4PZC-ROX-101920

Lab Sample ID: 400-194661-4

Matrix: Water

Date Collected: 10/19/20 10:10

Date Received: 10/20/20 09:46

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			10/29/20 22:10	1
Acrolein	ND		20	10	ug/L			10/29/20 22:10	1
Acrylonitrile	ND		10	2.8	ug/L			10/29/20 22:10	1
Benzene	3.9		1.0	0.38	ug/L			10/29/20 22:10	1
Bromobenzene	ND		1.0	0.54	ug/L			10/29/20 22:10	1
Bromoform	ND		5.0	0.71	ug/L			10/29/20 22:10	1
Bromomethane	ND		1.0	0.98	ug/L			10/29/20 22:10	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/29/20 22:10	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/29/20 22:10	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/29/20 22:10	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/29/20 22:10	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/29/20 22:10	1
Chloroethane	ND		1.0	0.76	ug/L			10/29/20 22:10	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/29/20 22:10	1
Chloroform	ND		1.0	0.60	ug/L			10/29/20 22:10	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/29/20 22:10	1
Chloromethane	ND		1.0	0.83	ug/L			10/29/20 22:10	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 22:10	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/29/20 22:10	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/29/20 22:10	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/29/20 22:10	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/29/20 22:10	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/29/20 22:10	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/29/20 22:10	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/29/20 22:10	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 22:10	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 22:10	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 22:10	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 22:10	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/29/20 22:10	1
Ethylbenzene	22		1.0	0.50	ug/L			10/29/20 22:10	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/29/20 22:10	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/29/20 22:10	1
2-Hexanone	ND		25	3.1	ug/L			10/29/20 22:10	1
Isopropylbenzene	7.5		1.0	0.53	ug/L			10/29/20 22:10	1
Methylene bromide	ND		5.0	0.59	ug/L			10/29/20 22:10	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/29/20 22:10	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/29/20 22:10	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/29/20 22:10	1
m-Xylene & p-Xylene	83		5.0	1.6	ug/L			10/29/20 22:10	1
Naphthalene	55		1.0	1.0	ug/L			10/29/20 22:10	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/29/20 22:10	1
N-Propylbenzene	12		1.0	0.69	ug/L			10/29/20 22:10	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/29/20 22:10	1
o-Xylene	0.92 J		5.0	0.60	ug/L			10/29/20 22:10	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/29/20 22:10	1
p-Isopropyltoluene	0.93 J		1.0	0.71	ug/L			10/29/20 22:10	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST4PZC-ROX-101920

Lab Sample ID: 400-194661-4

Date Collected: 10/19/20 10:10

Matrix: Water

Date Received: 10/20/20 09:46

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	0.81	J	1.0	0.70	ug/L			10/29/20 22:10	1
Styrene	ND		1.0	1.0	ug/L			10/29/20 22:10	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/29/20 22:10	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/29/20 22:10	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/29/20 22:10	1
Tetrachloroethene	ND		1.0	0.58	ug/L			10/29/20 22:10	1
Toluene	9.1		1.0	0.41	ug/L			10/29/20 22:10	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 22:10	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/29/20 22:10	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/29/20 22:10	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/29/20 22:10	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/29/20 22:10	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/29/20 22:10	1
Trichloroethene	ND		1.0	0.50	ug/L			10/29/20 22:10	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/29/20 22:10	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/29/20 22:10	1
1,2,4-Trimethylbenzene	28		1.0	0.82	ug/L			10/29/20 22:10	1
1,3,5-Trimethylbenzene	6.4		1.0	0.56	ug/L			10/29/20 22:10	1
Vinyl acetate	ND		25	2.0	ug/L			10/29/20 22:10	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/29/20 22:10	1
Xylenes, Total	84		10	1.6	ug/L			10/29/20 22:10	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		78 - 118					10/29/20 22:10	1
Dibromofluoromethane	93		81 - 121					10/29/20 22:10	1
Toluene-d8 (Sur)	110		80 - 120					10/29/20 22:10	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	1.9		0.19	0.030	ug/L			10/21/20 11:06	1
Acenaphthylene	ND		0.19	0.042	ug/L			10/21/20 11:06	1
Anthracene	1.0		0.19	0.030	ug/L			10/21/20 11:06	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L			10/21/20 11:06	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L			10/21/20 11:06	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/21/20 11:06	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/21/20 11:06	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L			10/21/20 11:06	1
Chrysene	ND		0.19	0.070	ug/L			10/21/20 11:06	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/21/20 11:06	1
Fluoranthene	0.19		0.19	0.064	ug/L			10/21/20 11:06	1
Fluorene	1.7		0.19	0.10	ug/L			10/21/20 11:06	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L			10/21/20 11:06	1
1-Methylnaphthalene	49		0.19	0.070	ug/L			10/21/20 11:06	1
2-Methylnaphthalene	57		0.19	0.056	ug/L			10/21/20 11:06	1
Phenanthrene	7.2		0.19	0.034	ug/L			10/21/20 11:06	1
Pyrene	0.50		0.19	0.038	ug/L			10/21/20 11:06	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	48		15 - 122					10/21/20 11:06	1
Nitrobenzene-d5	51		19 - 130					10/21/20 11:06	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST4PZC-ROX-101920

Lab Sample ID: 400-194661-4

Date Collected: 10/19/20 10:10

Matrix: Water

Date Received: 10/20/20 09:46

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	64		33 - 138	10/21/20 11:06	10/27/20 21:07	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	WS	9.4	3.6	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Benzenethiol	ND **1	WS	9.4	1.6	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Benzoic acid	ND		28	6.9	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Benzyl alcohol	ND	WS	9.4	1.9	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L	10/21/20 11:06	11/01/20 11:14	1	
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Bis(2-ethylhexyl) phthalate	46		9.4	4.7	ug/L	10/21/20 11:06	11/01/20 11:14	1	
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Butyl benzyl phthalate	ND		9.4	0.18	ug/L	10/21/20 11:06	11/01/20 11:14	1	
4-Chloroaniline	ND		9.4	3.2	ug/L	10/21/20 11:06	11/01/20 11:14	1	
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L	10/21/20 11:06	11/01/20 11:14	1	
2-Chloronaphthalene	ND		9.4	0.13	ug/L	10/21/20 11:06	11/01/20 11:14	1	
2-Chlorophenol	ND		9.4	2.1	ug/L	10/21/20 11:06	11/01/20 11:14	1	
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Dibenzofuran	0.71 J		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 11:14	1	
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L	10/21/20 11:06	11/01/20 11:14	1	
2,4-Dichlorophenol	ND		9.4	2.8	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Diethyl phthalate	-0.51 J B 4		9.4	0.23	ug/L	10/21/20 11:06	11/01/20 11:14	1	
2,4-Dimethylphenol	ND		9.4	3.3	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Dimethyl phthalate	ND		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Di-n-butyl phthalate	2.5 J		9.4	2.5	ug/L	10/21/20 11:06	11/01/20 11:14	1	
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L	10/21/20 11:06	11/01/20 11:14	1	
2,4-Dinitrophenol	ND		28	3.2	ug/L	10/21/20 11:06	11/01/20 11:14	1	
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L	10/21/20 11:06	11/01/20 11:14	1	
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Di-n-octyl phthalate	ND		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 11:14	1	
1,4-Dioxane	ND	WS	9.4	0.94	ug/L	10/21/20 11:06	11/01/20 11:14	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Hexachlorobenzene	ND		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Hexachlorocyclopentadiene	ND	WS	19	2.4	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Hexachloroethane	ND		9.4	3.9	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Indene	ND		9.4	0.94	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Isophorone	ND		9.4	0.13	ug/L	10/21/20 11:06	11/01/20 11:14	1	
2-Methylphenol	ND		9.4	1.7	ug/L	10/21/20 11:06	11/01/20 11:14	1	
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/21/20 11:06	11/01/20 11:14	1	
2-Nitroaniline	ND		9.4	2.1	ug/L	10/21/20 11:06	11/01/20 11:14	1	
3-Nitroaniline	ND		9.4	1.7	ug/L	10/21/20 11:06	11/01/20 11:14	1	
4-Nitroaniline	ND		9.4	1.4	ug/L	10/21/20 11:06	11/01/20 11:14	1	
Nitrobenzene	ND		9.4	0.12	ug/L	10/21/20 11:06	11/01/20 11:14	1	
2-Nitrophenol	ND		9.4	4.9	ug/L	10/21/20 11:06	11/01/20 11:14	1	
4-Nitrophenol	ND	WS	9.4	2.0	ug/L	10/21/20 11:06	11/01/20 11:14	1	
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L	10/21/20 11:06	11/01/20 11:14	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST4PZC-ROX-101920

Lab Sample ID: 400-194661-4

Date Collected: 10/19/20 10:10

Matrix: Water

Date Received: 10/20/20 09:46

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/21/20 11:06	11/01/20 11:14	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/21/20 11:06	11/01/20 11:14	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 11:06	11/01/20 11:14	1
Phenol	ND		9.4	2.4	ug/L		10/21/20 11:06	11/01/20 11:14	1
Pyridine	ND	WS	9.4	3.0	ug/L		10/21/20 11:06	11/01/20 11:14	1
Quinoline	ND		9.4	4.2	ug/L		10/21/20 11:06	11/01/20 11:14	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/21/20 11:06	11/01/20 11:14	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/21/20 11:06	11/01/20 11:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	61		46 - 124				10/21/20 11:06	11/01/20 11:14	1
2-Fluorophenol	50		13 - 113				10/21/20 11:06	11/01/20 11:14	1
Nitrobenzene-d5	64		36 - 126				10/21/20 11:06	11/01/20 11:14	1
Phenol-d5	67		17 - 127				10/21/20 11:06	11/01/20 11:14	1
Terphenyl-d14	81		44 - 149				10/21/20 11:06	11/01/20 11:14	1
2,4,6-Tribromophenol	73		26 - 150				10/21/20 11:06	11/01/20 11:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	6.0	J H S	9.5	4.7	ug/L		11/06/20 14:10	11/10/20 17:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	32 X		46 - 124				11/06/20 14:10	11/10/20 17:53	1
2-Fluorophenol	45		13 - 113				11/06/20 14:10	11/10/20 17:53	1
Nitrobenzene-d5	42		36 - 126				11/06/20 14:10	11/10/20 17:53	1
Phenol-d5	45		17 - 127				11/06/20 14:10	11/10/20 17:53	1
Terphenyl-d14	69		44 - 149				11/06/20 14:10	11/10/20 17:53	1
2,4,6-Tribromophenol	45		26 - 150				11/06/20 14:10	11/10/20 17:53	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/23/20 11:33	10/27/20 16:20	1

Method: 8011 - EDB and DBCP in Water by Microextraction - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/23/20 11:33	10/29/20 15:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108 p		51 - 149				10/23/20 11:33	10/29/20 15:23	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST4PZE-ROX-101920

Lab Sample ID: 400-194661-5

Matrix: Water

Date Collected: 10/19/20 11:10

Date Received: 10/20/20 09:46

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130	50	ug/L			10/29/20 22:37	5
Acrolein	ND		100	50	ug/L			10/29/20 22:37	5
Acrylonitrile	ND		50	14	ug/L			10/29/20 22:37	5
Benzene	97		5.0	1.9	ug/L			10/29/20 22:37	5
Bromobenzene	ND		5.0	2.7	ug/L			10/29/20 22:37	5
Bromoform	ND		5.0	2.5	ug/L			10/29/20 22:37	5
Bromomethane	ND		5.0	4.9	ug/L			10/29/20 22:37	5
2-Butanone (MEK)	ND		130	13	ug/L			10/29/20 22:37	5
Carbon disulfide	ND		5.0	2.5	ug/L			10/29/20 22:37	5
Carbon tetrachloride	ND		5.0	2.5	ug/L			10/29/20 22:37	5
Chlorobenzene	ND		5.0	2.5	ug/L			10/29/20 22:37	5
Dibromochloromethane	ND		5.0	2.5	ug/L			10/29/20 22:37	5
Chloroethane	ND		5.0	3.8	ug/L			10/29/20 22:37	5
2-Chloroethyl vinyl ether	ND		25	10	ug/L			10/29/20 22:37	5
Chloroform	ND		5.0	3.0	ug/L			10/29/20 22:37	5
1-Chlorohexane	ND		5.0	3.5	ug/L			10/29/20 22:37	5
Chloromethane	ND		5.0	4.2	ug/L			10/29/20 22:37	5
cis-1,2-Dichloroethene	ND		5.0	2.5	ug/L			10/29/20 22:37	5
cis-1,3-Dichloropropene	ND		25	2.5	ug/L			10/29/20 22:37	5
1,2-Dichlorobenzene	ND		5.0	2.5	ug/L			10/29/20 22:37	5
1,3-Dichlorobenzene	ND		5.0	2.7	ug/L			10/29/20 22:37	5
1,4-Dichlorobenzene	ND		5.0	3.2	ug/L			10/29/20 22:37	5
Dichlorodifluoromethane	ND		5.0	4.3	ug/L			10/29/20 22:37	5
1,1-Dichloroethane	ND		5.0	2.5	ug/L			10/29/20 22:37	5
1,2-Dichloroethane	ND		5.0	2.5	ug/L			10/29/20 22:37	5
1,1-Dichloroethene	ND		5.0	2.5	ug/L			10/29/20 22:37	5
1,2-Dichloropropane	ND		5.0	2.5	ug/L			10/29/20 22:37	5
1,3-Dichloropropane	ND		5.0	2.5	ug/L			10/29/20 22:37	5
2,2-Dichloropropane	ND		5.0	2.5	ug/L			10/29/20 22:37	5
1,1-Dichloropropene	ND		5.0	2.5	ug/L			10/29/20 22:37	5
Ethylbenzene	410		5.0	2.5	ug/L			10/29/20 22:37	5
Ethyl methacrylate	ND		5.0	3.0	ug/L			10/29/20 22:37	5
Hexachlorobutadiene	ND		25	4.5	ug/L			10/29/20 22:37	5
2-Hexanone	ND		130	16	ug/L			10/29/20 22:37	5
Isopropylbenzene	15		5.0	2.7	ug/L			10/29/20 22:37	5
Methylene bromide	ND		25	3.0	ug/L			10/29/20 22:37	5
Methylene Chloride	ND		25	15	ug/L			10/29/20 22:37	5
4-Methyl-2-pentanone (MIBK)	ND		130	9.0	ug/L			10/29/20 22:37	5
Methyl tert-butyl ether	ND		5.0	3.7	ug/L			10/29/20 22:37	5
m-Xylene & p-Xylene	450		25	8.0	ug/L			10/29/20 22:37	5
Naphthalene	150		5.0	5.0	ug/L			10/29/20 22:37	5
n-Butylbenzene	ND *		5.0	3.8	ug/L			10/29/20 22:37	5
N-Propylbenzene	27		5.0	3.5	ug/L			10/29/20 22:37	5
o-Chlorotoluene	ND		5.0	2.9	ug/L			10/29/20 22:37	5
o-Xylene	71		25	3.0	ug/L			10/29/20 22:37	5
p-Chlorotoluene	ND		5.0	2.8	ug/L			10/29/20 22:37	5
p-Isopropyltoluene	ND		5.0	3.6	ug/L			10/29/20 22:37	5

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST4PZE-ROX-101920

Lab Sample ID: 400-194661-5

Date Collected: 10/19/20 11:10

Matrix: Water

Date Received: 10/20/20 09:46

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5.0	3.5	ug/L			10/29/20 22:37	5
Styrene	ND		5.0	5.0	ug/L			10/29/20 22:37	5
tert-Butylbenzene	ND		5.0	3.2	ug/L			10/29/20 22:37	5
1,1,1,2-Tetrachloroethane	ND		5.0	2.6	ug/L			10/29/20 22:37	5
1,1,2,2-Tetrachloroethane	ND		5.0	2.5	ug/L			10/29/20 22:37	5
Tetrachloroethene	ND		5.0	2.9	ug/L			10/29/20 22:37	5
Toluene	42		5.0	2.1	ug/L			10/29/20 22:37	5
trans-1,2-Dichloroethene	ND		5.0	2.5	ug/L			10/29/20 22:37	5
trans-1,3-Dichloropropene	ND		25	2.5	ug/L			10/29/20 22:37	5
1,2,3-Trichlorobenzene	ND		5.0	3.5	ug/L			10/29/20 22:37	5
1,2,4-Trichlorobenzene	ND		5.0	4.1	ug/L			10/29/20 22:37	5
1,1,1-Trichloroethane	ND		5.0	2.5	ug/L			10/29/20 22:37	5
1,1,2-Trichloroethane	ND		25	2.5	ug/L			10/29/20 22:37	5
Trichloroethene	ND		5.0	2.5	ug/L			10/29/20 22:37	5
Trichlorofluoromethane	ND		5.0	2.6	ug/L			10/29/20 22:37	5
1,2,3-Trichloropropane	ND		25	4.2	ug/L			10/29/20 22:37	5
1,2,4-Trimethylbenzene	160		5.0	4.1	ug/L			10/29/20 22:37	5
1,3,5-Trimethylbenzene	31		5.0	2.8	ug/L			10/29/20 22:37	5
Vinyl acetate	ND		130	10	ug/L			10/29/20 22:37	5
Vinyl chloride	ND		5.0	2.5	ug/L			10/29/20 22:37	5
Xylenes, Total	520		50	8.0	ug/L			10/29/20 22:37	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118					10/29/20 22:37	5
Dibromofluoromethane	96		81 - 121					10/29/20 22:37	5
Toluene-d8 (Surr)	112		80 - 120					10/29/20 22:37	5

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	1.3		0.19	0.030	ug/L			10/21/20 11:06	10/27/20 21:24	1
Acenaphthylene	ND		0.19	0.042	ug/L			10/21/20 11:06	10/27/20 21:24	1
Anthracene	0.37		0.19	0.030	ug/L			10/21/20 11:06	10/27/20 21:24	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L			10/21/20 11:06	10/27/20 21:24	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L			10/21/20 11:06	10/27/20 21:24	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/21/20 11:06	10/27/20 21:24	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/21/20 11:06	10/27/20 21:24	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L			10/21/20 11:06	10/27/20 21:24	1
Chrysene	ND		0.19	0.069	ug/L			10/21/20 11:06	10/27/20 21:24	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/21/20 11:06	10/27/20 21:24	1
Fluoranthene	0.089 J		0.19	0.064	ug/L			10/21/20 11:06	10/27/20 21:24	1
Fluorene	1.0		0.19	0.10	ug/L			10/21/20 11:06	10/27/20 21:24	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L			10/21/20 11:06	10/27/20 21:24	1
1-Methylnaphthalene	31		0.19	0.069	ug/L			10/21/20 11:06	10/27/20 21:24	1
2-Methylnaphthalene	18		0.19	0.056	ug/L			10/21/20 11:06	10/27/20 21:24	1
Phenanthrene	3.1		0.19	0.034	ug/L			10/21/20 11:06	10/27/20 21:24	1
Pyrene	0.097 J		0.19	0.038	ug/L			10/21/20 11:06	10/27/20 21:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	55		15 - 122					10/21/20 11:06	10/27/20 21:24	1
Nitrobenzene-d5	59		19 - 130					10/21/20 11:06	10/27/20 21:24	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST4PZE-ROX-101920

Lab Sample ID: 400-194661-5

Date Collected: 10/19/20 11:10

Matrix: Water

Date Received: 10/20/20 09:46

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	75		33 - 138	10/21/20 11:06	10/27/20 21:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	WS	9.4	3.6	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Benzenethiol	ND **1	WS	9.4	1.6	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Benzoic acid	ND		28	6.8	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Benzyl alcohol	ND	WS	9.4	1.9	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L	10/21/20 11:06	11/01/20 11:34	1	
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Bis(2-ethylhexyl) phthalate	200		9.4	4.7	ug/L	10/21/20 11:06	11/01/20 11:34	1	
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Butyl benzyl phthalate	ND		9.4	0.18	ug/L	10/21/20 11:06	11/01/20 11:34	1	
4-Chloroaniline	ND		9.4	3.2	ug/L	10/21/20 11:06	11/01/20 11:34	1	
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L	10/21/20 11:06	11/01/20 11:34	1	
2-Chloronaphthalene	ND		9.4	0.13	ug/L	10/21/20 11:06	11/01/20 11:34	1	
2-Chlorophenol	ND		9.4	2.1	ug/L	10/21/20 11:06	11/01/20 11:34	1	
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Dibenzofuran	1.2 J		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 11:34	1	
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L	10/21/20 11:06	11/01/20 11:34	1	
2,4-Dichlorophenol	ND		9.4	2.8	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Diethyl phthalate	ND		9.4	0.23	ug/L	10/21/20 11:06	11/01/20 11:34	1	
2,4-Dimethylphenol	ND		9.4	3.3	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Dimethyl phthalate	ND		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Di-n-butyl phthalate	2.7 J		9.4	2.5	ug/L	10/21/20 11:06	11/01/20 11:34	1	
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L	10/21/20 11:06	11/01/20 11:34	1	
2,4-Dinitrophenol	ND		28	3.2	ug/L	10/21/20 11:06	11/01/20 11:34	1	
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L	10/21/20 11:06	11/01/20 11:34	1	
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Di-n-octyl phthalate	ND		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 11:34	1	
1,4-Dioxane	ND WS		9.4	0.94	ug/L	10/21/20 11:06	11/01/20 11:34	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Hexachlorobenzene	ND		9.4	0.16	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Hexachlorocyclopentadiene	ND WS		19	2.4	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Hexachloroethane	ND		9.4	3.9	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Indene	5.7 J		9.4	0.94	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Isophorone	ND		9.4	0.13	ug/L	10/21/20 11:06	11/01/20 11:34	1	
2-Methylphenol	ND		9.4	1.7	ug/L	10/21/20 11:06	11/01/20 11:34	1	
3 & 4 Methylphenol	4.5 J		19	0.37	ug/L	10/21/20 11:06	11/01/20 11:34	1	
2-Nitroaniline	ND		9.4	2.1	ug/L	10/21/20 11:06	11/01/20 11:34	1	
3-Nitroaniline	ND		9.4	1.7	ug/L	10/21/20 11:06	11/01/20 11:34	1	
4-Nitroaniline	ND		9.4	1.4	ug/L	10/21/20 11:06	11/01/20 11:34	1	
Nitrobenzene	ND		9.4	0.12	ug/L	10/21/20 11:06	11/01/20 11:34	1	
2-Nitrophenol	ND		9.4	4.9	ug/L	10/21/20 11:06	11/01/20 11:34	1	
4-Nitrophenol	ND WS		9.4	2.0	ug/L	10/21/20 11:06	11/01/20 11:34	1	
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L	10/21/20 11:06	11/01/20 11:34	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST4PZE-ROX-101920

Lab Sample ID: 400-194661-5

Matrix: Water

Date Collected: 10/19/20 11:10

Date Received: 10/20/20 09:46

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/21/20 11:06	11/01/20 11:34	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/21/20 11:06	11/01/20 11:34	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 11:06	11/01/20 11:34	1
Phenol	ND		9.4	2.4	ug/L		10/21/20 11:06	11/01/20 11:34	1
Pyridine	ND	WS	9.4	3.0	ug/L		10/21/20 11:06	11/01/20 11:34	1
Quinoline	ND		9.4	4.2	ug/L		10/21/20 11:06	11/01/20 11:34	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/21/20 11:06	11/01/20 11:34	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/21/20 11:06	11/01/20 11:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	52		46 - 124				10/21/20 11:06	11/01/20 11:34	1
2-Fluorophenol	49		13 - 113				10/21/20 11:06	11/01/20 11:34	1
Nitrobenzene-d5	54		36 - 126				10/21/20 11:06	11/01/20 11:34	1
Phenol-d5	59		17 - 127				10/21/20 11:06	11/01/20 11:34	1
Terphenyl-d14	69		44 - 149				10/21/20 11:06	11/01/20 11:34	1
2,4,6-Tribromophenol	62		26 - 150				10/21/20 11:06	11/01/20 11:34	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RERA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H WS	9.4	4.7	ug/L		11/06/20 14:10	11/10/20 18:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	48		46 - 124				11/06/20 14:10	11/10/20 18:14	1
2-Fluorophenol	39		13 - 113				11/06/20 14:10	11/10/20 18:14	1
Nitrobenzene-d5	51		36 - 126				11/06/20 14:10	11/10/20 18:14	1
Phenol-d5	57		17 - 127				11/06/20 14:10	11/10/20 18:14	1
Terphenyl-d14	75		44 - 149				11/06/20 14:10	11/10/20 18:14	1
2,4,6-Tribromophenol	59		26 - 150				11/06/20 14:10	11/10/20 18:14	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.021	0.0053	ug/L		10/23/20 11:33	10/27/20 16:40	1

Method: 8011 - EDB and DBCP in Water by Microextraction - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.032	0.0058	ug/L		10/23/20 11:33	10/29/20 15:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107	p	51 - 149				10/23/20 11:33	10/29/20 15:44	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: MW28-ROX-101920
Date Collected: 10/19/20 12:50
Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil. Fac.
Acetone	ND		25	10	ug/L			10/29/20 21:42	1
Acrolein	ND		20	10	ug/L			10/29/20 21:42	1
Acrylonitrile	ND		10	2.8	ug/L			10/29/20 21:42	1
Benzene	5.2		1.0	0.38	ug/L			10/29/20 21:42	1
Bromobenzene	ND		1.0	0.54	ug/L			10/29/20 21:42	1
Bromoform	ND		1.0	0.50	ug/L			10/29/20 21:42	1
Bromomethane	ND		1.0	0.98	ug/L			10/29/20 21:42	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/29/20 21:42	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/29/20 21:42	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/29/20 21:42	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/29/20 21:42	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/29/20 21:42	1
Chloroethane	ND		1.0	0.76	ug/L			10/29/20 21:42	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/29/20 21:42	1
Chloroform	ND		1.0	0.60	ug/L			10/29/20 21:42	1
1-Chlorhexane	ND		1.0	0.70	ug/L			10/29/20 21:42	1
Chloromethane	ND		1.0	0.83	ug/L			10/29/20 21:42	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 21:42	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/29/20 21:42	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/29/20 21:42	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/29/20 21:42	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/29/20 21:42	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/29/20 21:42	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/29/20 21:42	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/29/20 21:42	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 21:42	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 21:42	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 21:42	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 21:42	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/29/20 21:42	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/29/20 21:42	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/29/20 21:42	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/29/20 21:42	1
2-Hexanone	ND		25	3.1	ug/L			10/29/20 21:42	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/29/20 21:42	1
Methylene bromide	ND		5.0	0.59	ug/L			10/29/20 21:42	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/29/20 21:42	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/29/20 21:42	1
Methyl tert-butyl ether	45		1.0	0.74	ug/L			10/29/20 21:42	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/29/20 21:42	1
Naphthalene	1.0		1.0	1.0	ug/L			10/29/20 21:42	1
n-Butylbenzene	ND *		1.0	0.76	ug/L			10/29/20 21:42	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/29/20 21:42	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/29/20 21:42	1
o-Xylene	0.70 J		5.0	0.60	ug/L			10/29/20 21:42	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/29/20 21:42	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			10/29/20 21:42	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: MW28-ROX-101920

Date Collected: 10/19/20 12:50

Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	2.2		1.0	0.70	ug/L			10/29/20 21:42	1
Styrene	ND		1.0	1.0	ug/L			10/29/20 21:42	1
tert-Butylbenzene	0.71	J	1.0	0.63	ug/L			10/29/20 21:42	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/29/20 21:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/29/20 21:42	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/29/20 21:42	1
Toluene	ND		1.0	0.41	ug/L			10/29/20 21:42	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/29/20 21:42	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/29/20 21:42	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/29/20 21:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/29/20 21:42	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/29/20 21:42	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/29/20 21:42	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/29/20 21:42	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/29/20 21:42	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/29/20 21:42	1
1,2,4-Trimethylbenzene	1.4		1.0	0.82	ug/L			10/29/20 21:42	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/29/20 21:42	1
Vinyl acetate	ND		25	2.0	ug/L			10/29/20 21:42	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/29/20 21:42	1
Xylenes, Total	ND		10	1.6	ug/L			10/29/20 21:42	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118					10/29/20 21:42	1
Dibromofluoromethane	94		81 - 121					10/29/20 21:42	1
Toluene-d8 (Surr)	112		80 - 120					10/29/20 21:42	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L			10/21/20 11:06	10/27/20 21:42	1
Acenaphthylene	ND		0.19	0.042	ug/L			10/21/20 11:06	10/27/20 21:42	1
Anthracene	ND		0.19	0.030	ug/L			10/21/20 11:06	10/27/20 21:42	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L			10/21/20 11:06	10/27/20 21:42	1
Benzo[a]pyrene	ND		0.19	0.039	ug/L			10/21/20 11:06	10/27/20 21:42	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L			10/21/20 11:06	10/27/20 21:42	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/21/20 11:06	10/27/20 21:42	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L			10/21/20 11:06	10/27/20 21:42	1
Chrysene	ND		0.19	0.069	ug/L			10/21/20 11:06	10/27/20 21:42	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L			10/21/20 11:06	10/27/20 21:42	1
Fluoranthene	ND		0.19	0.064	ug/L			10/21/20 11:06	10/27/20 21:42	1
Fluorene	ND		0.19	0.10	ug/L			10/21/20 11:06	10/27/20 21:42	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L			10/21/20 11:06	10/27/20 21:42	1
1-Methylnaphthalene	ND		0.19	0.069	ug/L			10/21/20 11:06	10/27/20 21:42	1
2-Methylnaphthalene	ND		0.19	0.056	ug/L			10/21/20 11:06	10/27/20 21:42	1
Phenanthrene	ND		0.19	0.034	ug/L			10/21/20 11:06	10/27/20 21:42	1
Pyrene	ND		0.19	0.037	ug/L			10/21/20 11:06	10/27/20 21:42	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	51		15 - 122					10/21/20 11:06	10/27/20 21:42	1
Nitrobenzene-d5	57		19 - 130					10/21/20 11:06	10/27/20 21:42	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: MW28-ROX-101920

Lab Sample ID: 400-194661-6

Date Collected: 10/19/20 12:50

Matrix: Water

Date Received: 10/20/20 09:46

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	64		33 - 138	10/21/20 11:06	10/27/20 21:42	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND	WS	9.4	3.6	ug/L		10/21/20 11:06	11/01/20 11:55	1
Benzenethiol	ND	**1 WS	9.4	1.6	ug/L		10/21/20 11:06	11/01/20 11:55	1
Benzoic acid	ND		28	6.8	ug/L		10/21/20 11:06	11/01/20 11:55	1
Benzyl alcohol	ND	WS	9.4	1.9	ug/L		10/21/20 11:06	11/01/20 11:55	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/21/20 11:06	11/01/20 11:55	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/21/20 11:06	11/01/20 11:55	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/21/20 11:06	11/01/20 11:55	1
Bis(2-ethylhexyl) phthalate	8.3 J		9.4	4.7	ug/L		10/21/20 11:06	11/01/20 11:55	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/21/20 11:06	11/01/20 11:55	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/21/20 11:06	11/01/20 11:55	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/21/20 11:06	11/01/20 11:55	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/21/20 11:06	11/01/20 11:55	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/21/20 11:06	11/01/20 11:55	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/21/20 11:06	11/01/20 11:55	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/21/20 11:06	11/01/20 11:55	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/21/20 11:06	11/01/20 11:55	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/21/20 11:06	11/01/20 11:55	1
3,3'-Dichlorobenzidine	ND		9.4	2.4	ug/L		10/21/20 11:06	11/01/20 11:55	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/21/20 11:06	11/01/20 11:55	1
Diethyl phthalate	ND		9.4	0.22	ug/L		10/21/20 11:06	11/01/20 11:55	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/21/20 11:06	11/01/20 11:55	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/21/20 11:06	11/01/20 11:55	1
Di-n-butyl phthalate	2.7 J		9.4	2.5	ug/L		10/21/20 11:06	11/01/20 11:55	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		10/21/20 11:06	11/01/20 11:55	1
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/21/20 11:06	11/01/20 11:55	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/21/20 11:06	11/01/20 11:55	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/21/20 11:06	11/01/20 11:55	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/21/20 11:06	11/01/20 11:55	1
1,4-Dioxane	ND	WS	9.4	0.94	ug/L		10/21/20 11:06	11/01/20 11:55	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/21/20 11:06	11/01/20 11:55	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		10/21/20 11:06	11/01/20 11:55	1
Hexachlorocyclopentadiene	ND	WS	19	2.4	ug/L		10/21/20 11:06	11/01/20 11:55	1
Hexachloroethane	ND		9.4	3.9	ug/L		10/21/20 11:06	11/01/20 11:55	1
Indene	ND		9.4	0.94	ug/L		10/21/20 11:06	11/01/20 11:55	1
Isophorone	ND		9.4	0.13	ug/L		10/21/20 11:06	11/01/20 11:55	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/21/20 11:06	11/01/20 11:55	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/21/20 11:06	11/01/20 11:55	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/21/20 11:06	11/01/20 11:55	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/21/20 11:06	11/01/20 11:55	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/21/20 11:06	11/01/20 11:55	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/21/20 11:06	11/01/20 11:55	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/21/20 11:06	11/01/20 11:55	1
4-Nitrophenol	ND	WS	9.4	2.0	ug/L		10/21/20 11:06	11/01/20 11:55	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		10/21/20 11:06	11/01/20 11:55	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: MW28-ROX-101920
Date Collected: 10/19/20 12:50
Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-6
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/21/20 11:06	11/01/20 11:55	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/21/20 11:06	11/01/20 11:55	1
Pentachlorophenol	ND		19	1.3	ug/L		10/21/20 11:06	11/01/20 11:55	1
Phenol	ND		9.4	2.4	ug/L		10/21/20 11:06	11/01/20 11:55	1
Pyridine	ND	us	9.4	3.0	ug/L		10/21/20 11:06	11/01/20 11:55	1
Quinoline	ND		9.4	4.2	ug/L		10/21/20 11:06	11/01/20 11:55	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/21/20 11:06	11/01/20 11:55	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/21/20 11:06	11/01/20 11:55	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	60		46 - 124				10/21/20 11:06	11/01/20 11:55	1
2-Fluorophenol	55		13 - 113				10/21/20 11:06	11/01/20 11:55	1
Nitrobenzene-d5	63		36 - 126				10/21/20 11:06	11/01/20 11:55	1
Phenol-d5	68		17 - 127				10/21/20 11:06	11/01/20 11:55	1
Terphenyl-d14	78		44 - 149				10/21/20 11:06	11/01/20 11:55	1
2,4,6-Tribromophenol	65		26 - 150				10/21/20 11:06	11/01/20 11:55	1

Method: 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	9.4	4.7	ug/L		11/06/20 14:10	11/10/20 18:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	33 X		46 - 124				11/06/20 14:10	11/10/20 18:35	1
2-Fluorophenol	24		13 - 113				11/06/20 14:10	11/10/20 18:35	1
Nitrobenzene-d5	44		36 - 126				11/06/20 14:10	11/10/20 18:35	1
Phenol-d5	42		17 - 127				11/06/20 14:10	11/10/20 18:35	1
Terphenyl-d14	74		44 - 149				11/06/20 14:10	11/10/20 18:35	1
2,4,6-Tribromophenol	50		26 - 150				11/06/20 14:10	11/10/20 18:35	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0056	ug/L		10/23/20 11:33	10/29/20 16:06	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/23/20 11:33	10/27/20 17:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	139		51 - 149				10/23/20 11:33	10/27/20 17:00	1

Eurofins TestAmerica, Pensacola

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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 or LCSD is outside acceptance limits.
*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.
X	Surrogate recovery exceeds control limits

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
P	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
d	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: 400-194661-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194661-1	TB-ROX-101920-8260	100	95	111
400-194661-3	ROST3MW-ROX-101920	100	96	111
400-194661-4	ROST4PZC-ROX-101920	100	93	110
400-194661-5	ROST4PZE-ROX-101920	99	96	112
400-194661-6	MW28-ROX-101920	99	94	112
LCS 400-508579/1003	Lab Control Sample	99	94	111
MB 400-508579/5	Method Blank	99	94	111

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194661-3	ROST3MW-ROX-101920	53	30	55	49	70	53
400-194661-3 - RERA	ROST3MW-ROX-101920	28 X	9 X	40	28	54	41
400-194661-4	ROST4PZC-ROX-101920	61	50	64	67	81	73
400-194661-4 - RERA	ROST4PZC-ROX-101920	32 X	45	42	45	69	45
400-194661-5	ROST4PZE-ROX-101920	52	49	54	59	69	62
400-194661-5 - RERA	ROST4PZE-ROX-101920	48	39	51	57	75	59
400-194661-6	MW28-ROX-101920	60	55	63	68	78	65
400-194661-6 - RERA	MW28-ROX-101920	33 X	24	44	42	74	50
LCS 400-507618/2-A	Lab Control Sample	57	25	56	42	79	89
LCS 400-507618/3-A	Lab Control Sample	57	21	57	41	87	87
LCS 400-509677/2-A	Lab Control Sample	65	23	58	41	76	135
LCSD 400-507618/4-A	Lab Control Sample Dup	55	5 X	55	23	77	32
LCSD 400-509677/3-A	Lab Control Sample Dup	71	32	61	51	86	170 X
MB 400-507618/1-A	Method Blank	58	17	59	36	85	88
MB 400-509677/1-A	Method Blank	94	37	67	63	100	188 X

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194661-3	ROST3MW-ROX-101920	52	56	62
400-194661-4	ROST4PZC-ROX-101920	48	51	64

Eurofins TestAmerica, Pensacola

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194661-5	ROST4PZE-ROX-101920	55	59	75
400-194661-6	MW28-ROX-101920	51	57	64
LCS 400-507618/2-A	Lab Control Sample	85	96	98
MB 400-507618/1-A	Method Blank	32	39	41

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB2 (51-149)	
400-194661-2	TB-ROX-101920-8011	131	
400-194661-3	ROST3MW-ROX-101920	129	
400-194661-4 - RA	ROST4PZC-ROX-101920	108 p	
400-194661-5 - RA	ROST4PZE-ROX-101920	107 p	
400-194661-6	MW28-ROX-101920	139	
LCS 400-507961/2-A	Lab Control Sample	101	
LCSD 400-507961/3-A	Lab Control Sample Dup	124	
MB 400-507961/1-A	Method Blank	105	

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

9

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: TB-ROX-101920-8260
Date Collected: 10/19/20 00:00
Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-1
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	508579	10/29/20 20:46	WPD	TAL PEN

Client Sample ID: TB-ROX-101920-8011
Date Collected: 10/19/20 00:00
Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-2
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			34.5 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 14:39	DHJ	TAL PEN
Total/NA	Prep	8011			34.5 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 15:40	DS	TAL PEN

Client Sample ID: ROST3MW-ROX-101920
Date Collected: 10/19/20 09:10
Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-3
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	508579	10/29/20 21:14	WPD	TAL PEN
Total/NA	Prep	3520C			264.6 mL	1 mL	507618	10/21/20 11:06	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508916	11/01/20 10:53	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		265.4 mL	1 mL	509677	11/06/20 14:10	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			510074	11/10/20 17:32	S1B	TAL PEN
Total/NA	Prep	3520C			264.6 mL	1 mL	507618	10/21/20 11:06	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 20:49	KJA	TAL PEN
Total/NA	Prep	8011			35.6 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 15:01	DHJ	TAL PEN
Total/NA	Prep	8011			35.6 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 16:00	DS	TAL PEN

Client Sample ID: ROST4PZC-ROX-101920
Date Collected: 10/19/20 10:10
Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-4
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	508579	10/29/20 22:10	WPD	TAL PEN
Total/NA	Prep	3520C			266 mL	1 mL	507618	10/21/20 11:06	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508916	11/01/20 11:14	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		263.6 mL	1 mL	509677	11/06/20 14:10	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			510074	11/10/20 17:53	S1B	TAL PEN
Total/NA	Prep	3520C			266 mL	1 mL	507618	10/21/20 11:06	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 21:07	KJA	TAL PEN
Total/NA	Prep	8011	RA		35.1 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011	RA	1			508627	10/29/20 15:23	DHJ	TAL PEN
Total/NA	Prep	8011			35.1 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 16:20	DS	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: ROST4PZE-ROX-101920

Date Collected: 10/19/20 11:10

Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-5

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		5	5 mL	5 mL	508579	10/29/20 22:37	WPD	TAL PEN
Total/NA	Prep	3520C			266.6 mL	1 mL	507618	10/21/20 11:06	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508916	11/01/20 11:34	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		266 mL	1 mL	509677	11/06/20 14:10	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1	0.4 mL	1.0 mL	510074	11/10/20 18:14	S1B	TAL PEN
Total/NA	Prep	3520C			266.6 mL	1 mL	507618	10/21/20 11:06	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 21:24	KJA	TAL PEN
Total/NA	Prep	8011	RA		33.2 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011	RA	1			508627	10/29/20 15:44	DHJ	TAL PEN
Total/NA	Prep	8011			33.2 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 16:40	DS	TAL PEN

Client Sample ID: MW28-ROX-101920

Date Collected: 10/19/20 12:50

Date Received: 10/20/20 09:46

Lab Sample ID: 400-194661-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	508579	10/29/20 21:42	WPD	TAL PEN
Total/NA	Prep	3520C			267 mL	1 mL	507618	10/21/20 11:06	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508916	11/01/20 11:55	S1B	TAL PEN
Total/NA	Prep	3520C	RERA		264.6 mL	1 mL	509677	11/06/20 14:10	NTH	TAL PEN
Total/NA	Analysis	8270D	RERA	1			510074	11/10/20 18:35	S1B	TAL PEN
Total/NA	Prep	3520C			267 mL	1 mL	507618	10/21/20 11:06	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508361	10/27/20 21:42	KJA	TAL PEN
Total/NA	Prep	8011			34.5 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 16:06	DHJ	TAL PEN
Total/NA	Prep	8011			34.5 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 17:00	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-507618/1-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 19:13	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			508212	10/26/20 19:55	PP1	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-507961/1-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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			509274	11/04/20 19:51	DS	TAL PEN
Total/NA	Prep	8011			35 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 14:20	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-508579/5

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	508579	10/29/20 13:35	WPD	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-509677/1-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			1000 mL	1 mL	509677	11/06/20 14:10	NTH	TAL PEN
Total/NA	Analysis	8270D		1			510105	11/10/20 17:38	S1B	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507618/2-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 20:31	VC1	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			508212	10/26/20 20:13	PP1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507618/3-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	507618	10/21/20 10:40	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 19:39	VC1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507961/2-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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 14:17	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-508579/1003

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	508579	10/29/20 12:49	WPD	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-509677/2-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			1000 mL	1 mL	509677	11/06/20 14:10	NTH	TAL PEN
Total/NA	Analysis	8270D		1			510105	11/10/20 18:05	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-507618/4-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	507618	10/21/20 10:41	BAW	TAL PEN
Total/NA	Analysis	8270D		1			508112	10/26/20 20:05	VC1	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-507961/3-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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 15:20	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-509677/3-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			1000 mL	1 mL	509677	11/06/20 14:10	NTH	TAL PEN
Total/NA	Analysis	8270D		1			510105	11/10/20 18:32	S1B	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

GC/MS VOA

Analysis Batch: 508579

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194661-1	TB-ROX-101920-8260	Total/NA	Water	8260B	
400-194661-3	ROST3MW-ROX-101920	Total/NA	Water	8260B	
400-194661-4	ROST4PZC-ROX-101920	Total/NA	Water	8260B	
400-194661-5	ROST4PZE-ROX-101920	Total/NA	Water	8260B	
400-194661-6	MW28-ROX-101920	Total/NA	Water	8260B	
MB 400-508579/5	Method Blank	Total/NA	Water	8260B	
LCS 400-508579/1003	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 507618

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194661-3	ROST3MW-ROX-101920	Total/NA	Water	3520C	
400-194661-4	ROST4PZC-ROX-101920	Total/NA	Water	3520C	
400-194661-5	ROST4PZE-ROX-101920	Total/NA	Water	3520C	
400-194661-6	MW28-ROX-101920	Total/NA	Water	3520C	
MB 400-507618/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-507618/3-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-507618/4-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 508112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-507618/1-A	Method Blank	Total/NA	Water	8270D	507618
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	8270D	507618
LCS 400-507618/3-A	Lab Control Sample	Total/NA	Water	8270D	507618
LCSD 400-507618/4-A	Lab Control Sample Dup	Total/NA	Water	8270D	507618

Analysis Batch: 508212

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-507618/1-A	Method Blank	Total/NA	Water	8270D LL	507618
LCS 400-507618/2-A	Lab Control Sample	Total/NA	Water	8270D LL	507618

Analysis Batch: 508361

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194661-3	ROST3MW-ROX-101920	Total/NA	Water	8270D LL	507618
400-194661-4	ROST4PZC-ROX-101920	Total/NA	Water	8270D LL	507618
400-194661-5	ROST4PZE-ROX-101920	Total/NA	Water	8270D LL	507618
400-194661-6	MW28-ROX-101920	Total/NA	Water	8270D LL	507618

Analysis Batch: 508916

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194661-3	ROST3MW-ROX-101920	Total/NA	Water	8270D	507618
400-194661-4	ROST4PZC-ROX-101920	Total/NA	Water	8270D	507618
400-194661-5	ROST4PZE-ROX-101920	Total/NA	Water	8270D	507618
400-194661-6	MW28-ROX-101920	Total/NA	Water	8270D	507618

Prep Batch: 509677

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194661-3 - RERA	ROST3MW-ROX-101920	Total/NA	Water	3520C	
400-194661-4 - RERA	ROST4PZC-ROX-101920	Total/NA	Water	3520C	

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

GC/MS Semi VOA (Continued)

Prep Batch: 509677 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194661-5 - RERA	ROST4PZE-ROX-101920	Total/NA	Water	3520C	
400-194661-6 - RERA	MW28-ROX-101920	Total/NA	Water	3520C	
MB 400-509677/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-509677/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-509677/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 510074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194661-3 - RERA	ROST3MW-ROX-101920	Total/NA	Water	8270D	509677
400-194661-4 - RERA	ROST4PZC-ROX-101920	Total/NA	Water	8270D	509677
400-194661-5 - RERA	ROST4PZE-ROX-101920	Total/NA	Water	8270D	509677
400-194661-6 - RERA	MW28-ROX-101920	Total/NA	Water	8270D	509677

Analysis Batch: 510105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-509677/1-A	Method Blank	Total/NA	Water	8270D	509677
LCS 400-509677/2-A	Lab Control Sample	Total/NA	Water	8270D	509677
LCSD 400-509677/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	509677

GC Semi VOA

Prep Batch: 507961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194661-2	TB-ROX-101920-8011	Total/NA	Water	8011	
400-194661-3	ROST3MW-ROX-101920	Total/NA	Water	8011	
400-194661-4 - RA	ROST4PZC-ROX-101920	Total/NA	Water	8011	
400-194661-4	ROST4PZC-ROX-101920	Total/NA	Water	8011	
400-194661-5 - RA	ROST4PZE-ROX-101920	Total/NA	Water	8011	
400-194661-5	ROST4PZE-ROX-101920	Total/NA	Water	8011	
400-194661-6	MW28-ROX-101920	Total/NA	Water	8011	
MB 400-507961/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-507961/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-507961/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 508279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194661-2	TB-ROX-101920-8011	Total/NA	Water	8011	507961
400-194661-3	ROST3MW-ROX-101920	Total/NA	Water	8011	507961
400-194661-4	ROST4PZC-ROX-101920	Total/NA	Water	8011	507961
400-194661-5	ROST4PZE-ROX-101920	Total/NA	Water	8011	507961
400-194661-6	MW28-ROX-101920	Total/NA	Water	8011	507961
MB 400-507961/1-A	Method Blank	Total/NA	Water	8011	507961
LCSD 400-507961/3-A	Lab Control Sample Dup	Total/NA	Water	8011	507961

Analysis Batch: 508627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194661-2	TB-ROX-101920-8011	Total/NA	Water	8011	507961
400-194661-3	ROST3MW-ROX-101920	Total/NA	Water	8011	507961
400-194661-4 - RA	ROST4PZC-ROX-101920	Total/NA	Water	8011	507961
400-194661-5 - RA	ROST4PZE-ROX-101920	Total/NA	Water	8011	507961
400-194661-6	MW28-ROX-101920	Total/NA	Water	8011	507961

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

GC Semi VOA (Continued)

Analysis Batch: 508627 (Continued)

Lab Sample ID LCS 400-507961/2-A	Client Sample ID Lab Control Sample	Prep Type Total/NA	Matrix Water	Method 8011	Prep Batch 507961
-------------------------------------	----------------------------------------	-----------------------	-----------------	----------------	----------------------

Analysis Batch: 509274

Lab Sample ID MB 400-507961/1-A	Client Sample ID Method Blank	Prep Type Total/NA	Matrix Water	Method 8011	Prep Batch 507961
------------------------------------	----------------------------------	-----------------------	-----------------	----------------	----------------------



QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-508579/5

Matrix: Water

Analysis Batch: 508579

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			10/29/20 13:35	1
Acrolein	ND		20	10	ug/L			10/29/20 13:35	1
Acrylonitrile	ND		10	2.8	ug/L			10/29/20 13:35	1
Benzene	ND		1.0	0.38	ug/L			10/29/20 13:35	1
Bromobenzene	ND		1.0	0.54	ug/L			10/29/20 13:35	1
Bromoform	ND		1.0	0.52	ug/L			10/29/20 13:35	1
Bromochloromethane	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Bromodichloromethane	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Bromomethane	ND		5.0	0.71	ug/L			10/29/20 13:35	1
2-Butanone (MEK)	ND		25	2.6	ug/L			10/29/20 13:35	1
Carbon disulfide	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Chlorobenzene	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Dibromochloromethane	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Chloroethane	ND		1.0	0.76	ug/L			10/29/20 13:35	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			10/29/20 13:35	1
Chloroform	ND		1.0	0.60	ug/L			10/29/20 13:35	1
1-Chlorohexane	ND		1.0	0.70	ug/L			10/29/20 13:35	1
Chloromethane	ND		1.0	0.83	ug/L			10/29/20 13:35	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 13:35	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/29/20 13:35	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			10/29/20 13:35	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			10/29/20 13:35	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			10/29/20 13:35	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			10/29/20 13:35	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			10/29/20 13:35	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			10/29/20 13:35	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			10/29/20 13:35	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 13:35	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 13:35	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			10/29/20 13:35	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Ethylbenzene	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			10/29/20 13:35	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			10/29/20 13:35	1
2-Hexanone	ND		25	3.1	ug/L			10/29/20 13:35	1
Isopropylbenzene	ND		1.0	0.53	ug/L			10/29/20 13:35	1
Methylene bromide	ND		5.0	0.59	ug/L			10/29/20 13:35	1
Methylene Chloride	ND		5.0	3.0	ug/L			10/29/20 13:35	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			10/29/20 13:35	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			10/29/20 13:35	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			10/29/20 13:35	1
Naphthalene	ND		1.0	1.0	ug/L			10/29/20 13:35	1
n-Butylbenzene	ND		1.0	0.76	ug/L			10/29/20 13:35	1
N-Propylbenzene	ND		1.0	0.69	ug/L			10/29/20 13:35	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			10/29/20 13:35	1
o-Xylene	ND		5.0	0.60	ug/L			10/29/20 13:35	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			10/29/20 13:35	1

12

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-508579/5

Matrix: Water

Analysis Batch: 508579

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			10/29/20 13:35	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			10/29/20 13:35	1
Styrene	ND		1.0	1.0	ug/L			10/29/20 13:35	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			10/29/20 13:35	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			10/29/20 13:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			10/29/20 13:35	1
Toluene	ND		1.0	0.41	ug/L			10/29/20 13:35	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L			10/29/20 13:35	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			10/29/20 13:35	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			10/29/20 13:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			10/29/20 13:35	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			10/29/20 13:35	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			10/29/20 13:35	1
Trichloroethylene	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			10/29/20 13:35	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			10/29/20 13:35	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			10/29/20 13:35	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			10/29/20 13:35	1
Vinyl acetate	ND		25	2.0	ug/L			10/29/20 13:35	1
Vinyl chloride	ND		1.0	0.50	ug/L			10/29/20 13:35	1
Xylenes, Total	ND		10	1.6	ug/L			10/29/20 13:35	1

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118		10/29/20 13:35	1
Dibromofluoromethane	94		81 - 121		10/29/20 13:35	1
Toluene-d8 (Sur)	111		80 - 120		10/29/20 13:35	1

Lab Sample ID: LCS 400-508579/1003

Matrix: Water

Analysis Batch: 508579

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Acetone	200	218		ug/L		109	43 - 160
Acrolein	500	426		ug/L		85	38 - 160
Acrylonitrile	500	430		ug/L		86	64 - 142
Benzene	50.0	47.0		ug/L		94	70 - 130
Bromobenzene	50.0	48.8		ug/L		98	70 - 132
Bromochloromethane	50.0	43.4		ug/L		87	70 - 130
Bromodichloromethane	50.0	45.7		ug/L		91	67 - 133
Bromoform	50.0	50.4		ug/L		101	57 - 140
Bromomethane	50.0	53.4		ug/L		107	10 - 160
2-Butanone (MEK)	200	221		ug/L		110	61 - 145
Carbon disulfide	50.0	41.2		ug/L		82	61 - 137
Carbon tetrachloride	50.0	42.4		ug/L		85	61 - 137
Chlorobenzene	50.0	51.0		ug/L		102	70 - 130
Dibromochloromethane	50.0	48.2		ug/L		96	67 - 135
Chloroethane	50.0	44.1		ug/L		88	55 - 141

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508579/1003

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 508579

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
2-Chloroethyl vinyl ether	50.0	19.6		ug/L		39	10 - 160	
Chloroform	50.0	45.4		ug/L		91	69 - 130	
1-Chlorohexane	50.0	60.1		ug/L		120	69 - 130	
Chloromethane	50.0	38.4		ug/L		77	58 - 137	
cis-1,2-Dichloroethene	50.0	46.6		ug/L		93	68 - 130	
cis-1,3-Dichloropropene	50.0	50.3		ug/L		101	69 - 132	
1,2-Dichlorobenzene	50.0	50.9		ug/L		102	67 - 130	
1,3-Dichlorobenzene	50.0	53.4		ug/L		107	70 - 130	
1,4-Dichlorobenzene	50.0	54.0		ug/L		108	70 - 130	
Dichlorodifluoromethane	50.0	30.4		ug/L		61	41 - 146	
1,1-Dichloroethane	50.0	47.1		ug/L		94	70 - 130	
1,2-Dichloroethane	50.0	44.4		ug/L		89	69 - 130	
1,1-Dichloroethene	50.0	41.7		ug/L		83	63 - 134	
1,2-Dichloropropane	50.0	46.4		ug/L		93	70 - 130	
1,3-Dichloropropane	50.0	55.0		ug/L		110	70 - 130	
2,2-Dichloropropane	50.0	45.7		ug/L		91	52 - 135	
1,1-Dichloropropene	50.0	47.7		ug/L		95	70 - 130	
Ethylbenzene	50.0	54.2		ug/L		108	70 - 130	
Ethyl methacrylate	50.0	56.6		ug/L		113	68 - 130	
Hexachlorobutadiene	50.0	48.9		ug/L		98	53 - 140	
2-Hexanone	200	238		ug/L		119	65 - 137	
Isopropylbenzene	50.0	54.3		ug/L		109	70 - 130	
Methylene bromide	50.0	45.2		ug/L		90	70 - 130	
Methylene Chloride	50.0	44.2		ug/L		88	66 - 135	
4-Methyl-2-pentanone (MIBK)	200	207		ug/L		104	69 - 138	
Methyl tert-butyl ether	50.0	48.0		ug/L		96	66 - 130	
m-Xylene & p-Xylene	50.0	52.7		ug/L		105	70 - 130	
Naphthalene	50.0	49.0		ug/L		98	47 - 149	
n-Butylbenzene	50.0	67.8 *		ug/L		136	67 - 130	
N-Propylbenzene	50.0	56.0		ug/L		112	70 - 130	
o-Chlorotoluene	50.0	56.1		ug/L		112	70 - 130	
o-Xylene	50.0	52.3		ug/L		105	70 - 130	
p-Chlorotoluene	50.0	56.7		ug/L		113	70 - 130	
p-Isopropyltoluene	50.0	62.8		ug/L		126	65 - 130	
sec-Butylbenzene	50.0	58.5		ug/L		117	66 - 130	
Styrene	50.0	51.0		ug/L		102	70 - 130	
tert-Butylbenzene	50.0	55.9		ug/L		112	64 - 139	
1,1,1,2-Tetrachloroethane	50.0	50.6		ug/L		101	67 - 131	
1,1,2,2-Tetrachloroethene	50.0	53.5		ug/L		107	70 - 131	
Tetrachloroethene	50.0	46.1		ug/L		92	65 - 130	
Toluene	50.0	52.0		ug/L		104	70 - 130	
trans-1,2-Dichloroethene	50.0	44.5		ug/L		89	70 - 130	
trans-1,3-Dichloropropene	50.0	55.9		ug/L		112	63 - 130	
1,2,3-Trichlorobenzene	50.0	45.7		ug/L		91	60 - 138	
1,2,4-Trichlorobenzene	50.0	45.9		ug/L		92	60 - 140	
1,1,1-Trichloroethane	50.0	43.5		ug/L		87	68 - 130	
1,1,2-Trichloroethane	50.0	53.2		ug/L		106	70 - 130	
Trichloroethene	50.0	43.0		ug/L		86	70 - 130	
Trichlorofluoromethane	50.0	41.6		ug/L		83	65 - 138	

12

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508579/1003

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508579

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	50.0	53.6		ug/L		107	70 - 130
1,2,4-Trimethylbenzene	50.0	54.7		ug/L		109	70 - 130
1,3,5-Trimethylbenzene	50.0	55.0		ug/L		110	69 - 130
Vinyl acetate	100	112		ug/L		112	26 - 160
Vinyl chloride	50.0	41.3		ug/L		83	59 - 136
Xylenes, Total	100	105		ug/L		105	70 - 130
Surrogate		LCS %Recovery	LCS Qualifier	Limits			
4-Bromofluorobenzene	99			78 - 118			
Dibromofluoromethane	94			81 - 121			
Toluene-d8 (Surr)	111			80 - 120			

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-507618/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508112

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
Benzenethiol	ND		10	1.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
Benzoic acid	ND		30	7.3	ug/L		10/21/20 10:40	10/26/20 19:13	1
Benzyl alcohol	ND		10	2.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/21/20 10:40	10/26/20 19:13	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/21/20 10:40	10/26/20 19:13	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/21/20 10:40	10/26/20 19:13	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Chloroaniline	ND		10	3.4	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/21/20 10:40	10/26/20 19:13	1
2-Chlorophenol	ND		10	2.2	ug/L		10/21/20 10:40	10/26/20 19:13	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Dibenzofuran	ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dichlorophenol	ND		10	3.0	ug/L		10/21/20 10:40	10/26/20 19:13	1
Diethyl phthalate	0.548 J		10	0.24	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dimethylphenol	ND		10	3.5	ug/L		10/21/20 10:40	10/26/20 19:13	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/21/20 10:40	10/26/20 19:13	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/21/20 10:40	10/26/20 19:13	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/21/20 10:40	10/26/20 19:13	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/21/20 10:40	10/26/20 19:13	1
1,4-Dioxane	ND		10	1.0	ug/L		10/21/20 10:40	10/26/20 19:13	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-507618/1-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507618

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							Prepared	Analyzed	Dil Fac
1,2-Diphenylhydrazine (as Azobenzene)	ND		10		1.0	ug/L		10/21/20 10:40	10/26/20 19:13		1
Hexachlorobenzene	ND		10		0.17	ug/L		10/21/20 10:40	10/26/20 19:13		1
Hexachlorocyclopentadiene	ND		20		2.6	ug/L		10/21/20 10:40	10/26/20 19:13		1
Hexachloroethane	ND		10		4.2	ug/L		10/21/20 10:40	10/26/20 19:13		1
Indene	ND		10		1.0	ug/L		10/21/20 10:40	10/26/20 19:13		1
Isophorone	ND		10		0.14	ug/L		10/21/20 10:40	10/26/20 19:13		1
2-Methylphenol	ND		10		1.8	ug/L		10/21/20 10:40	10/26/20 19:13		1
3 & 4 Methylphenol	ND		20		0.39	ug/L		10/21/20 10:40	10/26/20 19:13		1
2-Nitroaniline	ND		10		2.2	ug/L		10/21/20 10:40	10/26/20 19:13		1
3-Nitroaniline	ND		10		1.8	ug/L		10/21/20 10:40	10/26/20 19:13		1
4-Nitroaniline	ND		10		1.5	ug/L		10/21/20 10:40	10/26/20 19:13		1
Nitrobenzene	ND		10		0.13	ug/L		10/21/20 10:40	10/26/20 19:13		1
2-Nitrophenol	ND		10		5.2	ug/L		10/21/20 10:40	10/26/20 19:13		1
4-Nitrophenol	ND		10		2.1	ug/L		10/21/20 10:40	10/26/20 19:13		1
N-Nitrosodimethylamine	ND		10		3.5	ug/L		10/21/20 10:40	10/26/20 19:13		1
N-Nitrosodi-n-propylamine	ND		10		3.3	ug/L		10/21/20 10:40	10/26/20 19:13		1
N-Nitrosodiphenylamine	ND		10		0.18	ug/L		10/21/20 10:40	10/26/20 19:13		1
Pentachlorophenol	ND		20		1.4	ug/L		10/21/20 10:40	10/26/20 19:13		1
Phenol	ND		10		2.6	ug/L		10/21/20 10:40	10/26/20 19:13		1
Pyridine	ND		10		3.2	ug/L		10/21/20 10:40	10/26/20 19:13		1
Quinoline	ND		10		4.5	ug/L		10/21/20 10:40	10/26/20 19:13		1
2,4,5-Trichlorophenol	ND		10		3.7	ug/L		10/21/20 10:40	10/26/20 19:13		1
2,4,6-Trichlorophenol	ND		10		3.5	ug/L		10/21/20 10:40	10/26/20 19:13		1

MB **MB**

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
			Lower	Upper			
2-Fluorobiphenyl	58		46	124	10/21/20 10:40	10/26/20 19:13	1
2-Fluorophenol	17		13	113	10/21/20 10:40	10/26/20 19:13	1
Nitrobenzene-d5	59		36	126	10/21/20 10:40	10/26/20 19:13	1
Phenol-d5	36		17	127	10/21/20 10:40	10/26/20 19:13	1
Terphenyl-d14	85		44	149	10/21/20 10:40	10/26/20 19:13	1
2,4,6-Tribromophenol	88		26	150	10/21/20 10:40	10/26/20 19:13	1

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507618

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Aniline	120	52.7		ug/L	44	21	120
Benzoic acid	466	135		ug/L	29	10	144
Benzyl alcohol	120	51.4		ug/L	43	28	120
Bis(2-chloroethoxy)methane	120	56.8		ug/L	47	47	120
Bis(2-chloroethyl)ether	120	56.1		ug/L	47	44	120
bis (2-chloroisopropyl) ether	120	47.4		ug/L	39	33	121
Bis(2-ethylhexyl) phthalate	120	78.6		ug/L	66	52	147
4-Bromophenyl phenyl ether	120	90.8		ug/L	76	54	122
Butyl benzyl phthalate	120	71.9		ug/L	60	54	133
4-Chloroaniline	120	39.5		ug/L	33	26	120
4-Chloro-3-methylphenol	120	74.4		ug/L	62	48	131

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507618

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
2-Chloronaphthalene	120	76.8		ug/L		64	52 - 121	
2-Chlorophenol	120	56.8		ug/L		47	40 - 120	
4-Chlorophenyl phenyl ether	120	91.8		ug/L		77	56 - 125	
Dibenz[a,h]acridine	120	104		ug/L		87	31 - 150	
Dibenzofuran	120	74.8		ug/L		62	56 - 122	
3,3'-Dichlorobenzidine	160	116		ug/L		73	36 - 132	
2,4-Dichlorophenol	120	72.1		ug/L		60	49 - 120	
Diethyl phthalate	120	97.6		ug/L		81	50 - 137	
2,4-Dimethylphenol	120	76.5		ug/L		64	48 - 120	
Dimethyl phthalate	120	82.4		ug/L		69	57 - 124	
Di-n-butyl phthalate	120	89.6		ug/L		75	58 - 126	
4,6-Dinitro-ortho-cresol	240	156		ug/L		65	23 - 148	
2,4-Dinitrophenol	240	170		ug/L		71	10 - 150	
2,4-Dinitrotoluene	120	82.1		ug/L		68	54 - 142	
2,6-Dinitrotoluene	120	76.2		ug/L		64	55 - 130	
Di-n-octyl phthalate	120	76.3		ug/L		64	57 - 138	
1,4-Dioxane	120	36.9		ug/L		31	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	120	71.4		ug/L		60	45 - 124	
Hexachlorobenzene	120	102		ug/L		85	52 - 129	
Hexachlorocyclopentadiene	120	34.1		ug/L		28	10 - 134	
Hexachloroethane	120	76.8		ug/L		64	20 - 120	
Indene	120	69.9		ug/L		58	49 - 120	
Isophorone	120	63.6		ug/L		53	48 - 120	
2-Methylphenol	120	78.6		ug/L		65	46 - 124	
3 & 4 Methylphenol	120	78.8		ug/L		66	45 - 120	
2-Nitroaniline	120	76.7		ug/L		64	51 - 145	
3-Nitroaniline	120	70.0		ug/L		58	37 - 127	
4-Nitroaniline	120	83.4		ug/L		70	36 - 137	
Nitrobenzene	120	67.7		ug/L		56	45 - 120	
2-Nitrophenol	120	68.8		ug/L		57	40 - 124	
4-Nitrophenol	240	261		ug/L		109	23 - 146	
N-Nitrosodimethylamine	120	92.2		ug/L		77	29 - 137	
N-Nitrosodi-n-propylamine	120	72.1		ug/L		60	45 - 120	
N-Nitrosodiphenylamine	119	73.6		ug/L		62	54 - 120	
Pentachlorophenol	240	128		ug/L		53	31 - 130	
Phenol	120	58.7		ug/L		49	11 - 120	
Pyridine	240	78.3		ug/L		33	16 - 120	
Quinoline	120	72.6		ug/L		61	49 - 130	
2,4,5-Trichlorophenol	120	85.3		ug/L		71	51 - 136	
2,4,6-Trichlorophenol	120	78.9		ug/L		66	50 - 127	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	57		46 - 124
2-Fluorophenol	25		13 - 113
Nitrobenzene-d5	56		36 - 126
Phenol-d5	42		17 - 127
Terphenyl-d14	79		44 - 149

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-507618/2-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507618

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol	89		26 - 150

Lab Sample ID: LCS 400-507618/3-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507618

Analyte	Spike Added	LCS	LCS		D	%Rec.	
		Result	Qualifier	Unit		Limits	
Benzenethiol	120	2.99	J *	ug/L		2	10 - 120

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	57		46 - 124
2-Fluorophenol	21		13 - 113
Nitrobenzene-d5	57		36 - 126
Phenol-d5	41		17 - 127
Terphenyl-d14	87		44 - 149
2,4,6-Tribromophenol	87		26 - 150

Lab Sample ID: LCSD 400-507618/4-A

Matrix: Water

Analysis Batch: 508112

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507618

Analyte	Spike Added	LCSD	LCSD		D	%Rec.		RPD
		Result	Qualifier	Unit		Limits		Limit
Benzenethiol	120	ND	* *1	ug/L		0.8	10 - 120	105

Surrogate	LCSD	LCSD	
	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	56		46 - 124
2-Fluorophenol	5 X		13 - 113
Nitrobenzene-d5	55		36 - 126
Phenol-d5	23		17 - 127
Terphenyl-d14	77		44 - 149
2,4,6-Tribromophenol	32		26 - 150

Lab Sample ID: MB 400-509677/1-A

Matrix: Water

Analysis Batch: 510105

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 509677

Analyte	MB	MB		D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					
Bis(2-ethylhexyl) phthalate	ND		2.5	1.3	ug/L		1

Surrogate	MB	MB		D	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier	Limits				
2-Fluorobiphenyl	94		46 - 124		11/06/20 14:10	11/10/20 17:38	1
2-Fluorophenol	37		13 - 113		11/06/20 14:10	11/10/20 17:38	1
Nitrobenzene-d5	67		36 - 126		11/06/20 14:10	11/10/20 17:38	1
Phenol-d5	63		17 - 127		11/06/20 14:10	11/10/20 17:38	1
Terphenyl-d14	100		44 - 149		11/06/20 14:10	11/10/20 17:38	1
2,4,6-Tribromophenol	188 X		26 - 150		11/06/20 14:10	11/10/20 17:38	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-509677/2-A

Matrix: Water

Analysis Batch: 510105

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 509677

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit ug/L	D	%Rec	%Rec.
Bis(2-ethylhexyl) phthalate	30.0	16.5				55	52 - 147
Surrogate							
LCS %Recovery LCS Qualifier Limits							
2-Fluorobiphenyl	65	46 - 124					
2-Fluorophenol	23	13 - 113					
Nitrobenzene-d5	58	36 - 126					
Phenol-d5	41	17 - 127					
Terphenyl-d14	76	44 - 149					
2,4,6-Tribromophenol	135	26 - 150					

Lab Sample ID: LCSD 400-509677/3-A

Matrix: Water

Analysis Batch: 510105

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 509677

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit ug/L	D	%Rec	%Rec.	RPD
Bis(2-ethylhexyl) phthalate	30.0	20.7				69	52 - 147	22
Surrogate								
LCSD %Recovery LCSD Qualifier Limits								
2-Fluorobiphenyl	71	46 - 124						
2-Fluorophenol	32	13 - 113						
Nitrobenzene-d5	61	36 - 126						
Phenol-d5	51	17 - 127						
Terphenyl-d14	86	44 - 149						
2,4,6-Tribromophenol	170 X	26 - 150						

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-507618/1-A

Matrix: Water

Analysis Batch: 508212

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507618

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		10/21/20 10:40	10/26/20 19:55	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/21/20 10:40	10/26/20 19:55	1
Anthracene	ND		0.20	0.032	ug/L		10/21/20 10:40	10/26/20 19:55	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		10/21/20 10:40	10/26/20 19:55	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		10/21/20 10:40	10/26/20 19:55	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		10/21/20 10:40	10/26/20 19:55	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		10/21/20 10:40	10/26/20 19:55	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		10/21/20 10:40	10/26/20 19:55	1
Chrysene	ND		0.20	0.074	ug/L		10/21/20 10:40	10/26/20 19:55	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		10/21/20 10:40	10/26/20 19:55	1
Fluoranthene	ND		0.20	0.068	ug/L		10/21/20 10:40	10/26/20 19:55	1
Fluorene	ND		0.20	0.11	ug/L		10/21/20 10:40	10/26/20 19:55	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		10/21/20 10:40	10/26/20 19:55	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		10/21/20 10:40	10/26/20 19:55	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		10/21/20 10:40	10/26/20 19:55	1
Phenanthrene	ND		0.20	0.036	ug/L		10/21/20 10:40	10/26/20 19:55	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-507618/1-A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507618

Matrix: Water

Analysis Batch: 508212

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Surrogate	%Recovery	MB	MB	Limits						
Pyrene	ND				0.20	0.040	ug/L		10/21/20 10:40	10/26/20 19:55	1
2-Fluorobiphenyl	32				15 - 122				10/21/20 10:40	10/26/20 19:55	1
Nitrobenzene-d5	39				19 - 130				10/21/20 10:40	10/26/20 19:55	1
Terphenyl-d14	41				33 - 138				10/21/20 10:40	10/26/20 19:55	1

Lab Sample ID: LCS 400-507618/2-A

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 507618

Matrix: Water
Analysis Batch: 508212

Analyte	Spike	LCSS	LCSS	Result	Qualifier	Unit	D	%Rec	Limits
		Added							
Acenaphthene	120		112			ug/L		93	41 - 120
Acenaphthylene	120		107			ug/L		89	44 - 120
Anthracene	120		131			ug/L		109	49 - 120
Benzo[a]anthracene	120		100			ug/L		83	61 - 135
Benzo[a]pyrene	120		114			ug/L		95	52 - 120
Benzo[b]fluoranthene	120		98.8			ug/L		82	53 - 134
Benzo[g,h,i]perylene	120		106			ug/L		88	47 - 133
Benzo[k]fluoranthene	120		108			ug/L		90	57 - 134
Chrysene	120		112			ug/L		93	55 - 122
Dibenz(a,h)anthracene	120		117			ug/L		97	48 - 146
Fluoranthene	120		121			ug/L		101	54 - 128
Fluorene	120		118			ug/L		98	45 - 125
Indeno[1,2,3-cd]pyrene	120		114			ug/L		95	43 - 142
1-Methylnaphthalene	120		92.5			ug/L		77	41 - 120
2-Methylnaphthalene	120		97.7			ug/L		81	32 - 124
Phenanthrene	120		117			ug/L		97	48 - 120
Pyrene	120		106			ug/L		88	48 - 132
Surrogate	%Recovery	Qualifer	Limits						
2-Fluorobiphenyl	85		15 - 122						
Nitrobenzene-d5	96		19 - 130						
Terphenyl-d14	98		33 - 138						

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-507961/1-A

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 507961

Matrix: Water

Analysis Batch: 508279

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Surrogate	%Recovery	MB	MB	Limits						
1,2-Dibromoethane	ND				0.020	0.0050	ug/L		10/23/20 11:33	10/27/20 14:20	1
4-Bromofluorobenzene	105				51 - 149				10/23/20 11:33	10/27/20 14:20	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: MB 400-507961/1-A

Matrix: Water

Analysis Batch: 509274

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507961

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/23/20 11:33	11/04/20 19:51	1

Lab Sample ID: LCS 400-507961/2-A

Matrix: Water

Analysis Batch: 508627

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507961

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
1,2-Dibromo-3-Chloropropane	0.101	0.108	*1	ug/L		107	60 - 140
1,2-Dibromoethane	0.101	0.115		ug/L		114	60 - 140
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	101		51 - 149				

Lab Sample ID: LCSD 400-507961/3-A

Matrix: Water

Analysis Batch: 508279

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507961

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD
1,2-Dibromo-3-Chloropropane	0.101	0.0633	*1	ug/L		63	60 - 140	
1,2-Dibromoethane	0.101	0.112		ug/L		111	60 - 140	
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits					
4-Bromofluorobenzene	124		51 - 149					

Eurofins TestAmerica, Pensacola

LAB (LOCATION)

 ACQUISITES CALSCREENTESTAMERICA (Technamerica) 3355 Mc Kinney Dr
Pensacola, FL 32514 (850-747-0011)

Other Lab Vendor # 1384898 (TestAmerica)

Shell Oil Products US Chain Of Custody Record

AECOM

Please Check Appropriate Box:

<input type="checkbox"/> SCA FG	<input type="checkbox"/> PIPELINE
<input type="checkbox"/> CHEMICALS	<input type="checkbox"/> CONSULTANT
<input type="checkbox"/> TRANSPORTATION	<input type="checkbox"/> RETAIL
<input type="checkbox"/> OTHER ENV SERVICES	<input type="checkbox"/> LUBES

(Leave Blank)

AECOM

LAB

DATE

49

ONLY

ADDRESS

100 N. Broadway, 20th Floor; St. Louis, MO 63102, USA

PRODUCT CONTACT (Name/Title or "None") None

Rev. 1

Elizabeth Kunkel, Bob Billman, Melissa Reminger, Wendy Pennington

11/30/2020

TELEPHONE

Rev. 1

314-429-0462

11/30/2020

FAX

314-429-0462

11/30/2020

EMAIL

bob_billman@aecom.com; melissa_reminger@aecom.com; elizabeth_kunkel@aecom.com; wendy.pennington@aecom.com

SAMPLE NAME (if applicable)

J. Mayer

11/19/2020

RECEIVED DATE

11/19/2020

TIME

10:00 AM

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194661-1

Login Number: 194661

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Whitley, Adrian

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	1194854, 1194857
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, 4.2°C IR7
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	

14

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194661-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	200041	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LA000307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

15

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194728-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/23/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-102020-8260-A	TB-ROX-102020-8011-A
P59-ROX-102020	

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 SVOC LCS/LCSD recoveries were outside evaluation criteria, and the VOC by 8011 LCS/LCSD RPD for 1,2-dibromo-3-chloropropane was outside evaluation criteria. The SVOC surrogate recovery for 2,4,6-tribromophenol was outside criteria in the SVOC LCSD. The SVOC internal standard recovery for chrysene-d₁₂ was outside criteria in the CCV. Sample P59-ROX-102020 was diluted to bring VOCs into calibration range of the instrument. Continuing calibration verifications for several analytes were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

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 400-508204/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	177/153	15	36-132/30
LCS/LCSD 400-508204/4-A/5-A	SVOCs	Benzenethiol	3/3	11	10-120/30
LCS/LCSD 400-507961/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	107/63	52	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
P59-ROX-102020	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
LCSD 400-508204/5-A	SVOCs	2,4,6-Tribromophenol	14	26-150

LCSDs 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?

No

Sample ID	Parameter	Analyte	IS Area Recovery	12/24 Hour Standard	IS Criteria
CCV 400-509317/6	SVOCs	Chrysene-d ₁₂	344263	691527	345764-1383054

Continuing calibration verifications 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; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P59-ROX-102020	PAHs	Benzo[b]fluoranthene	UJ
P59-ROX-102020	SVOCs	Hexachlorocyclopentadiene	UJ



eurofins

Environment Testing
America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-194728-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Elizabeth Kunkel

Authorized for release by:
11/11/2020 2:49:04 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@Eurofinset.com

LINKS

Review your project
results through

Total Access

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Reviewed 11/23/2020
MR

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	7
Definitions	14
Surrogate Summary	15
Method Summary	17
Chronicle	18
QC Association	21
QC Sample Results	23
Chain of Custody	34
Receipt Checklists	35
Certification Summary	36

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Job ID: 400-194728-1

Laboratory: Eurofins TestAmerica, Pensacola

3

Narrative

Job Narrative
400-194728-1

Comments

No additional comments.

Receipt

The samples were received on 10/21/2020 9:40 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.5° C, 1.1° C and 1.6° C.

GC/MS VOA

Method 8260B: The following sample was diluted to bring the concentration of target analytes within the calibration range: P59-ROX-102020 (400-194728-3). 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-102020-8260-A (400-194728-1) and P59-ROX-102020 (400-194728-3). 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 initial calibration verification (ICV) analyzed in batch 400-497771 was outside method criteria for the following analyte: Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-508204 and analytical batch 400-509317 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and LCSD that were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-508204 and analytical batch 400-509317 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol and Nitrobenzene-d5 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: 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: (LCSD 400-508204/5-A). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-509841 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-509134 recovered outside acceptance criteria, low biased, for Benzo[b]fluoranthene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-508627 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Job ID: 400-194728-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method 8011: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-507961 and analytical batch 400-508279 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane.

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: 400-194728-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194728-1	TB-ROX-102020-8260-A ✓	Water	10/20/20 00:00	10/21/20 09:40	
400-194728-2	TB-ROX-102020-8011-A ✓	Water	10/20/20 00:00	10/21/20 09:40	
400-194728-3	P59-ROX-102020 ✓	Water	10/20/20 12:00	10/21/20 09:40	

4

5

6

7

8

9

10

11

12

13

14

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Client Sample ID: TB-ROX-102020-8260-A

Lab Sample ID: 400-194728-1

No Detections.

Client Sample ID: TB-ROX-102020-8011-A

Lab Sample ID: 400-194728-2

No Detections.

Client Sample ID: P59-ROX-102020

Lab Sample ID: 400-194728-3

5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1600		10	3.8	ug/L	10	8260B		Total/NA
Ethylbenzene	150		10	5.0	ug/L	10	8260B		Total/NA
Isopropylbenzene	29		10	5.3	ug/L	10	8260B		Total/NA
m-Xylene & p-Xylene	220		50	16	ug/L	10	8260B		Total/NA
Naphthalene	99		10	10	ug/L	10	8260B		Total/NA
N-Propylbenzene	47		10	6.9	ug/L	10	8260B		Total/NA
o-Xylene	11 J		50	6.0	ug/L	10	8260B		Total/NA
Toluene	110		10	4.1	ug/L	10	8260B		Total/NA
1,2,4-Trimethylbenzene	120		10	8.2	ug/L	10	8260B		Total/NA
1,3,5-Trimethylbenzene	46		10	5.6	ug/L	10	8260B		Total/NA
Xylenes, Total	230		100	16	ug/L	10	8260B		Total/NA
Acenaphthene	0.41		0.19	0.031	ug/L	1	8270D LL		Total/NA
Benzo[a]anthracene	0.16 J		0.19	0.044	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	17		0.19	0.057	ug/L	1	8270D LL		Total/NA
Phenanthrene	0.75		0.19	0.034	ug/L	1	8270D LL		Total/NA
Pyrene	0.24		0.19	0.038	ug/L	1	8270D LL		Total/NA
Phenol	37		9.5	2.5	ug/L	1	8270D		Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Client Sample ID: TB-ROX-102020-8260-A
Date Collected: 10/20/20 00:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194728-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L		11/03/20 16:24		1
Acrolein	ND		20	10	ug/L		11/03/20 16:24		1
Acrylonitrile	ND		10	2.8	ug/L		11/03/20 16:24		1
Benzene	ND		1.0	0.38	ug/L		11/03/20 16:24		1
Bromobenzene	ND		1.0	0.54	ug/L		11/03/20 16:24		1
Bromoform	ND		1.0	0.52	ug/L		11/03/20 16:24		1
Bromochloromethane	ND		1.0	0.50	ug/L		11/03/20 16:24		1
Bromodichloromethane	ND		1.0	0.71	ug/L		11/03/20 16:24		1
Bromoform	ND		5.0	0.98	ug/L		11/03/20 16:24		1
Bromomethane	ND		1.0	2.6	ug/L		11/03/20 16:24		1
Carbon disulfide	ND		1.0	0.50	ug/L		11/03/20 16:24		1
Carbon tetrachloride	ND		1.0	0.50	ug/L		11/03/20 16:24		1
Chlorobenzene	ND		1.0	0.50	ug/L		11/03/20 16:24		1
Dibromochloromethane	ND		1.0	0.50	ug/L		11/03/20 16:24		1
Chloroethane	ND		1.0	0.76	ug/L		11/03/20 16:24		1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L		11/03/20 16:24		1
Chloroform	ND		1.0	0.60	ug/L		11/03/20 16:24		1
1-Chlorohexane	ND		1.0	0.70	ug/L		11/03/20 16:24		1
Chloromethane	ND		1.0	0.83	ug/L		11/03/20 16:24		1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L		11/03/20 16:24		1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L		11/03/20 16:24		1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L		11/03/20 16:24		1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L		11/03/20 16:24		1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L		11/03/20 16:24		1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L		11/03/20 16:24		1
1,1-Dichloroethane	ND		1.0	0.50	ug/L		11/03/20 16:24		1
1,2-Dichloroethane	ND		1.0	0.50	ug/L		11/03/20 16:24		1
1,1-Dichloroethylene	ND		1.0	0.50	ug/L		11/03/20 16:24		1
1,2-Dichloropropane	ND		1.0	0.50	ug/L		11/03/20 16:24		1
1,3-Dichloropropane	ND		1.0	0.50	ug/L		11/03/20 16:24		1
2,2-Dichloropropane	ND		1.0	0.50	ug/L		11/03/20 16:24		1
1,1-Dichloropropene	ND		1.0	0.50	ug/L		11/03/20 16:24		1
Ethylbenzene	ND		1.0	0.50	ug/L		11/03/20 16:24		1
Ethyl methacrylate	ND		1.0	0.60	ug/L		11/03/20 16:24		1
Hexachlorobutadiene	ND		5.0	0.90	ug/L		11/03/20 16:24		1
2-Hexanone	ND		25	3.1	ug/L		11/03/20 16:24		1
Isopropylbenzene	ND		1.0	0.53	ug/L		11/03/20 16:24		1
Methylene bromide	ND		5.0	0.59	ug/L		11/03/20 16:24		1
Methylene Chloride	ND		5.0	3.0	ug/L		11/03/20 16:24		1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L		11/03/20 16:24		1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L		11/03/20 16:24		1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L		11/03/20 16:24		1
Naphthalene	ND		1.0	1.0	ug/L		11/03/20 16:24		1
n-Butylbenzene	ND		1.0	0.76	ug/L		11/03/20 16:24		1
N-Propylbenzene	ND		1.0	0.69	ug/L		11/03/20 16:24		1
o-Chlorotoluene	ND		1.0	0.57	ug/L		11/03/20 16:24		1
o-Xylene	ND		5.0	0.60	ug/L		11/03/20 16:24		1
p-Chlorotoluene	ND		1.0	0.56	ug/L		11/03/20 16:24		1
p-Isopropyltoluene	ND		1.0	0.71	ug/L		11/03/20 16:24		1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Client Sample ID: TB-ROX-102020-8260-A
Date Collected: 10/20/20 00:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194728-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/03/20 16:24	1
Styrene	ND		1.0	1.0	ug/L			11/03/20 16:24	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/03/20 16:24	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			11/03/20 16:24	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/03/20 16:24	1
Tetrachloroethene	ND		1.0	0.58	ug/L			11/03/20 16:24	1
Toluene	ND		1.0	0.41	ug/L			11/03/20 16:24	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/20 16:24	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/20 16:24	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			11/03/20 16:24	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/03/20 16:24	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			11/03/20 16:24	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			11/03/20 16:24	1
Trichloroethene	ND		1.0	0.50	ug/L			11/03/20 16:24	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/03/20 16:24	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/03/20 16:24	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/03/20 16:24	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/03/20 16:24	1
Vinyl acetate	ND		25	2.0	ug/L			11/03/20 16:24	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/03/20 16:24	1
Xylenes, Total	ND		10	1.6	ug/L			11/03/20 16:24	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromo- <i>o</i> -fluorobenzene	102		78 - 118					11/03/20 16:24	1
Dibromo- <i>o</i> -fluoromethane	102		81 - 121					11/03/20 16:24	1
Toluene-d8 (Sur)	99		80 - 120					11/03/20 16:24	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Client Sample ID: TB-ROX-102020-8011-A

Lab Sample ID: 400-194728-2

Date Collected: 10/20/20 00:00

Matrix: Water

Date Received: 10/21/20 09:40

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/23/20 11:33	10/27/20 17:20	1
Surrogate									
4-Bromofluorobenzene	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	120		51 - 149				10/23/20 11:33	10/27/20 17:20	1

Method: 8011 - EDB and DBCP in Water by Microextraction - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/23/20 11:33	10/29/20 16:26	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Client Sample ID: P59-ROX-102020

Lab Sample ID: 400-194728-3

Date Collected: 10/20/20 12:00

Matrix: Water

Date Received: 10/21/20 09:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		250	100	ug/L			11/03/20 17:43	10
Acrolein	ND		200	100	ug/L			11/03/20 17:43	10
Acrylonitrile	ND		100	28	ug/L			11/03/20 17:43	10
Benzene	1600		10	3.8	ug/L			11/03/20 17:43	10
Bromobenzene	ND		10	5.4	ug/L			11/03/20 17:43	10
Bromochloromethane	ND		10	5.2	ug/L			11/03/20 17:43	10
Bromodichloromethane	ND		10	5.0	ug/L			11/03/20 17:43	10
Bromoform	ND		50	7.1	ug/L			11/03/20 17:43	10
Bromomethane	ND		10	9.8	ug/L			11/03/20 17:43	10
2-Butanone (MEK)	ND		250	26	ug/L			11/03/20 17:43	10
Carbon disulfide	ND		10	5.0	ug/L			11/03/20 17:43	10
Carbon tetrachloride	ND		10	5.0	ug/L			11/03/20 17:43	10
Chlorobenzene	ND		10	5.0	ug/L			11/03/20 17:43	10
Dibromochloromethane	ND		10	5.0	ug/L			11/03/20 17:43	10
Chloroethane	ND		10	7.6	ug/L			11/03/20 17:43	10
2-Chloroethyl vinyl ether	ND		50	20	ug/L			11/03/20 17:43	10
Chloroform	ND		10	6.0	ug/L			11/03/20 17:43	10
1-Chlorohexane	ND		10	7.0	ug/L			11/03/20 17:43	10
Chloromethane	ND		10	8.3	ug/L			11/03/20 17:43	10
cis-1,2-Dichloroethene	ND		10	5.0	ug/L			11/03/20 17:43	10
cis-1,3-Dichloropropene	ND		50	5.0	ug/L			11/03/20 17:43	10
1,2-Dichlorobenzene	ND		10	5.0	ug/L			11/03/20 17:43	10
1,3-Dichlorobenzene	ND		10	5.4	ug/L			11/03/20 17:43	10
1,4-Dichlorobenzene	ND		10	6.4	ug/L			11/03/20 17:43	10
Dichlorodifluoromethane	ND		10	8.5	ug/L			11/03/20 17:43	10
1,1-Dichloroethane	ND		10	5.0	ug/L			11/03/20 17:43	10
1,2-Dichloroethane	ND		10	5.0	ug/L			11/03/20 17:43	10
1,1-Dichloroethene	ND		10	5.0	ug/L			11/03/20 17:43	10
1,2-Dichloropropane	ND		10	5.0	ug/L			11/03/20 17:43	10
1,3-Dichloropropane	ND		10	5.0	ug/L			11/03/20 17:43	10
2,2-Dichloropropane	ND		10	5.0	ug/L			11/03/20 17:43	10
1,1-Dichloropropene	ND		10	5.0	ug/L			11/03/20 17:43	10
Ethylbenzene	150		10	5.0	ug/L			11/03/20 17:43	10
Ethyl methacrylate	ND		10	6.0	ug/L			11/03/20 17:43	10
Hexachlorobutadiene	ND		50	9.0	ug/L			11/03/20 17:43	10
2-Hexanone	ND		250	31	ug/L			11/03/20 17:43	10
Isopropylbenzene	29		10	5.3	ug/L			11/03/20 17:43	10
Methylene bromide	ND		50	5.9	ug/L			11/03/20 17:43	10
Methylene Chloride	ND		50	30	ug/L			11/03/20 17:43	10
4-Methyl-2-pentanone (MIBK)	ND		250	18	ug/L			11/03/20 17:43	10
Methyl tert-butyl ether	ND		10	7.4	ug/L			11/03/20 17:43	10
m-Xylene & p-Xylene	220		50	16	ug/L			11/03/20 17:43	10
Naphthalene	99		10	10	ug/L			11/03/20 17:43	10
n-Butylbenzene	ND		10	7.6	ug/L			11/03/20 17:43	10
N-Propylbenzene	47		10	6.9	ug/L			11/03/20 17:43	10
o-Chlorotoluene	ND		10	5.7	ug/L			11/03/20 17:43	10
o-Xylene	11 J		50	6.0	ug/L			11/03/20 17:43	10
p-Chlorotoluene	ND		10	5.6	ug/L			11/03/20 17:43	10
p-Isopropyltoluene	ND		10	7.1	ug/L			11/03/20 17:43	10

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Client Sample ID: P59-ROX-102020

Lab Sample ID: 400-194728-3

Date Collected: 10/20/20 12:00

Matrix: Water

Date Received: 10/21/20 09:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		10	7.0	ug/L			11/03/20 17:43	10
Styrene	ND		10	10	ug/L			11/03/20 17:43	10
tert-Butylbenzene	ND		10	6.3	ug/L			11/03/20 17:43	10
1,1,1,2-Tetrachloroethane	ND		10	5.2	ug/L			11/03/20 17:43	10
1,1,2,2-Tetrachloroethane	ND		10	5.0	ug/L			11/03/20 17:43	10
Tetrachloroethene	ND		10	5.8	ug/L			11/03/20 17:43	10
Toluene	110		10	4.1	ug/L			11/03/20 17:43	10
trans-1,2-Dichloroethene	ND		10	5.0	ug/L			11/03/20 17:43	10
trans-1,3-Dichloropropene	ND		50	5.0	ug/L			11/03/20 17:43	10
1,2,3-Trichlorobenzene	ND		10	7.0	ug/L			11/03/20 17:43	10
1,2,4-Trichlorobenzene	ND		10	8.2	ug/L			11/03/20 17:43	10
1,1,1-Trichloroethane	ND		10	5.0	ug/L			11/03/20 17:43	10
1,1,2-Trichloroethane	ND		50	5.0	ug/L			11/03/20 17:43	10
Trichloroethylene	ND		10	5.0	ug/L			11/03/20 17:43	10
Trichlorofluoromethane	ND		10	5.2	ug/L			11/03/20 17:43	10
1,2,3-Trichloropropane	ND		50	8.4	ug/L			11/03/20 17:43	10
1,2,4-Trimethylbenzene	120		10	8.2	ug/L			11/03/20 17:43	10
1,3,5-Trimethylbenzene	46		10	5.6	ug/L			11/03/20 17:43	10
Vinyl acetate	ND		250	20	ug/L			11/03/20 17:43	10
Vinyl chloride	ND		10	5.0	ug/L			11/03/20 17:43	10
Xylenes, Total	230		100	16	ug/L			11/03/20 17:43	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		78 - 118		11/03/20 17:43	10
Dibromofluoromethane	102		81 - 121		11/03/20 17:43	10
Toluene-d8 (Sur)	100		80 - 120		11/03/20 17:43	10

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.41		0.19	0.031	ug/L		10/26/20 13:21	11/03/20 16:44	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/26/20 13:21	11/03/20 16:44	1
Anthracene	ND		0.19	0.031	ug/L		10/26/20 13:21	11/03/20 16:44	1
Benzo[a]anthracene	0.16 J		0.19	0.044	ug/L		10/26/20 13:21	11/03/20 16:44	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/26/20 13:21	11/03/20 16:44	1
Benzo[b]fluoranthene	ND w5		0.19	0.032	ug/L		10/26/20 13:21	11/03/20 16:44	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/26/20 13:21	11/03/20 16:44	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		10/26/20 13:21	11/03/20 16:44	1
Chrysene	ND		0.19	0.071	ug/L		10/26/20 13:21	11/03/20 16:44	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/26/20 13:21	11/03/20 16:44	1
Fluoranthene	ND		0.19	0.065	ug/L		10/26/20 13:21	11/03/20 16:44	1
Fluorene	ND		0.19	0.11	ug/L		10/26/20 13:21	11/03/20 16:44	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/26/20 13:21	11/03/20 16:44	1
1-Methylnaphthalene	ND		0.19	0.071	ug/L		10/26/20 13:21	11/03/20 16:44	1
2-Methylnaphthalene	17		0.19	0.057	ug/L		10/26/20 13:21	11/03/20 16:44	1
Phenanthrene	0.75		0.19	0.034	ug/L		10/26/20 13:21	11/03/20 16:44	1
Pyrene	0.24		0.19	0.038	ug/L		10/26/20 13:21	11/03/20 16:44	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
2-Fluorobiphenyl	85		15 - 122		11/03/20 16:44	1			
Nitrobenzene-d5	97		19 - 130		11/03/20 16:44	1			

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Client Sample ID: P59-ROX-102020
Date Collected: 10/20/20 12:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194728-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	87		33 - 138		10/26/20 13:21	11/03/20 16:44	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L				1
Benzenethiol	ND * <i>WS</i>		9.5	1.6	ug/L				1
Benzoic acid	ND		29	7.0	ug/L				1
Benzyl alcohol	ND		9.5	1.9	ug/L				1
Bis(2-chloroethyl)methane	ND		9.5	0.15	ug/L				1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L				1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L				1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L				1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L				1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L				1
4-Chloroaniline	ND		9.5	3.2	ug/L				1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L				1
2-Chloronaphthalene	ND		9.5	0.13	ug/L				1
2-Chlorophenol	ND		9.5	2.1	ug/L				1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L				1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L				1
Dibenzofuran	ND		9.5	0.16	ug/L				1
3,3'-Dichlorobenzidine	ND *		9.5	2.5	ug/L				1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L				1
Diethyl phthalate	ND		9.5	0.23	ug/L				1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L				1
Dimethyl phthalate	ND		9.5	0.16	ug/L				1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L				1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L				1
2,4-Dinitrophenol	ND		29	3.2	ug/L				1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L				1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L				1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L				1
1,4-Dioxane	ND		9.5	0.95	ug/L				1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L				1
Hexachlorobenzene	ND		9.5	0.16	ug/L				1
Hexachlorocyclopentadiene	ND <i>WS</i>		19	2.5	ug/L				1
Hexachloroethane	ND		9.5	4.0	ug/L				1
Indene	ND		9.5	0.95	ug/L				1
Isophorone	ND		9.5	0.13	ug/L				1
2-Methylphenol	ND		9.5	1.7	ug/L				1
3 & 4 Methylphenol	ND		19	0.37	ug/L				1
2-Nitroaniline	ND		9.5	2.1	ug/L				1
3-Nitroaniline	ND		9.5	1.7	ug/L				1
4-Nitroaniline	ND		9.5	1.4	ug/L				1
Nitrobenzene	ND		9.5	0.12	ug/L				1
2-Nitrophenol	ND		9.5	5.0	ug/L				1
4-Nitrophenol	ND		9.5	2.0	ug/L				1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L				1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-509185/1002

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509185

Analyte	Spike	LCS			D	%Rec	%Rec.
	Added	Result	Qualifier	Unit			
2-Chloroethyl vinyl ether	50.0	19.6		ug/L	39	10 - 160	
Chloroform	50.0	44.1		ug/L	88	69 - 130	
1-Chlorohexane	50.0	44.9		ug/L	90	69 - 130	
Chloromethane	50.0	43.8		ug/L	88	58 - 137	
cis-1,2-Dichloroethene	50.0	44.7		ug/L	89	68 - 130	
cis-1,3-Dichloropropene	50.0	42.3		ug/L	85	69 - 132	
1,2-Dichlorobenzene	50.0	46.4		ug/L	93	67 - 130	
1,3-Dichlorobenzene	50.0	45.5		ug/L	91	70 - 130	
1,4-Dichlorobenzene	50.0	47.4		ug/L	95	70 - 130	
Dichlorodifluoromethane	50.0	34.0		ug/L	68	41 - 146	
1,1-Dichloroethane	50.0	44.4		ug/L	89	70 - 130	
1,2-Dichloroethane	50.0	42.7		ug/L	85	69 - 130	
1,1-Dichloroethene	50.0	40.0		ug/L	80	63 - 134	
1,2-Dichloropropane	50.0	44.6		ug/L	89	70 - 130	
1,3-Dichloropropane	50.0	44.9		ug/L	90	70 - 130	
2,2-Dichloropropane	50.0	41.7		ug/L	83	52 - 135	
1,1-Dichloropropene	50.0	40.9		ug/L	82	70 - 130	
Ethylbenzene	50.0	42.5		ug/L	85	70 - 130	
Ethyl methacrylate	50.0	45.3		ug/L	91	68 - 130	
Hexachlorobutadiene	50.0	47.6		ug/L	95	53 - 140	
2-Hexanone	200	202		ug/L	101	65 - 137	
Isopropylbenzene	50.0	41.9		ug/L	84	70 - 130	
Methylene bromide	50.0	44.8		ug/L	90	70 - 130	
Methylene Chloride	50.0	45.9		ug/L	92	66 - 135	
4-Methyl-2-pentanone (MIBK)	200	198		ug/L	99	69 - 138	
Methyl tert-butyl ether	50.0	45.8		ug/L	92	66 - 130	
m-Xylene & p-Xylene	50.0	42.7		ug/L	85	70 - 130	
Naphthalene	50.0	41.3		ug/L	83	47 - 149	
n-Butylbenzene	50.0	47.4		ug/L	95	67 - 130	
N-Propylbenzene	50.0	44.8		ug/L	90	70 - 130	
o-Chlorotoluene	50.0	44.8		ug/L	90	70 - 130	
o-Xylene	50.0	42.5		ug/L	85	70 - 130	
p-Chlorotoluene	50.0	46.0		ug/L	92	70 - 130	
p-Isopropyltoluene	50.0	44.9		ug/L	90	65 - 130	
sec-Butylbenzene	50.0	43.8		ug/L	88	66 - 130	
Styrene	50.0	44.7		ug/L	89	70 - 130	
tert-Butylbenzene	50.0	42.6		ug/L	85	64 - 139	
1,1,1,2-Tetrachloroethane	50.0	45.5		ug/L	91	67 - 131	
1,1,2,2-Tetrachloroethane	50.0	46.1		ug/L	92	70 - 131	
Tetrachloroethene	50.0	40.8		ug/L	82	65 - 130	
Toluene	50.0	43.7		ug/L	87	70 - 130	
trans-1,2-Dichloroethene	50.0	43.0		ug/L	86	70 - 130	
trans-1,3-Dichloropropene	50.0	43.2		ug/L	86	63 - 130	
1,2,3-Trichlorobenzene	50.0	42.6		ug/L	85	60 - 138	
1,2,4-Trichlorobenzene	50.0	43.0		ug/L	86	60 - 140	
1,1,1-Trichloroethane	50.0	43.1		ug/L	86	68 - 130	
1,1,2-Trichloroethane	50.0	43.4		ug/L	87	70 - 130	
Trichloroethylene	50.0	42.1		ug/L	84	70 - 130	
Trichlorofluoromethane	50.0	38.1		ug/L	76	65 - 138	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-509185/1002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 509185

Analyte	Spike	LCS			%Rec.	Limits
	Added	Result	Qualifier	Unit		
1,2,3-Trichloropropane	50.0	47.9		ug/L	96	70 - 130
1,2,4-Trimethylbenzene	50.0	45.0		ug/L	90	70 - 130
1,3,5-Trimethylbenzene	50.0	44.9		ug/L	90	69 - 130
Vinyl acetate	100	90.7		ug/L	91	26 - 160
Vinyl chloride	50.0	41.2		ug/L	82	59 - 136
Xylenes, Total	100	85.2		ug/L	85	70 - 130
Surrogate	LCS	LCS				
	%Recovery	Qualifier			Limits	
4-Bromofluorobenzene	94		78 - 118			
Dibromofluoromethane	98		81 - 121			
Toluene-d8 (Surr)	95		80 - 120			

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509317

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed	
Aniline	ND		10	3.8	ug/L	10/26/20 13:21	11/04/20 16:18		1
Benzenethiol	ND		10	1.7	ug/L	10/26/20 13:21	11/04/20 16:18		1
Benzoic acid	ND		30	7.3	ug/L	10/26/20 13:21	11/04/20 16:18		1
Benzyl alcohol	ND		10	2.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L	10/26/20 13:21	11/04/20 16:18		1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L	10/26/20 13:21	11/04/20 16:18		1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L	10/26/20 13:21	11/04/20 16:18		1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L	10/26/20 13:21	11/04/20 16:18		1
Butyl benzyl phthalate	ND		10	0.19	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Chloroaniline	ND		10	3.4	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L	10/26/20 13:21	11/04/20 16:18		1
2-Chloronaphthalene	ND		10	0.14	ug/L	10/26/20 13:21	11/04/20 16:18		1
2-Chlorophenol	ND		10	2.2	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
Dibenzo[a,h]acridine	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
Dibenzofuran	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 16:18		1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L	10/26/20 13:21	11/04/20 16:18		1
2,4-Dichlorophenol	ND		10	3.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
Diethyl phthalate	ND		10	0.24	ug/L	10/26/20 13:21	11/04/20 16:18		1
2,4-Dimethylphenol	ND		10	3.5	ug/L	10/26/20 13:21	11/04/20 16:18		1
Dimethyl phthalate	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 16:18		1
Di-n-butyl phthalate	ND		10	2.7	ug/L	10/26/20 13:21	11/04/20 16:18		1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L	10/26/20 13:21	11/04/20 16:18		1
2,4-Dinitrotoluene	ND		10	1.9	ug/L	10/26/20 13:21	11/04/20 16:18		1
2,6-Dinitrotoluene	ND		10	1.9	ug/L	10/26/20 13:21	11/04/20 16:18		1
Di-n-octyl phthalate	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 16:18		1
1,4-Dioxane	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 16:18		1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 508204

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorobenzene		ND			10	0.17	ug/L		10/26/20 13:21	11/04/20 16:18	1
Hexachloroethane		ND			10	4.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
Indene		ND			10	1.0	ug/L		10/26/20 13:21	11/04/20 16:18	1
Isophorone		ND			10	0.14	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Methylphenol		ND			10	1.8	ug/L		10/26/20 13:21	11/04/20 16:18	1
3 & 4 Methylphenol		ND			20	0.39	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Nitroaniline		ND			10	2.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
3-Nitroaniline		ND			10	1.8	ug/L		10/26/20 13:21	11/04/20 16:18	1
4-Nitroaniline		ND			10	1.5	ug/L		10/26/20 13:21	11/04/20 16:18	1
Nitrobenzene		ND			10	0.13	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Nitrophenol		ND			10	5.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
4-Nitrophenol		ND			10	2.1	ug/L		10/26/20 13:21	11/04/20 16:18	1
N-Nitrosodimethylamine		ND			10	3.5	ug/L		10/26/20 13:21	11/04/20 16:18	1
N-Nitrosodi-n-propylamine		ND			10	3.3	ug/L		10/26/20 13:21	11/04/20 16:18	1
N-Nitrosodiphenylamine		ND			10	0.18	ug/L		10/26/20 13:21	11/04/20 16:18	1
Pentachlorophenol		ND			20	1.4	ug/L		10/26/20 13:21	11/04/20 16:18	1
Phenol		ND			10	2.6	ug/L		10/26/20 13:21	11/04/20 16:18	1
Pyridine		ND			10	3.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
Quinoline		ND			10	4.5	ug/L		10/26/20 13:21	11/04/20 16:18	1
2,4,5-Trichlorophenol		ND			10	3.7	ug/L		10/26/20 13:21	11/04/20 16:18	1
2,4,6-Trichlorophenol		ND			10	3.5	ug/L		10/26/20 13:21	11/04/20 16:18	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl		76			46 - 124		10/26/20 13:21	11/04/20 16:18	1
2-Fluorophenol		39			13 - 113		10/26/20 13:21	11/04/20 16:18	1
Nitrobenzene-d5		73			36 - 126		10/26/20 13:21	11/04/20 16:18	1
Phenal-d5		58			17 - 127		10/26/20 13:21	11/04/20 16:18	1
Terphenyl-d14		95			44 - 149		10/26/20 13:21	11/04/20 16:18	1
2,4,6-Tribromophenol		70			26 - 150		10/26/20 13:21	11/04/20 16:18	1

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509841

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 508204

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol		ND			30	3.4	ug/L		10/26/20 13:21	11/08/20 15:23	1
Hexachlorocyclopentadiene		ND			20	2.6	ug/L		10/26/20 13:21	11/08/20 15:23	1

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 508204

Analyte	Spike	LCS		%Rec.			
	Added	Result	Qualifier	Unit	D	%Rec	Limits
Aniline	120	110		ug/L		92	21 - 120
Benzoic acid	466	219		ug/L		47	10 - 144
Benzyl alcohol	120	108		ug/L		90	28 - 120
Bis(2-chloroethoxy)methane	120	99.6		ug/L		83	47 - 120
Bis(2-chloroethyl)ether	120	99.8		ug/L		83	44 - 120
bis (2-chloroisopropyl) ether	120	108		ug/L		90	33 - 121

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508204/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509317

Prep Batch: 508204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Bis(2-ethylhexyl) phthalate	120	115		ug/L	96	52 - 147	
4-Bromophenyl phenyl ether	120	120		ug/L	100	54 - 122	
Butyl benzyl phthalate	120	118		ug/L	99	54 - 133	
4-Chloroaniline	120	80.1		ug/L	67	26 - 120	
4-Chloro-3-methylphenol	120	97.3		ug/L	81	48 - 131	
2-Chloronaphthalene	120	113		ug/L	95	52 - 121	
2-Chlorophenol	120	81.2		ug/L	68	40 - 120	
4-Chlorophenyl phenyl ether	120	117		ug/L	97	56 - 125	
Dibenz[a,h]acridine	120	117		ug/L	98	31 - 150	
Dibenzofuran	120	117		ug/L	97	56 - 122	
3,3'-Dichlorobenzidine	160	283	*	ug/L	177	36 - 132	
2,4-Dichlorophenol	120	96.0		ug/L	80	49 - 120	
Diethyl phthalate	120	131		ug/L	110	50 - 137	
2,4-Dimethylphenol	120	95.0		ug/L	79	48 - 120	
Dimethyl phthalate	120	121		ug/L	101	57 - 124	
Di-n-butyl phthalate	120	122		ug/L	102	58 - 126	
4,6-Dinitro-ortho-cresol	240	257		ug/L	107	23 - 148	
2,4-Dinitrophenol	240	246		ug/L	102	10 - 150	
2,4-Dinitrotoluene	120	121		ug/L	101	54 - 142	
2,6-Dinitrotoluene	120	117		ug/L	97	55 - 130	
Di-n-octyl phthalate	120	121		ug/L	101	57 - 138	
1,4-Dioxane	120	77.5		ug/L	65	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	120	115		ug/L	96	45 - 124	
Hexachlorobenzene	120	136		ug/L	114	52 - 129	
Hexachlorocyclopentadiene	120	62.8		ug/L	52	10 - 134	
Hexachloroethane	120	101		ug/L	85	20 - 120	
Indene	120	102		ug/L	85	49 - 120	
Isophorone	120	99.4		ug/L	83	48 - 120	
2-Methylphenol	120	110		ug/L	92	46 - 124	
3 & 4 Methylphenol	120	114		ug/L	95	45 - 120	
2-Nitroaniline	120	122		ug/L	102	51 - 145	
3-Nitroaniline	120	112		ug/L	93	37 - 127	
4-Nitroaniline	120	161		ug/L	134	36 - 137	
Nitrobenzene	120	91.2		ug/L	76	45 - 120	
2-Nitrophenol	120	90.2		ug/L	75	40 - 124	
4-Nitrophenol	240	225		ug/L	94	23 - 146	
N-Nitrosodimethylamine	120	107		ug/L	89	29 - 137	
N-Nitrosodi-n-propylamine	120	115		ug/L	96	45 - 120	
N-Nitrosodiphenylamine	119	117		ug/L	98	54 - 120	
Pentachlorophenol	240	269		ug/L	112	31 - 130	
Phenol	120	107		ug/L	89	11 - 120	
Pyridine	240	158		ug/L	66	16 - 120	
Quinoline	120	95.4		ug/L	80	49 - 130	
2,4,5-Trichlorophenol	120	109		ug/L	91	51 - 136	
2,4,6-Trichlorophenol	120	113		ug/L	94	50 - 127	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 508204

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	94				46 - 124
2-Fluorophenol	39				13 - 113
Nitrobenzene-d5	73				36 - 126
Phenol-d5	69				17 - 127
Terphenyl-d14	87				44 - 149
2,4,6-Tribromophenol	96				26 - 150

Lab Sample ID: LCS 400-508204/4-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 508204

Analyte	Spike	LCS	LCS	%Rec.			
	Added	Result	Qualifier	Unit	D	%Rec.	Limits
Benzethiol	120	3.75	J *	ug/L	3	10 - 120	

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	79				46 - 124
2-Fluorophenol	40				13 - 113
Nitrobenzene-d5	76				36 - 126
Phenol-d5	61				17 - 127
Terphenyl-d14	97				44 - 149
2,4,6-Tribromophenol	36				26 - 150

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 508204

Analyte	Spike	LCSD	LCSD	%Rec.	RPD	Limit
	Added	Result	Qualifier	Unit	D	Limits
Aniline	120	108		ug/L	90	21 - 120
Benzoic acid	466	246		ug/L	53	10 - 144
Benzyl alcohol	120	99.4		ug/L	83	28 - 120
Bis(2-chloroethoxy)methane	120	89.2		ug/L	74	47 - 120
Bis(2-chloroethyl)ether	120	88.0		ug/L	73	44 - 120
bis (2-chloroisopropyl) ether	120	94.2		ug/L	78	33 - 121
Bis(2-ethylhexyl) phthalate	120	103		ug/L	86	52 - 147
4-Bromophenyl phenyl ether	120	106		ug/L	88	54 - 122
Butyl benzyl phthalate	120	103		ug/L	86	54 - 133
4-Chloroaniline	120	109		ug/L	91	26 - 120
4-Chloro-3-methylphenol	120	85.2		ug/L	71	48 - 131
2-Chloronaphthalene	120	101		ug/L	84	52 - 121
2-Chlorophenol	120	67.6		ug/L	56	40 - 120
4-Chlorophenyl phenyl ether	120	105		ug/L	88	56 - 125
Dibenz[a,h]acridine	120	106		ug/L	89	31 - 150
Dibenzofuran	120	106		ug/L	88	56 - 122
3,3'-Dichlorobenzidine	160	244	*	ug/L	153	36 - 132
2,4-Dichlorophenol	120	83.8		ug/L	70	49 - 120
Diethyl phthalate	120	119		ug/L	99	50 - 137
2,4-Dimethylphenol	120	85.9		ug/L	72	48 - 120
Dimethyl phthalate	120	110		ug/L	91	57 - 124

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Di-n-butyl phthalate	120	109		ug/L	91	58 - 126	11	30	
4,6-Dinitro-ortho-cresol	240	244		ug/L	102	23 - 148	5	30	
2,4-Dinitrophenol	240	240		ug/L	100	10 - 150	2	30	
2,4-Dinitrotoluene	120	108		ug/L	90	54 - 142	11	30	
2,6-Dinitrotoluene	120	104		ug/L	87	55 - 130	11	30	
Di-n-octyl phthalate	120	106		ug/L	89	57 - 138	13	30	
1,4-Dioxane	120	70.5		ug/L	59	31 - 120	9	30	
1,2-Diphenylhydrazine (as Azobenzene)	120	103		ug/L	86	45 - 124	11	30	
Hexachlorobenzene	120	118		ug/L	99	52 - 129	14	30	
Hexachlorocyclopentadiene	120	80.0		ug/L	67	10 - 134	24	30	
Hexachloroethane	120	89.4		ug/L	75	20 - 120	13	30	
Indene	120	91.8		ug/L	77	49 - 120	10	30	
Isophorone	120	87.9		ug/L	73	48 - 120	12	30	
2-Methylphenol	120	95.9		ug/L	80	46 - 124	14	30	
3 & 4 Methylphenol	120	101		ug/L	84	45 - 120	12	30	
2-Nitroaniline	120	110		ug/L	92	51 - 145	10	30	
3-Nitroaniline	120	105		ug/L	87	37 - 127	6	30	
4-Nitroaniline	120	152		ug/L	127	36 - 137	6	30	
Nitrobenzene	120	80.3		ug/L	67	45 - 120	13	30	
2-Nitrophenol	120	83.4		ug/L	70	40 - 124	8	30	
4-Nitrophenol	240	205		ug/L	86	23 - 146	9	30	
N-Nitrosodimethylamine	120	99.9		ug/L	83	29 - 137	7	30	
N-Nitrosodi-n-propylamine	120	103		ug/L	86	45 - 120	11	30	
N-Nitrosodiphenylamine	119	105		ug/L	88	54 - 120	11	30	
Pentachlorophenol	240	246		ug/L	102	31 - 130	9	30	
Phenol	120	94.5		ug/L	79	11 - 120	13	30	
Pyridine	240	135		ug/L	56	16 - 120	16	30	
Quinoline	120	84.4		ug/L	70	49 - 130	12	30	
2,4,5-Trichlorophenol	120	103		ug/L	86	51 - 136	6	30	
2,4,6-Trichlorophenol	120	101		ug/L	84	50 - 127	11	30	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	82		46 - 124
2-Fluorophenol	32		13 - 113
Nitrobenzene-d5	64		36 - 126
Phenol-d5	61		17 - 127
Terphenyl-d14	77		44 - 149
2,4,6-Tribromophenol	88		26 - 150

Lab Sample ID: LCSD 400-508204/5-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	RPD	RPD Limit
Benzethiol	120	4.19	J *	ug/L	3	10 - 120	11	30

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-508204/5-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509317

Prep Batch: 508204

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	77				46 - 124
2-Fluorophenol	22				13 - 113
Nitrobenzene-d5	72				36 - 126
Phenol-d5	51				17 - 127
Terphenyl-d14	94				44 - 149
2,4,6-Tribromophenol	14	X			26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-508204/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509134

Prep Batch: 508204

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene			ND		0.20	0.032	ug/L		10/26/20 13:21	11/03/20 15:51	1
Acenaphthylene			ND		0.20	0.045	ug/L		10/26/20 13:21	11/03/20 15:51	1
Anthracene			ND		0.20	0.032	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[a]anthracene			ND		0.20	0.046	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[a]pyrene			ND		0.20	0.042	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[b]fluoranthene			ND		0.20	0.034	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[g,h,i]perylene			ND		0.20	0.13	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[k]fluoranthene			ND		0.20	0.10	ug/L		10/26/20 13:21	11/03/20 15:51	1
Chrysene			ND		0.20	0.074	ug/L		10/26/20 13:21	11/03/20 15:51	1
Dibenz(a,h)anthracene			ND		0.20	0.050	ug/L		10/26/20 13:21	11/03/20 15:51	1
Fluoranthene			ND		0.20	0.068	ug/L		10/26/20 13:21	11/03/20 15:51	1
Fluorene			ND		0.20	0.11	ug/L		10/26/20 13:21	11/03/20 15:51	1
Indeno[1,2,3-cd]pyrene			ND		0.20	0.043	ug/L		10/26/20 13:21	11/03/20 15:51	1
1-Methylnaphthalene			ND		0.20	0.074	ug/L		10/26/20 13:21	11/03/20 15:51	1
2-Methylnaphthalene			ND		0.20	0.060	ug/L		10/26/20 13:21	11/03/20 15:51	1
Phenanthrene			ND		0.20	0.036	ug/L		10/26/20 13:21	11/03/20 15:51	1
Pyrene			ND		0.20	0.040	ug/L		10/26/20 13:21	11/03/20 15:51	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl			95		15 - 122	10/26/20 13:21	11/03/20 15:51	1
Nitrobenzene-d5			99		19 - 130	10/26/20 13:21	11/03/20 15:51	1
Terphenyl-d14			108		33 - 138	10/26/20 13:21	11/03/20 15:51	1

Lab Sample ID: LCS 400-508204/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509134

Prep Batch: 508204

Analyte	Spike	LCS		%Rec.			
	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acenaphthene	120	124		ug/L		103	41 - 120
Acenaphthylene	120	114		ug/L		95	44 - 120
Anthracene	120	125		ug/L		104	49 - 120
Benzo[a]anthracene	120	119		ug/L		99	61 - 135
Benzo[a]pyrene	120	126		ug/L		105	52 - 120
Benzo[b]fluoranthene	120	110		ug/L		92	53 - 134

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-508204/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509134

Prep Batch: 508204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Benz[a]anthracene	120	142		ug/L		118	47 - 133
Benz[b]anthracene	120	119		ug/L		99	57 - 134
Chrysene	120	126		ug/L		105	55 - 122
Dibenz(a,h)anthracene	120	140		ug/L		116	48 - 146
Fluoranthene	120	131		ug/L		109	54 - 128
Fluorene	120	132		ug/L		110	45 - 125
Indeno[1,2,3-cd]pyrene	120	149		ug/L		124	43 - 142
1-Methylnaphthalene	120	106		ug/L		88	41 - 120
2-Methylnaphthalene	120	107		ug/L		89	32 - 124
Phenanthrene	120	119		ug/L		100	48 - 120
Pyrene	120	109		ug/L		91	48 - 132

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	96		15 - 122
Nitrobenzene-d5	117		19 - 130
Terphenyl-d14	105		33 - 138

Lab Sample ID: LCSD 400-508204/3-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509134

Prep Batch: 508204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit	
Acenaphthene	120	107		ug/L		89	41 - 120	15	56
Acenaphthylene	120	101		ug/L		84	44 - 120	13	56
Anthracene	120	123		ug/L		103	49 - 120	2	51
Benz[a]anthracene	120	122		ug/L		101	61 - 135	2	49
Benz[a]pyrene	120	120		ug/L		100	52 - 120	5	50
Benz[b]fluoranthene	120	101		ug/L		84	53 - 134	9	54
Benz[g,h,i]perylene	120	129		ug/L		107	47 - 133	10	50
Benz[k]fluoranthene	120	112		ug/L		93	57 - 134	6	52
Chrysene	120	124		ug/L		103	55 - 122	2	50
Dibenz(a,h)anthracene	120	127		ug/L		106	48 - 146	10	50
Fluoranthene	120	124		ug/L		103	54 - 128	5	52
Fluorene	120	114		ug/L		95	45 - 125	15	56
Indeno[1,2,3-cd]pyrene	120	139		ug/L		115	43 - 142	7	51
1-Methylnaphthalene	120	101		ug/L		84	41 - 120	5	55
2-Methylnaphthalene	120	99.0		ug/L		83	32 - 124	8	57
Phenanthrene	120	110		ug/L		92	48 - 120	8	56
Pyrene	120	107		ug/L		89	48 - 132	2	52

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	86		15 - 122
Nitrobenzene-d5	109		19 - 130
Terphenyl-d14	100		33 - 138

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194728-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-507961/1-A

Matrix: Water

Analysis Batch: 508279

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Surrogate	%Recovery							Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND				0.020	0.0050	ug/L		10/23/20 11:33	10/27/20 14:20	1
4-Bromofluorobenzene	MB	MB	105			51 - 149			10/23/20 11:33	10/27/20 14:20	1

Lab Sample ID: MB 400-507961/1-A

Matrix: Water

Analysis Batch: 509274

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Surrogate	%Recovery							Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND				0.030	0.0055	ug/L		10/23/20 11:33	11/04/20 19:51	1

Lab Sample ID: LCS 400-507961/2-A

Matrix: Water

Analysis Batch: 508627

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	%Rec.	
	Added	Result	Qualifer						Limits	
1,2-Dibromo-3-Chloropropane	0.101	0.108	*1			ug/L		107	60 - 140	
1,2-Dibromoethane	0.101	0.115				ug/L		114	60 - 140	
Surrogate	LCS	LCS								
4-Bromofluorobenzene	%Recovery	Qualifer	Limits	101	51 - 149					

Lab Sample ID: LCSD 400-507961/3-A

Matrix: Water

Analysis Batch: 508279

Analyte	Spike	LCSD	LCSD	Result	Qualifier	Unit	D	%Rec	%Rec.	
	Added	Result	Qualifer						Limits	
1,2-Dibromo-3-Chloropropane	0.101	0.0633	*1			ug/L		63	60 - 140	52 30
1,2-Dibromoethane	0.101	0.112				ug/L		111	60 - 140	2 30

Eurofins TestAmerica, Pensacola



AB (LOCATION)

Shell Oil Products US Chain Of Custody Record

AECOM

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194728-1

Login Number: 194728

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Conrady, Hank W

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	0.5°C 1.6°C 1.1°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 <8mm (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: 400-194728-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194739-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 12/1/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-102020-8260	TB-ROX-102020-8011
P74-ROX-102020-EB	P74-ROX-102020
P57-ROX-102020	P57-ROX-102020-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 bis(2-ethylhexyl) phthalate was re-extracted outside extraction time criteria. Several LCS/LCD recoveries and/or LCS/LCSD RPDs were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in sample P57-ROX-102020-Dup and several quality control samples. MS/MSD recoveries for benzene and 2-chloroethyl vinyl ether were outside evaluation criteria in sample P74-ROX-102020. The SVOC internal standard recovery for chrysene-d₁₂ was outside criteria in the CCV. In field duplicate pair P57-ROX-102020/P57-ROX-102020-Dup, results for benzene and naphthalene were qualified due to field duplicate RPD above evaluation criteria, and results for fluorene were qualified because the difference in results was greater than two times (2X) the reporting level; therefore, results were qualified as estimated (UJ/J). VOCs and/or benzene were diluted to bring analytes into calibration range of the instrument. Continuing calibration verifications for hexachlorocyclopentadiene and benzo[b]fluoranthene were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

No, bis(2-ethylhexyl) phthalate was re-extracted 21 days outside extraction time criteria (7 days) to confirm initial detections. Professional judgement was used to qualify as estimated, however, not reject the out of holding time data. Data requiring qualification is summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P57-ROX-102020 – RE	SVOCs	bis(2-Ethylhexyl) phthalate	UJ
P57-ROX-102020-Dup – RE	SVOCs	bis(2-Ethylhexyl) phthalate	UJ

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?

No

LCS/LCSD ID	Parameter	Analyte	LCS/ LCSD Recovery	RPD	LCS/LCSD /RPD Criteria
LCS/LCSD 400-508204/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	177/153	15	36-132/30
LCS/LCSD 400-508204/4-A/5-A	SVOCs	Benzenethiol	3/3	11	10-120/30
LCS/LCSD 400-507961/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	107/63	52	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Benzenethiol was qualified in Section 3.0 of this data review due to holding time criteria; no further qualification of previously qualified SVOCs was required.

Sample ID	Parameter	Analyte	Qualification
P74-ROX-102020	SVOCs	Benzenethiol	UJ
P57-ROX-102020	SVOCs	Benzenethiol	UJ
P57-ROX-102020-Dup	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P57-ROX-102020-Dup	SVOCs	2-Fluorophenol	4	13-113
LCSD 400-508204/5-A	SVOCs	2,4,6-Tribromophenol	14	26-150
MB 400-511071/1-A	SVOCs	2-Fluorobiphenyl – RE	28	46-124
MB 400-511071/1-A	SVOCs	Terphenyl-d ₁₄ – RE	43	44-149

Qualifications due to surrogate recoveries were not required if only one of three acid SVOC surrogate recoveries were outside evaluation criteria in the associated samples. Method blanks and LCSDs are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, although not requested, sample P74-ROX-102020 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
P74-ROX-102020	VOCs	Benzene	65/37	4	56-142/30
P74-ROX-102020	VOCs	2-Chloroethyl vinyl ether	0/0	NC	10-150/50

Benzene was reported from the 2X dilution run and did not require qualification. Analytical data that required qualification based on MS/MSD data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
P74-ROX-102020	VOCs	2-Chloroethyl vinyl ether	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
CCV 400-509317/6	SVOCS	Chrysene-d ₁₂	344263	691527	345764-1383054

Continuing calibration verifications 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
P57-ROX-102020	P57-ROX-102020-Dup

Were field duplicates within evaluation criteria?

No

Field ID	Field Duplicate ID	Parameter	Analyte	RPD	Qualification
P57-ROX-102020	P57-ROX-102020-Dup	VOCs	Benzene	123	J/J
P57-ROX-102020	P57-ROX-102020-Dup	VOCs	Naphthalene	33	J/J
P57-ROX-102020	P57-ROX-102020-Dup	PAHs	Fluorene	> 2X RL	UJ/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.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for hexachlorocyclopentadiene and benzo[b]fluoranthene were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P74-ROX-102020 – RA	SVOCs	Hexachlorocyclopentadiene	UJ
P74-ROX-102020	PAHs	Benzo[b]fluoranthene	UJ
P57-ROX-102020 – RA	SVOCs	Hexachlorocyclopentadiene	UJ
P57-ROX-102020	PAHs	Benzo[b]fluoranthene	UJ
P57-ROX-102020-Dup – RA	SVOCs	Hexachlorocyclopentadiene	UJ
P57-ROX-102020-Dup	PAHs	Benzo[b]fluoranthene	UJ



eurofins

**Environment Testing
America**

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-194739-1

Client Project/Site: ROXANA QUARTERLY GW

For:

AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Elizabeth Kunkel

Authorized for release by:
11/30/2020 5:03:21 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@Eurofinset.com

LINKS

Review your project
results through
Total Access

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Reviewed 12/1/2020
MR

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	8
Definitions	27
Surrogate Summary	28
Method Summary	30
Chronicle	31
QC Association	36
QC Sample Results	39
Chain of Custody	54
Receipt Checklists	59
Certification Summary	60

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Job ID: 400-194739-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-194739-1

Comments

No additional comments.

Receipt

The samples were received on 10/21/2020 9:40 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 0.5° C, 1.1° C and 1.6° C.

GC/MS VOA

Method 8260B: Due to the high concentration of Benzene, the matrix spike / matrix spike duplicate (MS/MSD) for analytical batch 400-509185 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-509185 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 400-509185 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 one of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-102020-8260 (400-194739-1), P74-ROX-102020-EB (400-194739-3), P74-ROX-102020 (400-194739-4), P57-ROX-102020 (400-194739-5) and P57-ROX-102020-DUP (400-194739-6). 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 following samples were diluted to bring the concentration of target analytes within the calibration range: P74-ROX-102020 (400-194739-4), P57-ROX-102020 (400-194739-5) and P57-ROX-102020-DUP (400-194739-6). Elevated reporting limits (RLs) are provided.

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-497771 was outside method criteria for the following analyte: Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Method 8260B: The following samples are duplicates: P57-ROX-102020 (400-194739-5) and P57-ROX-102020-DUP (400-194739-6), however the results do not match. The screening data confirmed the analysis, therefore the data has 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 (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-508204 and analytical batch 400-509317 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and LCSD that were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-508204 and analytical batch 400-509317 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol and Nitrobenzene-d5 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: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: P57-ROX-102020-DUP (400-194739-6) and (LCSD 400-508204/5-A). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-509841 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the

3

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Job ID: 400-194739-1 (Continued)

3

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

associated samples were non-detect for this analyte, the data have been reported.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-509134 recovered outside acceptance criteria, low biased, for Benzo[b]fluoranthene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D: The following samples were re-prepared outside of preparation holding time due to Bis(2-ethylhexyl) phthalate contamination : P57-ROX-102020 (400-194739-5) and P57-ROX-102020-DUP (400-194739-6). Both sets of data are reported.

Method 8270D: Six surrogates are used for this analysis. The laboratory's SOP allows two of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (MB 400-511071/1-A). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-508627 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-507961 and analytical batch 400-508279 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane.

Method 8011: The continuing calibration verification (CCV) associated with batch 400-508279 recovered above the upper control limit for 1,2-Dibromoethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194739-1	TB-ROX-102020-8260 ✓	Water	10/20/20 00:00	10/21/20 09:40	4
400-194739-2	TB-ROX-102020-8011 ✓	Water	10/20/20 00:00	10/21/20 09:40	5
400-194739-3	P74-ROX-102020-EB ✓	Water	10/20/20 09:00	10/21/20 09:40	6
400-194739-4	P74-ROX-102020 ✓	Water	10/20/20 10:50	10/21/20 09:40	7
400-194739-5	P57-ROX-102020 ✓	Water	10/20/20 13:00	10/21/20 09:40	8
400-194739-6	P57-ROX-102020-DUP ✓	Water	10/20/20 13:00	10/21/20 09:40	9

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: TB-ROX-102020-8260

Lab Sample ID: 400-194739-1

No Detections.

Client Sample ID: TB-ROX-102020-8011

Lab Sample ID: 400-194739-2

No Detections.

Client Sample ID: P74-ROX-102020-EB

Lab Sample ID: 400-194739-3

No Detections.

Client Sample ID: P74-ROX-102020

Lab Sample ID: 400-194739-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	7.1	J	25	2.6	ug/L	1	8260B		Total/NA
Ethylbenzene	2.5		1.0	0.50	ug/L	1	8260B		Total/NA
Methyl tert-butyl ether	4.9		1.0	0.74	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	6.2		5.0	1.6	ug/L	1	8260B		Total/NA
o-Xylene	1.0	J	5.0	0.60	ug/L	1	8260B		Total/NA
Toluene	4.6		1.0	0.41	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	3.6		1.0	0.82	ug/L	1	8260B		Total/NA
1,3,5-Trimethylbenzene	0.88	J	1.0	0.56	ug/L	1	8260B		Total/NA
Xylenes, Total	7.2	J	10	1.6	ug/L	1	8260B		Total/NA
Benzene - DL	300		2.0	0.76	ug/L	2	8260B		Total/NA
1-Methylnaphthalene	0.46		0.19	0.070	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	0.56		0.19	0.056	ug/L	1	8270D LL		Total/NA

Client Sample ID: P57-ROX-102020

Lab Sample ID: 400-194739-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	480	J	2.0	0.76	ug/L	2	8260B		Total/NA
Ethylbenzene	3.1		2.0	1.0	ug/L	2	8260B		Total/NA
Isopropylbenzene	23		2.0	1.1	ug/L	2	8260B		Total/NA
m-Xylene & p-Xylene	3.9	J	10	3.2	ug/L	2	8260B		Total/NA
Naphthalene	78	J	2.0	2.0	ug/L	2	8260B		Total/NA
n-Butylbenzene	4.1		2.0	1.5	ug/L	2	8260B		Total/NA
N-Propylbenzene	35		2.0	1.4	ug/L	2	8260B		Total/NA
sec-Butylbenzene	6.2		2.0	1.4	ug/L	2	8260B		Total/NA
tert-Butylbenzene	6.8		2.0	1.3	ug/L	2	8260B		Total/NA
Toluene	9.4		2.0	0.82	ug/L	2	8260B		Total/NA
Xylenes, Total	4.5	J	20	3.2	ug/L	2	8260B		Total/NA
Acenaphthene	0.36		0.19	0.031	ug/L	1	8270D LL		Total/NA
1-Methylnaphthalene	17		0.19	0.071	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	18		0.19	0.058	ug/L	1	8270D LL		Total/NA
Phenanthrene	0.18	J	0.19	0.035	ug/L	1	8270D LL		Total/NA
Bis(2-ethylhexyl) phthalate	11		9.6	4.8	ug/L	1	8270D		Total/NA
Phenol	12		9.6	2.5	ug/L	1	8270D		Total/NA

Client Sample ID: P57-ROX-102020-DUP

Lab Sample ID: 400-194739-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	2000	J	10	3.8	ug/L	10	8260B		Total/NA
Ethylbenzene	8.5	J	10	5.0	ug/L	10	8260B		Total/NA
Isopropylbenzene	18		10	5.3	ug/L	10	8260B		Total/NA
Naphthalene	56	J	10	10	ug/L	10	8260B		Total/NA
N-Propylbenzene	25		10	6.9	ug/L	10	8260B		Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P57-ROX-102020-DUP (Continued)

Lab Sample ID: 400-194739-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	8.1	J	10	4.1	ug/L	10		8260B	Total/NA
Acenaphthene	0.35		0.19	0.031	ug/L	1		8270D LL	Total/NA
Fluorene	0.60	5	0.19	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	19		0.19	0.071	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	19		0.19	0.057	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.16	J	0.19	0.034	ug/L	1		8270D LL	Total/NA
Bis(2-ethylhexyl) phthalate	8.2	J	9.6	4.8	ug/L	1		8270D	Total/NA
Dibenzofuran	0.47	J	9.6	0.16	ug/L	1		8270D	Total/NA
Diethyl phthalate	1.2	J	9.6	0.23	ug/L	1		8270D	Total/NA
Phenol	17		9.6	2.5	ug/L	1		8270D	Total/NA

5

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: TB-ROX-102020-8260
Date Collected: 10/20/20 00:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L		11/03/20	20:22	1
Acrolein	ND		20	10	ug/L		11/03/20	20:22	1
Acrylonitrile	ND		10	2.8	ug/L		11/03/20	20:22	1
Benzene	ND		1.0	0.38	ug/L		11/03/20	20:22	1
Bromobenzene	ND		1.0	0.54	ug/L		11/03/20	20:22	1
Bromoform	ND		1.0	0.52	ug/L		11/03/20	20:22	1
Bromochloromethane	ND		1.0	0.50	ug/L		11/03/20	20:22	1
Bromodichloromethane	ND		1.0	0.71	ug/L		11/03/20	20:22	1
Bromomethane	ND		1.0	0.98	ug/L		11/03/20	20:22	1
2-Butanone (MEK)	ND		25	2.6	ug/L		11/03/20	20:22	1
Carbon disulfide	ND		1.0	0.50	ug/L		11/03/20	20:22	1
Carbon tetrachloride	ND		1.0	0.50	ug/L		11/03/20	20:22	1
Chlorobenzene	ND		1.0	0.50	ug/L		11/03/20	20:22	1
Dibromochloromethane	ND		1.0	0.50	ug/L		11/03/20	20:22	1
Chloroethane	ND		1.0	0.76	ug/L		11/03/20	20:22	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L		11/03/20	20:22	1
Chloroform	ND		1.0	0.60	ug/L		11/03/20	20:22	1
1-Chlorohexane	ND		1.0	0.70	ug/L		11/03/20	20:22	1
Chloromethane	ND		1.0	0.83	ug/L		11/03/20	20:22	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L		11/03/20	20:22	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L		11/03/20	20:22	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L		11/03/20	20:22	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L		11/03/20	20:22	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L		11/03/20	20:22	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L		11/03/20	20:22	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L		11/03/20	20:22	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L		11/03/20	20:22	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L		11/03/20	20:22	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L		11/03/20	20:22	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L		11/03/20	20:22	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L		11/03/20	20:22	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L		11/03/20	20:22	1
Ethylbenzene	ND		1.0	0.50	ug/L		11/03/20	20:22	1
Ethyl methacrylate	ND		1.0	0.60	ug/L		11/03/20	20:22	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L		11/03/20	20:22	1
2-Hexanone	ND		25	3.1	ug/L		11/03/20	20:22	1
Isopropylbenzene	ND		1.0	0.53	ug/L		11/03/20	20:22	1
Methylene bromide	ND		5.0	0.59	ug/L		11/03/20	20:22	1
Methylene Chloride	ND		5.0	3.0	ug/L		11/03/20	20:22	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L		11/03/20	20:22	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L		11/03/20	20:22	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L		11/03/20	20:22	1
Naphthalene	ND		1.0	1.0	ug/L		11/03/20	20:22	1
n-Butylbenzene	ND		1.0	0.76	ug/L		11/03/20	20:22	1
N-Propylbenzene	ND		1.0	0.69	ug/L		11/03/20	20:22	1
o-Chlorotoluene	ND		1.0	0.57	ug/L		11/03/20	20:22	1
o-Xylene	ND		5.0	0.60	ug/L		11/03/20	20:22	1
p-Chlorotoluene	ND		1.0	0.56	ug/L		11/03/20	20:22	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L		11/03/20	20:22	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: TB-ROX-102020-8260
Date Collected: 10/20/20 00:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-1
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L		11/03/20 20:22		1
Styrene	ND		1.0	1.0	ug/L		11/03/20 20:22		1
tert-Butylbenzene	ND		1.0	0.63	ug/L		11/03/20 20:22		1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L		11/03/20 20:22		1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L		11/03/20 20:22		1
Tetrachloroethene	ND		1.0	0.58	ug/L		11/03/20 20:22		1
Toluene	ND		1.0	0.41	ug/L		11/03/20 20:22		1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L		11/03/20 20:22		1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L		11/03/20 20:22		1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L		11/03/20 20:22		1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L		11/03/20 20:22		1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L		11/03/20 20:22		1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L		11/03/20 20:22		1
Trichloroethylene	ND		1.0	0.50	ug/L		11/03/20 20:22		1
Trichlorofluoromethane	ND		1.0	0.52	ug/L		11/03/20 20:22		1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L		11/03/20 20:22		1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L		11/03/20 20:22		1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L		11/03/20 20:22		1
Vinyl acetate	ND		25	2.0	ug/L		11/03/20 20:22		1
Vinyl chloride	ND		1.0	0.50	ug/L		11/03/20 20:22		1
Xylenes, Total	ND		10	1.6	ug/L		11/03/20 20:22		1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromoanisole	102		78 - 118				11/03/20 20:22		1
Dibromoanisole	100		81 - 121				11/03/20 20:22		1
Toluene-d8 (Surr)	97		80 - 120				11/03/20 20:22		1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: TB-ROX-102020-8011
Date Collected: 10/20/20 00:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-2
Matrix: Water

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.0049	ug/L	D	10/23/20 11:33	10/27/20 18:00	1
Surrogate									
4-Bromofluorobenzene	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	123		51 - 149				10/23/20 11:33	10/27/20 18:00	1

Method: 8011 - EDB and DBCP in Water by Microextraction - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*1	0.029	0.0054	ug/L	D	10/23/20 11:33	10/29/20 17:12	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P74-ROX-102020-EB

Lab Sample ID: 400-194739-3

Date Collected: 10/20/20 09:00

Matrix: Water

Date Received: 10/21/20 09:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L		11/03/20 20:48	11/03/20 20:48	1
Acrolein	ND		20	10	ug/L		11/03/20 20:48	11/03/20 20:48	1
Acrylonitrile	ND		10	2.8	ug/L		11/03/20 20:48	11/03/20 20:48	1
Benzene	ND		1.0	0.38	ug/L		11/03/20 20:48	11/03/20 20:48	1
Bromobenzene	ND		1.0	0.54	ug/L		11/03/20 20:48	11/03/20 20:48	1
Bromoform	ND		5.0	0.71	ug/L		11/03/20 20:48	11/03/20 20:48	1
Bromomethane	ND		1.0	0.98	ug/L		11/03/20 20:48	11/03/20 20:48	1
2-Butanone (MEK)	ND		25	2.6	ug/L		11/03/20 20:48	11/03/20 20:48	1
Carbon disulfide	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
Carbon tetrachloride	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
Chlorobenzene	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
Dibromochloromethane	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
Chloroethane	ND		1.0	0.76	ug/L		11/03/20 20:48	11/03/20 20:48	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L		11/03/20 20:48	11/03/20 20:48	1
Chloroform	ND		1.0	0.60	ug/L		11/03/20 20:48	11/03/20 20:48	1
1-Chlorohexane	ND		1.0	0.70	ug/L		11/03/20 20:48	11/03/20 20:48	1
Chloromethane	ND		1.0	0.83	ug/L		11/03/20 20:48	11/03/20 20:48	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L		11/03/20 20:48	11/03/20 20:48	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
Ethylbenzene	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
Ethyl methacrylate	ND		1.0	0.60	ug/L		11/03/20 20:48	11/03/20 20:48	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L		11/03/20 20:48	11/03/20 20:48	1
2-Hexanone	ND		25	3.1	ug/L		11/03/20 20:48	11/03/20 20:48	1
Isopropylbenzene	ND		1.0	0.53	ug/L		11/03/20 20:48	11/03/20 20:48	1
Methylene bromide	ND		5.0	0.59	ug/L		11/03/20 20:48	11/03/20 20:48	1
Methylene Chloride	ND		5.0	3.0	ug/L		11/03/20 20:48	11/03/20 20:48	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L		11/03/20 20:48	11/03/20 20:48	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L		11/03/20 20:48	11/03/20 20:48	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L		11/03/20 20:48	11/03/20 20:48	1
Naphthalene	ND		1.0	1.0	ug/L		11/03/20 20:48	11/03/20 20:48	1
n-Butylbenzene	ND		1.0	0.76	ug/L		11/03/20 20:48	11/03/20 20:48	1
N-Propylbenzene	ND		1.0	0.69	ug/L		11/03/20 20:48	11/03/20 20:48	1
o-Chlorotoluene	ND		1.0	0.57	ug/L		11/03/20 20:48	11/03/20 20:48	1
o-Xylene	ND		5.0	0.60	ug/L		11/03/20 20:48	11/03/20 20:48	1
p-Chlorotoluene	ND		1.0	0.56	ug/L		11/03/20 20:48	11/03/20 20:48	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L		11/03/20 20:48	11/03/20 20:48	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P74-ROX-102020-EB
Date Collected: 10/20/20 09:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L		11/03/20 20:48	11/03/20 20:48	1
Styrene	ND		1.0	1.0	ug/L		11/03/20 20:48	11/03/20 20:48	1
tert-Butylbenzene	ND		1.0	0.63	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
Tetrachloroethylene	ND		1.0	0.58	ug/L		11/03/20 20:48	11/03/20 20:48	1
Toluene	ND		1.0	0.41	ug/L		11/03/20 20:48	11/03/20 20:48	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
Trichloroethylene	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L		11/03/20 20:48	11/03/20 20:48	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L		11/03/20 20:48	11/03/20 20:48	1
Vinyl acetate	ND		25	2.0	ug/L		11/03/20 20:48	11/03/20 20:48	1
Vinyl chloride	ND		1.0	0.50	ug/L		11/03/20 20:48	11/03/20 20:48	1
Xylenes, Total	ND		10	1.6	ug/L		11/03/20 20:48	11/03/20 20:48	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		78 - 118				11/03/20 20:48	11/03/20 20:48	1
Dibromofluoromethane	104		81 - 121				11/03/20 20:48	11/03/20 20:48	1
Toluene-d8 (Surr)	98		80 - 120				11/03/20 20:48	11/03/20 20:48	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		10/26/20 13:21	11/03/20 17:01	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/26/20 13:21	11/03/20 17:01	1
Anthracene	ND		0.20	0.032	ug/L		10/26/20 13:21	11/03/20 17:01	1
Benzo[a]anthracene	ND		0.20	0.045	ug/L		10/26/20 13:21	11/03/20 17:01	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		10/26/20 13:21	11/03/20 17:01	1
Benzo[b]fluoranthene	ND		0.20	0.034	ug/L		10/26/20 13:21	11/03/20 17:01	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		10/26/20 13:21	11/03/20 17:01	1
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L		10/26/20 13:21	11/03/20 17:01	1
Chrysene	ND		0.20	0.073	ug/L		10/26/20 13:21	11/03/20 17:01	1
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L		10/26/20 13:21	11/03/20 17:01	1
Fluoranthene	ND		0.20	0.067	ug/L		10/26/20 13:21	11/03/20 17:01	1
Fluorene	ND		0.20	0.11	ug/L		10/26/20 13:21	11/03/20 17:01	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		10/26/20 13:21	11/03/20 17:01	1
1-Methylnaphthalene	ND		0.20	0.073	ug/L		10/26/20 13:21	11/03/20 17:01	1
2-Methylnaphthalene	ND		0.20	0.059	ug/L		10/26/20 13:21	11/03/20 17:01	1
Phenanthrene	ND		0.20	0.036	ug/L		10/26/20 13:21	11/03/20 17:01	1
Pyrene	ND		0.20	0.040	ug/L		10/26/20 13:21	11/03/20 17:01	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85		15 - 122				10/26/20 13:21	11/03/20 17:01	1
Nitrobenzene-d5	91		19 - 130				10/26/20 13:21	11/03/20 17:01	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P74-ROX-102020-EB
Date Collected: 10/20/20 09:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-3
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	106		33 - 138		10/26/20 13:21	11/03/20 17:01	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L		10/26/20 13:21	11/04/20 23:20	1
Benzenethiol	ND *		9.9	1.7	ug/L		10/26/20 13:21	11/04/20 23:20	1
Benzoic acid	ND		30	7.2	ug/L		10/26/20 13:21	11/04/20 23:20	1
Benzyl alcohol	ND		9.9	2.0	ug/L		10/26/20 13:21	11/04/20 23:20	1
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L		10/26/20 13:21	11/04/20 23:20	1
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L		10/26/20 13:21	11/04/20 23:20	1
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L		10/26/20 13:21	11/04/20 23:20	1
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L		10/26/20 13:21	11/04/20 23:20	1
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L		10/26/20 13:21	11/04/20 23:20	1
Butyl benzyl phthalate	ND		9.9	0.19	ug/L		10/26/20 13:21	11/04/20 23:20	1
4-Chloroaniline	ND		9.9	3.4	ug/L		10/26/20 13:21	11/04/20 23:20	1
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L		10/26/20 13:21	11/04/20 23:20	1
2-Chloronaphthalene	ND		9.9	0.14	ug/L		10/26/20 13:21	11/04/20 23:20	1
2-Chlorophenol	ND		9.9	2.2	ug/L		10/26/20 13:21	11/04/20 23:20	1
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L		10/26/20 13:21	11/04/20 23:20	1
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L		10/26/20 13:21	11/04/20 23:20	1
Dibenzofuran	ND		9.9	0.17	ug/L		10/26/20 13:21	11/04/20 23:20	1
3,3'-Dichlorobenzidine	ND *		9.9	2.6	ug/L		10/26/20 13:21	11/04/20 23:20	1
2,4-Dichlorophenol	ND		9.9	3.0	ug/L		10/26/20 13:21	11/04/20 23:20	1
Diethyl phthalate	ND		9.9	0.24	ug/L		10/26/20 13:21	11/04/20 23:20	1
2,4-Dimethylphenol	ND		9.9	3.5	ug/L		10/26/20 13:21	11/04/20 23:20	1
Dimethyl phthalate	ND		9.9	0.17	ug/L		10/26/20 13:21	11/04/20 23:20	1
Di-n-butyl phthalate	ND		9.9	2.7	ug/L		10/26/20 13:21	11/04/20 23:20	1
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L		10/26/20 13:21	11/04/20 23:20	1
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L		10/26/20 13:21	11/04/20 23:20	1
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L		10/26/20 13:21	11/04/20 23:20	1
Di-n-octyl phthalate	ND		9.9	0.17	ug/L		10/26/20 13:21	11/04/20 23:20	1
1,4-Dioxane	ND		9.9	0.99	ug/L		10/26/20 13:21	11/04/20 23:20	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L		10/26/20 13:21	11/04/20 23:20	1
Hexachlorobenzene	ND		9.9	0.17	ug/L		10/26/20 13:21	11/04/20 23:20	1
Hexachloroethane	ND		9.9	4.2	ug/L		10/26/20 13:21	11/04/20 23:20	1
Indene	ND		9.9	0.99	ug/L		10/26/20 13:21	11/04/20 23:20	1
Isophorone	ND		9.9	0.14	ug/L		10/26/20 13:21	11/04/20 23:20	1
2-Methylphenol	ND		9.9	1.8	ug/L		10/26/20 13:21	11/04/20 23:20	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/26/20 13:21	11/04/20 23:20	1
2-Nitroaniline	ND		9.9	2.2	ug/L		10/26/20 13:21	11/04/20 23:20	1
3-Nitroaniline	ND		9.9	1.8	ug/L		10/26/20 13:21	11/04/20 23:20	1
4-Nitroaniline	ND		9.9	1.5	ug/L		10/26/20 13:21	11/04/20 23:20	1
Nitrobenzene	ND		9.9	0.13	ug/L		10/26/20 13:21	11/04/20 23:20	1
2-Nitrophenol	ND		9.9	5.1	ug/L		10/26/20 13:21	11/04/20 23:20	1
4-Nitrophenol	ND		9.9	2.1	ug/L		10/26/20 13:21	11/04/20 23:20	1
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L		10/26/20 13:21	11/04/20 23:20	1
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		10/26/20 13:21	11/04/20 23:20	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		10/26/20 13:21	11/04/20 23:20	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P74-ROX-102020-EB

Lab Sample ID: 400-194739-3

Date Collected: 10/20/20 09:00

Matrix: Water

Date Received: 10/21/20 09:40

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		20	1.4	ug/L		10/26/20 13:21	11/04/20 23:20	1
Phenol	ND		9.9	2.6	ug/L		10/26/20 13:21	11/04/20 23:20	1
Pyridine	ND		9.9	3.2	ug/L		10/26/20 13:21	11/04/20 23:20	1
Quinoline	ND		9.9	4.5	ug/L		10/26/20 13:21	11/04/20 23:20	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		10/26/20 13:21	11/04/20 23:20	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		10/26/20 13:21	11/04/20 23:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		46 - 124				10/26/20 13:21	11/04/20 23:20	1
2-Fluorophenol	13		13 - 113				10/26/20 13:21	11/04/20 23:20	1
Nitrobenzene-d5	71		36 - 126				10/26/20 13:21	11/04/20 23:20	1
Phenol-d5	37		17 - 127				10/26/20 13:21	11/04/20 23:20	1
Terphenyl-d14	87		44 - 149				10/26/20 13:21	11/04/20 23:20	1
2,4,6-Tribromophenol	68		26 - 150				10/26/20 13:21	11/04/20 23:20	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/26/20 13:21	11/08/20 19:26	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/26/20 13:21	11/08/20 19:26	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.0049	ug/L		10/23/20 11:33	10/27/20 18:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	124		51 - 149				10/23/20 11:33	10/27/20 18:20	1

Method: 8011 - EDB and DBCP in Water by Microextraction - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*1	0.029	0.0054	ug/L		10/23/20 11:33	10/29/20 17:33	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P74-ROX-102020
Date Collected: 10/20/20 10:50
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/03/20 17:17	1
Acrolein	ND		20	10	ug/L			11/03/20 17:17	1
Acrylonitrile	ND		10	2.8	ug/L			11/03/20 17:17	1
Bromobenzene	ND		1.0	0.54	ug/L			11/03/20 17:17	1
Bromoform	ND		1.0	0.52	ug/L			11/03/20 17:17	1
Bromochloromethane	ND		1.0	0.50	ug/L			11/03/20 17:17	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/03/20 17:17	1
Bromoform	ND		5.0	0.71	ug/L			11/03/20 17:17	1
Bromomethane	ND		1.0	0.98	ug/L			11/03/20 17:17	1
2-Butanone (MEK)	7.1	J	25	2.6	ug/L			11/03/20 17:17	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/03/20 17:17	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			11/03/20 17:17	1
Chlorobenzene	ND		1.0	0.50	ug/L			11/03/20 17:17	1
Dibromochloromethane	ND		1.0	0.50	ug/L			11/03/20 17:17	1
Chloroethane	ND		1.0	0.76	ug/L			11/03/20 17:17	1
2-Chloroethyl vinyl ether	ND	F1 <i>WT</i>	5.0	2.0	ug/L			11/03/20 17:17	1
Chloroform	ND		1.0	0.60	ug/L			11/03/20 17:17	1
1-Chlorohexane	ND		1.0	0.70	ug/L			11/03/20 17:17	1
Chloromethane	ND		1.0	0.83	ug/L			11/03/20 17:17	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/03/20 17:17	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/03/20 17:17	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/03/20 17:17	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/03/20 17:17	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/03/20 17:17	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/03/20 17:17	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/03/20 17:17	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			11/03/20 17:17	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/03/20 17:17	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/20 17:17	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/03/20 17:17	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/03/20 17:17	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/03/20 17:17	1
Ethylbenzene	2.5		1.0	0.50	ug/L			11/03/20 17:17	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/03/20 17:17	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/03/20 17:17	1
2-Hexanone	ND		25	3.1	ug/L			11/03/20 17:17	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/03/20 17:17	1
Methylene bromide	ND		5.0	0.59	ug/L			11/03/20 17:17	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/03/20 17:17	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/03/20 17:17	1
Methyl tert-butyl ether	4.9		1.0	0.74	ug/L			11/03/20 17:17	1
m-Xylene & p-Xylene	6.2		5.0	1.6	ug/L			11/03/20 17:17	1
Naphthalene	ND		1.0	1.0	ug/L			11/03/20 17:17	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/03/20 17:17	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/03/20 17:17	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/03/20 17:17	1
o-Xylene	1.0	J	5.0	0.60	ug/L			11/03/20 17:17	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/03/20 17:17	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/03/20 17:17	1
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/03/20 17:17	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P74-ROX-102020
Date Collected: 10/20/20 10:50
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0	1.0	ug/L		11/03/20 17:17	11/03/20 17:17	1
tert-Butylbenzene	ND		1.0	0.63	ug/L		11/03/20 17:17	11/03/20 17:17	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L		11/03/20 17:17	11/03/20 17:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L		11/03/20 17:17	11/03/20 17:17	1
Tetrachloroethylene	ND		1.0	0.58	ug/L		11/03/20 17:17	11/03/20 17:17	1
Toluene	4.6		1.0	0.41	ug/L		11/03/20 17:17	11/03/20 17:17	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L		11/03/20 17:17	11/03/20 17:17	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L		11/03/20 17:17	11/03/20 17:17	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L		11/03/20 17:17	11/03/20 17:17	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L		11/03/20 17:17	11/03/20 17:17	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L		11/03/20 17:17	11/03/20 17:17	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L		11/03/20 17:17	11/03/20 17:17	1
Trichloroethylene	ND		1.0	0.50	ug/L		11/03/20 17:17	11/03/20 17:17	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L		11/03/20 17:17	11/03/20 17:17	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L		11/03/20 17:17	11/03/20 17:17	1
1,2,4-Trimethylbenzene	3.6		1.0	0.82	ug/L		11/03/20 17:17	11/03/20 17:17	1
1,3,5-Trimethylbenzene	0.88 J		1.0	0.56	ug/L		11/03/20 17:17	11/03/20 17:17	1
Vinyl acetate	ND		25	2.0	ug/L		11/03/20 17:17	11/03/20 17:17	1
Vinyl chloride	ND		1.0	0.50	ug/L		11/03/20 17:17	11/03/20 17:17	1
Xylenes, Total	7.2 J		10	1.6	ug/L		11/03/20 17:17	11/03/20 17:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	108		78 - 118				11/03/20 17:17	11/03/20 17:17	1
Dibromofluoromethane	101		81 - 121				11/03/20 17:17	11/03/20 17:17	1
Toluene-d8 (Sur)	100		80 - 120				11/03/20 17:17	11/03/20 17:17	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	300		2.0	0.76	ug/L		11/03/20 21:15	11/03/20 21:15	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		78 - 118				11/03/20 21:15	11/03/20 21:15	2
Dibromofluoromethane	101		81 - 121				11/03/20 21:15	11/03/20 21:15	2
Toluene-d8 (Sur)	99		80 - 120				11/03/20 21:15	11/03/20 21:15	2

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/26/20 13:21	11/03/20 17:19	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/26/20 13:21	11/03/20 17:19	1
Anthracene	ND		0.19	0.030	ug/L		10/26/20 13:21	11/03/20 17:19	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		10/26/20 13:21	11/03/20 17:19	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/26/20 13:21	11/03/20 17:19	1
Benzo[b]fluoranthene	ND	WS	0.19	0.032	ug/L		10/26/20 13:21	11/03/20 17:19	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/26/20 13:21	11/03/20 17:19	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		10/26/20 13:21	11/03/20 17:19	1
Chrysene	ND		0.19	0.070	ug/L		10/26/20 13:21	11/03/20 17:19	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/26/20 13:21	11/03/20 17:19	1
Fluoranthene	ND		0.19	0.064	ug/L		10/26/20 13:21	11/03/20 17:19	1
Fluorene	ND		0.19	0.10	ug/L		10/26/20 13:21	11/03/20 17:19	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.040	ug/L		10/26/20 13:21	11/03/20 17:19	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P74-ROX-102020

Lab Sample ID: 400-194739-4

Matrix: Water

Date Collected: 10/20/20 10:50

Date Received: 10/21/20 09:40

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	0.46		0.19	0.070	ug/L		10/26/20 13:21	11/03/20 17:19	1
2-Methylnaphthalene	0.56		0.19	0.056	ug/L		10/26/20 13:21	11/03/20 17:19	1
Phenanthrene	ND		0.19	0.034	ug/L		10/26/20 13:21	11/03/20 17:19	1
Pyrene	ND		0.19	0.038	ug/L		10/26/20 13:21	11/03/20 17:19	1
Surrogate	%Recovery	Qualifier		Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	85			15 - 122			10/26/20 13:21	11/03/20 17:19	1
Nitrobenzene-d5	89			19 - 130			10/26/20 13:21	11/03/20 17:19	1
Terphenyl-d14	110			33 - 138			10/26/20 13:21	11/03/20 17:19	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		10/26/20 13:21	11/04/20 23:42	1
Benzanethiol	ND * <i>WT</i>		9.4	1.6	ug/L		10/26/20 13:21	11/04/20 23:42	1
Benzoic acid	ND		28	6.9	ug/L		10/26/20 13:21	11/04/20 23:42	1
Benzyl alcohol	ND		9.4	1.9	ug/L		10/26/20 13:21	11/04/20 23:42	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/26/20 13:21	11/04/20 23:42	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/26/20 13:21	11/04/20 23:42	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/26/20 13:21	11/04/20 23:42	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/26/20 13:21	11/04/20 23:42	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/26/20 13:21	11/04/20 23:42	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/26/20 13:21	11/04/20 23:42	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/26/20 13:21	11/04/20 23:42	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/26/20 13:21	11/04/20 23:42	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/26/20 13:21	11/04/20 23:42	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/26/20 13:21	11/04/20 23:42	1
4-Chlorophenyl phenyl ether	ND		9.4	1.9	ug/L		10/26/20 13:21	11/04/20 23:42	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/26/20 13:21	11/04/20 23:42	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/26/20 13:21	11/04/20 23:42	1
3,3'-Dichlorobenzidine	ND *		9.4	2.4	ug/L		10/26/20 13:21	11/04/20 23:42	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/26/20 13:21	11/04/20 23:42	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/26/20 13:21	11/04/20 23:42	1
2,4-Dimethylphenol	ND		9.4	3.3	ug/L		10/26/20 13:21	11/04/20 23:42	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/26/20 13:21	11/04/20 23:42	1
Di-n-butyl phthalate	ND		9.4	2.5	ug/L		10/26/20 13:21	11/04/20 23:42	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		10/26/20 13:21	11/04/20 23:42	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/26/20 13:21	11/04/20 23:42	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/26/20 13:21	11/04/20 23:42	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/26/20 13:21	11/04/20 23:42	1
1,4-Dioxane	ND		9.4	0.94	ug/L		10/26/20 13:21	11/04/20 23:42	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/26/20 13:21	11/04/20 23:42	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		10/26/20 13:21	11/04/20 23:42	1
Hexachloroethane	ND		9.4	4.0	ug/L		10/26/20 13:21	11/04/20 23:42	1
Indene	ND		9.4	0.94	ug/L		10/26/20 13:21	11/04/20 23:42	1
Isophorone	ND		9.4	0.13	ug/L		10/26/20 13:21	11/04/20 23:42	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/26/20 13:21	11/04/20 23:42	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/26/20 13:21	11/04/20 23:42	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/26/20 13:21	11/04/20 23:42	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/26/20 13:21	11/04/20 23:42	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P74-ROX-102020
Date Collected: 10/20/20 10:50
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	ND		9.4	1.4	ug/L		10/26/20 13:21	11/04/20 23:42	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/26/20 13:21	11/04/20 23:42	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/26/20 13:21	11/04/20 23:42	1
4-Nitrophenol	ND		9.4	2.0	ug/L		10/26/20 13:21	11/04/20 23:42	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		10/26/20 13:21	11/04/20 23:42	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/26/20 13:21	11/04/20 23:42	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/26/20 13:21	11/04/20 23:42	1
Pentachlorophenol	ND		19	1.3	ug/L		10/26/20 13:21	11/04/20 23:42	1
Phenol	ND		9.4	2.4	ug/L		10/26/20 13:21	11/04/20 23:42	1
Pyridine	ND		9.4	3.0	ug/L		10/26/20 13:21	11/04/20 23:42	1
Quinoline	ND		9.4	4.2	ug/L		10/26/20 13:21	11/04/20 23:42	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/26/20 13:21	11/04/20 23:42	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/26/20 13:21	11/04/20 23:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	75		46 - 124		10/26/20 13:21	11/04/20 23:42	1
2-Fluorophenol	28		13 - 113		10/26/20 13:21	11/04/20 23:42	1
Nitrobenzene-d5	76		36 - 126		10/26/20 13:21	11/04/20 23:42	1
Phenol-d5	57		17 - 127		10/26/20 13:21	11/04/20 23:42	1
Terphenyl-d14	93		44 - 149		10/26/20 13:21	11/04/20 23:42	1
2,4,6-Tribromophenol	96		26 - 150		10/26/20 13:21	11/04/20 23:42	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/26/20 13:21	11/08/20 19:50	1
Hexachlorocyclopentadiene	ND	WS	19	2.4	ug/L		10/26/20 13:21	11/08/20 19:50	1

Method: 8011 - EDB and DBCP In Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/23/20 11:33	10/27/20 19:00	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromofluorobenzene	121		51 - 149		10/23/20 11:33	10/27/20 19:00	1		

Method: 8011 - EDB and DBCP in Water by Microextraction - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND *1		0.030	0.0055	ug/L		10/23/20 11:33	10/29/20 18:17	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P57-ROX-102020
Date Collected: 10/20/20 13:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		50	20	ug/L			11/03/20 18:10	2
Acrolein	ND		40	20	ug/L			11/03/20 18:10	2
Acrylonitrile	ND		20	5.6	ug/L			11/03/20 18:10	2
Benzene	480	<i>5</i>	2.0	0.76	ug/L			11/03/20 18:10	2
Bromobenzene	ND		2.0	1.1	ug/L			11/03/20 18:10	2
Bromochloromethane	ND		2.0	1.0	ug/L			11/03/20 18:10	2
Bromodichloromethane	ND		2.0	1.0	ug/L			11/03/20 18:10	2
Bromoform	ND		10	1.4	ug/L			11/03/20 18:10	2
Bromomethane	ND		2.0	2.0	ug/L			11/03/20 18:10	2
2-Butanone (MEK)	ND		50	5.2	ug/L			11/03/20 18:10	2
Carbon disulfide	ND		2.0	1.0	ug/L			11/03/20 18:10	2
Carbon tetrachloride	ND		2.0	1.0	ug/L			11/03/20 18:10	2
Chlorobenzene	ND		2.0	1.0	ug/L			11/03/20 18:10	2
Dibromochloromethane	ND		2.0	1.0	ug/L			11/03/20 18:10	2
Chloroethane	ND		2.0	1.5	ug/L			11/03/20 18:10	2
2-Chloroethyl vinyl ether	ND		10	4.0	ug/L			11/03/20 18:10	2
Chloroform	ND		2.0	1.2	ug/L			11/03/20 18:10	2
1-Chlorohexane	ND		2.0	1.4	ug/L			11/03/20 18:10	2
Chloromethane	ND		2.0	1.7	ug/L			11/03/20 18:10	2
cis-1,2-Dichloroethene	ND		2.0	1.0	ug/L			11/03/20 18:10	2
cis-1,3-Dichloropropene	ND		10	1.0	ug/L			11/03/20 18:10	2
1,2-Dichlorobenzene	ND		2.0	1.0	ug/L			11/03/20 18:10	2
1,3-Dichlorobenzene	ND		2.0	1.1	ug/L			11/03/20 18:10	2
1,4-Dichlorobenzene	ND		2.0	1.3	ug/L			11/03/20 18:10	2
Dichlorodifluoromethane	ND		2.0	1.7	ug/L			11/03/20 18:10	2
1,1-Dichloroethane	ND		2.0	1.0	ug/L			11/03/20 18:10	2
1,2-Dichloroethane	ND		2.0	1.0	ug/L			11/03/20 18:10	2
1,1-Dichloroethene	ND		2.0	1.0	ug/L			11/03/20 18:10	2
1,2-Dichloropropane	ND		2.0	1.0	ug/L			11/03/20 18:10	2
1,3-Dichloropropane	ND		2.0	1.0	ug/L			11/03/20 18:10	2
2,2-Dichloropropane	ND		2.0	1.0	ug/L			11/03/20 18:10	2
1,1-Dichloropropene	ND		2.0	1.0	ug/L			11/03/20 18:10	2
Ethylbenzene	3.1		2.0	1.0	ug/L			11/03/20 18:10	2
Ethyl methacrylate	ND		2.0	1.2	ug/L			11/03/20 18:10	2
Hexachlorobutadiene	ND		10	1.8	ug/L			11/03/20 18:10	2
2-Hexanone	ND		50	6.2	ug/L			11/03/20 18:10	2
Isopropylbenzene	23		2.0	1.1	ug/L			11/03/20 18:10	2
Methylene bromide	ND		10	1.2	ug/L			11/03/20 18:10	2
Methylene Chloride	ND		10	6.0	ug/L			11/03/20 18:10	2
4-Methyl-2-pentanone (MIBK)	ND		50	3.6	ug/L			11/03/20 18:10	2
Methyl tert-butyl ether	ND		2.0	1.5	ug/L			11/03/20 18:10	2
m-Xylene & p-Xylene	3.9	<i>J</i>	10	3.2	ug/L			11/03/20 18:10	2
Naphthalene	78	<i>J</i>	2.0	2.0	ug/L			11/03/20 18:10	2
n-Butylbenzene	4.1		2.0	1.5	ug/L			11/03/20 18:10	2
N-Propylbenzene	35		2.0	1.4	ug/L			11/03/20 18:10	2
o-Chlorotoluene	ND		2.0	1.1	ug/L			11/03/20 18:10	2
o-Xylene	ND		10	1.2	ug/L			11/03/20 18:10	2
p-Chlorotoluene	ND		2.0	1.1	ug/L			11/03/20 18:10	2
p-Isopropyltoluene	ND		2.0	1.4	ug/L			11/03/20 18:10	2

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P57-ROX-102020
Date Collected: 10/20/20 13:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	6.2		2.0	1.4	ug/L		11/03/20 18:10	11/03/20 18:10	2
Styrene	ND		2.0	2.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
tert-Butylbenzene	6.8		2.0	1.3	ug/L		11/03/20 18:10	11/03/20 18:10	2
1,1,1,2-Tetrachloroethane	ND		2.0	1.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
1,1,2,2-Tetrachloroethane	ND		2.0	1.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
Tetrachloroethene	ND		2.0	1.2	ug/L		11/03/20 18:10	11/03/20 18:10	2
Toluene	9.4		2.0	0.82	ug/L		11/03/20 18:10	11/03/20 18:10	2
trans-1,2-Dichloroethene	ND		2.0	1.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
trans-1,3-Dichloropropene	ND		10	1.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
1,2,3-Trichlorobenzene	ND		2.0	1.4	ug/L		11/03/20 18:10	11/03/20 18:10	2
1,2,4-Trichlorobenzene	ND		2.0	1.6	ug/L		11/03/20 18:10	11/03/20 18:10	2
1,1,1-Trichloroethane	ND		2.0	1.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
1,1,2-Trichloroethane	ND		10	1.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
Trichloroethene	ND		2.0	1.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
Trichlorofluoromethane	ND		2.0	1.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
1,2,3-Trichloropropane	ND		10	1.7	ug/L		11/03/20 18:10	11/03/20 18:10	2
1,2,4-Trimethylbenzene	ND		2.0	1.6	ug/L		11/03/20 18:10	11/03/20 18:10	2
1,3,5-Trimethylbenzene	ND		2.0	1.1	ug/L		11/03/20 18:10	11/03/20 18:10	2
Vinyl acetate	ND		50	4.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
Vinyl chloride	ND		2.0	1.0	ug/L		11/03/20 18:10	11/03/20 18:10	2
Xylenes, Total	4.5	J	20	3.2	ug/L		11/03/20 18:10	11/03/20 18:10	2
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		78 - 118				11/03/20 18:10	11/03/20 18:10	2
Dibromofluoromethane	99		81 - 121				11/03/20 18:10	11/03/20 18:10	2
Toluene-d8 (Sur)	104		80 - 120				11/03/20 18:10	11/03/20 18:10	2

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.36		0.19	0.031	ug/L		10/26/20 13:21	11/03/20 17:36	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/26/20 13:21	11/03/20 17:36	1
Anthracene	ND		0.19	0.031	ug/L		10/26/20 13:21	11/03/20 17:36	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/26/20 13:21	11/03/20 17:36	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/26/20 13:21	11/03/20 17:36	1
Benzo[b]fluoranthene	ND	us	0.19	0.033	ug/L		10/26/20 13:21	11/03/20 17:36	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/26/20 13:21	11/03/20 17:36	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		10/26/20 13:21	11/03/20 17:36	1
Chrysene	ND		0.19	0.071	ug/L		10/26/20 13:21	11/03/20 17:36	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/26/20 13:21	11/03/20 17:36	1
Fluoranthene	ND		0.19	0.065	ug/L		10/26/20 13:21	11/03/20 17:36	1
Fluorene	ND	us	0.19	0.11	ug/L		10/26/20 13:21	11/03/20 17:36	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/26/20 13:21	11/03/20 17:36	1
1-Methylnaphthalene	17		0.19	0.071	ug/L		10/26/20 13:21	11/03/20 17:36	1
2-Methylnaphthalene	18		0.19	0.058	ug/L		10/26/20 13:21	11/03/20 17:36	1
Phenanthrene	0.18	J	0.19	0.035	ug/L		10/26/20 13:21	11/03/20 17:36	1
Pyrene	ND		0.19	0.038	ug/L		10/26/20 13:21	11/03/20 17:36	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		15 - 122				10/26/20 13:21	11/03/20 17:36	1
Nitrobenzene-d5	86		19 - 130				10/26/20 13:21	11/03/20 17:36	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P57-ROX-102020
Date Collected: 10/20/20 13:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-5
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	88		33 - 138	10/26/20 13:21	11/03/20 17:36	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L		10/26/20 13:21	11/05/20 00:03	1
Benzenethiol	ND * <i>US</i>		9.6	1.6	ug/L		10/26/20 13:21	11/05/20 00:03	1
Benzoic acid	ND		29	7.0	ug/L		10/26/20 13:21	11/05/20 00:03	1
Benzyl alcohol	ND		9.6	1.9	ug/L		10/26/20 13:21	11/05/20 00:03	1
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L		10/26/20 13:21	11/05/20 00:03	1
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L		10/26/20 13:21	11/05/20 00:03	1
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L		10/26/20 13:21	11/05/20 00:03	1
Bis(2-ethylhexyl) phthalate	11		9.6	4.8	ug/L		10/26/20 13:21	11/05/20 00:03	1
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L		10/26/20 13:21	11/05/20 00:03	1
Butyl benzyl phthalate	ND		9.6	0.18	ug/L		10/26/20 13:21	11/05/20 00:03	1
4-Chloroaniline	ND		9.6	3.3	ug/L		10/26/20 13:21	11/05/20 00:03	1
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L		10/26/20 13:21	11/05/20 00:03	1
2-Chloronaphthalene	ND		9.6	0.13	ug/L		10/26/20 13:21	11/05/20 00:03	1
2-Chlorophenol	ND		9.6	2.1	ug/L		10/26/20 13:21	11/05/20 00:03	1
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L		10/26/20 13:21	11/05/20 00:03	1
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L		10/26/20 13:21	11/05/20 00:03	1
Dibenzofuran	ND		9.6	0.16	ug/L		10/26/20 13:21	11/05/20 00:03	1
3,3'-Dichlorobenzidine	ND *		9.6	2.5	ug/L		10/26/20 13:21	11/05/20 00:03	1
2,4-Dichlorophenol	ND		9.6	2.9	ug/L		10/26/20 13:21	11/05/20 00:03	1
Diethyl phthalate	ND		9.6	0.23	ug/L		10/26/20 13:21	11/05/20 00:03	1
2,4-Dimethylphenol	ND		9.6	3.4	ug/L		10/26/20 13:21	11/05/20 00:03	1
Dimethyl phthalate	ND		9.6	0.16	ug/L		10/26/20 13:21	11/05/20 00:03	1
Di-n-butyl phthalate	ND		9.6	2.6	ug/L		10/26/20 13:21	11/05/20 00:03	1
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L		10/26/20 13:21	11/05/20 00:03	1
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L		10/26/20 13:21	11/05/20 00:03	1
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L		10/26/20 13:21	11/05/20 00:03	1
Di-n-octyl phthalate	ND		9.6	0.16	ug/L		10/26/20 13:21	11/05/20 00:03	1
1,4-Dioxane	ND		9.6	0.96	ug/L		10/26/20 13:21	11/05/20 00:03	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L		10/26/20 13:21	11/05/20 00:03	1
Hexachlorobenzene	ND		9.6	0.16	ug/L		10/26/20 13:21	11/05/20 00:03	1
Hexachloroethane	ND		9.6	4.0	ug/L		10/26/20 13:21	11/05/20 00:03	1
Indene	ND		9.6	0.96	ug/L		10/26/20 13:21	11/05/20 00:03	1
Isophorone	ND		9.6	0.13	ug/L		10/26/20 13:21	11/05/20 00:03	1
2-Methylphenol	ND		9.6	1.7	ug/L		10/26/20 13:21	11/05/20 00:03	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/26/20 13:21	11/05/20 00:03	1
2-Nitroaniline	ND		9.6	2.1	ug/L		10/26/20 13:21	11/05/20 00:03	1
3-Nitroaniline	ND		9.6	1.7	ug/L		10/26/20 13:21	11/05/20 00:03	1
4-Nitroaniline	ND		9.6	1.4	ug/L		10/26/20 13:21	11/05/20 00:03	1
Nitrobenzene	ND		9.6	0.12	ug/L		10/26/20 13:21	11/05/20 00:03	1
2-Nitrophenol	ND		9.6	5.0	ug/L		10/26/20 13:21	11/05/20 00:03	1
4-Nitrophenol	ND		9.6	2.0	ug/L		10/26/20 13:21	11/05/20 00:03	1
N-Nitrosodimethylamine	ND		9.6	3.4	ug/L		10/26/20 13:21	11/05/20 00:03	1
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L		10/26/20 13:21	11/05/20 00:03	1
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L		10/26/20 13:21	11/05/20 00:03	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P57-ROX-102020

Lab Sample ID: 400-194739-5

Date Collected: 10/20/20 13:00

Matrix: Water

Date Received: 10/21/20 09:40

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		19	1.3	ug/L		10/26/20 13:21	11/05/20 00:03	1
Phenol	12		9.6	2.5	ug/L		10/26/20 13:21	11/05/20 00:03	1
Pyridine	ND		9.6	3.1	ug/L		10/26/20 13:21	11/05/20 00:03	1
Quinoline	ND		9.6	4.3	ug/L		10/26/20 13:21	11/05/20 00:03	1
2,4,5-Trichlorophenol	ND		9.6	3.6	ug/L		10/26/20 13:21	11/05/20 00:03	1
2,4,6-Trichlorophenol	ND		9.6	3.4	ug/L		10/26/20 13:21	11/05/20 00:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		46 - 124				10/26/20 13:21	11/05/20 00:03	1
2-Fluorophenol	41		13 - 113				10/26/20 13:21	11/05/20 00:03	1
Nitrobenzene-d5	75		36 - 126				10/26/20 13:21	11/05/20 00:03	1
Phenol-d5	59		17 - 127				10/26/20 13:21	11/05/20 00:03	1
Terphenyl-d14	82		44 - 149				10/26/20 13:21	11/05/20 00:03	1
2,4,6-Tribromophenol	94		26 - 150				10/26/20 13:21	11/05/20 00:03	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		29	3.3	ug/L		10/26/20 13:21	11/08/20 20:14	1
Hexachlorocyclopentadiene	ND	WS	19	2.5	ug/L		10/26/20 13:21	11/08/20 20:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-ethylhexyl) phthalate	ND	H WS	9.5	4.8	ug/L		11/17/20 14:48	11/23/20 20:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		46 - 124				11/17/20 14:48	11/23/20 20:36	1
2-Fluorophenol	40		13 - 113				11/17/20 14:48	11/23/20 20:36	1
Nitrobenzene-d5	77		36 - 126				11/17/20 14:48	11/23/20 20:36	1
Phenol-d5	64		17 - 127				11/17/20 14:48	11/23/20 20:36	1
Terphenyl-d14	106		44 - 149				11/17/20 14:48	11/23/20 20:36	1
2,4,6-Tribromophenol	84		26 - 150				11/17/20 14:48	11/23/20 20:36	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.0049	ug/L		10/23/20 11:33	10/27/20 19:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	133		51 - 149				10/23/20 11:33	10/27/20 19:20	1

Method: 8011 - EDB and DBCP in Water by Microextraction - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*1	0.029	0.0054	ug/L		10/23/20 11:33	10/29/20 18:39	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P57-ROX-102020-DUP

Lab Sample ID: 400-194739-6

Matrix: Water

Date Collected: 10/20/20 13:00

Date Received: 10/21/20 09:40

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		250	100	ug/L			11/03/20 18:36	10
Acrolein	ND		200	100	ug/L			11/03/20 18:36	10
Acrylonitrile	ND		100	28	ug/L			11/03/20 18:36	10
Benzene	2000	J	10	3.8	ug/L			11/03/20 18:36	10
Bromobenzene	ND		10	5.4	ug/L			11/03/20 18:36	10
Bromochloromethane	ND		10	5.2	ug/L			11/03/20 18:36	10
Bromodichloromethane	ND		10	5.0	ug/L			11/03/20 18:36	10
Bromoform	ND		50	7.1	ug/L			11/03/20 18:36	10
Bromomethane	ND		10	9.8	ug/L			11/03/20 18:36	10
2-Butanone (MEK)	ND		250	26	ug/L			11/03/20 18:36	10
Carbon disulfide	ND		10	5.0	ug/L			11/03/20 18:36	10
Carbon tetrachloride	ND		10	5.0	ug/L			11/03/20 18:36	10
Chlorobenzene	ND		10	5.0	ug/L			11/03/20 18:36	10
Dibromochloromethane	ND		10	5.0	ug/L			11/03/20 18:36	10
Chloroethane	ND		10	7.6	ug/L			11/03/20 18:36	10
2-Chloroethyl vinyl ether	ND		50	20	ug/L			11/03/20 18:36	10
Chloroform	ND		10	6.0	ug/L			11/03/20 18:36	10
1-Chlorohexane	ND		10	7.0	ug/L			11/03/20 18:36	10
Chloromethane	ND		10	8.3	ug/L			11/03/20 18:36	10
cis-1,2-Dichloroethene	ND		10	5.0	ug/L			11/03/20 18:36	10
cis-1,3-Dichloropropene	ND		50	5.0	ug/L			11/03/20 18:36	10
1,2-Dichlorobenzene	ND		10	5.0	ug/L			11/03/20 18:36	10
1,3-Dichlorobenzene	ND		10	5.4	ug/L			11/03/20 18:36	10
1,4-Dichlorobenzene	ND		10	6.4	ug/L			11/03/20 18:36	10
Dichlorodifluoromethane	ND		10	8.5	ug/L			11/03/20 18:36	10
1,1-Dichloroethane	ND		10	5.0	ug/L			11/03/20 18:36	10
1,2-Dichloroethane	ND		10	5.0	ug/L			11/03/20 18:36	10
1,1-Dichloroethene	ND		10	5.0	ug/L			11/03/20 18:36	10
1,2-Dichloropropane	ND		10	5.0	ug/L			11/03/20 18:36	10
1,3-Dichloropropane	ND		10	5.0	ug/L			11/03/20 18:36	10
2,2-Dichloropropane	ND		10	5.0	ug/L			11/03/20 18:36	10
1,1-Dichloropropene	ND		10	5.0	ug/L			11/03/20 18:36	10
Ethylbenzene	8.5	J	10	5.0	ug/L			11/03/20 18:36	10
Ethyl methacrylate	ND		10	6.0	ug/L			11/03/20 18:36	10
Hexachlorobutadiene	ND		50	9.0	ug/L			11/03/20 18:36	10
2-Hexanone	ND		250	31	ug/L			11/03/20 18:36	10
Isopropylbenzene	18		10	5.3	ug/L			11/03/20 18:36	10
Methylene bromide	ND		50	5.9	ug/L			11/03/20 18:36	10
Methylene Chloride	ND		50	30	ug/L			11/03/20 18:36	10
4-Methyl-2-pentanone (MIBK)	ND		250	18	ug/L			11/03/20 18:36	10
Methyl tert-butyl ether	ND		10	7.4	ug/L			11/03/20 18:36	10
m-Xylene & p-Xylene	ND		50	16	ug/L			11/03/20 18:36	10
Naphthalene	56	J	10	10	ug/L			11/03/20 18:36	10
n-Butylbenzene	ND		10	7.6	ug/L			11/03/20 18:36	10
N-Propylbenzene	25		10	6.9	ug/L			11/03/20 18:36	10
o-Chlorotoluene	ND		10	5.7	ug/L			11/03/20 18:36	10
o-Xylene	ND		50	6.0	ug/L			11/03/20 18:36	10
p-Chlorotoluene	ND		10	5.6	ug/L			11/03/20 18:36	10
p-Isopropyltoluene	ND		10	7.1	ug/L			11/03/20 18:36	10

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P57-ROX-102020-DUP

Lab Sample ID: 400-194739-6

Date Collected: 10/20/20 13:00

Matrix: Water

Date Received: 10/21/20 09:40

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		10	7.0	ug/L			11/03/20 18:36	10
Styrene	ND		10	10	ug/L			11/03/20 18:36	10
tert-Butylbenzene	ND		10	6.3	ug/L			11/03/20 18:36	10
1,1,1,2-Tetrachloroethane	ND		10	5.2	ug/L			11/03/20 18:36	10
1,1,2,2-Tetrachloroethane	ND		10	5.0	ug/L			11/03/20 18:36	10
Tetrachloroethene	ND		10	5.8	ug/L			11/03/20 18:36	10
Toluene	8.1 J		10	4.1	ug/L			11/03/20 18:36	10
trans-1,2-Dichloroethylene	ND		10	5.0	ug/L			11/03/20 18:36	10
trans-1,3-Dichloropropene	ND		50	5.0	ug/L			11/03/20 18:36	10
1,2,3-Trichlorobenzene	ND		10	7.0	ug/L			11/03/20 18:36	10
1,2,4-Trichlorobenzene	ND		10	8.2	ug/L			11/03/20 18:36	10
1,1,1-Trichloroethane	ND		10	5.0	ug/L			11/03/20 18:36	10
1,1,2-Trichloroethane	ND		50	5.0	ug/L			11/03/20 18:36	10
Trichloroethylene	ND		10	5.0	ug/L			11/03/20 18:36	10
Trichlorofluoromethane	ND		10	5.2	ug/L			11/03/20 18:36	10
1,2,3-Trichloropropane	ND		50	8.4	ug/L			11/03/20 18:36	10
1,2,4-Trimethylbenzene	ND		10	8.2	ug/L			11/03/20 18:36	10
1,3,5-Trimethylbenzene	ND		10	5.6	ug/L			11/03/20 18:36	10
Vinyl acetate	ND		250	20	ug/L			11/03/20 18:36	10
Vinyl chloride	ND		10	5.0	ug/L			11/03/20 18:36	10
Xylenes, Total	ND		100	16	ug/L			11/03/20 18:36	10
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromofluorobenzene	103		78 - 118				11/03/20 18:36	10	
Dibromoefluoromethane	100		81 - 121				11/03/20 18:36	10	
Toluene-d8 (Sur)	101		80 - 120				11/03/20 18:36	10	

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.35		0.19	0.031	ug/L		10/26/20 13:21	11/03/20 17:54	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/26/20 13:21	11/03/20 17:54	1
Anthracene	ND		0.19	0.031	ug/L		10/26/20 13:21	11/03/20 17:54	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/26/20 13:21	11/03/20 17:54	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/26/20 13:21	11/03/20 17:54	1
Benzo[b]fluoranthene	ND	WS	0.19	0.033	ug/L		10/26/20 13:21	11/03/20 17:54	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/26/20 13:21	11/03/20 17:54	1
Benzo[k]fluoranthene	ND		0.19	0.096	ug/L		10/26/20 13:21	11/03/20 17:54	1
Chrysene	ND		0.19	0.071	ug/L		10/26/20 13:21	11/03/20 17:54	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/26/20 13:21	11/03/20 17:54	1
Fluoranthene	ND		0.19	0.065	ug/L		10/26/20 13:21	11/03/20 17:54	1
Fluorene	0.60 J		0.19	0.11	ug/L		10/26/20 13:21	11/03/20 17:54	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/26/20 13:21	11/03/20 17:54	1
1-Methylnaphthalene	19		0.19	0.071	ug/L		10/26/20 13:21	11/03/20 17:54	1
2-Methylnaphthalene	19		0.19	0.057	ug/L		10/26/20 13:21	11/03/20 17:54	1
Phenanthrene	0.16 J		0.19	0.034	ug/L		10/26/20 13:21	11/03/20 17:54	1
Pyrene	ND		0.19	0.038	ug/L		10/26/20 13:21	11/03/20 17:54	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	84		15 - 122				10/26/20 13:21	11/03/20 17:54	1
Nitrobenzene-d5	45		19 - 130				10/26/20 13:21	11/03/20 17:54	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P57-ROX-102020-DUP
Date Collected: 10/20/20 13:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	83		33 - 138	10/26/20 13:21	11/03/20 17:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.6	3.6	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Benzenethiol	ND * <i>WS</i>		9.6	1.6	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Benzoic acid	ND		29	7.0	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Benzyl alcohol	ND		9.6	1.9	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Bis(2-chloroethoxy)methane	ND		9.6	0.15	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Bis(2-chloroethyl)ether	ND		9.6	2.6	ug/L	10/26/20 13:21	11/05/20 00:24	1	
bis (2-chloroisopropyl) ether	ND		9.6	0.15	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Bis(2-ethylhexyl) phthalate	8.2 J		9.6	4.8	ug/L	10/26/20 13:21	11/05/20 00:24	1	
4-Bromophenyl phenyl ether	ND		9.6	0.19	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Butyl benzyl phthalate	ND		9.6	0.18	ug/L	10/26/20 13:21	11/05/20 00:24	1	
4-Chloroaniline	ND		9.6	3.3	ug/L	10/26/20 13:21	11/05/20 00:24	1	
4-Chloro-3-methylphenol	ND		9.6	3.6	ug/L	10/26/20 13:21	11/05/20 00:24	1	
2-Chloronaphthalene	ND		9.6	0.13	ug/L	10/26/20 13:21	11/05/20 00:24	1	
2-Chlorophenol	ND		9.6	2.1	ug/L	10/26/20 13:21	11/05/20 00:24	1	
4-Chlorophenyl phenyl ether	ND		9.6	1.9	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Dibenz[a,h]acridine	ND		9.6	0.96	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Dibenzofuran	0.47 J		9.6	0.16	ug/L	10/26/20 13:21	11/05/20 00:24	1	
3,3'-Dichlorobenzidine	ND *		9.6	2.5	ug/L	10/26/20 13:21	11/05/20 00:24	1	
2,4-Dichlorophenol	ND		9.6	2.9	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Diethyl phthalate	1.2 J		9.6	0.23	ug/L	10/26/20 13:21	11/05/20 00:24	1	
2,4-Dimethylphenol	ND		9.6	3.3	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Dimethyl phthalate	ND		9.6	0.16	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Di-n-butyl phthalate	ND		9.6	2.6	ug/L	10/26/20 13:21	11/05/20 00:24	1	
4,6-Dinitro-ortho-cresol	ND		9.6	1.5	ug/L	10/26/20 13:21	11/05/20 00:24	1	
2,4-Dinitrotoluene	ND		9.6	1.8	ug/L	10/26/20 13:21	11/05/20 00:24	1	
2,6-Dinitrotoluene	ND		9.6	1.8	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Di-n-octyl phthalate	ND		9.6	0.16	ug/L	10/26/20 13:21	11/05/20 00:24	1	
1,4-Dioxane	ND		9.6	0.96	ug/L	10/26/20 13:21	11/05/20 00:24	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.6	0.96	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Hexachlorobenzene	ND		9.6	0.16	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Hexachloroethane	ND		9.6	4.0	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Indene	ND		9.6	0.96	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Isophorone	ND		9.6	0.13	ug/L	10/26/20 13:21	11/05/20 00:24	1	
2-Methylphenol	ND		9.6	1.7	ug/L	10/26/20 13:21	11/05/20 00:24	1	
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/26/20 13:21	11/05/20 00:24	1	
2-Nitroaniline	ND		9.6	2.1	ug/L	10/26/20 13:21	11/05/20 00:24	1	
3-Nitroaniline	ND		9.6	1.7	ug/L	10/26/20 13:21	11/05/20 00:24	1	
4-Nitroaniline	ND		9.6	1.4	ug/L	10/26/20 13:21	11/05/20 00:24	1	
Nitrobenzene	ND		9.6	0.12	ug/L	10/26/20 13:21	11/05/20 00:24	1	
2-Nitrophenol	ND		9.6	5.0	ug/L	10/26/20 13:21	11/05/20 00:24	1	
4-Nitrophenol	ND		9.6	2.0	ug/L	10/26/20 13:21	11/05/20 00:24	1	
N-Nitrosodimethylamine	ND		9.6	3.3	ug/L	10/26/20 13:21	11/05/20 00:24	1	
N-Nitrosodi-n-propylamine	ND		9.6	3.2	ug/L	10/26/20 13:21	11/05/20 00:24	1	
N-Nitrosodiphenylamine	ND		9.6	0.17	ug/L	10/26/20 13:21	11/05/20 00:24	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P57-ROX-102020-DUP

Lab Sample ID: 400-194739-6

Date Collected: 10/20/20 13:00

Matrix: Water

Date Received: 10/21/20 09:40

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		19	1.3	ug/L		10/26/20 13:21	11/05/20 00:24	1
Phenol	17		9.6	2.5	ug/L		10/26/20 13:21	11/05/20 00:24	1
Pyridine	ND		9.6	3.1	ug/L		10/26/20 13:21	11/05/20 00:24	1
Quinoline	ND		9.6	4.3	ug/L		10/26/20 13:21	11/05/20 00:24	1
2,4,5-Trichlorophenol	ND		9.6	3.5	ug/L		10/26/20 13:21	11/05/20 00:24	1
2,4,6-Trichlorophenol	ND		9.6	3.3	ug/L		10/26/20 13:21	11/05/20 00:24	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	82		46 - 124				10/26/20 13:21	11/05/20 00:24	1
2-Fluorophenol	4 X		13 - 113				10/26/20 13:21	11/05/20 00:24	1
Nitrobenzene-d5	40		36 - 126				10/26/20 13:21	11/05/20 00:24	1
Phenol-d5	27		17 - 127				10/26/20 13:21	11/05/20 00:24	1
Terphenyl-d14	82		44 - 149				10/26/20 13:21	11/05/20 00:24	1
2,4,6-Tribromophenol	30		26 - 150				10/26/20 13:21	11/05/20 00:24	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		29	3.3	ug/L		10/26/20 13:21	11/08/20 20:38	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		10/26/20 13:21	11/08/20 20:38	1

Method: 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	9.5	4.8	ug/L		11/17/20 14:48	11/23/20 21:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		46 - 124				11/17/20 14:48	11/23/20 21:01	1
2-Fluorophenol	17		13 - 113				11/17/20 14:48	11/23/20 21:01	1
Nitrobenzene-d5	66		36 - 126				11/17/20 14:48	11/23/20 21:01	1
Phenol-d5	34		17 - 127				11/17/20 14:48	11/23/20 21:01	1
Terphenyl-d14	91		44 - 149				11/17/20 14:48	11/23/20 21:01	1
2,4,6-Tribromophenol	60		26 - 150				11/17/20 14:48	11/23/20 21:01	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/23/20 11:33	10/27/20 20:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	148		51 - 149				10/23/20 11:33	10/27/20 20:00	1

Method: 8011 - EDB and DBCP in Water by Microextraction - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*1	0.031	0.0056	ug/L		10/23/20 11:33	10/29/20 19:00	1

Eurofins TestAmerica, Pensacola

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
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 or LCSD is outside acceptance 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.
X	Surrogate recovery exceeds control limits

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
D	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: 400-194739-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194739-1	TB-ROX-102020-8260	102	100	97
400-194739-3	P74-ROX-102020-EB	103	104	98
400-194739-4	P74-ROX-102020	108	101	100
400-194739-4 - DL	P74-ROX-102020	103	101	99
400-194739-4 MS	P74-ROX-102020	97	99	97
400-194739-4 MSD	P74-ROX-102020	97	99	97
400-194739-5	P57-ROX-102020	104	99	104
400-194739-6	P57-ROX-102020-DUP	103	100	101
LCS 400-509185/1002	Lab Control Sample	94	98	95
MB 400-509185/5	Method Blank	110	105	99

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromoformmethane

TOL = Toluene-d8 (Surf)

8

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194739-3	P74-ROX-102020-EB	75	13	71	37	87	68
400-194739-4	P74-ROX-102020	75	28	76	57	93	96
400-194739-5	P57-ROX-102020	75	41	75	59	82	94
400-194739-5 - RE	P57-ROX-102020	82	40	77	64	106	84
400-194739-6	P57-ROX-102020-DUP	82	4 X	40	27	82	30
400-194739-6 - RE	P57-ROX-102020-DUP	71	17	66	34	91	60
LCS 400-508204/2-A	Lab Control Sample	94	39	73	69	87	96
LCS 400-508204/4-A	Lab Control Sample	79	40	76	61	97	36
LCS 400-511071/2-A - RE	Lab Control Sample	80	53	73	68	99	81
LCSD 400-508204/3-A	Lab Control Sample Dup	82	32	64	61	77	88
LCSD 400-508204/5-A	Lab Control Sample Dup	77	22	72	51	94	14 X
LCSD 400-511071/3-A - RE	Lab Control Sample Dup	79	60	53	66	94	81
MB 400-508204/1-A	Method Blank	76	39	73	58	95	70
MB 400-511071/1-A - RE	Method Blank	28 X	30	39	34	43 X	31

Surrogate Legend

FBP = 2-Fluorobiphenyl

2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

PHL = Phenol-d5

TPHL = Terphenyl-d14

TBP = 2,4,6-Tribromophenol

Eurofins TestAmerica, Pensacola

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194739-3	P74-ROX-102020-EB	85	91	106
400-194739-4	P74-ROX-102020	85	89	110
400-194739-5	P57-ROX-102020	82	86	88
400-194739-6	P57-ROX-102020-DUP	84	45	83
LCS 400-508204/2-A	Lab Control Sample	96	117	105
LCSD 400-508204/3-A	Lab Control Sample Dup	86	109	100
MB 400-508204/1-A	Method Blank	95	99	108

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB2 (51-149)	
400-194739-2	TB-ROX-102020-8011	123	
400-194739-3	P74-ROX-102020-EB	124	
400-194739-4	P74-ROX-102020	121	
400-194739-5	P57-ROX-102020	133	
400-194739-6	P57-ROX-102020-DUP	148	
LCS 400-507961/2-A	Lab Control Sample	101	
LCSD 400-507961/3-A	Lab Control Sample Dup	124	
MB 400-507961/1-A	Method Blank	105	

Surrogate Legend

BFB = 4-Bromofluorobenzene

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, 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: 400-194739-1

Client Sample ID: TB-ROX-102020-8260
Date Collected: 10/20/20 00:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-1
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	509185	11/03/20 20:22	AMB	TAL PEN

Client Sample ID: TB-ROX-102020-8011
Date Collected: 10/20/20 00:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-2
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	RA		35.6 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011	RA	1			508627	10/29/20 17:12	DHJ	TAL PEN
Total/NA	Prep	8011			35.6 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 18:00	DS	TAL PEN

Client Sample ID: P74-ROX-102020-EB
Date Collected: 10/20/20 09:00
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-3
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	509185	11/03/20 20:48	AMB	TAL PEN
Total/NA	Prep	3520C	RA		252.8 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	RA	1			509841	11/08/20 19:26	S1B	TAL PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 23:20	S1B	TAL PEN
Total/NA	Prep	3520C			252.8 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 17:01	DS	TAL PEN
Total/NA	Prep	8011	RA		35.8 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011	RA	1			508627	10/29/20 17:33	DHJ	TAL PEN
Total/NA	Prep	8011			35.8 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 18:20	DS	TAL PEN

Client Sample ID: P74-ROX-102020
Date Collected: 10/20/20 10:50
Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-4
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	509185	11/03/20 17:17	AMB	TAL PEN
Total/NA	Analysis	8260B	DL	2	5 mL	5 mL	509185	11/03/20 21:15	AMB	TAL PEN
Total/NA	Prep	3520C	RA		265.6 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	RA	1			509841	11/08/20 19:50	S1B	TAL PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 23:42	S1B	TAL PEN
Total/NA	Prep	3520C			265.6 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 17:19	DS	TAL PEN
Total/NA	Prep	8011	RA		35.3 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011	RA	1			508627	10/29/20 18:17	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: P74-ROX-102020

Date Collected: 10/20/20 10:50

Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8011			35.3 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 19:00	DS	TAL PEN

Client Sample ID: P57-ROX-102020

Date Collected: 10/20/20 13:00

Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-5

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		2	5 mL	5 mL	509185	11/03/20 18:10	AMB	TAL PEN
Total/NA	Prep	3520C	RA		260.4 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	RA	1			509841	11/08/20 20:14	S1B	TAL PEN
Total/NA	Prep	3520C			260.4 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/05/20 00:03	S1B	TAL PEN
Total/NA	Prep	3520C	RE		262.4 mL	1 mL	511071	11/17/20 14:48	NTH	TAL PEN
Total/NA	Analysis	8270D	RE	1			511852	11/23/20 20:36	S1B	TAL PEN
Total/NA	Prep	3520C			260.4 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 17:36	DS	TAL PEN
Total/NA	Prep	8011	RA		35.8 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011	RA	1			508627	10/29/20 18:39	DHJ	TAL PEN
Total/NA	Prep	8011			35.8 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 19:20	DS	TAL PEN

Client Sample ID: P57-ROX-102020-DUP

Date Collected: 10/20/20 13:00

Date Received: 10/21/20 09:40

Lab Sample ID: 400-194739-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	5 mL	5 mL	509185	11/03/20 18:36	AMB	TAL PEN
Total/NA	Prep	3520C	RA		261.2 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	RA	1			509841	11/08/20 20:38	S1B	TAL PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/05/20 00:24	S1B	TAL PEN
Total/NA	Prep	3520C	RE		263 mL	1 mL	511071	11/17/20 14:48	NTH	TAL PEN
Total/NA	Analysis	8270D	RE	1			511852	11/23/20 21:01	S1B	TAL PEN
Total/NA	Prep	3520C			261.2 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 17:54	DS	TAL PEN
Total/NA	Prep	8011	RA		34.2 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011	RA	1			508627	10/29/20 19:00	DHJ	TAL PEN
Total/NA	Prep	8011			34.2 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 20:00	DS	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-507961/1-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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			509274	11/04/20 19:51	DS	TAL PEN
Total/NA	Prep	8011			35 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 14:20	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-508204/1-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	RA		250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	RA	1			509841	11/08/20 15:23	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 16:18	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 15:51	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-509185/5

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	509185	11/03/20 15:57	AMB	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-511071/1-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	RE		1000 mL	1 mL	511071	11/17/20 14:48	NTH	TAL PEN
Total/NA	Analysis	8270D	RE	1			511480	11/20/20 17:54	VC1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-507961/2-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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 14:17	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-508204/2-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 16:39	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		5			509134	11/03/20 16:08	DS	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-508204/4-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:21	S1B	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-509185/1002

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	509185	11/03/20 14:55	AMB	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-511071/2-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	RE		1000 mL	1 mL	511071	11/17/20 14:48	NTH	TAL PEN
Total/NA	Analysis	8270D	RE	1			511852	11/23/20 19:44	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-507961/3-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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 15:20	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-508204/3-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:00	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		5			509134	11/03/20 16:26	DS	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-508204/5-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:43	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-511071/3-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	RE		1000 mL	1 mL	511071	11/17/20 14:48	NTH	TAL PEN
Total/NA	Analysis	8270D	RE	1	0.4 mL	1.0 mL	511852	11/23/20 20:09	S1B	TAL PEN

Client Sample ID: P74-ROX-102020

Lab Sample ID: 400-194739-4 MS

Date Collected: 10/20/20 10:50

Matrix: Water

Date Received: 10/21/20 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	509185	11/03/20 19:03	AMB	TAL PEN

Client Sample ID: P74-ROX-102020

Lab Sample ID: 400-194739-4 MSD

Date Collected: 10/20/20 10:50

Matrix: Water

Date Received: 10/21/20 09:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	5 mL	5 mL	509185	11/03/20 19:29	AMB	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

GC/MS VOA

Analysis Batch: 509185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194739-1	TB-ROX-102020-8260	Total/NA	Water	8260B	
400-194739-3	P74-ROX-102020-EB	Total/NA	Water	8260B	
400-194739-4	P74-ROX-102020	Total/NA	Water	8260B	
400-194739-4 - DL	P74-ROX-102020	Total/NA	Water	8260B	
400-194739-5	P57-ROX-102020	Total/NA	Water	8260B	
400-194739-6	P57-ROX-102020-DUP	Total/NA	Water	8260B	
MB 400-509185/5	Method Blank	Total/NA	Water	8260B	
LCS 400-509185/1002	Lab Control Sample	Total/NA	Water	8260B	
400-194739-4 MS	P74-ROX-102020	Total/NA	Water	8260B	
400-194739-4 MSD	P74-ROX-102020	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 508204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194739-3	P74-ROX-102020-EB	Total/NA	Water	3520C	
400-194739-3 - RA	P74-ROX-102020-EB	Total/NA	Water	3520C	
400-194739-4	P74-ROX-102020	Total/NA	Water	3520C	
400-194739-4 - RA	P74-ROX-102020	Total/NA	Water	3520C	
400-194739-5	P57-ROX-102020	Total/NA	Water	3520C	
400-194739-5 - RA	P57-ROX-102020	Total/NA	Water	3520C	
400-194739-6	P57-ROX-102020-DUP	Total/NA	Water	3520C	
400-194739-6 - RA	P57-ROX-102020-DUP	Total/NA	Water	3520C	
MB 400-508204/1-A	Method Blank	Total/NA	Water	3520C	
MB 400-508204/1-A - RA	Method Blank	Total/NA	Water	3520C	
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-508204/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-508204/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 509134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194739-3	P74-ROX-102020-EB	Total/NA	Water	8270D LL	508204
400-194739-4	P74-ROX-102020	Total/NA	Water	8270D LL	508204
400-194739-5	P57-ROX-102020	Total/NA	Water	8270D LL	508204
400-194739-6	P57-ROX-102020-DUP	Total/NA	Water	8270D LL	508204
MB 400-508204/1-A	Method Blank	Total/NA	Water	8270D LL	508204
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	8270D LL	508204
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	508204

Analysis Batch: 509317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194739-3	P74-ROX-102020-EB	Total/NA	Water	8270D	508204
400-194739-4	P74-ROX-102020	Total/NA	Water	8270D	508204
400-194739-5	P57-ROX-102020	Total/NA	Water	8270D	508204
400-194739-6	P57-ROX-102020-DUP	Total/NA	Water	8270D	508204
MB 400-508204/1-A	Method Blank	Total/NA	Water	8270D	508204
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	8270D	508204
LCS 400-508204/4-A	Lab Control Sample	Total/NA	Water	8270D	508204
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	508204
LCSD 400-508204/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	508204

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

GC/MS Semi VOA

Analysis Batch: 509841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194739-3 - RA	P74-ROX-102020-EB	Total/NA	Water	8270D	508204
400-194739-4 - RA	P74-ROX-102020	Total/NA	Water	8270D	508204
400-194739-5 - RA	P57-ROX-102020	Total/NA	Water	8270D	508204
400-194739-6 - RA	P57-ROX-102020-DUP	Total/NA	Water	8270D	508204
MB 400-508204/1-A - RA	Method Blank	Total/NA	Water	8270D	508204

Prep Batch: 511071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194739-5 - RE	P57-ROX-102020	Total/NA	Water	3520C	
400-194739-6 - RE	P57-ROX-102020-DUP	Total/NA	Water	3520C	
MB 400-511071/1-A - RE	Method Blank	Total/NA	Water	3520C	
LCS 400-511071/2-A - RE	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-511071/3-A - RE	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 511480

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-511071/1-A - RE	Method Blank	Total/NA	Water	8270D	511071

Analysis Batch: 511852

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194739-5 - RE	P57-ROX-102020	Total/NA	Water	8270D	511071
400-194739-6 - RE	P57-ROX-102020-DUP	Total/NA	Water	8270D	511071
LCS 400-511071/2-A - RE	Lab Control Sample	Total/NA	Water	8270D	511071
LCSD 400-511071/3-A - RE	Lab Control Sample Dup	Total/NA	Water	8270D	511071

GC Semi VOA

Prep Batch: 507961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194739-2 - RA	TB-ROX-102020-8011	Total/NA	Water	8011	
400-194739-2	TB-ROX-102020-8011	Total/NA	Water	8011	
400-194739-3 - RA	P74-ROX-102020-EB	Total/NA	Water	8011	
400-194739-3	P74-ROX-102020-EB	Total/NA	Water	8011	
400-194739-4 - RA	P74-ROX-102020	Total/NA	Water	8011	
400-194739-4	P74-ROX-102020	Total/NA	Water	8011	
400-194739-5 - RA	P57-ROX-102020	Total/NA	Water	8011	
400-194739-5	P57-ROX-102020	Total/NA	Water	8011	
400-194739-6 - RA	P57-ROX-102020-DUP	Total/NA	Water	8011	
400-194739-6	P57-ROX-102020-DUP	Total/NA	Water	8011	
MB 400-507961/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-507961/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-507961/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 508279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194739-2	TB-ROX-102020-8011	Total/NA	Water	8011	507961
400-194739-3	P74-ROX-102020-EB	Total/NA	Water	8011	507961
400-194739-4	P74-ROX-102020	Total/NA	Water	8011	507961
400-194739-5	P57-ROX-102020	Total/NA	Water	8011	507961
400-194739-6	P57-ROX-102020-DUP	Total/NA	Water	8011	507961
MB 400-507961/1-A	Method Blank	Total/NA	Water	8011	507961

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

GC Semi VOA (Continued)

Analysis Batch: 508279 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-507961/3-A	Lab Control Sample Dup	Total/NA	Water	8011	507961

Analysis Batch: 508627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194739-2 - RA	TB-ROX-102020-8011	Total/NA	Water	8011	507961
400-194739-3 - RA	P74-ROX-102020-EB	Total/NA	Water	8011	507961
400-194739-4 - RA	P74-ROX-102020	Total/NA	Water	8011	507961
400-194739-5 - RA	P57-ROX-102020	Total/NA	Water	8011	507961
400-194739-6 - RA	P57-ROX-102020-DUP	Total/NA	Water	8011	507961
LCS 400-507961/2-A	Lab Control Sample	Total/NA	Water	8011	507961

Analysis Batch: 509274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-507961/1-A	Method Blank	Total/NA	Water	8011	507961

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-509185/5

Matrix: Water

Analysis Batch: 509185

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone			ND		25	10	ug/L			11/03/20 15:57	1
Acrolein			ND		20	10	ug/L			11/03/20 15:57	1
Acrylonitrile			ND		10	2.8	ug/L			11/03/20 15:57	1
Benzene			ND		1.0	0.38	ug/L			11/03/20 15:57	1
Bromobenzene			ND		1.0	0.54	ug/L			11/03/20 15:57	1
Bromoform			ND		1.0	0.52	ug/L			11/03/20 15:57	1
Bromochloromethane			ND		1.0	0.50	ug/L			11/03/20 15:57	1
Bromodichloromethane			ND		1.0	0.71	ug/L			11/03/20 15:57	1
Bromomethane			ND		1.0	0.98	ug/L			11/03/20 15:57	1
2-Butanone (MEK)			ND		25	2.6	ug/L			11/03/20 15:57	1
Carbon disulfide			ND		1.0	0.50	ug/L			11/03/20 15:57	1
Carbon tetrachloride			ND		1.0	0.50	ug/L			11/03/20 15:57	1
Chlorobenzene			ND		1.0	0.50	ug/L			11/03/20 15:57	1
Dibromochloromethane			ND		1.0	0.50	ug/L			11/03/20 15:57	1
Chloroethane			ND		1.0	0.76	ug/L			11/03/20 15:57	1
2-Chloroethyl vinyl ether			ND		5.0	2.0	ug/L			11/03/20 15:57	1
Chloroform			ND		1.0	0.60	ug/L			11/03/20 15:57	1
1-Chlorhexane			ND		1.0	0.70	ug/L			11/03/20 15:57	1
Chloromethane			ND		1.0	0.83	ug/L			11/03/20 15:57	1
cis-1,2-Dichloroethene			ND		1.0	0.50	ug/L			11/03/20 15:57	1
cis-1,3-Dichloropropene			ND		5.0	0.50	ug/L			11/03/20 15:57	1
1,2-Dichlorobenzene			ND		1.0	0.50	ug/L			11/03/20 15:57	1
1,3-Dichlorobenzene			ND		1.0	0.54	ug/L			11/03/20 15:57	1
1,4-Dichlorobenzene			ND		1.0	0.64	ug/L			11/03/20 15:57	1
Dichlorodifluoromethane			ND		1.0	0.85	ug/L			11/03/20 15:57	1
1,1-Dichloroethane			ND		1.0	0.50	ug/L			11/03/20 15:57	1
1,2-Dichloroethane			ND		1.0	0.50	ug/L			11/03/20 15:57	1
1,1-Dichloroethene			ND		1.0	0.50	ug/L			11/03/20 15:57	1
1,2-Dichloropropane			ND		1.0	0.50	ug/L			11/03/20 15:57	1
1,3-Dichloropropane			ND		1.0	0.50	ug/L			11/03/20 15:57	1
2,2-Dichloropropane			ND		1.0	0.50	ug/L			11/03/20 15:57	1
1,1-Dichloropropene			ND		1.0	0.50	ug/L			11/03/20 15:57	1
Ethylbenzene			ND		1.0	0.50	ug/L			11/03/20 15:57	1
Ethyl methacrylate			ND		1.0	0.60	ug/L			11/03/20 15:57	1
Hexachlorobutadiene			ND		5.0	0.90	ug/L			11/03/20 15:57	1
2-Hexanone			ND		25	3.1	ug/L			11/03/20 15:57	1
Isopropylbenzene			ND		1.0	0.53	ug/L			11/03/20 15:57	1
Methylene bromide			ND		5.0	0.59	ug/L			11/03/20 15:57	1
Methylene Chloride			ND		5.0	3.0	ug/L			11/03/20 15:57	1
4-Methyl-2-pentanone (MIBK)			ND		25	1.8	ug/L			11/03/20 15:57	1
Methyl tert-butyl ether			ND		1.0	0.74	ug/L			11/03/20 15:57	1
m-Xylene & p-Xylene			ND		5.0	1.6	ug/L			11/03/20 15:57	1
Naphthalene			ND		1.0	1.0	ug/L			11/03/20 15:57	1
n-Butylbenzene			ND		1.0	0.76	ug/L			11/03/20 15:57	1
N-Propylbenzene			ND		1.0	0.69	ug/L			11/03/20 15:57	1
o-Chlorotoluene			ND		1.0	0.57	ug/L			11/03/20 15:57	1
o-Xylene			ND		5.0	0.60	ug/L			11/03/20 15:57	1
p-Chlorotoluene			ND		1.0	0.56	ug/L			11/03/20 15:57	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-509185/5

Matrix: Water

Analysis Batch: 509185

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB	MB	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier				
p-Isopropyltoluene	ND		1.0	0.71 ug/L	11/03/20 15:57	1
sec-Butylbenzene	ND		1.0	0.70 ug/L	11/03/20 15:57	1
Styrene	ND		1.0	1.0 ug/L	11/03/20 15:57	1
tert-Butylbenzene	ND		1.0	0.63 ug/L	11/03/20 15:57	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52 ug/L	11/03/20 15:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50 ug/L	11/03/20 15:57	1
Tetrachloroethylene	ND		1.0	0.58 ug/L	11/03/20 15:57	1
Toluene	ND		1.0	0.41 ug/L	11/03/20 15:57	1
trans-1,2-Dichloroethylene	ND		1.0	0.50 ug/L	11/03/20 15:57	1
trans-1,3-Dichloropropene	ND		5.0	0.50 ug/L	11/03/20 15:57	1
1,2,3-Trichlorobenzene	ND		1.0	0.70 ug/L	11/03/20 15:57	1
1,2,4-Trichlorobenzene	ND		1.0	0.82 ug/L	11/03/20 15:57	1
1,1,1-Trichloroethane	ND		1.0	0.50 ug/L	11/03/20 15:57	1
1,1,2-Trichloroethane	ND		5.0	0.50 ug/L	11/03/20 15:57	1
Trichloroethylene	ND		1.0	0.50 ug/L	11/03/20 15:57	1
Trichlorofluoromethane	ND		1.0	0.52 ug/L	11/03/20 15:57	1
1,2,3-Trichloropropane	ND		5.0	0.84 ug/L	11/03/20 15:57	1
1,2,4-Trimethylbenzene	ND		1.0	0.82 ug/L	11/03/20 15:57	1
1,3,5-Trimethylbenzene	ND		1.0	0.56 ug/L	11/03/20 15:57	1
Vinyl acetate	ND		25	2.0 ug/L	11/03/20 15:57	1
Vinyl chloride	ND		1.0	0.50 ug/L	11/03/20 15:57	1
Xylenes, Total	ND		10	1.6 ug/L	11/03/20 15:57	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	110		78 - 118		11/03/20 15:57	1
Dibromofluoromethane	105		81 - 121		11/03/20 15:57	1
Toluene-d8 (Sur)	99		80 - 120		11/03/20 15:57	1

Lab Sample ID: LCS 400-509185/1002

Matrix: Water

Analysis Batch: 509185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Acetone	200	225		ug/L	112	43 - 160	
Acrolein	500	476		ug/L	95	38 - 160	
Acrylonitrile	500	564		ug/L	113	64 - 142	
Benzene	50.0	44.3		ug/L	89	70 - 130	
Bromobenzene	50.0	41.2		ug/L	82	70 - 132	
Bromo(chloromethane	50.0	46.4		ug/L	93	70 - 130	
Bromodichloromethane	50.0	43.1		ug/L	86	67 - 133	
Bromoform	50.0	52.5		ug/L	105	57 - 140	
Bromomethane	50.0	50.8		ug/L	102	10 - 160	
2-Butanone (MEK)	200	207		ug/L	103	61 - 145	
Carbon disulfide	50.0	40.0		ug/L	80	61 - 137	
Carbon tetrachloride	50.0	44.2		ug/L	88	61 - 137	
Chlorobenzene	50.0	43.8		ug/L	88	70 - 130	
Dibromochloromethane	50.0	47.1		ug/L	94	67 - 135	
Chloroethane	50.0	42.0		ug/L	84	55 - 141	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-509185/1002

Matrix: Water

Analysis Batch: 509185

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	19.6		ug/L		39	10 - 160	
Chloroform	50.0	44.1		ug/L		88	69 - 130	
1-Chlorohexane	50.0	44.9		ug/L		90	69 - 130	
Chloromethane	50.0	43.8		ug/L		88	58 - 137	
cis-1,2-Dichloroethene	50.0	44.7		ug/L		89	68 - 130	
cis-1,3-Dichloropropene	50.0	42.3		ug/L		85	69 - 132	
1,2-Dichlorobenzene	50.0	46.4		ug/L		93	67 - 130	
1,3-Dichlorobenzene	50.0	45.5		ug/L		91	70 - 130	
1,4-Dichlorobenzene	50.0	47.4		ug/L		95	70 - 130	
Dichlorodifluoromethane	50.0	34.0		ug/L		68	41 - 146	
1,1-Dichloroethane	50.0	44.4		ug/L		89	70 - 130	
1,2-Dichloroethane	50.0	42.7		ug/L		85	69 - 130	
1,1-Dichloroethene	50.0	40.0		ug/L		80	63 - 134	
1,2-Dichloropropane	50.0	44.6		ug/L		89	70 - 130	
1,3-Dichloropropane	50.0	44.9		ug/L		90	70 - 130	
2,2-Dichloropropane	50.0	41.7		ug/L		83	52 - 135	
1,1-Dichloropropene	50.0	40.9		ug/L		82	70 - 130	
Ethylbenzene	50.0	42.5		ug/L		85	70 - 130	
Ethyl methacrylate	50.0	45.3		ug/L		91	68 - 130	
Hexachlorobutadiene	50.0	47.6		ug/L		95	53 - 140	
2-Hexanone	200	202		ug/L		101	65 - 137	
Isopropylbenzene	50.0	41.9		ug/L		84	70 - 130	
Methylene bromide	50.0	44.8		ug/L		90	70 - 130	
Methylene Chloride	50.0	45.9		ug/L		92	66 - 135	
4-Methyl-2-pentanone (MIBK)	200	198		ug/L		99	69 - 138	
Methyl tert-butyl ether	50.0	45.8		ug/L		92	66 - 130	
m-Xylene & p-Xylene	50.0	42.7		ug/L		85	70 - 130	
Naphthalene	50.0	41.3		ug/L		83	47 - 149	
n-Butylbenzene	50.0	47.4		ug/L		95	67 - 130	
N-Propylbenzene	50.0	44.8		ug/L		90	70 - 130	
o-Chlorotoluene	50.0	44.8		ug/L		90	70 - 130	
o-Xylene	50.0	42.5		ug/L		85	70 - 130	
p-Chlorotoluene	50.0	46.0		ug/L		92	70 - 130	
p-Isopropyltoluene	50.0	44.9		ug/L		90	65 - 130	
sec-Butylbenzene	50.0	43.8		ug/L		88	66 - 130	
Styrene	50.0	44.7		ug/L		89	70 - 130	
tert-Butylbenzene	50.0	42.6		ug/L		85	64 - 139	
1,1,1,2-Tetrachloroethane	50.0	45.5		ug/L		91	67 - 131	
1,1,2,2-Tetrachloroethane	50.0	46.1		ug/L		92	70 - 131	
Tetrachloroethene	50.0	40.8		ug/L		82	65 - 130	
Toluene	50.0	43.7		ug/L		87	70 - 130	
trans-1,2-Dichloroethene	50.0	43.0		ug/L		86	70 - 130	
trans-1,3-Dichloropropene	50.0	43.2		ug/L		86	63 - 130	
1,2,3-Trichlorobenzene	50.0	42.6		ug/L		85	60 - 138	
1,2,4-Trichlorobenzene	50.0	43.0		ug/L		86	60 - 140	
1,1,1-Trichloroethane	50.0	43.1		ug/L		86	68 - 130	
1,1,2-Trichloroethane	50.0	43.4		ug/L		87	70 - 130	
Trichloroethene	50.0	42.1		ug/L		84	70 - 130	
Trichlorofluoromethane	50.0	38.1		ug/L		76	65 - 138	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-509185/1002

Matrix: Water

Analysis Batch: 509185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
1,2,3-Trichloropropane	50.0	47.9		ug/L		96	70 - 130	
1,2,4-Trimethylbenzene	50.0	45.0		ug/L		90	70 - 130	
1,3,5-Trimethylbenzene	50.0	44.9		ug/L		90	69 - 130	
Vinyl acetate	100	90.7		ug/L		91	26 - 160	
Vinyl chloride	50.0	41.2		ug/L		82	59 - 136	
Xylenes, Total	100	85.2		ug/L		85	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene	94		78 - 118					
Dibromofluoromethane	98		81 - 121					
Toluene-d8 (Surr)	95		80 - 120					

Lab Sample ID: 400-194739-4 MS

Matrix: Water

Analysis Batch: 509185

Client Sample ID: P74-ROX-102020
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec.	Limits
Acetone	ND		200	184		ug/L		92	43 - 150	
Acrolein	ND		500	397		ug/L		79	38 - 150	
Acrylonitrile	ND		500	525		ug/L		105	62 - 149	
Benzene	300 E		50.0	334 E 4		ug/L		65	56 - 142	
Bromobenzene	ND		50.0	33.6		ug/L		67	59 - 136	
Bromoform	ND		50.0	43.2		ug/L		86	64 - 140	
Bromochloromethane	ND		50.0	39.4		ug/L		79	59 - 143	
Bromodichloromethane	ND		50.0	45.5		ug/L		91	50 - 140	
Bromoform	ND		50.0	47.8		ug/L		96	10 - 150	
Bromomethane	ND		50.0	184		ug/L		89	55 - 150	
2-Butanone (MEK)	7.1 J		200	37.5		ug/L		75	48 - 150	
Carbon disulfide	ND		50.0	40.0		ug/L		80	55 - 145	
Carbon tetrachloride	ND		50.0	35.2		ug/L		70	64 - 130	
Chlorobenzene	ND		50.0	41.8		ug/L		84	56 - 143	
Dibromochloromethane	ND		50.0	37.3		ug/L		75	50 - 150	
Chloroethane	ND		50.0	ND F1		ug/L		0	10 - 150	
2-Chloroethyl vinyl ether	ND F1		50.0	41.4		ug/L		83	60 - 141	
Chloroform	ND		50.0	34.2		ug/L		68	56 - 136	
1-Chlorohexane	ND		50.0	38.7		ug/L		77	49 - 148	
Chloromethane	ND		50.0	41.2		ug/L		82	59 - 143	
cis-1,2-Dichloroethene	ND		50.0	37.7		ug/L		75	57 - 140	
cis-1,3-Dichloropropene	ND		50.0	37.2		ug/L		74	52 - 137	
1,2-Dichlorobenzene	ND		50.0	33.1		ug/L		66	54 - 135	
1,3-Dichlorobenzene	ND		50.0	34.0		ug/L		68	53 - 135	
1,4-Dichlorobenzene	ND		50.0	30.1		ug/L		60	16 - 150	
Dichlorodifluoromethane	ND		50.0	41.5		ug/L		83	61 - 144	
1,1-Dichloroethane	ND		50.0	49.1		ug/L		98	60 - 141	
1,2-Dichloroethane	ND		50.0	38.1		ug/L		76	54 - 147	
1,1-Dichloroethylene	ND		50.0	42.5		ug/L		85	66 - 137	
1,2-Dichloropropane	ND		50.0	40.3		ug/L		81	66 - 133	
1,3-Dichloropropane	ND		50.0	36.9		ug/L		74	42 - 144	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194739-4 MS

Client Sample ID: P74-ROX-102020

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509185

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1-Dichloropropene	ND		50.0	37.9		ug/L	76	65 - 136	
Ethylbenzene	2.5		50.0	35.4		ug/L	66	58 - 131	
Ethyl methacrylate	ND		50.0	41.2		ug/L	82	64 - 130	
Hexachlorobutadiene	ND		50.0	34.1		ug/L	68	31 - 149	
2-Hexanone	ND		200	175		ug/L	87	65 - 140	
Isopropylbenzene	ND		50.0	31.0		ug/L	62	56 - 133	
Methylene bromide	ND		50.0	41.1		ug/L	82	63 - 138	
Methylene Chloride	ND		50.0	46.5		ug/L	93	60 - 146	
4-Methyl-2-pentanone (MIBK)	ND		200	183		ug/L	91	63 - 146	
Methyl tert-butyl ether	4.9		50.0	47.9		ug/L	86	59 - 137	
m-Xylene & p-Xylene	6.2		50.0	38.1		ug/L	64	57 - 130	
Naphthalene	ND		50.0	33.9		ug/L	68	25 - 150	
n-Butylbenzene	ND		50.0	32.4		ug/L	65	41 - 142	
N-Propylbenzene	ND		50.0	31.2		ug/L	62	51 - 138	
o-Chlorotoluene	ND		50.0	33.2		ug/L	66	53 - 134	
o-Xylene	1.0 J		50.0	34.3		ug/L	66	61 - 130	
p-Chlorotoluene	ND		50.0	32.8		ug/L	66	54 - 133	
p-Isopropyltoluene	ND		50.0	29.3		ug/L	59	48 - 139	
sec-Butylbenzene	ND		50.0	29.9		ug/L	60	50 - 138	
Styrene	ND		50.0	35.2		ug/L	70	58 - 131	
tert-Butylbenzene	ND		50.0	30.4		ug/L	61	54 - 146	
1,1,1,2-Tetrachloroethane	ND		50.0	39.6		ug/L	79	59 - 137	
1,1,2,2-Tetrachloroethane	ND		50.0	42.8		ug/L	86	66 - 135	
Tetrachloroethene	ND		50.0	32.6		ug/L	65	52 - 133	
Toluene	4.6		50.0	41.5		ug/L	74	65 - 130	
trans-1,2-Dichloroethene	ND		50.0	39.5		ug/L	79	61 - 143	
trans-1,3-Dichloropropene	ND		50.0	37.6		ug/L	75	53 - 133	
1,2,3-Trichlorobenzene	ND		50.0	32.6		ug/L	65	43 - 145	
1,2,4-Trichlorobenzene	ND		50.0	30.5		ug/L	61	39 - 148	
1,1,1-Trichloroethane	ND		50.0	40.0		ug/L	80	57 - 142	
1,1,2-Trichloroethane	ND		50.0	39.8		ug/L	80	66 - 131	
Trichloroethene	ND		50.0	36.7		ug/L	73	64 - 136	
Trichlorofluoromethane	ND		50.0	35.0		ug/L	70	54 - 150	
1,2,3-Trichloropropane	ND		50.0	44.8		ug/L	90	65 - 133	
1,2,4-Trimethylbenzene	3.6		50.0	35.1		ug/L	63	50 - 139	
1,3,5-Trimethylbenzene	0.88 J		50.0	32.0		ug/L	62	52 - 135	
Vinyl acetate	ND		100	74.0		ug/L	74	26 - 150	
Vinyl chloride	ND		50.0	39.5		ug/L	79	46 - 150	
Xylenes, Total	7.2 J		100	72.4		ug/L	65	59 - 130	
<hr/>									
Surrogate									
MS									
4-Bromofluorobenzene	%Recovery	Qualifier	Limits						
4-Bromofluorobenzene	97		78 - 118						
Dibromofluoromethane	99		81 - 121						
Toluene-d8 (Surf)	97		80 - 120						

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194739-4 MSD

Matrix: Water

Analysis Batch: 509185

Client Sample ID: P74-ROX-102020

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Acetone	ND		200	195		ug/L	97	43 - 150	6	30	
Acrolein	ND		500	479		ug/L	96	38 - 150	19	31	
Acrylonitrile	ND		500	567		ug/L	113	62 - 149	8	30	
Benzene	300	E	50.0	320	E 4	ug/L	37	56 - 142	4	30	
Bromobenzene	ND		50.0	34.9		ug/L	70	59 - 136	4	30	
Bromoform	ND		50.0	49.3		ug/L	99	50 - 140	8	30	
Bromomethane	ND		50.0	56.2		ug/L	112	10 - 150	16	50	
2-Butanone (MEK)	7.1	J	200	196		ug/L	94	55 - 150	6	30	
Carbon disulfide	ND		50.0	39.5		ug/L	79	48 - 150	5	30	
Carbon tetrachloride	ND		50.0	41.9		ug/L	84	55 - 145	5	30	
Chlorobenzene	ND		50.0	36.7		ug/L	73	64 - 130	4	30	
Dibromochloromethane	ND		50.0	43.7		ug/L	87	56 - 143	5	30	
Chloroethane	ND		50.0	46.8		ug/L	94	50 - 150	22	30	
2-Chloroethyl vinyl ether	ND	F1	50.0	ND	F1	ug/L	0	10 - 150	NC	50	
Chloroform	ND		50.0	43.2		ug/L	86	60 - 141	4	30	
1-Chlorohexane	ND		50.0	34.5		ug/L	69	56 - 136	1	30	
Chloromethane	ND		50.0	44.2		ug/L	88	49 - 148	13	31	
cis-1,2-Dichloroethene	ND		50.0	43.5		ug/L	87	59 - 143	5	30	
cis-1,3-Dichloropropene	ND		50.0	40.3		ug/L	81	57 - 140	7	30	
1,2-Dichlorobenzene	ND		50.0	35.1		ug/L	70	52 - 137	6	30	
1,3-Dichlorobenzene	ND		50.0	32.7		ug/L	65	54 - 135	1	30	
1,4-Dichlorobenzene	ND		50.0	33.9		ug/L	68	53 - 135	0	30	
Dichlorodifluoromethane	ND		50.0	36.1		ug/L	72	16 - 150	18	31	
1,1-Dichloroethane	ND		50.0	43.8		ug/L	88	61 - 144	5	30	
1,2-Dichloroethane	ND		50.0	50.2		ug/L	100	60 - 141	2	30	
1,1-Dichloroethene	ND		50.0	41.0		ug/L	82	54 - 147	7	30	
1,2-Dichloropropane	ND		50.0	43.8		ug/L	88	66 - 137	3	30	
1,3-Dichloropropane	ND		50.0	43.3		ug/L	87	66 - 133	7	30	
2,2-Dichloropropane	ND		50.0	39.2		ug/L	78	42 - 144	6	31	
1,1-Dichloropropene	ND		50.0	40.3		ug/L	81	65 - 136	6	30	
Ethylbenzene	2.5		50.0	35.5		ug/L	66	58 - 131	1	30	
Ethyl methacrylate	ND		50.0	45.0		ug/L	90	64 - 130	9	30	
Hexachlorobutadiene	ND		50.0	29.7		ug/L	59	31 - 149	14	36	
2-Hexanone	ND		200	191		ug/L	95	65 - 140	9	30	
Isopropylbenzene	ND		50.0	31.0		ug/L	62	56 - 133	0	30	
Methylene bromide	ND		50.0	42.9		ug/L	86	63 - 138	4	30	
Methylene Chloride	ND		50.0	47.2		ug/L	94	60 - 146	1	32	
4-Methyl-2-pentanone (MIBK)	ND		200	197		ug/L	98	63 - 146	7	30	
Methyl tert-butyl ether	4.9		50.0	52.8		ug/L	96	59 - 137	10	30	
m-Xylene & p-Xylene	6.2		50.0	38.3		ug/L	64	57 - 130	0	30	
Naphthalene	ND		50.0	36.6		ug/L	73	25 - 150	8	30	
n-Butylbenzene	ND		50.0	28.6		ug/L	57	41 - 142	13	31	
N-Propylbenzene	ND		50.0	31.0		ug/L	62	51 - 138	1	30	
o-Chlorotoluene	ND		50.0	33.7		ug/L	67	53 - 134	2	30	
o-Xylene	1.0	J	50.0	34.6		ug/L	67	61 - 130	1	30	
p-Chlorotoluene	ND		50.0	33.2		ug/L	66	54 - 133	1	30	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194739-4 MSD

Matrix: Water

Analysis Batch: 509185

Client Sample ID: P74-ROX-102020

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD Limit
p-Isopropyltoluene	ND		50.0	28.6		ug/L	57	48 - 139	2	30	
sec-Butylbenzene	ND		50.0	29.1		ug/L	58	50 - 138	3	30	
Styrene	ND		50.0	35.8		ug/L	72	58 - 131	2	30	
tert-Butylbenzene	ND		50.0	30.0		ug/L	60	54 - 146	1	30	
1,1,1,2-Tetrachloroethane	ND		50.0	40.4		ug/L	81	59 - 137	2	30	
1,1,2,2-Tetrachloroethane	ND		50.0	46.2		ug/L	92	66 - 135	8	30	
Tetrachloroethylene	ND		50.0	34.0		ug/L	68	52 - 133	4	30	
Toluene	4.6		50.0	43.4		ug/L	78	65 - 130	5	30	
trans-1,2-Dichloroethylene	ND		50.0	41.8		ug/L	84	61 - 143	6	30	
trans-1,3-Dichloropropene	ND		50.0	39.9		ug/L	80	53 - 133	6	30	
1,2,3-Trichlorobenzene	ND		50.0	33.8		ug/L	68	43 - 145	4	30	
1,2,4-Trichlorobenzene	ND		50.0	31.1		ug/L	62	39 - 148	2	30	
1,1,1-Trichloroethane	ND		50.0	42.1		ug/L	84	57 - 142	5	30	
1,1,2-Trichloroethane	ND		50.0	43.0		ug/L	86	66 - 131	8	30	
Trichloroethylene	ND		50.0	38.4		ug/L	77	64 - 136	4	30	
Trichlorofluoromethane	ND		50.0	40.8		ug/L	82	54 - 150	15	30	
1,2,3-Trichloropropane	ND		50.0	45.5		ug/L	91	65 - 133	2	30	
1,2,4-Trimethylbenzene	3.6		50.0	34.9		ug/L	63	50 - 139	0	30	
1,3,5-Trimethylbenzene	0.88 J		50.0	31.8		ug/L	62	52 - 135	1	30	
Vinyl acetate	ND		100	98.1		ug/L	98	26 - 150	28	33	
Vinyl chloride	ND		50.0	46.6		ug/L	93	46 - 150	17	30	
Xylenes, Total	7.2 J		100	72.9		ug/L	66	59 - 130	1	30	
<hr/>											
Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits								
4-Bromoanisole	97		78 - 118								
Dibromoanisole	99		81 - 121								
Toluene-d8 (Sur)	97		80 - 120								

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508204

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L	10/26/20 13:21	11/04/20 16:18		1
Benzenethiol	ND		10	1.7	ug/L	10/26/20 13:21	11/04/20 16:18		1
Benzolic acid	ND		30	7.3	ug/L	10/26/20 13:21	11/04/20 16:18		1
Benzyl alcohol	ND		10	2.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L	10/26/20 13:21	11/04/20 16:18		1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L	10/26/20 13:21	11/04/20 16:18		1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L	10/26/20 13:21	11/04/20 16:18		1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L	10/26/20 13:21	11/04/20 16:18		1
Butyl benzyl phthalate	ND		10	0.19	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Chloroaniline	ND		10	3.4	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L	10/26/20 13:21	11/04/20 16:18		1
2-Chloronaphthalene	ND		10	0.14	ug/L	10/26/20 13:21	11/04/20 16:18		1
2-Chlorophenol	ND		10	2.2	ug/L	10/26/20 13:21	11/04/20 16:18		1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-508204/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509317

Prep Batch: 508204

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Dibenz[a,h]acridine	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Dibenzofuran	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 16:18	1	
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L	10/26/20 13:21	11/04/20 16:18	1	
2,4-Dichlorophenol	ND		10	3.0	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Diethyl phthalate	ND		10	0.24	ug/L	10/26/20 13:21	11/04/20 16:18	1	
2,4-Dimethylphenol	ND		10	3.5	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Dimethyl phthalate	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Di-n-butyl phthalate	ND		10	2.7	ug/L	10/26/20 13:21	11/04/20 16:18	1	
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L	10/26/20 13:21	11/04/20 16:18	1	
2,4-Dinitrotoluene	ND		10	1.9	ug/L	10/26/20 13:21	11/04/20 16:18	1	
2,6-Dinitrotoluene	ND		10	1.9	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Di-n-octyl phthalate	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 16:18	1	
1,4-Dioxane	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 16:18	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Hexachlorobenzene	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Hexachloroethane	ND		10	4.2	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Indene	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Isophorone	ND		10	0.14	ug/L	10/26/20 13:21	11/04/20 16:18	1	
2-Methylphenol	ND		10	1.8	ug/L	10/26/20 13:21	11/04/20 16:18	1	
3 & 4 Methylphenol	ND		20	0.39	ug/L	10/26/20 13:21	11/04/20 16:18	1	
2-Nitroaniline	ND		10	2.2	ug/L	10/26/20 13:21	11/04/20 16:18	1	
3-Nitroaniline	ND		10	1.8	ug/L	10/26/20 13:21	11/04/20 16:18	1	
4-Nitroaniline	ND		10	1.5	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Nitrobenzene	ND		10	0.13	ug/L	10/26/20 13:21	11/04/20 16:18	1	
2-Nitrophenol	ND		10	5.2	ug/L	10/26/20 13:21	11/04/20 16:18	1	
4-Nitrophenol	ND		10	2.1	ug/L	10/26/20 13:21	11/04/20 16:18	1	
N-Nitrosodimethylamine	ND		10	3.5	ug/L	10/26/20 13:21	11/04/20 16:18	1	
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L	10/26/20 13:21	11/04/20 16:18	1	
N-Nitrosodiphenylamine	ND		10	0.18	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Pentachlorophenol	ND		20	1.4	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Phenol	ND		10	2.6	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Pyridine	ND		10	3.2	ug/L	10/26/20 13:21	11/04/20 16:18	1	
Quinoline	ND		10	4.5	ug/L	10/26/20 13:21	11/04/20 16:18	1	
2,4,5-Trichlorophenol	ND		10	3.7	ug/L	10/26/20 13:21	11/04/20 16:18	1	
2,4,6-Trichlorophenol	ND		10	3.5	ug/L	10/26/20 13:21	11/04/20 16:18	1	

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	76		46 - 124	10/26/20 13:21	11/04/20 16:18	1
2-Fluorophenol	39		13 - 113	10/26/20 13:21	11/04/20 16:18	1
Nitrobenzene-d5	73		36 - 126	10/26/20 13:21	11/04/20 16:18	1
Phenol-d5	58		17 - 127	10/26/20 13:21	11/04/20 16:18	1
Terphenyl-d14	95		44 - 149	10/26/20 13:21	11/04/20 16:18	1
2,4,6-Tribromophenol	70		26 - 150	10/26/20 13:21	11/04/20 16:18	1

12

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Aniline	120	110		ug/L	92	21 - 120		
Benzoic acid	466	219		ug/L	47	10 - 144		
Benzyl alcohol	120	108		ug/L	90	28 - 120		
Bis(2-chloroethoxy)methane	120	99.6		ug/L	83	47 - 120		
Bis(2-chloroethyl)ether	120	99.8		ug/L	83	44 - 120		
bis (2-chloroisopropyl) ether	120	108		ug/L	90	33 - 121		
Bis(2-ethylhexyl) phthalate	120	115		ug/L	96	52 - 147		
4-Bromophenyl phenyl ether	120	120		ug/L	100	54 - 122		
Butyl benzyl phthalate	120	118		ug/L	99	54 - 133		
4-Chloroaniline	120	80.1		ug/L	67	26 - 120		
4-Chloro-3-methylphenol	120	97.3		ug/L	81	48 - 131		
2-Chloronaphthalene	120	113		ug/L	95	52 - 121		
2-Chlorophenol	120	81.2		ug/L	68	40 - 120		
4-Chlorophenyl phenyl ether	120	117		ug/L	97	56 - 125		
Dibenz[a,h]acridine	120	117		ug/L	98	31 - 150		
Dibenzofuran	120	117		ug/L	97	56 - 122		
3,3'-Dichlorobenzidine	160	283 *		ug/L	177	36 - 132		
2,4-Dichlorophenol	120	96.0		ug/L	80	49 - 120		
Diethyl phthalate	120	131		ug/L	110	50 - 137		
2,4-Dimethylphenol	120	95.0		ug/L	79	48 - 120		
Dimethyl phthalate	120	121		ug/L	101	57 - 124		
Di-n-butyl phthalate	120	122		ug/L	102	58 - 126		
4,6-Dinitro-ortho-cresol	240	257		ug/L	107	23 - 148		
2,4-Dinitrophenol	240	246		ug/L	102	10 - 150		
2,4-Dinitrotoluene	120	121		ug/L	101	54 - 142		
2,6-Dinitrotoluene	120	117		ug/L	97	55 - 130		
Di-n-octyl phthalate	120	121		ug/L	101	57 - 138		
1,4-Dioxane	120	77.5		ug/L	65	31 - 120		
1,2-Diphenylhydrazine (as Azobenzene)	120	115		ug/L	96	45 - 124		
Hexachlorobenzene	120	136		ug/L	114	52 - 129		
Hexachlorocyclopentadiene	120	62.8		ug/L	52	10 - 134		
Hexachloroethane	120	101		ug/L	85	20 - 120		
Indene	120	102		ug/L	85	49 - 120		
Isophorone	120	99.4		ug/L	83	48 - 120		
2-Methylphenol	120	110		ug/L	92	46 - 124		
3 & 4 Methylphenol	120	114		ug/L	95	45 - 120		
2-Nitroaniline	120	122		ug/L	102	51 - 145		
3-Nitroaniline	120	112		ug/L	93	37 - 127		
4-Nitroaniline	120	161		ug/L	134	36 - 137		
Nitrobenzene	120	91.2		ug/L	76	45 - 120		
2-Nitrophenol	120	90.2		ug/L	75	40 - 124		
4-Nitrophenol	240	225		ug/L	94	23 - 146		
N-Nitrosodimethylamine	120	107		ug/L	89	29 - 137		
N-Nitrosodi-n-propylamine	120	115		ug/L	96	45 - 120		
N-Nitrosodiphenylamine	119	117		ug/L	98	54 - 120		
Pentachlorophenol	240	269		ug/L	112	31 - 130		
Phenol	120	107		ug/L	89	11 - 120		
Pyridine	240	158		ug/L	66	16 - 120		

12

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Quinoline	120	95.4		ug/L		80	49 - 130
2,4,5-Trichlorophenol	120	109		ug/L		91	51 - 136
2,4,6-Trichlorophenol	120	113		ug/L		94	50 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	94		46 - 124
2-Fluorophenol	39		13 - 113
Nitrobenzene-d5	73		36 - 126
Phenol-d5	69		17 - 127
Terphenyl-d14	87		44 - 149
2,4,6-Tribromophenol	96		26 - 150

Lab Sample ID: LCS 400-508204/4-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.
Benzenethiol	120	3.75	J *	ug/L		3	10 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	79		46 - 124
2-Fluorophenol	40		13 - 113
Nitrobenzene-d5	76		36 - 126
Phenol-d5	61		17 - 127
Terphenyl-d14	97		44 - 149
2,4,6-Tribromophenol	36		26 - 150

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
Aniline	120	108		ug/L		90	21 - 120	2	30
Benzoic acid	466	246		ug/L		53	10 - 144	12	30
Benzyl alcohol	120	99.4		ug/L		83	28 - 120	9	30
Bis(2-chloroethoxy)methane	120	89.2		ug/L		74	47 - 120	11	30
Bis(2-chloroethyl)ether	120	88.0		ug/L		73	44 - 120	13	30
bis (2-chloroisopropyl) ether	120	94.2		ug/L		78	33 - 121	13	30
Bis(2-ethylhexyl) phthalate	120	103		ug/L		86	52 - 147	11	30
4-Bromophenyl phenyl ether	120	106		ug/L		88	54 - 122	13	30
Butyl benzyl phthalate	120	103		ug/L		86	54 - 133	14	30
4-Chloroaniline	120	109		ug/L		91	26 - 120	30	30
4-Chloro-3-methylphenol	120	85.2		ug/L		71	48 - 131	13	30
2-Chloronaphthalene	120	101		ug/L		84	52 - 121	11	30
2-Chlorophenol	120	67.6		ug/L		56	40 - 120	18	30
4-Chlorophenyl phenyl ether	120	105		ug/L		88	56 - 125	10	30
Dibenz[a,h]acridine	120	106		ug/L		89	31 - 150	10	30
Dibenzofuran	120	106		ug/L		88	56 - 122	10	30

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509317

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec.	Client Sample ID: Lab Control Sample Dup		
	Added	Result	Qualifier				Limits	RPD	Limit
3,3'-Dichlorobenzidine	160	244	*	ug/L		153	36 - 132	15	30
2,4-Dichlorophenol	120	83.8		ug/L		70	49 - 120	13	30
Diethyl phthalate	120	119		ug/L		99	50 - 137	10	30
2,4-Dimethylphenol	120	85.9		ug/L		72	48 - 120	10	30
Dimethyl phthalate	120	110		ug/L		91	57 - 124	10	30
Di-n-butyl phthalate	120	109		ug/L		91	58 - 126	11	30
4,6-Dinitro-ortho-cresol	240	244		ug/L		102	23 - 148	5	30
2,4-Dinitrophenol	240	240		ug/L		100	10 - 150	2	30
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142	11	30
2,6-Dinitrotoluene	120	104		ug/L		87	55 - 130	11	30
Di-n-octyl phthalate	120	106		ug/L		89	57 - 138	13	30
1,4-Dioxane	120	70.5		ug/L		59	31 - 120	9	30
1,2-Diphenylhydrazine (as Azobenzene)	120	103		ug/L		86	45 - 124	11	30
Hexachlorobenzene	120	118		ug/L		99	52 - 129	14	30
Hexachlorocyclopentadiene	120	80.0		ug/L		67	10 - 134	24	30
Hexachloroethane	120	89.4		ug/L		75	20 - 120	13	30
Indene	120	91.8		ug/L		77	49 - 120	10	30
Isophorone	120	87.9		ug/L		73	48 - 120	12	30
2-Methylphenol	120	95.9		ug/L		80	46 - 124	14	30
3 & 4 Methylphenol	120	101		ug/L		84	45 - 120	12	30
2-Nitroaniline	120	110		ug/L		92	51 - 145	10	30
3-Nitroaniline	120	105		ug/L		87	37 - 127	6	30
4-Nitroaniline	120	152		ug/L		127	38 - 137	6	30
Nitrobenzene	120	80.3		ug/L		67	45 - 120	13	30
2-Nitrophenol	120	83.4		ug/L		70	40 - 124	8	30
4-Nitrophenol	240	205		ug/L		86	23 - 146	9	30
N-Nitrosodimethylamine	120	99.9		ug/L		83	29 - 137	7	30
N-Nitrosodi-n-propylamine	120	103		ug/L		86	45 - 120	11	30
N-Nitrosodiphenylamine	119	105		ug/L		88	54 - 120	11	30
Pentachlorophenol	240	246		ug/L		102	31 - 130	9	30
Phenol	120	94.5		ug/L		79	11 - 120	13	30
Pyridine	240	135		ug/L		56	16 - 120	16	30
Quinoline	120	84.4		ug/L		70	49 - 130	12	30
2,4,5-Trichlorophenol	120	103		ug/L		86	51 - 136	6	30
2,4,6-Trichlorophenol	120	101		ug/L		84	50 - 127	11	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	82		46 - 124
2-Fluorophenol	32		13 - 113
Nitrobenzene-d5	64		36 - 126
Phenol-d5	61		17 - 127
Terphenyl-d14	77		44 - 149
2,4,6-Tribromophenol	88		26 - 150

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-508204/5-A

Matrix: Water

Analysis Batch: 509317

Analyte		Spike	LCSD	LCSD	Unit	D	%Rec.	Limits	RPD	RPD Limit
		Added	Result	Qualifier						
Benzenethiol		120	4.19	J *	ug/L		3	10 - 120	11	30
Surrogate										
2-Fluorobiphenyl	77		46 - 124							
2-Fluorophenol	22		13 - 113							
Nitrobenzene-d5	72		36 - 126							
Phenol-d5	51		17 - 127							
Terphenyl-d14	94		44 - 149							
2,4,6-Tribromophenol	14	X	26 - 150							

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508204

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509841

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-Dinitrophenol - RA	ND		30	3.4	ug/L		10/26/20 13:21	11/08/20 15:23	1
Hexachlorocyclopentadiene - RA	ND		20	2.6	ug/L		10/26/20 13:21	11/08/20 15:23	1

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508204

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE

Lab Sample ID: MB 400-511071/1-A

Matrix: Water

Analysis Batch: 511480

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Bis(2-ethylhexyl) phthalate - RE	ND		2.5	1.3	ug/L		11/17/20 14:48	11/20/20 17:54	1
Surrogate									
2-Fluorobiphenyl - RE	28	X	46 - 124				11/17/20 14:48	11/20/20 17:54	1
2-Fluorophenol - RE	30		13 - 113				11/17/20 14:48	11/20/20 17:54	1
Nitrobenzene-d5 - RE	39		36 - 126				11/17/20 14:48	11/20/20 17:54	1
Phenol-d5 - RE	34		17 - 127				11/17/20 14:48	11/20/20 17:54	1
Terphenyl-d14 - RE	43	X	44 - 149				11/17/20 14:48	11/20/20 17:54	1
2,4,6-Tribromophenol - RE	31		26 - 150				11/17/20 14:48	11/20/20 17:54	1

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 511071

Lab Sample ID: LCS 400-511071/2-A

Matrix: Water

Analysis Batch: 511852

Analyte	Spike	LCs	LCs	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
Bis(2-ethylhexyl) phthalate - RE	30.0	24.3		ug/L		81	52 - 147
Surrogate							
2-Fluorobiphenyl - RE	80		46 - 124				
2-Fluorophenol - RE	53		13 - 113				
Nitrobenzene-d5 - RE	73		36 - 126				

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 511071

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RE (Continued)

Lab Sample ID: LCS 400-511071/2-A

Matrix: Water

Analysis Batch: 511852

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 511071

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
Phenol-d5 - RE			68		17 - 127
Terphenyl-d14 - RE			99		44 - 149
2,4,6-Tribromophenol - RE			81		26 - 150

Lab Sample ID: LCSD 400-511071/3-A

Matrix: Water

Analysis Batch: 511852

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 511071

Analyte	Spike	LCSD	LCSD	%Rec.	RPD			
	Added	Result	Qualifier	Unit	Limit			
Bis(2-ethylhexyl) phthalate - RE	30.0	23.0		ug/L	77	52 - 147	6	30

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorobiphenyl - RE	79				46 - 124
2-Fluorophenol - RE	60				13 - 113
Nitrobenzene-d5 - RE	53				36 - 126
Phenol-d5 - RE	66				17 - 127
Terphenyl-d14 - RE	94				44 - 149
2,4,6-Tribromophenol - RE	81				26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509134

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508204

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene			ND		0.20	0.032	ug/L		10/26/20 13:21	11/03/20 15:51	1
Acenaphthylene			ND		0.20	0.045	ug/L		10/26/20 13:21	11/03/20 15:51	1
Anthracene			ND		0.20	0.032	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[a]anthracene			ND		0.20	0.046	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[a]pyrene			ND		0.20	0.042	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[b]fluoranthene			ND		0.20	0.034	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[g,h,i]perylene			ND		0.20	0.13	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[k]fluoranthene			ND		0.20	0.10	ug/L		10/26/20 13:21	11/03/20 15:51	1
Chrysene			ND		0.20	0.074	ug/L		10/26/20 13:21	11/03/20 15:51	1
Dibenz(a,h)anthracene			ND		0.20	0.050	ug/L		10/26/20 13:21	11/03/20 15:51	1
Fluoranthene			ND		0.20	0.068	ug/L		10/26/20 13:21	11/03/20 15:51	1
Fluorene			ND		0.20	0.11	ug/L		10/26/20 13:21	11/03/20 15:51	1
Indeno[1,2,3-cd]pyrene			ND		0.20	0.043	ug/L		10/26/20 13:21	11/03/20 15:51	1
1-Methylnaphthalene			ND		0.20	0.074	ug/L		10/26/20 13:21	11/03/20 15:51	1
2-Methylnaphthalene			ND		0.20	0.060	ug/L		10/26/20 13:21	11/03/20 15:51	1
Phenanthrene			ND		0.20	0.036	ug/L		10/26/20 13:21	11/03/20 15:51	1
Pyrene			ND		0.20	0.040	ug/L		10/26/20 13:21	11/03/20 15:51	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl			95		15 - 122	10/26/20 13:21	11/03/20 15:51	1
Nitrobenzene-d5			99		19 - 130	10/26/20 13:21	11/03/20 15:51	1
Terphenyl-d14			108		33 - 138	10/26/20 13:21	11/03/20 15:51	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509134

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Acenaphthene	120	124		ug/L		103	41 - 120	
Acenaphthylene	120	114		ug/L		95	44 - 120	
Anthracene	120	125		ug/L		104	49 - 120	
Benzo[a]anthracene	120	119		ug/L		99	61 - 135	
Benzo[a]pyrene	120	126		ug/L		105	52 - 120	
Benzo[b]fluoranthene	120	110		ug/L		92	53 - 134	
Benzo[g,h,i]perylene	120	142		ug/L		118	47 - 133	
Benzo[k]fluoranthene	120	119		ug/L		99	57 - 134	
Chrysene	120	126		ug/L		105	55 - 122	
Dibenz(a,h)anthracene	120	140		ug/L		116	48 - 146	
Fluoranthene	120	131		ug/L		109	54 - 128	
Fluorene	120	132		ug/L		110	45 - 125	
Indeno[1,2,3-cd]pyrene	120	149		ug/L		124	43 - 142	
1-Methylnaphthalene	120	106		ug/L		88	41 - 120	
2-Methylnaphthalene	120	107		ug/L		89	32 - 124	
Phenanthrene	120	119		ug/L		100	48 - 120	
Pyrene	120	109		ug/L		91	48 - 132	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	96		15 - 122
Nitrobenzene-d5	117		19 - 130
Terphenyl-d14	105		33 - 138

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509134

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.	RPD	RPD
Acenaphthene	120	107		ug/L		89	41 - 120	15	56
Acenaphthylene	120	101		ug/L		84	44 - 120	13	56
Anthracene	120	123		ug/L		103	49 - 120	2	51
Benzo[a]anthracene	120	122		ug/L		101	61 - 135	2	49
Benzo[a]pyrene	120	120		ug/L		100	52 - 120	5	50
Benzo[b]fluoranthene	120	101		ug/L		84	53 - 134	9	54
Benzo[g,h,i]perylene	120	129		ug/L		107	47 - 133	10	50
Benzo[k]fluoranthene	120	112		ug/L		93	57 - 134	6	52
Chrysene	120	124		ug/L		103	55 - 122	2	50
Dibenz(a,h)anthracene	120	127		ug/L		106	48 - 146	10	50
Fluoranthene	120	124		ug/L		103	54 - 128	5	52
Fluorene	120	114		ug/L		95	45 - 125	15	56
Indeno[1,2,3-cd]pyrene	120	139		ug/L		115	43 - 142	7	51
1-Methylnaphthalene	120	101		ug/L		84	41 - 120	5	55
2-Methylnaphthalene	120	99.0		ug/L		83	32 - 124	8	57
Phenanthrene	120	110		ug/L		92	48 - 120	8	56
Pyrene	120	107		ug/L		89	48 - 132	2	52

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	86		15 - 122

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509134

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508204

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Nitrobenzene-d5	109		19 - 130
Terphenyl-d14	100		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-507961/1-A

Matrix: Water

Analysis Batch: 508279

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507961

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	ND		0.020	0.0050	ug/L	D	10/23/20 11:33	10/27/20 14:20	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	105		51 - 149				10/23/20 11:33	10/27/20 14:20	1

Lab Sample ID: MB 400-507961/1-A

Matrix: Water

Analysis Batch: 509274

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 507961

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L	D	10/23/20 11:33	11/04/20 19:51	1

Lab Sample ID: LCS 400-507961/2-A

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 507961

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
1,2-Dibromo-3-Chloropropane	0.101	0.108	*1	ug/L	D	107	60 - 140
1,2-Dibromoethane	0.101	0.115		ug/L		114	60 - 140
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	101		51 - 149				

Lab Sample ID: LCSD 400-507961/3-A

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 507961

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD
1,2-Dibromo-3-Chloropropane	0.101	0.0633	*1	ug/L	D	63	60 - 140
1,2-Dibromoethane	0.101	0.112		ug/L		111	60 - 140
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits				RPD
4-Bromofluorobenzene	124		51 - 149				2

Eurofins TestAmerica, Pensacola



Shell Oil Products US Chain Of Custody Record

LAB (LOCATION)

ACQUETTE ()

CALSCIENCE ()

TESTAMERICA (TestAmerica Pensacola: 3055 Midmore Dr
Pensacola, FL 32514 (850) 474-1001))

Other Lab Vendor #: 1364589 (TestAmerica)

SAMPLING COMPANY

AECOM

ADDRESS
100 N Broadway, 20th Floor ST. LOUIS, MO 63102, USA

Product Contact Name: PO Request by:

Elizabeth Kunle, Bob Billman, Melissa Ringer, Wendy Pennington

Phone: Fax:

314-429-0482

RESULTS NEEDED

1A - RHOCB REPORT FORMAT

TURNAROUND TIME (CALENDAR DAYS):

STANDARD (14 DAY)

5 DAYS

2 DAYS

24 HOURS

ON WEEKEND

DELEVERABLES

LEVEL 2

LEVEL 3

OTHER (SPECIFY) EDD

Cooler #1

Cooler #2

TEMPERATURE ON RECEIPT C

SPECIAL INSTRUCTIONS OR NOTES :

Please include "L" volume on Reports

Please provide sample result upon login

Please Check Appropriate Box:

PIPELINE

SAW FOG

CONSULTANT

CHEMICALS

TRANSPORTATION

RETAIL

LIQUES

OTHER ENV. SERVICES

Print Bill To Contact Name:

Bob McNeasegen

PO #

GSAP Project ID

USPC00114/R02

Site Address & Street & City

State

IL

Phone No.

Elizabeth Kunle, AECOM, St. Louis, MO, Melissa Ringer, Bob Billman, Wendy Pennington, 314-449-291122

Email

bob_billman@aecom.com, melissa_ringer@aecom.com, wendy.pennington@aecom.com

Lab USE ONLY

Check If No Incident April 2012

DATE

PAGE

of

AECOM Project Task Number:

Roxana Quarry GW

ROXANA

CHIEFTAIN, 11111, COTTON, GLEN, LANE, ELIZABETH KUNLE, AECOM, St. Louis, MO, NESSA RINGER, BOB BILLMAN, WENDY PENNINGTON, 314-449-291122

ROXANA QUARRY, ROXANA, IL, 60643618 - 9-03-02F

LAB USE ONLY

REQUESTED ANALYSIS

UNIT COST

60643618 - 9-03-02F

60643618 - 9-03-02F

FIELD NOTES:

TEMPERATURE ON RECEIPT

C°

Container PID Readings or Laboratory Notes

PAH 8270LL

VOC 8011

VOC 8260

SVC 8270

PAH 8270LL

VOC 8011

VOC 8260

SVC 8270

SHELL CONTRACT RATE APPLIES

STATE REIMBURSEMENT RATE APPLIES

EDD NOT NEEDED

RECEIPT VERIFICATION REQUESTED

PROVIDE EDD DESK

LAB USE ONLY

FIELD SAMPLE IDENTIFICATION

DATE

TIME

MATRIX

PRESERVATIVE

INC. OF COUNT

HCL

HNO3

H2SO4

H3PO4

OTHER

NONE

OTHER

2

X

2

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

Customer Seal: 11949631 1194862 / 1194860 1194861 1-10⁶, 10⁶ °C, 1.6 °C 1R-9
1194859 1194858

Received by (Signature)	Joe Myhr	Date	10/20/20	Time	16:00
Received by (Signature)	Fedex: 9174 5383 1955 9174 5383 1956	Date	10/21/20	Time	09:40
Received by (Signature)	Rhonda	Date	10/21/20	Time	09:40

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31



Sample Control Checklist

Pensacola

PS-SC-FM-005, Rev. 0
Effective Date: 09/18/2018
Page 1 of 1



400-194739-D4

PT4 REV.10/2020

Location: P2023

Bottle Vial 40ml Hydrochloric Acid

Sampled 10/27/2020 10:50 AM 400-52343/4 COC

Inspected by: HC

Labeled by: HC

Delivered by:

Received by:

COC Signed/Dated: HC

COC Temp/IR Gun Listed: HC

Logged by: HC

Notes:

13

15

1
2
3
4
5
6
7
8
9

13

14
15

TestAmerica



Environment Testing
TestAmerica

ORIGIN ID: RHDA 3618 254-6153
MS. MELISSA REMIERS
ACOM
170 E. RAND AVE.

HARTFORD, IL 62049
UNITED STATES US

SHIP DATE: 10/6/2020
ACTWT: 10.00 LB MANG
CAD: 0562071/CAFE3406

10

EUROFINS TESTAMERICA PENSACOLA
3365 MCLEMORE DRIVE

PENSACOLA FL 32514-7045
(850) 474-1001
DEF: 8400 - 88273

RMA: 111111

TRW 0174 5383 1977
0223

RETURNS MON-FRI
PRIORITY OVERNIGHT

32514

FL-US

SL3



1
2
3
4
5
6
7
8
9
10

13

15

2/3

10:30 AM
1955
10-27
Eurofins 514
F2 Environment Testing
TestAmerica

ORIGIN ID:PHDA (618) 254-B153
MS. MELISSA REMIGER
RECOM
170 E. RAND AVE.

SHIP DATE: 10SEP20
ACTWST: 10.00 LB RAN
CAD: 0562071/CRFE3406

HARTFORD, IL 62048
UNITED STATES US

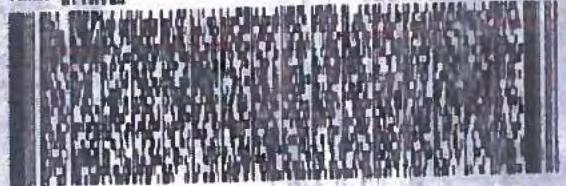
TO

EUROFINS TESTAMERICA PENSACOLA
3355 MCLEMORE DRIVE

PENSACOLA FL 325147045

(850) 474 - 1001
REF: 6400 - 06273

RMA: 111111



RETURNS MON-SAT
PRIORITY OVERNIGHT

32514

FL-US



1
2
3
4
5
6
7
8
9
10
11
12

13

14

15

1 A
10:30 1966
10.21

R#
574

fins

Environmental Testing
TestAmerica

ORIGIN ID: PHDA (618) 254-6153
MS: HEL188A REM/GER
RECOM:
170 E. RAND AVE.

HARIFORD, IL 62048
UNITED STATES US

SHIP DATE: 10SEP20
ACTWTG: 10.00 LB
DAD: 0622071/CAFE240B

TO:

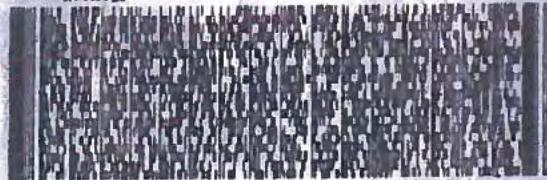
EUROFINS TESTAMERICA PENSACOLA
3355 MCLEMORE DRIVE

PENSACOLA FL 325147045

(800) 474-1001

REF: 6400 - 96273

RMA: 111111



RETURNS MON-SAT
PRIORITY OVERNIGHT

TRK# **9174 5383 1966**
0221

32514

FL-US



Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194739-1

Login Number: 194739

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Conrady, Hank W

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	1.1°C 0.5°C 1.6°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	

14

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194739-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	200041	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

15

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194830-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/23/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-102120-8260-SS	TB-ROX-102120-8011-SS
P93C-ROX-102120	P56-ROX-102120
T12-ROX-102120	T12-ROX-102120-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 several SVOC LCS/LCSD recoveries were outside evaluation criteria, and the VOC by 8011 LCS/LCSD RPD for 1,2-dibromo-3-chloropropane was outside evaluation criteria. The SVOC surrogate recovery for 2,4,6-tribromophenol was outside criteria in the SVOC LCSD. The VOC by 8011 MS/MSD recoveries for 1,2-dibromo-3-chloropropane were outside evaluation criteria in sample T12-ROX-102120-Dup. The SVOC internal standard recovery for chrysene-d₁₂ was outside criteria in the CCV. Field duplicate pair T12-ROX-102120/T12-ROX-102120-Dup was diluted to bring VOCs into calibration range of the instrument. Continuing calibration verifications for several analytes were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

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 400-508204/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	177/153	15	36-132/30
LCS/LCSD 400-508204/4-A/5-A	SVOCs	Benzenethiol	3/3	11	10-120/30
LCS/LCSD 400-507961/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	107/63	52	60-140/30

Analytical data that required qualification based on LCS/LCSD data are included in the table below. Analytical data reported as non-detect and associated with LCS recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. Professional judgment was used to qualify, however not reject, data associated with benzenethiol; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
P93C-ROX-102120	SVOCs	Benzenethiol	UJ
P56-ROX-102120	SVOCs	Benzenethiol	UJ
T12-ROX-102120	SVOCs	Benzenethiol	UJ
T12-ROX-102120-Dup	SVOCs	Benzenethiol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
LCSD 400-508204/5-A	SVOCs	2,4,6-Tribromophenol	14	26-150

LCSDs are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, although not requested, sample T12-ROX-102120-Dup was spiked and analyzed for VOCs by 8011.

Were MS/MSD recoveries within evaluation criteria?

No

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
T12-ROX-102120-Dup	VOCs by 8011	1,2-Dibromo-3-chloropropane	294/294	1	65-135/20

Analytical data reported as non-detect and associated with MS/MSD recoveries above evaluation criteria, indicating a possible high bias, did not require qualification. No qualification of data was required.

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
CCV 400-509317/6	SVOCs	Chrysene-d ₁₂	344263	691527	345764-1383054

Continuing calibration verifications 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
T12-ROX-102120	T12-ROX-102120-Dup

Were field duplicates within evaluation criteria?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93C-ROX-102120	PAHs	Benzo[b]fluoranthene	UJ
P93C-ROX-102120	SVOCs	Hexachlorocyclopentadiene	UJ

Sample ID	Parameter	Analyte	Qualification
P56-ROX-102120	PAHs	Benzo[b]fluoranthene	UJ
P56-ROX-102120	SVOCs	Hexachlorocyclopentadiene	UJ
T12-ROX-102120	PAHs	Benzo[b]fluoranthene	UJ
T12-ROX-102120	SVOCs	Hexachlorocyclopentadiene	UJ
T12-ROX-102120-Dup	PAHs	Benzo[b]fluoranthene	UJ
T12-ROX-102120-Dup	SVOCs	Hexachlorocyclopentadiene	UJ



eurofins

Environment Testing
America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-194830-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Elizabeth Kunkel

Authorized for release by:
11/10/2020 4:32:09 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@Eurofinset.com

LINKS

Review your project
results through

Total Access

Have a Question?



Visit us at:

www.eurofinsus.com/Env

Reviewed 11/23/2020
MR

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	8
Definitions	27
Surrogate Summary	28
Method Summary	30
Chronicle	31
QC Association	35
QC Sample Results	37
Chain of Custody	49
Receipt Checklists	50
Certification Summary	51

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Job ID: 400-194830-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-194830-1

Comments

No additional comments.

Receipt

The samples were received on 10/22/2020 9:24 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 1.8° C, 2.0° C and 4.8° C.

GC/MS VOA

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: T12-ROX-102120 (400-194830-5) and T12-ROX-102120-DUP (400-194830-6). Elevated reporting limits (RLs) are provided.

Method 8260B: The preservative used in the sample containers provided is not compatible with some of the Method 8260 analytes requested. The following samples were received preserved with hydrochloric acid: TB-ROX-102120-8260-SS (400-194830-1), P93C-ROX-102120 (400-194830-3), P56-ROX-102120 (400-194830-4), T12-ROX-102120 (400-194830-5) and T12-ROX-102120-DUP (400-194830-6). 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 initial calibration verification (ICV) analyzed in batch 400-497771 was outside method criteria for the following analyte(s): Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270D: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-508204 and analytical batch 400-509317 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and LCSD that were not detected in the associated samples; therefore, the data have been reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-508204 and analytical batch 400-509317 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol and Nitrobenzene-d5 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: 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: (LCSD 400-508204/5-A). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-509841 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-509134 recovered outside acceptance criteria, low biased, for Benzo[b]fluoranthene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-508627 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Job ID: 400-194830-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method 8011: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 400-507961 and analytical batch 400-508627 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8011: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-507961 and analytical batch 400-508279 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane.

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: 400-194830-1

4

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194830-1	TB-ROX-102120-8260-SS✓	Water	10/21/20 00:00	10/22/20 09:24	
400-194830-2	TB-ROX-102120-8011-SS✓	Water	10/21/20 00:00	10/22/20 09:24	
400-194830-3	P93C-ROX-102120✓	Water	10/21/20 09:05	10/22/20 09:24	
400-194830-4	P56-ROX-102120✓	Water	10/21/20 10:05	10/22/20 09:24	
400-194830-5	T12-ROX-102120✓	Water	10/21/20 11:45	10/22/20 09:24	
400-194830-6	T12-ROX-102120-DUP✓	Water	10/21/20 11:45	10/22/20 09:24	

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: TB-ROX-102120-8260-SS

Lab Sample ID: 400-194830-1

No Detections.

Client Sample ID: TB-ROX-102120-8011-SS

Lab Sample ID: 400-194830-2

No Detections.

Client Sample ID: P93C-ROX-102120

Lab Sample ID: 400-194830-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.77	J	1.0	0.74	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	1.4		1.0	0.82	ug/L	1	8260B		Total/NA
2-Methylnaphthalene	0.28		0.19	0.057	ug/L	1	8270D LL		Total/NA
Diethyl phthalate	1.0	J	9.5	0.23	ug/L	1	8270D		Total/NA

Client Sample ID: P56-ROX-102120

Lab Sample ID: 400-194830-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.69	J	1.0	0.38	ug/L	1	8260B		Total/NA
2-Butanone (MEK)	4.3	J	25	2.6	ug/L	1	8260B		Total/NA
Ethylbenzene	4.3		1.0	0.50	ug/L	1	8260B		Total/NA
Isopropylbenzene	9.9		1.0	0.53	ug/L	1	8260B		Total/NA
m-Xylene & p-Xylene	16		5.0	1.6	ug/L	1	8260B		Total/NA
Naphthalene	3.3		1.0	1.0	ug/L	1	8260B		Total/NA
N-Propylbenzene	12		1.0	0.69	ug/L	1	8260B		Total/NA
o-Xylene	0.88	J	5.0	0.60	ug/L	1	8260B		Total/NA
sec-Butylbenzene	1.6		1.0	0.70	ug/L	1	8260B		Total/NA
Toluene	1.1		1.0	0.41	ug/L	1	8260B		Total/NA
1,2,4-Trimethylbenzene	10		1.0	0.82	ug/L	1	8260B		Total/NA
1,3,5-Trimethylbenzene	2.8		1.0	0.56	ug/L	1	8260B		Total/NA
Xylenes, Total	17		10	1.6	ug/L	1	8260B		Total/NA
Fluorene	0.27		0.20	0.11	ug/L	1	8270D LL		Total/NA
1-Methylnaphthalene	9.0		0.20	0.074	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	5.6		0.20	0.060	ug/L	1	8270D LL		Total/NA
Phenanthrene	0.35		0.20	0.036	ug/L	1	8270D LL		Total/NA

Client Sample ID: T12-ROX-102120

Lab Sample ID: 400-194830-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1400		5.0	1.9	ug/L	5	8260B		Total/NA
Ethylbenzene	7.8		5.0	2.5	ug/L	5	8260B		Total/NA
Isopropylbenzene	3.3	J	5.0	2.7	ug/L	5	8260B		Total/NA
Methyl tert-butyl ether	7.1		5.0	3.7	ug/L	5	8260B		Total/NA
m-Xylene & p-Xylene	37		25	8.0	ug/L	5	8260B		Total/NA
Naphthalene	19		5.0	5.0	ug/L	5	8260B		Total/NA
N-Propylbenzene	4.1	J	5.0	3.5	ug/L	5	8260B		Total/NA
o-Xylene	3.2	J	25	3.0	ug/L	5	8260B		Total/NA
Toluene	29		5.0	2.1	ug/L	5	8260B		Total/NA
1,2,4-Trimethylbenzene	8.9		5.0	4.1	ug/L	5	8260B		Total/NA
1,3,5-Trimethylbenzene	5.2		5.0	2.8	ug/L	5	8260B		Total/NA
Xylenes, Total	40	J	50	8.0	ug/L	5	8260B		Total/NA
Acenaphthylene	0.081	J	0.20	0.044	ug/L	1	8270D LL		Total/NA
Fluorene	0.31		0.20	0.11	ug/L	1	8270D LL		Total/NA
1-Methylnaphthalene	17		0.20	0.073	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	22		0.20	0.059	ug/L	1	8270D LL		Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: T12-ROX-102120 (Continued)

Lab Sample ID: 400-194830-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Phenanthrene	0.47		0.20	0.036	ug/L	1		8270D LL	Total/NA
Phenol	130		9.9	2.6	ug/L	1		8270D	Total/NA

Client Sample ID: T12-ROX-102120-DUP

Lab Sample ID: 400-194830-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1500		5.0	1.9	ug/L	5		8260B	Total/NA
Ethylbenzene	8.3		5.0	2.5	ug/L	5		8260B	Total/NA
Isopropylbenzene	3.0 J		5.0	2.7	ug/L	5		8260B	Total/NA
Methyl tert-butyl ether	7.1		5.0	3.7	ug/L	5		8260B	Total/NA
m-Xylene & p-Xylene	36		25	8.0	ug/L	5		8260B	Total/NA
Naphthalene	18		5.0	5.0	ug/L	5		8260B	Total/NA
N-Propylbenzene	4.2 J		5.0	3.5	ug/L	5		8260B	Total/NA
o-Xylene	3.2 J		25	3.0	ug/L	5		8260B	Total/NA
Toluene	31		5.0	2.1	ug/L	5		8260B	Total/NA
1,2,4-Trimethylbenzene	7.1		5.0	4.1	ug/L	5		8260B	Total/NA
1,3,5-Trimethylbenzene	5.6		5.0	2.8	ug/L	5		8260B	Total/NA
Xylenes, Total	40 J		50	8.0	ug/L	5		8260B	Total/NA
Fluorene	0.38		0.20	0.11	ug/L	1		8270D LL	Total/NA
1-Methylnaphthalene	20		0.20	0.075	ug/L	1		8270D LL	Total/NA
2-Methylnaphthalene	28		0.20	0.061	ug/L	1		8270D LL	Total/NA
Phenanthrene	0.59		0.20	0.037	ug/L	1		8270D LL	Total/NA
Indene	1.2 J		10	1.0	ug/L	1		8270D	Total/NA
Phenol	130		10	2.6	ug/L	1		8270D	Total/NA

5

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: TB-ROX-102120-8260-SS

Date Collected: 10/21/20 00:00

Date Received: 10/22/20 09:24

Lab Sample ID: 400-194830-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/04/20 14:00	1
Acrolein	ND		20	10	ug/L			11/04/20 14:00	1
Acrylonitrile	ND		10	2.8	ug/L			11/04/20 14:00	1
Benzene	ND		1.0	0.38	ug/L			11/04/20 14:00	1
Bromobenzene	ND		1.0	0.54	ug/L			11/04/20 14:00	1
Bromoform	ND		1.0	0.52	ug/L			11/04/20 14:00	1
Bromochloromethane	ND		1.0	0.50	ug/L			11/04/20 14:00	1
Bromodichloromethane	ND		5.0	0.71	ug/L			11/04/20 14:00	1
Bromomethane	ND		1.0	0.98	ug/L			11/04/20 14:00	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/04/20 14:00	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/04/20 14:00	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			11/04/20 14:00	1
Chlorobenzene	ND		1.0	0.50	ug/L			11/04/20 14:00	1
Dibromochloromethane	ND		1.0	0.50	ug/L			11/04/20 14:00	1
Chloroethane	ND		1.0	0.76	ug/L			11/04/20 14:00	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/04/20 14:00	1
Chloroform	ND		1.0	0.60	ug/L			11/04/20 14:00	1
1-Chlorohexane	ND		1.0	0.70	ug/L			11/04/20 14:00	1
Chloromethane	ND		1.0	0.83	ug/L			11/04/20 14:00	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/04/20 14:00	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/04/20 14:00	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/04/20 14:00	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/04/20 14:00	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/04/20 14:00	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/04/20 14:00	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/04/20 14:00	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			11/04/20 14:00	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/04/20 14:00	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/04/20 14:00	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/04/20 14:00	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/04/20 14:00	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/04/20 14:00	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/04/20 14:00	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/04/20 14:00	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/04/20 14:00	1
2-Hexanone	ND		25	3.1	ug/L			11/04/20 14:00	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/04/20 14:00	1
Methylene bromide	ND		5.0	0.59	ug/L			11/04/20 14:00	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/04/20 14:00	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/04/20 14:00	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			11/04/20 14:00	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			11/04/20 14:00	1
Naphthalene	ND		1.0	1.0	ug/L			11/04/20 14:00	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/04/20 14:00	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/04/20 14:00	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/04/20 14:00	1
o-Xylene	ND		5.0	0.60	ug/L			11/04/20 14:00	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/04/20 14:00	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/04/20 14:00	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: TB-ROX-102120-8260-SS

Lab Sample ID: 400-194830-1

Date Collected: 10/21/20 00:00

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/04/20 14:00	1
Styrene	ND		1.0	1.0	ug/L			11/04/20 14:00	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/04/20 14:00	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			11/04/20 14:00	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/04/20 14:00	1
Tetrachloroethene	ND		1.0	0.58	ug/L			11/04/20 14:00	1
Toluene	ND		1.0	0.41	ug/L			11/04/20 14:00	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/04/20 14:00	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/04/20 14:00	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			11/04/20 14:00	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/04/20 14:00	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			11/04/20 14:00	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			11/04/20 14:00	1
Trichloroethene	ND		1.0	0.50	ug/L			11/04/20 14:00	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/04/20 14:00	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/04/20 14:00	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/04/20 14:00	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/04/20 14:00	1
Vinyl acetate	ND		25	2.0	ug/L			11/04/20 14:00	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/04/20 14:00	1
Xylenes, Total	ND		10	1.6	ug/L			11/04/20 14:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		78 - 118		11/04/20 14:00	1
Dibromofluoromethane	101		81 - 121		11/04/20 14:00	1
Toluene-d8 (Surr)	101		80 - 120		11/04/20 14:00	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: TB-ROX-102120-8011-SS

Lab Sample ID: 400-194830-2

Date Collected: 10/21/20 00:00

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*1	0.031	0.0056	ug/L		10/23/20 11:33	10/29/20 19:22	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/23/20 11:33	10/29/20 19:22	1
Surrogate									
4-Bromofluorobenzene	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	103		51 - 149				10/23/20 11:33	10/29/20 19:22	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: P93C-ROX-102120
Date Collected: 10/21/20 09:05
Date Received: 10/22/20 09:24

Lab Sample ID: 400-194830-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L		11/04/20 14:26	11/04/20 14:26	1
Acrolein	ND		20	10	ug/L		11/04/20 14:26	11/04/20 14:26	1
Acrylonitrile	ND		10	2.8	ug/L		11/04/20 14:26	11/04/20 14:26	1
Benzene	ND		1.0	0.38	ug/L		11/04/20 14:26	11/04/20 14:26	1
Bromobenzene	ND		1.0	0.54	ug/L		11/04/20 14:26	11/04/20 14:26	1
Bromoform	ND		1.0	0.52	ug/L		11/04/20 14:26	11/04/20 14:26	1
Bromochloromethane	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
Bromodichloromethane	ND		1.0	0.71	ug/L		11/04/20 14:26	11/04/20 14:26	1
Bromoform	ND		1.0	0.98	ug/L		11/04/20 14:26	11/04/20 14:26	1
Bromomethane	ND		25	2.6	ug/L		11/04/20 14:26	11/04/20 14:26	1
Carbon disulfide	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
Carbon tetrachloride	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
Chlorobenzene	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
Dibromochloromethane	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
Chloroethane	ND		1.0	0.76	ug/L		11/04/20 14:26	11/04/20 14:26	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L		11/04/20 14:26	11/04/20 14:26	1
Chloroform	ND		1.0	0.60	ug/L		11/04/20 14:26	11/04/20 14:26	1
1-Chlorohexane	ND		1.0	0.70	ug/L		11/04/20 14:26	11/04/20 14:26	1
Chloromethane	ND		1.0	0.83	ug/L		11/04/20 14:26	11/04/20 14:26	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L		11/04/20 14:26	11/04/20 14:26	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L		11/04/20 14:26	11/04/20 14:26	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L		11/04/20 14:26	11/04/20 14:26	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
Ethylbenzene	ND		1.0	0.50	ug/L		11/04/20 14:26	11/04/20 14:26	1
Ethyl methacrylate	ND		1.0	0.60	ug/L		11/04/20 14:26	11/04/20 14:26	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L		11/04/20 14:26	11/04/20 14:26	1
2-Hexanone	ND		25	3.1	ug/L		11/04/20 14:26	11/04/20 14:26	1
Isopropylbenzene	ND		1.0	0.53	ug/L		11/04/20 14:26	11/04/20 14:26	1
Methylene bromide	ND		5.0	0.59	ug/L		11/04/20 14:26	11/04/20 14:26	1
Methylene Chloride	ND		5.0	3.0	ug/L		11/04/20 14:26	11/04/20 14:26	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L		11/04/20 14:26	11/04/20 14:26	1
Methyl tert-butyl ether	0.77	J	1.0	0.74	ug/L		11/04/20 14:26	11/04/20 14:26	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L		11/04/20 14:26	11/04/20 14:26	1
Naphthalene	ND		1.0	1.0	ug/L		11/04/20 14:26	11/04/20 14:26	1
n-Butylbenzene	ND		1.0	0.76	ug/L		11/04/20 14:26	11/04/20 14:26	1
N-Propylbenzene	ND		1.0	0.69	ug/L		11/04/20 14:26	11/04/20 14:26	1
o-Chlorotoluene	ND		1.0	0.57	ug/L		11/04/20 14:26	11/04/20 14:26	1
o-Xylene	ND		5.0	0.60	ug/L		11/04/20 14:26	11/04/20 14:26	1
p-Chlorotoluene	ND		1.0	0.56	ug/L		11/04/20 14:26	11/04/20 14:26	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L		11/04/20 14:26	11/04/20 14:26	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: P93C-ROX-102120

Lab Sample ID: 400-194830-3

Date Collected: 10/21/20 09:05

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/04/20 14:26	1
Styrene	ND		1.0	1.0	ug/L			11/04/20 14:26	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/04/20 14:26	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			11/04/20 14:26	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/04/20 14:26	1
Tetrachloroethene	ND		1.0	0.58	ug/L			11/04/20 14:26	1
Toluene	ND		1.0	0.41	ug/L			11/04/20 14:26	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/04/20 14:26	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/04/20 14:26	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			11/04/20 14:26	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/04/20 14:26	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			11/04/20 14:26	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			11/04/20 14:26	1
Trichloroethene	ND		1.0	0.50	ug/L			11/04/20 14:26	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/04/20 14:26	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/04/20 14:26	1
1,2,4-Trimethylbenzene	1.4		1.0	0.82	ug/L			11/04/20 14:26	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/04/20 14:26	1
Vinyl acetate	ND		25	2.0	ug/L			11/04/20 14:26	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/04/20 14:26	1
Xylenes, Total	ND		10	1.6	ug/L			11/04/20 14:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		78 - 118					11/04/20 14:26	1
Dibromofluoromethane	100		81 - 121					11/04/20 14:26	1
Toluene-d8 (Surf)	101		80 - 120					11/04/20 14:26	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.19	0.030	ug/L			10/26/20 13:21	11/03/20 18:12	1
Acenaphthylene	ND		0.19	0.043	ug/L			10/26/20 13:21	11/03/20 18:12	1
Anthracene	ND		0.19	0.030	ug/L			10/26/20 13:21	11/03/20 18:12	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L			10/26/20 13:21	11/03/20 18:12	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L			10/26/20 13:21	11/03/20 18:12	1
Benzo[b]fluoranthene	ND	WS	0.19	0.032	ug/L			10/26/20 13:21	11/03/20 18:12	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L			10/26/20 13:21	11/03/20 18:12	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L			10/26/20 13:21	11/03/20 18:12	1
Chrysene	ND		0.19	0.070	ug/L			10/26/20 13:21	11/03/20 18:12	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L			10/26/20 13:21	11/03/20 18:12	1
Fluoranthene	ND		0.19	0.065	ug/L			10/26/20 13:21	11/03/20 18:12	1
Fluorene	ND		0.19	0.10	ug/L			10/26/20 13:21	11/03/20 18:12	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L			10/26/20 13:21	11/03/20 18:12	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L			10/26/20 13:21	11/03/20 18:12	1
2-Methylnaphthalene	0.28		0.19	0.057	ug/L			10/26/20 13:21	11/03/20 18:12	1
Phenanthrene	ND		0.19	0.034	ug/L			10/26/20 13:21	11/03/20 18:12	1
Pyrene	ND		0.19	0.038	ug/L			10/26/20 13:21	11/03/20 18:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	91		15 - 122					10/26/20 13:21	11/03/20 18:12	1
Nitrobenzene-d5	96		19 - 130					10/26/20 13:21	11/03/20 18:12	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: P93C-ROX-102120

Lab Sample ID: 400-194830-3

Date Collected: 10/21/20 09:05

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	106		33 - 138	10/26/20 13:21	11/03/20 18:12	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L				1
Benzenethiol	ND	✓	9.5	1.6	ug/L	10/26/20 13:21	11/04/20 18:25		1
Benzoic acid	ND		29	6.9	ug/L	10/26/20 13:21	11/04/20 18:25		1
Benzyl alcohol	ND		9.5	1.9	ug/L	10/26/20 13:21	11/04/20 18:25		1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L	10/26/20 13:21	11/04/20 18:25		1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L	10/26/20 13:21	11/04/20 18:25		1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L	10/26/20 13:21	11/04/20 18:25		1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L	10/26/20 13:21	11/04/20 18:25		1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L	10/26/20 13:21	11/04/20 18:25		1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L	10/26/20 13:21	11/04/20 18:25		1
4-Chloroaniline	ND		9.5	3.2	ug/L	10/26/20 13:21	11/04/20 18:25		1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L	10/26/20 13:21	11/04/20 18:25		1
2-Chloronaphthalene	ND		9.5	0.13	ug/L	10/26/20 13:21	11/04/20 18:25		1
2-Chlorophenol	ND		9.5	2.1	ug/L	10/26/20 13:21	11/04/20 18:25		1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L	10/26/20 13:21	11/04/20 18:25		1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L	10/26/20 13:21	11/04/20 18:25		1
Dibenzofuran	ND		9.5	0.16	ug/L	10/26/20 13:21	11/04/20 18:25		1
3,3'-Dichlorobenzidine	ND		9.5	2.5	ug/L	10/26/20 13:21	11/04/20 18:25		1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L	10/26/20 13:21	11/04/20 18:25		1
Diethyl phthalate	1.0 J		9.5	0.23	ug/L	10/26/20 13:21	11/04/20 18:25		1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L	10/26/20 13:21	11/04/20 18:25		1
Dimethyl phthalate	ND		9.5	0.16	ug/L	10/26/20 13:21	11/04/20 18:25		1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L	10/26/20 13:21	11/04/20 18:25		1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L	10/26/20 13:21	11/04/20 18:25		1
2,4-Dinitrophenol	ND		29	3.2	ug/L	10/26/20 13:21	11/08/20 16:12		1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L	10/26/20 13:21	11/04/20 18:25		1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L	10/26/20 13:21	11/04/20 18:25		1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L	10/26/20 13:21	11/04/20 18:25		1
1,4-Dioxane	ND		9.5	0.95	ug/L	10/26/20 13:21	11/04/20 18:25		1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L	10/26/20 13:21	11/04/20 18:25		1
Hexachlorobenzene	ND		9.5	0.16	ug/L	10/26/20 13:21	11/04/20 18:25		1
Hexachlorocyclopentadiene	ND	✓	19	2.5	ug/L	10/26/20 13:21	11/08/20 16:12		1
Hexachloroethane	ND		9.5	4.0	ug/L	10/26/20 13:21	11/04/20 18:25		1
Indene	ND		9.5	0.95	ug/L	10/26/20 13:21	11/04/20 18:25		1
Isophorone	ND		9.5	0.13	ug/L	10/26/20 13:21	11/04/20 18:25		1
2-Methylphenol	ND		9.5	1.7	ug/L	10/26/20 13:21	11/04/20 18:25		1
3 & 4 Methylphenol	ND		19	0.37	ug/L	10/26/20 13:21	11/04/20 18:25		1
2-Nitroaniline	ND		9.5	2.1	ug/L	10/26/20 13:21	11/04/20 18:25		1
3-Nitroaniline	ND		9.5	1.7	ug/L	10/26/20 13:21	11/04/20 18:25		1
4-Nitroaniline	ND		9.5	1.4	ug/L	10/26/20 13:21	11/04/20 18:25		1
Nitrobenzene	ND		9.5	0.12	ug/L	10/26/20 13:21	11/04/20 18:25		1
2-Nitrophenol	ND		9.5	5.0	ug/L	10/26/20 13:21	11/04/20 18:25		1
4-Nitrophenol	ND		9.5	2.0	ug/L	10/26/20 13:21	11/04/20 18:25		1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L	10/26/20 13:21	11/04/20 18:25		1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: P93C-ROX-102120

Lab Sample ID: 400-194830-3

Date Collected: 10/21/20 09:05

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/26/20 13:21	11/04/20 18:25	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/26/20 13:21	11/04/20 18:25	1
Pentachlorophenol	ND		19	1.3	ug/L		10/26/20 13:21	11/04/20 18:25	1
Phenol	ND		9.5	2.5	ug/L		10/26/20 13:21	11/04/20 18:25	1
Pyridine	ND		9.5	3.0	ug/L		10/26/20 13:21	11/04/20 18:25	1
Quinoline	ND		9.5	4.3	ug/L		10/26/20 13:21	11/04/20 18:25	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/26/20 13:21	11/04/20 18:25	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/26/20 13:21	11/04/20 18:25	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	88			46 - 124			10/26/20 13:21	11/04/20 18:25	1
2-Fluorophenol	23			13 - 113			10/26/20 13:21	11/04/20 18:25	1
Nitrobenzene-d5	88			36 - 126			10/26/20 13:21	11/04/20 18:25	1
Phenol-d5	63			17 - 127			10/26/20 13:21	11/04/20 18:25	1
Terphenyl-d14	99			44 - 149			10/26/20 13:21	11/04/20 18:25	1
2,4,6-Tribromophenol	107			26 - 150			10/26/20 13:21	11/04/20 18:25	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*1	0.030	0.0055	ug/L		10/23/20 11:33	10/29/20 19:44	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/23/20 11:33	10/29/20 19:44	1
Surrogate		%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
4-Bromo-4-fluorobenzene	94	p		51 - 149			10/23/20 11:33	10/29/20 19:44	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: P56-ROX-102120
Date Collected: 10/21/20 10:05
Date Received: 10/22/20 09:24

Lab Sample ID: 400-194830-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/04/20 14:53	1
Acrolein	ND		20	10	ug/L			11/04/20 14:53	1
Acrylonitrile	ND		10	2.8	ug/L			11/04/20 14:53	1
Benzene	0.69	J	1.0	0.38	ug/L			11/04/20 14:53	1
Bromobenzene	ND		1.0	0.54	ug/L			11/04/20 14:53	1
Bromo(chloromethane)	ND		1.0	0.52	ug/L			11/04/20 14:53	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/04/20 14:53	1
Bromoform	ND		5.0	0.71	ug/L			11/04/20 14:53	1
Bromomethane	ND		1.0	0.98	ug/L			11/04/20 14:53	1
2-Butanone (MEK)	4.3	J	25	2.6	ug/L			11/04/20 14:53	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/04/20 14:53	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			11/04/20 14:53	1
Chlorobenzene	ND		1.0	0.50	ug/L			11/04/20 14:53	1
Dibromochloromethane	ND		1.0	0.50	ug/L			11/04/20 14:53	1
Chloroethane	ND		1.0	0.76	ug/L			11/04/20 14:53	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/04/20 14:53	1
Chloroform	ND		1.0	0.60	ug/L			11/04/20 14:53	1
1-Chlorohexane	ND		1.0	0.70	ug/L			11/04/20 14:53	1
Chloromethane	ND		1.0	0.83	ug/L			11/04/20 14:53	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/04/20 14:53	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/04/20 14:53	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/04/20 14:53	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/04/20 14:53	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/04/20 14:53	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/04/20 14:53	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/04/20 14:53	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			11/04/20 14:53	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/04/20 14:53	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/04/20 14:53	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/04/20 14:53	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/04/20 14:53	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/04/20 14:53	1
Ethylbenzene	4.3		1.0	0.50	ug/L			11/04/20 14:53	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/04/20 14:53	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/04/20 14:53	1
2-Hexanone	ND		25	3.1	ug/L			11/04/20 14:53	1
Isopropylbenzene	9.9		1.0	0.53	ug/L			11/04/20 14:53	1
Methylene bromide	ND		5.0	0.59	ug/L			11/04/20 14:53	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/04/20 14:53	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/04/20 14:53	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			11/04/20 14:53	1
m-Xylene & p-Xylene	16		5.0	1.6	ug/L			11/04/20 14:53	1
Naphthalene	3.3		1.0	1.0	ug/L			11/04/20 14:53	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/04/20 14:53	1
N-Propylbenzene	12		1.0	0.69	ug/L			11/04/20 14:53	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/04/20 14:53	1
o-Xylene	0.88	J	5.0	0.60	ug/L			11/04/20 14:53	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/04/20 14:53	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/04/20 14:53	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: P56-ROX-102120

Lab Sample ID: 400-194830-4

Date Collected: 10/21/20 10:05

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	1.6		1.0	0.70	ug/L		11/04/20 14:53	11/04/20 14:53	1
Styrene	ND		1.0	1.0	ug/L		11/04/20 14:53	11/04/20 14:53	1
tert-Butylbenzene	ND		1.0	0.63	ug/L		11/04/20 14:53	11/04/20 14:53	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L		11/04/20 14:53	11/04/20 14:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L		11/04/20 14:53	11/04/20 14:53	1
Tetrachloroethylene	ND		1.0	0.58	ug/L		11/04/20 14:53	11/04/20 14:53	1
Toluene	1.1		1.0	0.41	ug/L		11/04/20 14:53	11/04/20 14:53	1
trans-1,2-Dichloroethylene	ND		1.0	0.50	ug/L		11/04/20 14:53	11/04/20 14:53	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L		11/04/20 14:53	11/04/20 14:53	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L		11/04/20 14:53	11/04/20 14:53	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L		11/04/20 14:53	11/04/20 14:53	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L		11/04/20 14:53	11/04/20 14:53	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L		11/04/20 14:53	11/04/20 14:53	1
Trichloroethylene	ND		1.0	0.50	ug/L		11/04/20 14:53	11/04/20 14:53	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L		11/04/20 14:53	11/04/20 14:53	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L		11/04/20 14:53	11/04/20 14:53	1
1,2,4-Trimethylbenzene	10		1.0	0.82	ug/L		11/04/20 14:53	11/04/20 14:53	1
1,3,5-Trimethylbenzene	2.8		1.0	0.56	ug/L		11/04/20 14:53	11/04/20 14:53	1
Vinyl acetate	ND		25	2.0	ug/L		11/04/20 14:53	11/04/20 14:53	1
Vinyl chloride	ND		1.0	0.50	ug/L		11/04/20 14:53	11/04/20 14:53	1
Xylenes, Total	17		10	1.6	ug/L		11/04/20 14:53	11/04/20 14:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		78 - 118	11/04/20 14:53	11/04/20 14:53	1
Dibromofluoromethane	98		81 - 121	11/04/20 14:53	11/04/20 14:53	1
Toluene-d8 (Sur)	105		80 - 120	11/04/20 14:53	11/04/20 14:53	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L		10/26/20 13:21	11/03/20 18:29	1
Acenaphthylene	ND		0.20	0.045	ug/L		10/26/20 13:21	11/03/20 18:29	1
Anthracene	ND		0.20	0.032	ug/L		10/26/20 13:21	11/03/20 18:29	1
Benzo[a]anthracene	ND		0.20	0.046	ug/L		10/26/20 13:21	11/03/20 18:29	1
Benzo[a]pyrene	ND		0.20	0.042	ug/L		10/26/20 13:21	11/03/20 18:29	1
Benzo[b]fluoranthene	ND	WS	0.20	0.034	ug/L		10/26/20 13:21	11/03/20 18:29	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L		10/26/20 13:21	11/03/20 18:29	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L		10/26/20 13:21	11/03/20 18:29	1
Chrysene	ND		0.20	0.074	ug/L		10/26/20 13:21	11/03/20 18:29	1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L		10/26/20 13:21	11/03/20 18:29	1
Fluoranthene	ND		0.20	0.068	ug/L		10/26/20 13:21	11/03/20 18:29	1
Fluorene	0.27		0.20	0.11	ug/L		10/26/20 13:21	11/03/20 18:29	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		10/26/20 13:21	11/03/20 18:29	1
1-Methylnaphthalene	9.0		0.20	0.074	ug/L		10/26/20 13:21	11/03/20 18:29	1
2-Methylnaphthalene	5.6		0.20	0.060	ug/L		10/26/20 13:21	11/03/20 18:29	1
Phenanthrene	0.35		0.20	0.036	ug/L		10/26/20 13:21	11/03/20 18:29	1
Pyrene	ND		0.20	0.040	ug/L		10/26/20 13:21	11/03/20 18:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	87		15 - 122	10/26/20 13:21	11/03/20 18:29	1
Nitrobenzene-d5	94		19 - 130	10/26/20 13:21	11/03/20 18:29	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: P56-ROX-102120
Date Collected: 10/21/20 10:05
Date Received: 10/22/20 09:24

Lab Sample ID: 400-194830-4
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
Terphenyl-d14	76		33 - 138		10/26/20 13:21	11/03/20 18:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Benzenethiol	ND *	WS	10	1.7	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Benzoic acid	ND		30	7.3	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Benzyl alcohol	ND		10	2.0	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L	10/26/20 13:21	11/04/20 18:46	1	
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L	10/26/20 13:21	11/04/20 18:46	1	
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Butyl benzyl phthalate	ND		10	0.19	ug/L	10/26/20 13:21	11/04/20 18:46	1	
4-Chloroaniline	ND		10	3.4	ug/L	10/26/20 13:21	11/04/20 18:46	1	
4-Chloro-3-methylphenol	ND		10	3.8	ug/L	10/26/20 13:21	11/04/20 18:46	1	
2-Chloronaphthalene	ND		10	0.14	ug/L	10/26/20 13:21	11/04/20 18:46	1	
2-Chlorophenol	ND		10	2.2	ug/L	10/26/20 13:21	11/04/20 18:46	1	
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Dibenz[a,h]acridine	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Dibenzofuran	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 18:46	1	
3,3'-Dichlorobenzidine	ND *		10	2.6	ug/L	10/26/20 13:21	11/04/20 18:46	1	
2,4-Dichlorophenol	ND		10	3.0	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Diethyl phthalate	ND		10	0.24	ug/L	10/26/20 13:21	11/04/20 18:46	1	
2,4-Dimethylphenol	ND		10	3.5	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Dimethyl phthalate	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Di-n-butyl phthalate	ND		10	2.7	ug/L	10/26/20 13:21	11/04/20 18:46	1	
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L	10/26/20 13:21	11/04/20 18:46	1	
2,4-Dinitrophenol	ND		30	3.4	ug/L	10/26/20 13:21	11/08/20 16:36	1	
2,4-Dinitrotoluene	ND		10	1.9	ug/L	10/26/20 13:21	11/04/20 18:46	1	
2,6-Dinitrotoluene	ND		10	1.9	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Di-n-octyl phthalate	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 18:46	1	
1,4-Dioxane	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 18:46	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Hexachlorobenzene	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Hexachlorocyclopentadiene	ND *		20	2.6	ug/L	10/26/20 13:21	11/08/20 16:36	1	
Hexachloroethane	ND	WS	10	4.2	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Indene	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Isophorone	ND		10	0.14	ug/L	10/26/20 13:21	11/04/20 18:46	1	
2-Methylphenol	ND		10	1.8	ug/L	10/26/20 13:21	11/04/20 18:46	1	
3 & 4 Methylphenol	ND		20	0.39	ug/L	10/26/20 13:21	11/04/20 18:46	1	
2-Nitroaniline	ND		10	2.2	ug/L	10/26/20 13:21	11/04/20 18:46	1	
3-Nitroaniline	ND		10	1.8	ug/L	10/26/20 13:21	11/04/20 18:46	1	
4-Nitroaniline	ND		10	1.5	ug/L	10/26/20 13:21	11/04/20 18:46	1	
Nitrobenzene	ND		10	0.13	ug/L	10/26/20 13:21	11/04/20 18:46	1	
2-Nitrophenol	ND		10	5.2	ug/L	10/26/20 13:21	11/04/20 18:46	1	
4-Nitrophenol	ND		10	2.1	ug/L	10/26/20 13:21	11/04/20 18:46	1	
N-Nitrosodimethylamine	ND		10	3.5	ug/L	10/26/20 13:21	11/04/20 18:46	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: P56-ROX-102120
Date Collected: 10/21/20 10:05
Date Received: 10/22/20 09:24

Lab Sample ID: 400-194830-4
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/26/20 13:21	11/04/20 18:46	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/26/20 13:21	11/04/20 18:46	1
Pentachlorophenol	ND		20	1.4	ug/L		10/26/20 13:21	11/04/20 18:46	1
Phenol	ND		10	2.6	ug/L		10/26/20 13:21	11/04/20 18:46	1
Pyridine	ND		10	3.2	ug/L		10/26/20 13:21	11/04/20 18:46	1
Quinoline	ND		10	4.5	ug/L		10/26/20 13:21	11/04/20 18:46	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/26/20 13:21	11/04/20 18:46	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/26/20 13:21	11/04/20 18:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	90		46 - 124				10/26/20 13:21	11/04/20 18:46	1
2-Fluorophenol	47		13 - 113				10/26/20 13:21	11/04/20 18:46	1
Nitrobenzene-d5	93		36 - 126				10/26/20 13:21	11/04/20 18:46	1
Phenol-d5	76		17 - 127				10/26/20 13:21	11/04/20 18:46	1
Terphenyl-d14	86		44 - 149				10/26/20 13:21	11/04/20 18:46	1
2,4,6-Tribromophenol	108		26 - 150				10/26/20 13:21	11/04/20 18:46	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*1	0.029	0.0054	ug/L		10/23/20 11:33	10/29/20 20:05	1
1,2-Dibromoethane	ND		0.020	0.0049	ug/L		10/23/20 11:33	10/29/20 20:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	123	p	51 - 149				10/23/20 11:33	10/29/20 20:05	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: T12-ROX-102120
Date Collected: 10/21/20 11:45
Date Received: 10/22/20 09:24

Lab Sample ID: 400-194830-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130	50	ug/L			11/04/20 15:20	5
Acrolein	ND		100	50	ug/L			11/04/20 15:20	5
Acrylonitrile	ND		50	14	ug/L			11/04/20 15:20	5
Benzene	1400		5.0	1.9	ug/L			11/04/20 15:20	5
Bromobenzene	ND		5.0	2.7	ug/L			11/04/20 15:20	5
Bromochloromethane	ND		5.0	2.6	ug/L			11/04/20 15:20	5
Bromodichloromethane	ND		5.0	2.5	ug/L			11/04/20 15:20	5
Bromoform	ND		25	3.6	ug/L			11/04/20 15:20	5
Bromomethane	ND		5.0	4.9	ug/L			11/04/20 15:20	5
2-Butanone (MEK)	ND		130	13	ug/L			11/04/20 15:20	5
Carbon disulfide	ND		5.0	2.5	ug/L			11/04/20 15:20	5
Carbon tetrachloride	ND		5.0	2.5	ug/L			11/04/20 15:20	5
Chlorobenzene	ND		5.0	2.5	ug/L			11/04/20 15:20	5
Dibromochloromethane	ND		5.0	2.5	ug/L			11/04/20 15:20	5
Chloroethane	ND		5.0	3.8	ug/L			11/04/20 15:20	5
2-Chloroethyl vinyl ether	ND		25	10	ug/L			11/04/20 15:20	5
Chloroform	ND		5.0	3.0	ug/L			11/04/20 15:20	5
1-Chlorohexane	ND		5.0	3.5	ug/L			11/04/20 15:20	5
Chloromethane	ND		5.0	4.2	ug/L			11/04/20 15:20	5
cis-1,2-Dichloroethene	ND		5.0	2.5	ug/L			11/04/20 15:20	5
cis-1,3-Dichloropropene	ND		25	2.5	ug/L			11/04/20 15:20	5
1,2-Dichlorobenzene	ND		5.0	2.5	ug/L			11/04/20 15:20	5
1,3-Dichlorobenzene	ND		5.0	2.7	ug/L			11/04/20 15:20	5
1,4-Dichlorobenzene	ND		5.0	3.2	ug/L			11/04/20 15:20	5
Dichlorodifluoromethane	ND		5.0	4.3	ug/L			11/04/20 15:20	5
1,1-Dichloroethane	ND		5.0	2.5	ug/L			11/04/20 15:20	5
1,2-Dichloroethane	ND		5.0	2.5	ug/L			11/04/20 15:20	5
1,1-Dichloroethene	ND		5.0	2.5	ug/L			11/04/20 15:20	5
1,2-Dichloropropane	ND		5.0	2.5	ug/L			11/04/20 15:20	5
1,3-Dichloropropane	ND		5.0	2.5	ug/L			11/04/20 15:20	5
2,2-Dichloropropane	ND		5.0	2.5	ug/L			11/04/20 15:20	5
1,1-Dichloropropene	ND		5.0	2.5	ug/L			11/04/20 15:20	5
Ethylbenzene	7.8		5.0	2.5	ug/L			11/04/20 15:20	5
Ethyl methacrylate	ND		5.0	3.0	ug/L			11/04/20 15:20	5
Hexachlorobutadiene	ND		25	4.5	ug/L			11/04/20 15:20	5
2-Hexanone	ND		130	16	ug/L			11/04/20 15:20	5
Isopropylbenzene	3.3 J		5.0	2.7	ug/L			11/04/20 15:20	5
Methylene bromide	ND		25	3.0	ug/L			11/04/20 15:20	5
Methylene Chloride	ND		25	15	ug/L			11/04/20 15:20	5
4-Methyl-2-pentanone (MIBK)	ND		130	9.0	ug/L			11/04/20 15:20	5
Methyl tert-butyl ether	7.1		5.0	3.7	ug/L			11/04/20 15:20	5
m-Xylene & p-Xylene	37		25	8.0	ug/L			11/04/20 15:20	5
Naphthalene	19		5.0	5.0	ug/L			11/04/20 15:20	5
n-Butylbenzene	ND		5.0	3.8	ug/L			11/04/20 15:20	5
N-Propylbenzene	4.1 J		5.0	3.5	ug/L			11/04/20 15:20	5
o-Chlorotoluene	ND		5.0	2.9	ug/L			11/04/20 15:20	5
o-Xylene	3.2 J		25	3.0	ug/L			11/04/20 15:20	5
p-Chlorotoluene	ND		5.0	2.8	ug/L			11/04/20 15:20	5
p-Isopropyltoluene	ND		5.0	3.6	ug/L			11/04/20 15:20	5

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: T12-ROX-102120

Lab Sample ID: 400-194830-5

Date Collected: 10/21/20 11:45

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5.0	3.5	ug/L			11/04/20 15:20	5
Styrene	ND		5.0	5.0	ug/L			11/04/20 15:20	5
tert-Butylbenzene	ND		5.0	3.2	ug/L			11/04/20 15:20	5
1,1,1,2-Tetrachloroethane	ND		5.0	2.6	ug/L			11/04/20 15:20	5
1,1,2,2-Tetrachloroethane	ND		5.0	2.5	ug/L			11/04/20 15:20	5
Tetrachloroethylene	ND		5.0	2.9	ug/L			11/04/20 15:20	5
Toluene	29		5.0	2.1	ug/L			11/04/20 15:20	5
trans-1,2-Dichloroethylene	ND		5.0	2.5	ug/L			11/04/20 15:20	5
trans-1,3-Dichloropropene	ND		25	2.5	ug/L			11/04/20 15:20	5
1,2,3-Trichlorobenzene	ND		5.0	3.5	ug/L			11/04/20 15:20	5
1,2,4-Trichlorobenzene	ND		5.0	4.1	ug/L			11/04/20 15:20	5
1,1,1-Trichloroethane	ND		5.0	2.5	ug/L			11/04/20 15:20	5
1,1,2-Trichloroethane	ND		25	2.5	ug/L			11/04/20 15:20	5
Trichloroethylene	ND		5.0	2.5	ug/L			11/04/20 15:20	5
Trichlorofluoromethane	ND		5.0	2.6	ug/L			11/04/20 15:20	5
1,2,3-Trichloropropane	ND		25	4.2	ug/L			11/04/20 15:20	5
1,2,4-Trimethylbenzene	6.9		5.0	4.1	ug/L			11/04/20 15:20	5
1,3,5-Trimethylbenzene	5.2		5.0	2.8	ug/L			11/04/20 15:20	5
Vinyl acetate	ND		130	10	ug/L			11/04/20 15:20	5
Vinyl chloride	ND		5.0	2.5	ug/L			11/04/20 15:20	5
Xylenes, Total	40	J	50	8.0	ug/L			11/04/20 15:20	5
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		78 - 118					11/04/20 15:20	5
Dibromofluoromethane	96		81 - 121					11/04/20 15:20	5
Toluene-d8 (Surf)	105		80 - 120					11/04/20 15:20	5

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.20	0.032	ug/L			10/26/20 13:21	11/03/20 18:47
Acenaphthylene	0.081	J	0.20	0.044	ug/L			10/26/20 13:21	11/03/20 18:47
Anthracene	ND		0.20	0.032	ug/L			10/26/20 13:21	11/03/20 18:47
Benzo[a]anthracene	ND		0.20	0.045	ug/L			10/26/20 13:21	11/03/20 18:47
Benzo[a]pyrene	ND		0.20	0.042	ug/L			10/26/20 13:21	11/03/20 18:47
Benzo[b]fluoranthene	ND	WS	0.20	0.034	ug/L			10/26/20 13:21	11/03/20 18:47
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L			10/26/20 13:21	11/03/20 18:47
Benzo[k]fluoranthene	ND		0.20	0.099	ug/L			10/26/20 13:21	11/03/20 18:47
Chrysene	ND		0.20	0.073	ug/L			10/26/20 13:21	11/03/20 18:47
Dibenz(a,h)anthracene	ND		0.20	0.049	ug/L			10/26/20 13:21	11/03/20 18:47
Fluoranthene	ND		0.20	0.067	ug/L			10/26/20 13:21	11/03/20 18:47
Fluorene	0.31		0.20	0.11	ug/L			10/26/20 13:21	11/03/20 18:47
Indeno[1,2,3-cd]pyrene	ND		0.20	0.042	ug/L			10/26/20 13:21	11/03/20 18:47
1-Methylnaphthalene	17		0.20	0.073	ug/L			10/26/20 13:21	11/03/20 18:47
2-Methylnaphthalene	22		0.20	0.059	ug/L			10/26/20 13:21	11/03/20 18:47
Phenanthrene	0.47		0.20	0.036	ug/L			10/26/20 13:21	11/03/20 18:47
Pyrene	ND		0.20	0.040	ug/L			10/26/20 13:21	11/03/20 18:47
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	75		15 - 122					10/26/20 13:21	11/03/20 18:47
Nitrobenzene-d5	80		19 - 130					10/26/20 13:21	11/03/20 18:47

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: T12-ROX-102120

Lab Sample ID: 400-194830-5

Date Collected: 10/21/20 11:45

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	96		33 - 138	10/26/20 13:21	11/03/20 18:47	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.9	3.8	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Benzenethiol	ND *	WS	9.9	1.7	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Benzoic acid	ND		30	7.2	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Benzyl alcohol	ND		9.9	2.0	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Bis(2-chloroethoxy)methane	ND		9.9	0.16	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Bis(2-chloroethyl)ether	ND		9.9	2.7	ug/L	10/26/20 13:21	11/04/20 19:07	1	
bis (2-chloroisopropyl) ether	ND		9.9	0.16	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Bis(2-ethylhexyl) phthalate	ND		9.9	4.9	ug/L	10/26/20 13:21	11/04/20 19:07	1	
4-Bromophenyl phenyl ether	ND		9.9	0.20	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Butyl benzyl phthalate	ND		9.9	0.19	ug/L	10/26/20 13:21	11/04/20 19:07	1	
4-Chloroaniline	ND		9.9	3.4	ug/L	10/26/20 13:21	11/04/20 19:07	1	
4-Chloro-3-methylphenol	ND		9.9	3.8	ug/L	10/26/20 13:21	11/04/20 19:07	1	
2-Chloronaphthalene	ND		9.9	0.14	ug/L	10/26/20 13:21	11/04/20 19:07	1	
2-Chlorophenol	ND		9.9	2.2	ug/L	10/26/20 13:21	11/04/20 19:07	1	
4-Chlorophenyl phenyl ether	ND		9.9	2.0	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Dibenz[a,h]acridine	ND		9.9	0.99	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Dibenzofuran	ND		9.9	0.17	ug/L	10/26/20 13:21	11/04/20 19:07	1	
3,3'-Dichlorobenzidine	ND *		9.9	2.6	ug/L	10/26/20 13:21	11/04/20 19:07	1	
2,4-Dichlorophenol	ND		9.9	3.0	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Diethyl phthalate	ND		9.9	0.24	ug/L	10/26/20 13:21	11/04/20 19:07	1	
2,4-Dimethylphenol	ND		9.9	3.5	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Dimethyl phthalate	ND		9.9	0.17	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Di-n-butyl phthalate	ND		9.9	2.7	ug/L	10/26/20 13:21	11/04/20 19:07	1	
4,6-Dinitro-ortho-cresol	ND		9.9	1.6	ug/L	10/26/20 13:21	11/04/20 19:07	1	
2,4-Dinitrophenol	ND		30	3.4	ug/L	10/26/20 13:21	11/08/20 17:00	1	
2,4-Dinitrotoluene	ND		9.9	1.9	ug/L	10/26/20 13:21	11/04/20 19:07	1	
2,6-Dinitrotoluene	ND		9.9	1.9	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Di-n-octyl phthalate	ND		9.9	0.17	ug/L	10/26/20 13:21	11/04/20 19:07	1	
1,4-Dioxane	ND		9.9	0.99	ug/L	10/26/20 13:21	11/04/20 19:07	1	
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.9	0.99	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Hexachlorobenzene	ND		9.9	0.17	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Hexachlorocyclopentadiene	ND *	WS	20	2.6	ug/L	10/26/20 13:21	11/08/20 17:00	1	
Hexachloroethane	ND		9.9	4.2	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Indene	ND		9.9	0.99	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Isophorone	ND		9.9	0.14	ug/L	10/26/20 13:21	11/04/20 19:07	1	
2-Methylphenol	ND		9.9	1.8	ug/L	10/26/20 13:21	11/04/20 19:07	1	
3 & 4 Methylphenol	ND		20	0.39	ug/L	10/26/20 13:21	11/04/20 19:07	1	
2-Nitroaniline	ND		9.9	2.2	ug/L	10/26/20 13:21	11/04/20 19:07	1	
3-Nitroaniline	ND		9.9	1.8	ug/L	10/26/20 13:21	11/04/20 19:07	1	
4-Nitroaniline	ND		9.9	1.5	ug/L	10/26/20 13:21	11/04/20 19:07	1	
Nitrobenzene	ND		9.9	0.13	ug/L	10/26/20 13:21	11/04/20 19:07	1	
2-Nitrophenol	ND		9.9	5.1	ug/L	10/26/20 13:21	11/04/20 19:07	1	
4-Nitrophenol	ND		9.9	2.1	ug/L	10/26/20 13:21	11/04/20 19:07	1	
N-Nitrosodimethylamine	ND		9.9	3.5	ug/L	10/26/20 13:21	11/04/20 19:07	1	

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: T12-ROX-102120

Lab Sample ID: 400-194830-5

Date Collected: 10/21/20 11:45

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		9.9	3.3	ug/L		10/26/20 13:21	11/04/20 19:07	1
N-Nitrosodiphenylamine	ND		9.9	0.18	ug/L		10/26/20 13:21	11/04/20 19:07	1
Pentachlorophenol	ND		20	1.4	ug/L		10/26/20 13:21	11/04/20 19:07	1
Phenol	130		9.9	2.6	ug/L		10/26/20 13:21	11/04/20 19:07	1
Pyridine	ND		9.9	3.2	ug/L		10/26/20 13:21	11/04/20 19:07	1
Quinoline	ND		9.9	4.4	ug/L		10/26/20 13:21	11/04/20 19:07	1
2,4,5-Trichlorophenol	ND		9.9	3.7	ug/L		10/26/20 13:21	11/04/20 19:07	1
2,4,6-Trichlorophenol	ND		9.9	3.5	ug/L		10/26/20 13:21	11/04/20 19:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		46-124				10/26/20 13:21	11/04/20 19:07	1
2-Fluorophenol	32		13-113				10/26/20 13:21	11/04/20 19:07	1
Nitrobenzene-d5	71		36-126				10/26/20 13:21	11/04/20 19:07	1
Phenol-d5	63		17-127				10/26/20 13:21	11/04/20 19:07	1
Terphenyl-d14	87		44-149				10/26/20 13:21	11/04/20 19:07	1
2,4,6-Tribromophenol	93		26-150				10/26/20 13:21	11/04/20 19:07	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*1	0.030	0.0055	ug/L		10/23/20 11:33	10/29/20 20:27	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/23/20 11:33	10/29/20 20:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	127	p	51-149				10/23/20 11:33	10/29/20 20:27	1

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: T12-ROX-102120-DUP

Lab Sample ID: 400-194830-6

Date Collected: 10/21/20 11:45

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		130	50	ug/L			11/04/20 15:46	5
Acrolein	ND		100	50	ug/L			11/04/20 15:46	5
Acrylonitrile	ND		50	14	ug/L			11/04/20 15:46	5
Benzene	1500		5.0	1.9	ug/L			11/04/20 15:46	5
Bromobenzene	ND		5.0	2.7	ug/L			11/04/20 15:46	5
Bromochloromethane	ND		5.0	2.6	ug/L			11/04/20 15:46	5
Bromodichloromethane	ND		5.0	2.5	ug/L			11/04/20 15:46	5
Bromoform	ND		25	3.6	ug/L			11/04/20 15:46	5
Bromomethane	ND		5.0	4.9	ug/L			11/04/20 15:46	5
2-Butanone (MEK)	ND		130	13	ug/L			11/04/20 15:46	5
Carbon disulfide	ND		5.0	2.5	ug/L			11/04/20 15:46	5
Carbon tetrachloride	ND		5.0	2.5	ug/L			11/04/20 15:46	5
Chlorobenzene	ND		5.0	2.5	ug/L			11/04/20 15:46	5
Dibromochloromethane	ND		5.0	2.5	ug/L			11/04/20 15:46	5
Chloroethane	ND		5.0	3.8	ug/L			11/04/20 15:46	5
2-Chloroethyl vinyl ether	ND		25	10	ug/L			11/04/20 15:46	5
Chloroform	ND		5.0	3.0	ug/L			11/04/20 15:46	5
1-Chlorohexane	ND		5.0	3.5	ug/L			11/04/20 15:46	5
Chloromethane	ND		5.0	4.2	ug/L			11/04/20 15:46	5
cis-1,2-Dichloroethene	ND		5.0	2.5	ug/L			11/04/20 15:46	5
cis-1,3-Dichloropropene	ND		25	2.5	ug/L			11/04/20 15:46	5
1,2-Dichlorobenzene	ND		5.0	2.5	ug/L			11/04/20 15:46	5
1,3-Dichlorobenzene	ND		5.0	2.7	ug/L			11/04/20 15:46	5
1,4-Dichlorobenzene	ND		5.0	3.2	ug/L			11/04/20 15:46	5
Dichlorodifluoromethane	ND		5.0	4.3	ug/L			11/04/20 15:46	5
1,1-Dichloroethane	ND		5.0	2.5	ug/L			11/04/20 15:46	5
1,2-Dichloroethane	ND		5.0	2.5	ug/L			11/04/20 15:46	5
1,1-Dichloroethene	ND		5.0	2.5	ug/L			11/04/20 15:46	5
1,2-Dichloropropane	ND		5.0	2.5	ug/L			11/04/20 15:46	5
1,3-Dichloropropane	ND		5.0	2.5	ug/L			11/04/20 15:46	5
2,2-Dichloropropane	ND		5.0	2.5	ug/L			11/04/20 15:46	5
1,1-Dichloropropene	ND		5.0	2.5	ug/L			11/04/20 15:46	5
Ethylbenzene	8.3		5.0	2.5	ug/L			11/04/20 15:46	5
Ethyl methacrylate	ND		5.0	3.0	ug/L			11/04/20 15:46	5
Hexachlorobutadiene	ND		25	4.5	ug/L			11/04/20 15:46	5
2-Hexanone	ND		130	16	ug/L			11/04/20 15:46	5
Isopropylbenzene	3.0 J		5.0	2.7	ug/L			11/04/20 15:46	5
Methylene bromide	ND		25	3.0	ug/L			11/04/20 15:46	5
Methylene Chloride	ND		25	15	ug/L			11/04/20 15:46	5
4-Methyl-2-pentanone (MIBK)	ND		130	9.0	ug/L			11/04/20 15:46	5
Methyl tert-butyl ether	7.1		5.0	3.7	ug/L			11/04/20 15:46	5
m-Xylene & p-Xylene	36		25	8.0	ug/L			11/04/20 15:46	5
Naphthalene	18		5.0	5.0	ug/L			11/04/20 15:46	5
n-Butylbenzene	ND		5.0	3.8	ug/L			11/04/20 15:46	5
N-Propylbenzene	4.2 J		5.0	3.5	ug/L			11/04/20 15:46	5
o-Chlorotoluene	ND		5.0	2.9	ug/L			11/04/20 15:46	5
o-Xylene	3.2 J		25	3.0	ug/L			11/04/20 15:46	5
p-Chlorotoluene	ND		5.0	2.8	ug/L			11/04/20 15:46	5
p-Isopropyltoluene	ND		5.0	3.6	ug/L			11/04/20 15:46	5

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: T12-ROX-102120-DUP

Lab Sample ID: 400-194830-6

Date Collected: 10/21/20 11:45

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		5.0	3.5	ug/L			11/04/20 15:46	5
Styrene	ND		5.0	5.0	ug/L			11/04/20 15:46	5
tert-Butylbenzene	ND		5.0	3.2	ug/L			11/04/20 15:46	5
1,1,1,2-Tetrachloroethane	ND		5.0	2.6	ug/L			11/04/20 15:46	5
1,1,2,2-Tetrachloroethane	ND		5.0	2.5	ug/L			11/04/20 15:46	5
Tetrachloroethylene	ND		5.0	2.9	ug/L			11/04/20 15:46	5
Toluene	31		5.0	2.1	ug/L			11/04/20 15:46	5
trans-1,2-Dichloroethylene	ND		5.0	2.5	ug/L			11/04/20 15:46	5
trans-1,3-Dichloropropene	ND		25	2.5	ug/L			11/04/20 15:46	5
1,2,3-Trichlorobenzene	ND		5.0	3.5	ug/L			11/04/20 15:46	5
1,2,4-Trichlorobenzene	ND		5.0	4.1	ug/L			11/04/20 15:46	5
1,1,1-Trichloroethane	ND		5.0	2.5	ug/L			11/04/20 15:46	5
1,1,2-Trichloroethane	ND		25	2.5	ug/L			11/04/20 15:46	5
Trichloroethylene	ND		5.0	2.5	ug/L			11/04/20 15:46	5
Trichlorofluoromethane	ND		5.0	2.6	ug/L			11/04/20 15:46	5
1,2,3-Trichloropropane	ND		25	4.2	ug/L			11/04/20 15:46	5
1,2,4-Trimethylbenzene	7.1		5.0	4.1	ug/L			11/04/20 15:46	5
1,3,5-Trimethylbenzene	5.6		5.0	2.8	ug/L			11/04/20 15:46	5
Vinyl acetate	ND		130	10	ug/L			11/04/20 15:46	5
Vinyl chloride	ND		5.0	2.5	ug/L			11/04/20 15:46	5
Xylenes, Total	40	J	50	8.0	ug/L			11/04/20 15:46	5
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		78 - 118					11/04/20 15:46	5
Dibromofluoromethane	99		81 - 121					11/04/20 15:46	5
Toluene-d8 (Surr)	102		80 - 120					11/04/20 15:46	5

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Acenaphthene	ND		0.20	0.033	ug/L			10/26/20 13:21	11/03/20 19:04	1
Acenaphthylene	ND		0.20	0.046	ug/L			10/26/20 13:21	11/03/20 19:04	1
Anthracene	ND		0.20	0.033	ug/L			10/26/20 13:21	11/03/20 19:04	1
Benzo[a]anthracene	ND		0.20	0.047	ug/L			10/26/20 13:21	11/03/20 19:04	1
Benzo[a]pyrene	ND		0.20	0.043	ug/L			10/26/20 13:21	11/03/20 19:04	1
Benzo[b]fluoranthene	ND	WS	0.20	0.035	ug/L			10/26/20 13:21	11/03/20 19:04	1
Benzo[g,h,i]perylene	ND		0.20	0.13	ug/L			10/26/20 13:21	11/03/20 19:04	1
Benzo[k]fluoranthene	ND		0.20	0.10	ug/L			10/26/20 13:21	11/03/20 19:04	1
Chrysene	ND		0.20	0.075	ug/L			10/26/20 13:21	11/03/20 19:04	1
Dibenz(a,h)anthracene	ND		0.20	0.051	ug/L			10/26/20 13:21	11/03/20 19:04	1
Fluoranthene	ND		0.20	0.069	ug/L			10/26/20 13:21	11/03/20 19:04	1
Fluorene	0.38		0.20	0.11	ug/L			10/26/20 13:21	11/03/20 19:04	1
Indeno[1,2,3-cd]pyrene	ND		0.20	0.044	ug/L			10/26/20 13:21	11/03/20 19:04	1
1-Methylnaphthalene	20		0.20	0.075	ug/L			10/26/20 13:21	11/03/20 19:04	1
2-Methylnaphthalene	28		0.20	0.061	ug/L			10/26/20 13:21	11/03/20 19:04	1
Phenanthrene	0.59		0.20	0.037	ug/L			10/26/20 13:21	11/03/20 19:04	1
Pyrene	ND		0.20	0.041	ug/L			10/26/20 13:21	11/03/20 19:04	1
Surrogate	%Recovery	Qualifier	Limits			D	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	79		15 - 122					10/26/20 13:21	11/03/20 19:04	1
Nitrobenzene-d5	93		19 - 130					10/26/20 13:21	11/03/20 19:04	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: T12-ROX-102120-DUP

Lab Sample ID: 400-194830-6

Date Collected: 10/21/20 11:45

Matrix: Water

Date Received: 10/22/20 09:24

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	98		33 - 138	10/26/20 13:21	11/03/20 19:04	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.9	ug/L		10/26/20 13:21	11/04/20 19:28	1
Benzenethiol	ND *	WS	10	1.7	ug/L		10/26/20 13:21	11/04/20 19:28	1
Benzoic acid	ND		31	7.4	ug/L		10/26/20 13:21	11/04/20 19:28	1
Benzyl alcohol	ND		10	2.0	ug/L		10/26/20 13:21	11/04/20 19:28	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/26/20 13:21	11/04/20 19:28	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/26/20 13:21	11/04/20 19:28	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/26/20 13:21	11/04/20 19:28	1
Bis(2-ethylhexyl) phthalate	ND		10	5.1	ug/L		10/26/20 13:21	11/04/20 19:28	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/26/20 13:21	11/04/20 19:28	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/26/20 13:21	11/04/20 19:28	1
4-Chloroaniline	ND		10	3.5	ug/L		10/26/20 13:21	11/04/20 19:28	1
4-Chloro-3-methylphenol	ND		10	3.9	ug/L		10/26/20 13:21	11/04/20 19:28	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/26/20 13:21	11/04/20 19:28	1
2-Chlorophenol	ND		10	2.2	ug/L		10/26/20 13:21	11/04/20 19:28	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L		10/26/20 13:21	11/04/20 19:28	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L		10/26/20 13:21	11/04/20 19:28	1
Dibenzofuran	ND		10	0.17	ug/L		10/26/20 13:21	11/04/20 19:28	1
3,3'-Dichlorobenzidine	ND *		10	2.6	ug/L		10/26/20 13:21	11/04/20 19:28	1
2,4-Dichlorophenol	ND		10	3.1	ug/L		10/26/20 13:21	11/04/20 19:28	1
Diethyl phthalate	ND		10	0.24	ug/L		10/26/20 13:21	11/04/20 19:28	1
2,4-Dimethylphenol	ND		10	3.6	ug/L		10/26/20 13:21	11/04/20 19:28	1
Dimethyl phthalate	ND		10	0.17	ug/L		10/26/20 13:21	11/04/20 19:28	1
Di-n-butyl phthalate	ND		10	2.7	ug/L		10/26/20 13:21	11/04/20 19:28	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L		10/26/20 13:21	11/04/20 19:28	1
2,4-Dinitropheno!	ND		31	3.5	ug/L		10/26/20 13:21	11/08/20 17:25	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L		10/26/20 13:21	11/04/20 19:28	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L		10/26/20 13:21	11/04/20 19:28	1
Di-n-octyl phthalate	ND		10	0.17	ug/L		10/26/20 13:21	11/04/20 19:28	1
1,4-Dioxane	ND		10	1.0	ug/L		10/26/20 13:21	11/04/20 19:28	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L		10/26/20 13:21	11/04/20 19:28	1
Hexachlorobenzene	ND		10	0.17	ug/L		10/26/20 13:21	11/04/20 19:28	1
Hexachlorocyclopentadiene	ND *		20	2.6	ug/L		10/26/20 13:21	11/08/20 17:25	1
Hexachloroethane	ND	WS	10	4.3	ug/L		10/26/20 13:21	11/04/20 19:28	1
Indene	1.2 J		10	1.0	ug/L		10/26/20 13:21	11/04/20 19:28	1
Isophorone	ND		10	0.14	ug/L		10/26/20 13:21	11/04/20 19:28	1
2-Methylphenol	ND		10	1.8	ug/L		10/26/20 13:21	11/04/20 19:28	1
3 & 4 Methylphenol	ND		20	0.40	ug/L		10/26/20 13:21	11/04/20 19:28	1
2-Nitroaniline	ND		10	2.2	ug/L		10/26/20 13:21	11/04/20 19:28	1
3-Nitroaniline	ND		10	1.8	ug/L		10/26/20 13:21	11/04/20 19:28	1
4-Nitroaniline	ND		10	1.5	ug/L		10/26/20 13:21	11/04/20 19:28	1
Nitrobenzene	ND		10	0.13	ug/L		10/26/20 13:21	11/04/20 19:28	1
2-Nitrophenol	ND		10	5.3	ug/L		10/26/20 13:21	11/04/20 19:28	1
4-Nitrophenol	ND		10	2.1	ug/L		10/26/20 13:21	11/04/20 19:28	1
N-Nitrosodimethylamine	ND		10	3.6	ug/L		10/26/20 13:21	11/04/20 19:28	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: T12-ROX-102120-DUP

Date Collected: 10/21/20 11:45

Date Received: 10/22/20 09:24

Lab Sample ID: 400-194830-6

Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodi-n-propylamine	ND		10	3.4	ug/L		10/26/20 13:21	11/04/20 19:28	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/26/20 13:21	11/04/20 19:28	1
Pentachlorophenol	ND		20	1.4	ug/L		10/26/20 13:21	11/04/20 19:28	1
Phenol	130		10	2.6	ug/L		10/26/20 13:21	11/04/20 19:28	1
Pyridine	ND		10	3.3	ug/L		10/26/20 13:21	11/04/20 19:28	1
Quinoline	ND		10	4.6	ug/L		10/26/20 13:21	11/04/20 19:28	1
2,4,5-Trichlorophenol	ND		10	3.8	ug/L		10/26/20 13:21	11/04/20 19:28	1
2,4,6-Trichlorophenol	ND		10	3.6	ug/L		10/26/20 13:21	11/04/20 19:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		46 - 124				10/26/20 13:21	11/04/20 19:28	1
2-Fluorophenol	31		13 - 113				10/26/20 13:21	11/04/20 19:28	1
Nitrobenzene-d5	77		36 - 126				10/26/20 13:21	11/04/20 19:28	1
Phenol-d5	63		17 - 127				10/26/20 13:21	11/04/20 19:28	1
Terphenyl-d14	92		44 - 149				10/26/20 13:21	11/04/20 19:28	1
2,4,6-Tribromophenol	98		26 - 150				10/26/20 13:21	11/04/20 19:28	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	F1 *1	0.029	0.0053	ug/L		10/23/20 11:33	10/29/20 20:49	1
1,2-Dibromoethane	ND		0.019	0.0048	ug/L		10/23/20 11:33	10/29/20 20:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		51 - 149				10/23/20 11:33	10/29/20 20:49	1

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

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 or LCSD is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
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: 400-194830-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194830-1	TB-ROX-102120-8260-SS	103	101	101
400-194830-3	P93C-ROX-102120	101	100	101
400-194830-4	P56-ROX-102120	101	98	105
400-194830-5	T12-ROX-102120	103	96	105
400-194830-6	T12-ROX-102120-DUP	104	99	102
LCS 400-509250/1002	Lab Control Sample	93	101	97
MB 400-509250/5	Method Blank	103	104	105

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Sur)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194830-3	P93C-ROX-102120	88	23	88	63	99	107
400-194830-4	P56-ROX-102120	90	47	93	76	86	108
400-194830-5	T12-ROX-102120	71	32	71	63	87	93
400-194830-6	T12-ROX-102120-DUP	77	31	77	63	92	98
LCS 400-508204/2-A	Lab Control Sample	94	39	73	69	87	96
LCS 400-508204/4-A	Lab Control Sample	79	40	76	61	97	36
LCSD 400-508204/3-A	Lab Control Sample Dup	82	32	64	61	77	88
LCSD 400-508204/5-A	Lab Control Sample Dup	77	22	72	51	94	14 X
MB 400-508204/1-A	Method Blank	76	39	73	58	95	70

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194830-3	P93C-ROX-102120	91	96	106
400-194830-4	P56-ROX-102120	87	94	76
400-194830-5	T12-ROX-102120	75	80	96
400-194830-6	T12-ROX-102120-DUP	79	93	98
LCS 400-508204/2-A	Lab Control Sample	96	117	105
LCSD 400-508204/3-A	Lab Control Sample Dup	86	109	100
MB 400-508204/1-A	Method Blank	95	99	108

Surrogate Legend

Eurofins TestAmerica, Pensacola

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW
FBP = 2-Fluorobiphenyl
NBZ = Nitrobenzene-d5
TPHL = Terphenyl-d14

Job ID: 400-194830-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB2 (51-149)	
400-194830-2	TB-ROX-102120-8011-SS	103	
400-194830-3	P93C-ROX-102120	94 p	
400-194830-4	P56-ROX-102120	123 p	
400-194830-5	T12-ROX-102120	127 p	
400-194830-6	T12-ROX-102120-DUP	110	
400-194830-6 MS	T12-ROX-102120-DUP	103 p	
400-194830-6 MSD	T12-ROX-102120-DUP	115 p	
LCS 400-507961/2-A	Lab Control Sample	101	
LCSD 400-507961/3-A	Lab Control Sample Dup	124	
MB 400-507961/1-A	Method Blank	104	

Surrogate Legend

BFB = 4-Bromofluorobenzene

8

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP in Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, 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: 400-194830-1

Client Sample ID: TB-ROX-102120-8260-SS

Lab Sample ID: 400-194830-1

Date Collected: 10/21/20 00:00

Matrix: Water

Date Received: 10/22/20 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	509250	11/04/20 14:00	AMB	TAL PEN

Client Sample ID: TB-ROX-102120-8011-SS

Lab Sample ID: 400-194830-2

Date Collected: 10/21/20 00:00

Matrix: Water

Date Received: 10/22/20 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			34.4 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 19:22	DHJ	TAL PEN

Client Sample ID: P93C-ROX-102120

Lab Sample ID: 400-194830-3

Date Collected: 10/21/20 09:05

Matrix: Water

Date Received: 10/22/20 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	509250	11/04/20 14:26	AMB	TAL PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509841	11/08/20 16:12	S1B	TAL PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 18:25	S1B	TAL PEN
Total/NA	Prep	3520C			262.6 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 18:12	DS	TAL PEN
Total/NA	Prep	8011			35.1 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 19:44	DHJ	TAL PEN

Client Sample ID: P56-ROX-102120

Lab Sample ID: 400-194830-4

Date Collected: 10/21/20 10:05

Matrix: Water

Date Received: 10/22/20 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	509250	11/04/20 14:53	AMB	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509841	11/08/20 16:36	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 18:46	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 18:29	DS	TAL PEN
Total/NA	Prep	8011			35.8 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 20:05	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: T12-ROX-102120

Date Collected: 10/21/20 11:45

Date Received: 10/22/20 09:24

Lab Sample ID: 400-194830-5

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		5	5 mL	5 mL	509250	11/04/20 15:20	AMB	TAL PEN
Total/NA	Prep	3520C			253 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509841	11/08/20 17:00	S1B	TAL PEN
Total/NA	Prep	3520C			253 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 19:07	S1B	TAL PEN
Total/NA	Prep	3520C			253 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 18:47	DS	TAL PEN
Total/NA	Prep	8011			35.1 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 20:27	DHJ	TAL PEN

Client Sample ID: T12-ROX-102120-DUP

Date Collected: 10/21/20 11:45

Date Received: 10/22/20 09:24

Lab Sample ID: 400-194830-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	5 mL	5 mL	509250	11/04/20 15:46	AMB	TAL PEN
Total/NA	Prep	3520C			245.8 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509841	11/08/20 17:25	S1B	TAL PEN
Total/NA	Prep	3520C			245.8 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 19:28	S1B	TAL PEN
Total/NA	Prep	3520C			245.8 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 19:04	DS	TAL PEN
Total/NA	Prep	8011			36.1 mL	35 mL	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 20:49	DHJ	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-507961/1-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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			509274	11/04/20 19:51	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-508204/1-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509841	11/08/20 15:23	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 16:18	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 15:51	DS	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: Method Blank

Lab Sample ID: MB 400-509250/5

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	509250	11/04/20 11:47	AMB	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-507961/2-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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 14:17	DHJ	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-508204/2-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 16:39	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		5			509134	11/03/20 16:08	DS	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-508204/4-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:21	S1B	TAL PEN

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 400-509250/1002

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	509250	11/04/20 10:49	AMB	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-507961/3-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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508279	10/27/20 15:20	DS	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-508204/3-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:00	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		5			509134	11/03/20 16:26	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-508204/5-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:43	S1B	TAL PEN

Client Sample ID: T12-ROX-102120-DUP

Lab Sample ID: 400-194830-6 MS

Date Collected: 10/21/20 11:45
Date Received: 10/22/20 09:24

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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 21:10	DHJ	TAL PEN

Client Sample ID: T12-ROX-102120-DUP

Lab Sample ID: 400-194830-6 MSD

Date Collected: 10/21/20 11:45
Date Received: 10/22/20 09:24

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	507961	10/23/20 11:33	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508627	10/29/20 21:32	DHJ	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

GC/MS VOA

Analysis Batch: 509250

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194830-1	TB-ROX-102120-8260-SS	Total/NA	Water	8260B	
400-194830-3	P93C-ROX-102120	Total/NA	Water	8260B	
400-194830-4	P56-ROX-102120	Total/NA	Water	8260B	
400-194830-5	T12-ROX-102120	Total/NA	Water	8260B	
400-194830-6	T12-ROX-102120-DUP	Total/NA	Water	8260B	
MB 400-509250/5	Method Blank	Total/NA	Water	8260B	
LCS 400-509250/1002	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 508204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194830-3	P93C-ROX-102120	Total/NA	Water	3520C	
400-194830-4	P56-ROX-102120	Total/NA	Water	3520C	
400-194830-5	T12-ROX-102120	Total/NA	Water	3520C	
400-194830-6	T12-ROX-102120-DUP	Total/NA	Water	3520C	
MB 400-508204/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-508204/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-508204/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 509134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194830-3	P93C-ROX-102120	Total/NA	Water	8270D LL	508204
400-194830-4	P56-ROX-102120	Total/NA	Water	8270D LL	508204
400-194830-5	T12-ROX-102120	Total/NA	Water	8270D LL	508204
400-194830-6	T12-ROX-102120-DUP	Total/NA	Water	8270D LL	508204
MB 400-508204/1-A	Method Blank	Total/NA	Water	8270D LL	508204
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	8270D LL	508204
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	508204

Analysis Batch: 509317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194830-3	P93C-ROX-102120	Total/NA	Water	8270D	508204
400-194830-4	P56-ROX-102120	Total/NA	Water	8270D	508204
400-194830-5	T12-ROX-102120	Total/NA	Water	8270D	508204
400-194830-6	T12-ROX-102120-DUP	Total/NA	Water	8270D	508204
MB 400-508204/1-A	Method Blank	Total/NA	Water	8270D	508204
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	8270D	508204
LCS 400-508204/4-A	Lab Control Sample	Total/NA	Water	8270D	508204
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	508204
LCSD 400-508204/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	508204

Analysis Batch: 509841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194830-3	P93C-ROX-102120	Total/NA	Water	8270D	508204
400-194830-4	P56-ROX-102120	Total/NA	Water	8270D	508204
400-194830-5	T12-ROX-102120	Total/NA	Water	8270D	508204
400-194830-6	T12-ROX-102120-DUP	Total/NA	Water	8270D	508204
MB 400-508204/1-A	Method Blank	Total/NA	Water	8270D	508204

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

GC Semi VOA

Prep Batch: 507961

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194830-2	TB-ROX-102120-8011-SS	Total/NA	Water	8011	
400-194830-3	P93C-ROX-102120	Total/NA	Water	8011	
400-194830-4	P56-ROX-102120	Total/NA	Water	8011	
400-194830-5	T12-ROX-102120	Total/NA	Water	8011	
400-194830-6	T12-ROX-102120-DUP	Total/NA	Water	8011	
MB 400-507961/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-507961/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-507961/3-A	Lab Control Sample Dup	Total/NA	Water	8011	
400-194830-6 MS	T12-ROX-102120-DUP	Total/NA	Water	8011	
400-194830-6 MSD	T12-ROX-102120-DUP	Total/NA	Water	8011	

Analysis Batch: 508279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 400-507961/3-A	Lab Control Sample Dup	Total/NA	Water	8011	507961

Analysis Batch: 508627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194830-2	TB-ROX-102120-8011-SS	Total/NA	Water	8011	507961
400-194830-3	P93C-ROX-102120	Total/NA	Water	8011	507961
400-194830-4	P56-ROX-102120	Total/NA	Water	8011	507961
400-194830-5	T12-ROX-102120	Total/NA	Water	8011	507961
400-194830-6	T12-ROX-102120-DUP	Total/NA	Water	8011	507961
LCS 400-507961/2-A	Lab Control Sample	Total/NA	Water	8011	507961
400-194830-6 MS	T12-ROX-102120-DUP	Total/NA	Water	8011	507961
400-194830-6 MSD	T12-ROX-102120-DUP	Total/NA	Water	8011	507961

Analysis Batch: 509274

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-507961/1-A	Method Blank	Total/NA	Water	8011	507961

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-509250/5

Matrix: Water

Analysis Batch: 509250

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone			ND		25	10	ug/L			11/04/20 11:47	1
Acrolein			ND		20	10	ug/L			11/04/20 11:47	1
Acrylonitrile			ND		10	2.8	ug/L			11/04/20 11:47	1
Benzene			ND		1.0	0.38	ug/L			11/04/20 11:47	1
Bromobenzene			ND		1.0	0.54	ug/L			11/04/20 11:47	1
Bromoform			ND		1.0	0.52	ug/L			11/04/20 11:47	1
Bromochloromethane			ND		1.0	0.50	ug/L			11/04/20 11:47	1
Bromodichloromethane			ND		1.0	0.71	ug/L			11/04/20 11:47	1
Bromoform			ND		5.0	0.98	ug/L			11/04/20 11:47	1
Bromomethane			ND		1.0	2.6	ug/L			11/04/20 11:47	1
2-Butanone (MEK)			ND		25	1.0	0.50			11/04/20 11:47	1
Carbon disulfide			ND		1.0	0.50	ug/L			11/04/20 11:47	1
Carbon tetrachloride			ND		1.0	0.50	ug/L			11/04/20 11:47	1
Chlorobenzene			ND		1.0	0.50	ug/L			11/04/20 11:47	1
Dibromochloromethane			ND		1.0	0.50	ug/L			11/04/20 11:47	1
Chloroethane			ND		1.0	0.76	ug/L			11/04/20 11:47	1
2-Chloroethyl vinyl ether			ND		5.0	2.0	ug/L			11/04/20 11:47	1
Chloroform			ND		1.0	0.60	ug/L			11/04/20 11:47	1
1-Chlorohexane			ND		1.0	0.70	ug/L			11/04/20 11:47	1
Chloromethane			ND		1.0	0.83	ug/L			11/04/20 11:47	1
cis-1,2-Dichloroethene			ND		1.0	0.50	ug/L			11/04/20 11:47	1
cis-1,3-Dichloropropene			ND		5.0	0.50	ug/L			11/04/20 11:47	1
1,2-Dichlorobenzene			ND		1.0	0.50	ug/L			11/04/20 11:47	1
1,3-Dichlorobenzene			ND		1.0	0.54	ug/L			11/04/20 11:47	1
1,4-Dichlorobenzene			ND		1.0	0.64	ug/L			11/04/20 11:47	1
Dichlorodifluoromethane			ND		1.0	0.85	ug/L			11/04/20 11:47	1
1,1-Dichloroethane			ND		1.0	0.50	ug/L			11/04/20 11:47	1
1,2-Dichloroethane			ND		1.0	0.50	ug/L			11/04/20 11:47	1
1,1-Dichloroethene			ND		1.0	0.50	ug/L			11/04/20 11:47	1
1,2-Dichloropropane			ND		1.0	0.50	ug/L			11/04/20 11:47	1
1,3-Dichloropropane			ND		1.0	0.50	ug/L			11/04/20 11:47	1
2,2-Dichloropropane			ND		1.0	0.50	ug/L			11/04/20 11:47	1
1,1-Dichloropropene			ND		1.0	0.50	ug/L			11/04/20 11:47	1
Ethylbenzene			ND		1.0	0.50	ug/L			11/04/20 11:47	1
Ethyl methacrylate			ND		1.0	0.60	ug/L			11/04/20 11:47	1
Hexachlorobutadiene			ND		5.0	0.90	ug/L			11/04/20 11:47	1
2-Hexanone			ND		25	3.1	ug/L			11/04/20 11:47	1
Isopropylbenzene			ND		1.0	0.53	ug/L			11/04/20 11:47	1
Methylene bromide			ND		5.0	0.59	ug/L			11/04/20 11:47	1
Methylene Chloride			ND		5.0	3.0	ug/L			11/04/20 11:47	1
4-Methyl-2-pentanone (MIBK)			ND		25	1.8	ug/L			11/04/20 11:47	1
Methyl tert-butyl ether			ND		1.0	0.74	ug/L			11/04/20 11:47	1
m-Xylene & p-Xylene			ND		5.0	1.6	ug/L			11/04/20 11:47	1
Naphthalene			ND		1.0	1.0	ug/L			11/04/20 11:47	1
n-Butylbenzene			ND		1.0	0.76	ug/L			11/04/20 11:47	1
N-Propylbenzene			ND		1.0	0.69	ug/L			11/04/20 11:47	1
o-Chlorotoluene			ND		1.0	0.57	ug/L			11/04/20 11:47	1
o-Xylene			ND		5.0	0.60	ug/L			11/04/20 11:47	1
p-Chlorotoluene			ND		1.0	0.56	ug/L			11/04/20 11:47	1

12

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-509250/5

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509250

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND				1.0	0.71	ug/L			11/04/20 11:47	1
sec-Butylbenzene	ND				1.0	0.70	ug/L			11/04/20 11:47	1
Styrene	ND				1.0	1.0	ug/L			11/04/20 11:47	1
tert-Butylbenzene	ND				1.0	0.63	ug/L			11/04/20 11:47	1
1,1,1,2-Tetrachloroethane	ND				1.0	0.52	ug/L			11/04/20 11:47	1
1,1,2,2-Tetrachloroethane	ND				1.0	0.50	ug/L			11/04/20 11:47	1
Tetrachloroethene	ND				1.0	0.58	ug/L			11/04/20 11:47	1
Toluene	ND				1.0	0.41	ug/L			11/04/20 11:47	1
trans-1,2-Dichloroethylene	ND				1.0	0.50	ug/L			11/04/20 11:47	1
trans-1,3-Dichloropropene	ND				5.0	0.50	ug/L			11/04/20 11:47	1
1,2,3-Trichlorobenzene	ND				1.0	0.70	ug/L			11/04/20 11:47	1
1,2,4-Trichlorobenzene	ND				1.0	0.82	ug/L			11/04/20 11:47	1
1,1,1-Trichloroethane	ND				1.0	0.50	ug/L			11/04/20 11:47	1
1,1,2-Trichloroethane	ND				5.0	0.50	ug/L			11/04/20 11:47	1
Trichloroethylene	ND				1.0	0.50	ug/L			11/04/20 11:47	1
Trichlorofluoromethane	ND				1.0	0.52	ug/L			11/04/20 11:47	1
1,2,3-Trichloropropane	ND				5.0	0.84	ug/L			11/04/20 11:47	1
1,2,4-Trimethylbenzene	ND				1.0	0.82	ug/L			11/04/20 11:47	1
1,3,5-Trimethylbenzene	ND				1.0	0.56	ug/L			11/04/20 11:47	1
Vinyl acetate	ND				25	2.0	ug/L			11/04/20 11:47	1
Vinyl chloride	ND				1.0	0.50	ug/L			11/04/20 11:47	1
Xylenes, Total	ND				10	1.6	ug/L			11/04/20 11:47	1

MB MB

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		78 - 118				11/04/20 11:47	1
Dibromofluoromethane	104		81 - 121				11/04/20 11:47	1
Toluene-d8 (Sur)	105		80 - 120				11/04/20 11:47	1

Lab Sample ID: LCS 400-509250/1002

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509250

Analyte	Spike	LCS	LCS	Added	Result	Qualifier	Unit	D	%Rec	Limits
Acetone				200	229		ug/L		115	43 - 160
Acrolein				500	497		ug/L		99	38 - 160
Acrylonitrile				500	581		ug/L		116	64 - 142
Benzene				50.0	48.4		ug/L		97	70 - 130
Bromobenzene				50.0	46.5		ug/L		93	70 - 132
Bromochloromethane				50.0	50.7		ug/L		101	70 - 130
Bromodichloromethane				50.0	47.0		ug/L		94	67 - 133
Bromoform				50.0	58.2		ug/L		116	57 - 140
Bromomethane				50.0	49.3		ug/L		99	10 - 160
2-Butanone (MEK)				200	212		ug/L		106	61 - 145
Carbon disulfide				50.0	43.6		ug/L		87	61 - 137
Carbon tetrachloride				50.0	47.6		ug/L		95	61 - 137
Chlorobenzene				50.0	48.9		ug/L		98	70 - 130
Dibromochloromethane				50.0	52.2		ug/L		104	67 - 135
Chloroethane				50.0	45.6		ug/L		91	55 - 141

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-509250/1002

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509250

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Chloroethyl vinyl ether	50.0	17.0		ug/L		34	10 - 160
Chloroform	50.0	47.2		ug/L		94	69 - 130
1-Chlorohexane	50.0	50.7		ug/L		101	69 - 130
Chloromethane	50.0	45.3		ug/L		91	58 - 137
cis-1,2-Dichloroethene	50.0	48.2		ug/L		96	68 - 130
cis-1,3-Dichloropropene	50.0	44.5		ug/L		89	69 - 132
1,2-Dichlorobenzene	50.0	53.3		ug/L		107	67 - 130
1,3-Dichlorobenzene	50.0	51.6		ug/L		103	70 - 130
1,4-Dichlorobenzene	50.0	52.8		ug/L		106	70 - 130
Dichlorodifluoromethane	50.0	36.8		ug/L		74	41 - 146
1,1-Dichloroethane	50.0	47.0		ug/L		94	70 - 130
1,2-Dichloroethane	50.0	45.5		ug/L		91	69 - 130
1,1-Dichloroethene	50.0	42.8		ug/L		86	63 - 134
1,2-Dichloropropane	50.0	47.8		ug/L		96	70 - 130
1,3-Dichloropropane	50.0	49.2		ug/L		98	70 - 130
2,2-Dichloropropane	50.0	43.9		ug/L		88	52 - 135
1,1-Dichloropropene	50.0	43.7		ug/L		87	70 - 130
Ethylbenzene	50.0	46.8		ug/L		94	70 - 130
Ethyl methacrylate	50.0	48.6		ug/L		97	68 - 130
Hexachlorobutadiene	50.0	53.3		ug/L		107	53 - 140
2-Hexanone	200	215		ug/L		108	65 - 137
Isopropylbenzene	50.0	46.1		ug/L		92	70 - 130
Methylene bromide	50.0	47.3		ug/L		95	70 - 130
Methylene Chloride	50.0	48.4		ug/L		97	66 - 135
4-Methyl-2-pentanone (MIBK)	200	205		ug/L		103	69 - 138
Methyl tert-butyl ether	50.0	46.3		ug/L		93	66 - 130
m-Xylene & p-Xylene	50.0	47.0		ug/L		94	70 - 130
Naphthalene	50.0	42.9		ug/L		86	47 - 149
n-Butylbenzene	50.0	53.8		ug/L		108	67 - 130
N-Propylbenzene	50.0	50.0		ug/L		100	70 - 130
o-Chlorotoluene	50.0	51.6		ug/L		103	70 - 130
o-Xylene	50.0	47.2		ug/L		94	70 - 130
p-Chlorotoluene	50.0	52.5		ug/L		105	70 - 130
p-Isopropyltoluene	50.0	50.8		ug/L		102	65 - 130
sec-Butylbenzene	50.0	49.3		ug/L		99	66 - 130
Styrene	50.0	50.0		ug/L		100	70 - 130
tert-Butylbenzene	50.0	48.2		ug/L		96	64 - 139
1,1,1,2-Tetrachloroethane	50.0	52.0		ug/L		104	67 - 131
1,1,2,2-Tetrachloroethane	50.0	50.7		ug/L		101	70 - 131
Tetrachloroethene	50.0	45.5		ug/L		91	65 - 130
Toluene	50.0	49.0		ug/L		98	70 - 130
trans-1,2-Dichloroethene	50.0	47.1		ug/L		94	70 - 130
trans-1,3-Dichloropropene	50.0	46.6		ug/L		93	63 - 130
1,2,3-Trichlorobenzene	50.0	46.0		ug/L		92	60 - 138
1,2,4-Trichlorobenzene	50.0	46.8		ug/L		94	60 - 140
1,1,1-Trichloroethane	50.0	46.9		ug/L		94	68 - 130
1,1,2-Trichloroethane	50.0	48.8		ug/L		98	70 - 130
Trichloroethene	50.0	44.8		ug/L		90	70 - 130
Trichlorofluoromethane	50.0	42.6		ug/L		85	65 - 138

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-509250/1002

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509250

Analyte	Spike	LCS	LCS	D	%Rec	%Rec.
	Added	Result	Qualifier			
1,2,3-Trichloropropane	50.0	52.8		ug/L	106	70 - 130
1,2,4-Trimethylbenzene	50.0	50.9		ug/L	102	70 - 130
1,3,5-Trimethylbenzene	50.0	50.3		ug/L	101	69 - 130
Vinyl acetate	100	100		ug/L	100	26 - 160
Vinyl chloride	50.0	44.5		ug/L	89	59 - 136
Xylenes, Total	100	94.3		ug/L	94	70 - 130

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
4-Bromoanisole	93		78 - 118
Dibromoanisole	101		81 - 121
Toluene-d8 (Surr)	97		80 - 120

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-508204/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509317

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aniline	ND		10	3.8	ug/L	10/26/20 13:21	11/04/20 16:18		1
Benzenethiol	ND		10	1.7	ug/L	10/26/20 13:21	11/04/20 16:18		1
Benzoic acid	ND		30	7.3	ug/L	10/26/20 13:21	11/04/20 16:18		1
Benzyl alcohol	ND		10	2.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L	10/26/20 13:21	11/04/20 16:18		1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L	10/26/20 13:21	11/04/20 16:18		1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L	10/26/20 13:21	11/04/20 16:18		1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L	10/26/20 13:21	11/04/20 16:18		1
Butyl benzyl phthalate	ND		10	0.19	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Chloroaniline	ND		10	3.4	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L	10/26/20 13:21	11/04/20 16:18		1
2-Chloronaphthalene	ND		10	0.14	ug/L	10/26/20 13:21	11/04/20 16:18		1
2-Chlorophenol	ND		10	2.2	ug/L	10/26/20 13:21	11/04/20 16:18		1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
Dibenz[a,h]acridine	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
Dibenzofuran	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 16:18		1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L	10/26/20 13:21	11/04/20 16:18		1
2,4-Dichlorophenol	ND		10	3.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
Diethyl phthalate	ND		10	0.24	ug/L	10/26/20 13:21	11/04/20 16:18		1
2,4-Dimethylphenol	ND		10	3.5	ug/L	10/26/20 13:21	11/04/20 16:18		1
Dimethyl phthalate	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 16:18		1
Di-n-butyl phthalate	ND		10	2.7	ug/L	10/26/20 13:21	11/04/20 16:18		1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L	10/26/20 13:21	11/04/20 16:18		1
2,4-Dinitrotoluene	ND		10	1.9	ug/L	10/26/20 13:21	11/04/20 16:18		1
2,6-Dinitrotoluene	ND		10	1.9	ug/L	10/26/20 13:21	11/04/20 16:18		1
Di-n-octyl phthalate	ND		10	0.17	ug/L	10/26/20 13:21	11/04/20 16:18		1
1,4-Dioxane	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 16:18		1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L	10/26/20 13:21	11/04/20 16:18		1

12

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508204

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Hexachlorobenzene	ND		10	0.17	ug/L		10/26/20 13:21	11/04/20 16:18	1
Hexachloroethane	ND		10	4.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
Indene	ND		10	1.0	ug/L		10/26/20 13:21	11/04/20 16:18	1
Isophorone	ND		10	0.14	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Methylphenol	ND		10	1.8	ug/L		10/26/20 13:21	11/04/20 16:18	1
3 & 4 Methylphenol	ND		20	0.39	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Nitroaniline	ND		10	2.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
3-Nitroaniline	ND		10	1.8	ug/L		10/26/20 13:21	11/04/20 16:18	1
4-Nitroaniline	ND		10	1.5	ug/L		10/26/20 13:21	11/04/20 16:18	1
Nitrobenzene	ND		10	0.13	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Nitrophenol	ND		10	5.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
4-Nitrophenol	ND		10	2.1	ug/L		10/26/20 13:21	11/04/20 16:18	1
N-Nitrosodimethylamine	ND		10	3.5	ug/L		10/26/20 13:21	11/04/20 16:18	1
N-Nitrosodi-n-propylamine	ND		10	3.3	ug/L		10/26/20 13:21	11/04/20 16:18	1
N-Nitrosodiphenylamine	ND		10	0.18	ug/L		10/26/20 13:21	11/04/20 16:18	1
Pentachlorophenol	ND		20	1.4	ug/L		10/26/20 13:21	11/04/20 16:18	1
Phenol	ND		10	2.6	ug/L		10/26/20 13:21	11/04/20 16:18	1
Pyridine	ND		10	3.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
Quinoline	ND		10	4.5	ug/L		10/26/20 13:21	11/04/20 16:18	1
2,4,5-Trichlorophenol	ND		10	3.7	ug/L		10/26/20 13:21	11/04/20 16:18	1
2,4,6-Trichlorophenol	ND		10	3.5	ug/L		10/26/20 13:21	11/04/20 16:18	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl	76		46 - 124	10/26/20 13:21	11/04/20 16:18	1
2-Fluorophenol	39		13 - 113	10/26/20 13:21	11/04/20 16:18	1
Nitrobenzene-d5	73		36 - 126	10/26/20 13:21	11/04/20 16:18	1
Phenol-d5	58		17 - 127	10/26/20 13:21	11/04/20 16:18	1
Terphenyl-d14	95		44 - 149	10/26/20 13:21	11/04/20 16:18	1
2,4,6-Tribromophenol	70		26 - 150	10/26/20 13:21	11/04/20 16:18	1

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509841

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 508204

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-Dinitrophenol	ND		30	3.4	ug/L		10/26/20 13:21	11/08/20 15:23	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L		10/26/20 13:21	11/08/20 15:23	1

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 508204

Analyte	Spike Added	LCS		Unit	D	%Rec.	Limits
		Result	Qualifier				
Aniline	120	110		ug/L		92	21 - 120
Benzoic acid	466	219		ug/L		47	10 - 144
Benzyl alcohol	120	108		ug/L		90	28 - 120
Bis(2-chloroethoxy)methane	120	99.6		ug/L		83	47 - 120
Bis(2-chloroethyl)ether	120	99.8		ug/L		83	44 - 120
bis (2-chloroisopropyl) ether	120	108		ug/L		90	33 - 121

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Bis(2-ethylhexyl) phthalate	120	115		ug/L		96	52 - 147	
4-Bromophenyl phenyl ether	120	120		ug/L		100	54 - 122	
Butyl benzyl phthalate	120	118		ug/L		99	54 - 133	
4-Chloroaniline	120	80.1		ug/L		67	26 - 120	
4-Chloro-3-methylphenol	120	97.3		ug/L		81	48 - 131	
2-Chloronaphthalene	120	113		ug/L		95	52 - 121	
2-Chlorophenol	120	81.2		ug/L		68	40 - 120	
4-Chlorophenyl phenyl ether	120	117		ug/L		97	56 - 125	
Dibenz[a,h]acridine	120	117		ug/L		98	31 - 150	
Dibenzofuran	120	117		ug/L		97	56 - 122	
3,3'-Dichlorobenzidine	160	283 *		ug/L		177	36 - 132	
2,4-Dichlorophenol	120	96.0		ug/L		80	49 - 120	
Diethyl phthalate	120	131		ug/L		110	50 - 137	
2,4-Dimethylphenol	120	95.0		ug/L		79	48 - 120	
Dimethyl phthalate	120	121		ug/L		101	57 - 124	
Di-n-butyl phthalate	120	122		ug/L		102	58 - 126	
4,6-Dinitro-ortho-cresol	240	257		ug/L		107	23 - 148	
2,4-Dinitrophenol	240	246		ug/L		102	10 - 150	
2,4-Dinitrotoluene	120	121		ug/L		101	54 - 142	
2,6-Dinitrotoluene	120	117		ug/L		97	55 - 130	
Di-n-octyl phthalate	120	121		ug/L		101	57 - 138	
1,4-Dioxane	120	77.5		ug/L		65	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	120	115		ug/L		96	45 - 124	
Hexachlorobenzene	120	136		ug/L		114	52 - 129	
Hexachlorocyclopentadiene	120	62.8		ug/L		52	10 - 134	
Hexachloroethane	120	101		ug/L		85	20 - 120	
Indene	120	102		ug/L		85	49 - 120	
Isophorone	120	99.4		ug/L		83	48 - 120	
2-Methylphenol	120	110		ug/L		92	46 - 124	
3 & 4 Methylphenol	120	114		ug/L		95	45 - 120	
2-Nitroaniline	120	122		ug/L		102	51 - 145	
3-Nitroaniline	120	112		ug/L		93	37 - 127	
4-Nitroaniline	120	161		ug/L		134	36 - 137	
Nitrobenzene	120	91.2		ug/L		76	45 - 120	
2-Nitrophenol	120	90.2		ug/L		75	40 - 124	
4-Nitrophenol	240	225		ug/L		94	23 - 146	
N-Nitrosodimethylamine	120	107		ug/L		89	29 - 137	
N-Nitrosodi-n-propylamine	120	115		ug/L		96	45 - 120	
N-Nitrosodiphenylamine	119	117		ug/L		98	54 - 120	
Pentachlorophenol	240	269		ug/L		112	31 - 130	
Phenol	120	107		ug/L		89	11 - 120	
Pyridine	240	158		ug/L		66	16 - 120	
Quinoline	120	95.4		ug/L		80	49 - 130	
2,4,5-Trichlorophenol	120	109		ug/L		91	51 - 136	
2,4,6-Trichlorophenol	120	113		ug/L		94	50 - 127	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	94				46 - 124
2-Fluorophenol	39				13 - 113
Nitrobenzene-d5	73				36 - 126
Phenol-d5	69				17 - 127
Terphenyl-d14	87				44 - 149
2,4,6-Tribromophenol	96				26 - 150

Lab Sample ID: LCS 400-508204/4-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Benzene-thiol	120	3.75	J *	ug/L		3	10 - 120

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	79				46 - 124
2-Fluorophenol	40				13 - 113
Nitrobenzene-d5	76				36 - 126
Phenol-d5	61				17 - 127
Terphenyl-d14	97				44 - 149
2,4,6-Tribromophenol	36				26 - 150

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD	Limit	
Aniline	120	108		ug/L		90	21 - 120	2	30
Benzoic acid	466	246		ug/L		53	10 - 144	12	30
Benzyl alcohol	120	99.4		ug/L		83	28 - 120	9	30
Bis(2-chloroethoxy)methane	120	89.2		ug/L		74	47 - 120	11	30
Bis(2-chloroethyl)ether	120	88.0		ug/L		73	44 - 120	13	30
bis (2-chloroisopropyl) ether	120	94.2		ug/L		78	33 - 121	13	30
Bis(2-ethylhexyl) phthalate	120	103		ug/L		86	52 - 147	11	30
4-Bromophenyl phenyl ether	120	106		ug/L		88	54 - 122	13	30
Butyl benzyl phthalate	120	103		ug/L		86	54 - 133	14	30
4-Chloroaniline	120	109		ug/L		91	26 - 120	30	30
4-Chloro-3-methylphenol	120	85.2		ug/L		71	48 - 131	13	30
2-Chloronaphthalene	120	101		ug/L		84	52 - 121	11	30
2-Chlorophenol	120	67.6		ug/L		56	40 - 120	18	30
4-Chlorophenyl phenyl ether	120	105		ug/L		88	56 - 125	10	30
Dibenz[a,h]acridine	120	106		ug/L		89	31 - 150	10	30
Dibenzofuran	120	106		ug/L		86	56 - 122	10	30
3,3'-Dichlorobenzidine	160	244 *		ug/L		153	36 - 132	15	30
2,4-Dichlorophenol	120	83.8		ug/L		70	49 - 120	13	30
Diethyl phthalate	120	119		ug/L		99	50 - 137	10	30
2,4-Dimethylphenol	120	85.9		ug/L		72	48 - 120	10	30
Dimethyl phthalate	120	110		ug/L		91	57 - 124	10	30

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509317

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Client Sample ID: Lab Control Sample Dup		
	Added	Result	Qualifier				Limits	RPD	Limit
Di-n-butyl phthalate	120	109		ug/L		91	58 - 126	11	30
4,6-Dinitro-ortho-cresol	240	244		ug/L		102	23 - 148	5	30
2,4-Dinitrophenol	240	240		ug/L		100	10 - 150	2	30
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142	11	30
2,6-Dinitrotoluene	120	104		ug/L		87	55 - 130	11	30
Di-n-octyl phthalate	120	106		ug/L		89	57 - 138	13	30
1,4-Dioxane	120	70.5		ug/L		59	31 - 120	9	30
1,2-Diphenylhydrazine (as Azobenzene)	120	103		ug/L		86	45 - 124	11	30
Hexachlorobenzene	120	118		ug/L		99	52 - 129	14	30
Hexachlorocyclopentadiene	120	80.0		ug/L		67	10 - 134	24	30
Hexachloroethane	120	89.4		ug/L		75	20 - 120	13	30
Indene	120	91.8		ug/L		77	49 - 120	10	30
Isophorone	120	87.9		ug/L		73	48 - 120	12	30
2-Methylphenol	120	95.9		ug/L		80	46 - 124	14	30
3 & 4 Methylphenol	120	101		ug/L		84	45 - 120	12	30
2-Nitroaniline	120	110		ug/L		92	51 - 145	10	30
3-Nitroaniline	120	105		ug/L		87	37 - 127	6	30
4-Nitroaniline	120	152		ug/L		127	36 - 137	6	30
Nitrobenzene	120	80.3		ug/L		67	45 - 120	13	30
2-Nitrophenol	120	83.4		ug/L		70	40 - 124	8	30
4-Nitrophenol	240	205		ug/L		86	23 - 146	9	30
N-Nitrosodimethylamine	120	99.9		ug/L		83	29 - 137	7	30
N-Nitrosodi-n-propylamine	120	103		ug/L		86	45 - 120	11	30
N-Nitrosodiphenylamine	119	105		ug/L		88	54 - 120	11	30
Pentachlorophenol	240	246		ug/L		102	31 - 130	9	30
Phenol	120	94.5		ug/L		79	11 - 120	13	30
Pyridine	240	135		ug/L		56	16 - 120	16	30
Quinoline	120	84.4		ug/L		70	49 - 130	12	30
2,4,5-Trichlorophenol	120	103		ug/L		86	51 - 136	6	30
2,4,6-Trichlorophenol	120	101		ug/L		84	50 - 127	11	30

Surrogate	LCSD	LCSD	Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	82		46 - 124
2-Fluorophenol	32		13 - 113
Nitrobenzene-d5	64		36 - 126
Phenol-d5	61		17 - 127
Terphenyl-d14	77		44 - 149
2,4,6-Tribromophenol	88		26 - 150

Lab Sample ID: LCSD 400-508204/5-A

Matrix: Water

Analysis Batch: 509317

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Client Sample ID: Lab Control Sample Dup		
	Added	Result	Qualifier				Limits	RPD	Limit
Benzene-thiol	120	4.19	J *	ug/L		3	10 - 120	11	30

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-508204/5-A
Matrix: Water
Analysis Batch: 509317

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 508204

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	77				46 - 124
2-Fluorophenol	22				13 - 113
Nitrobenzene-d5	72				36 - 126
Phenol-d5	51				17 - 127
Terphenyl-d14	94				44 - 149
2,4,6-Tribromophenol	14	X			26 - 150

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-508204/1-A
Matrix: Water
Analysis Batch: 509134

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 508204

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND				0.20	0.032	ug/L		10/26/20 13:21	11/03/20 15:51	1
Acenaphthylene	ND				0.20	0.045	ug/L		10/26/20 13:21	11/03/20 15:51	1
Anthracene	ND				0.20	0.032	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[a]anthracene	ND				0.20	0.046	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[a]pyrene	ND				0.20	0.042	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[b]fluoranthene	ND				0.20	0.034	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[g,h,i]perylene	ND				0.20	0.13	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[k]fluoranthene	ND				0.20	0.10	ug/L		10/26/20 13:21	11/03/20 15:51	1
Chrysene	ND				0.20	0.074	ug/L		10/26/20 13:21	11/03/20 15:51	1
Dibenz(a,h)anthracene	ND				0.20	0.050	ug/L		10/26/20 13:21	11/03/20 15:51	1
Fluoranthene	ND				0.20	0.068	ug/L		10/26/20 13:21	11/03/20 15:51	1
Fluorene	ND				0.20	0.11	ug/L		10/26/20 13:21	11/03/20 15:51	1
Indeno[1,2,3-cd]pyrene	ND				0.20	0.043	ug/L		10/26/20 13:21	11/03/20 15:51	1
1-Methylnaphthalene	ND				0.20	0.074	ug/L		10/26/20 13:21	11/03/20 15:51	1
2-Methylnaphthalene	ND				0.20	0.060	ug/L		10/26/20 13:21	11/03/20 15:51	1
Phenanthrene	ND				0.20	0.036	ug/L		10/26/20 13:21	11/03/20 15:51	1
Pyrene	ND				0.20	0.040	ug/L		10/26/20 13:21	11/03/20 15:51	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	95				15 - 122	10/26/20 13:21	11/03/20 15:51	1
Nitrobenzene-d5	99				19 - 130	10/26/20 13:21	11/03/20 15:51	1
Terphenyl-d14	108				33 - 138	10/26/20 13:21	11/03/20 15:51	1

Lab Sample ID: LCS 400-508204/2-A
Matrix: Water
Analysis Batch: 509134

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 508204

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Acenaphthene	120	124		ug/L		103	41 - 120
Acenaphthylene	120	114		ug/L		95	44 - 120
Anthracene	120	125		ug/L		104	49 - 120
Benzo[a]anthracene	120	119		ug/L		99	61 - 135
Benzo[a]pyrene	120	126		ug/L		105	52 - 120
Benzo[b]fluoranthene	120	110		ug/L		92	53 - 134

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509134

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	
	Added	Result	Qualifier					
Benz[a]perylene	120	142		ug/L		118	47 - 133	
Benz[k]fluoranthene	120	119		ug/L		99	57 - 134	
Chrysene	120	126		ug/L		105	55 - 122	
Dibenz(a,h)anthracene	120	140		ug/L		116	48 - 146	
Fluoranthene	120	131		ug/L		109	54 - 128	
Fluorene	120	132		ug/L		110	45 - 125	
Indeno[1,2,3-cd]pyrene	120	149		ug/L		124	43 - 142	
1-Methylnaphthalene	120	106		ug/L		88	41 - 120	
2-Methylnaphthalene	120	107		ug/L		89	32 - 124	
Phenanthrene	120	119		ug/L		100	48 - 120	
Pyrene	120	109		ug/L		91	48 - 132	
Surrogate		LCS	LCS					
		%Recovery	Qualifier	Limits				
2-Fluorobiphenyl		96		15 - 122				
Nitrobenzene-d5		117		19 - 130				
Terphenyl-d14		105		33 - 138				

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509134

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Acenaphthene	120	107		ug/L		89	41 - 120	15	56
Acenaphthylene	120	101		ug/L		84	44 - 120	13	56
Anthracene	120	123		ug/L		103	49 - 120	2	51
Benzo[a]anthracene	120	122		ug/L		101	61 - 135	2	49
Benzo[a]pyrene	120	120		ug/L		100	52 - 120	5	50
Benzo[b]fluoranthene	120	101		ug/L		84	53 - 134	9	54
Benzo[g,h,i]perylene	120	129		ug/L		107	47 - 133	10	50
Benzo[k]fluoranthene	120	112		ug/L		93	57 - 134	6	52
Chrysene	120	124		ug/L		103	55 - 122	2	50
Dibenz(a,h)anthracene	120	127		ug/L		106	48 - 146	10	50
Fluoranthene	120	124		ug/L		103	54 - 128	5	52
Fluorene	120	114		ug/L		95	45 - 125	15	56
Indeno[1,2,3-cd]pyrene	120	139		ug/L		115	43 - 142	7	51
1-Methylnaphthalene	120	101		ug/L		84	41 - 120	5	55
2-Methylnaphthalene	120	99.0		ug/L		83	32 - 124	8	57
Phenanthrene	120	110		ug/L		92	48 - 120	8	56
Pyrene	120	107		ug/L		89	48 - 132	2	52
Surrogate		LCSD	LCSD						
		%Recovery	Qualifier	Limits					
2-Fluorobiphenyl		86		15 - 122					
Nitrobenzene-d5		109		19 - 130					
Terphenyl-d14		100		33 - 138					

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-507961/1-A

Matrix: Water

Analysis Batch: 509274

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/23/20 11:33	11/04/20 19:51	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/23/20 11:33	11/04/20 19:51	1
Surrogate									
4-Bromofluorobenzene	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	104		51 - 149				10/23/20 11:33	11/04/20 19:51	1

Lab Sample ID: LCS 400-507961/2-A

Matrix: Water

Analysis Batch: 508627

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,2-Dibromo-3-Chloropropane	0.101	0.108	*1	ug/L		107	60 - 140
1,2-Dibromoethane	0.101	0.115		ug/L		114	60 - 140
Surrogate							
4-Bromofluorobenzene	%Recovery	Qualifier	Limits				
	101		51 - 149				

Lab Sample ID: LCSD 400-507961/3-A

Matrix: Water

Analysis Batch: 508279

Analyte	Spike Added	LCSD LCSD		Unit	D	%Rec	Limits	RPD
		Result	Qualifier					
1,2-Dibromo-3-Chloropropane	0.101	0.0633	*1	ug/L		63	60 - 140	52
1,2-Dibromoethane	0.101	0.112		ug/L		111	60 - 140	2
Surrogate								
4-Bromofluorobenzene	%Recovery	Qualifier	Limits					
	124		51 - 149					

Lab Sample ID: 400-194830-6 MS

Matrix: Water

Analysis Batch: 508627

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	Limits
				Result	Qualifier				
1,2-Dibromo-3-Chloropropane	ND	F1 *1	0.101	0.296	F1	ug/L		294	65 - 135
1,2-Dibromoethane	ND		0.101	0.132		ug/L		131	65 - 135
Surrogate									
4-Bromofluorobenzene	%Recovery	Qualifier	Limits						
	103	p	51 - 149						

Lab Sample ID: 400-194830-6 MSD

Matrix: Water

Analysis Batch: 508627

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	Limits	RPD
				Result	Qualifier					
1,2-Dibromo-3-Chloropropane	ND	F1 *1	0.0996	0.293	F1	ug/L		294	65 - 135	1
1,2-Dibromoethane	ND	F1	0.0999	0.131		ug/L		131	65 - 135	15

Client Sample ID: T12-ROX-102120-DUP

Prep Type: Total/NA

Prep Batch: 507961

%Rec.

Limits

RPD

Limit

Client Sample ID: T12-ROX-102120-DUP

Prep Type: Total/NA

Prep Batch: 507961

%Rec.

Limits

RPD

Limit

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: 400-194830-6 MSD

Client Sample ID: T12-ROX-102120-DUP

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 508627

Prep Batch: 507961

Surrogate	MSD	MSD	%Recovery	Qualifier	Limits
4-Bromofluorobenzene			115	p	51 - 149

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194830-1

Login Number: 194830

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Conrady, Hank W

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 1.8°C 4.8°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

14

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194830-1

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LA000307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

15

Roxana Groundwater Quarterly – 4th Quarter 2020 Data Review

Laboratory SDG: 400-194896-1

Data Reviewer: Melissa Remiger

Peer Reviewer: Elizabeth Kunkel

Date Reviewed: 11/23/2020

Guidance: USEPA National Functional Guidelines for Superfund Organic Methods Data Review 2017

Sample Identification	Sample Identification
TB-ROX-102220-8260-SS	TB-ROX-102220-8011
P93D-ROX-102220	P93B-ROX-102220
P93A-ROX-102220	P93A-ROX-102220-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 several SVOC and VOC by 8011 LCS/LCSD recoveries and LCS/LCSD RPDs were outside evaluation criteria. Several SVOC surrogate recoveries were outside criteria in several quality control samples, and the PAH surrogate recovery for terphenyl-d₁₄ was outside criteria in sample P93A-ROX-102220-Dup. Several VOC MS/MSD recoveries were outside evaluation criteria in sample P93D-ROX-102220. The SVOC internal standard recovery for chrysene-d₁₂ was outside criteria in the CCV. Sample P93B-ROX-102220 and field duplicate pair P93A-ROX-102220/P93A-ROX-102220-Dup was diluted to bring VOCs into calibration range of the instrument, and sample P93D-ROX-102220 was diluted to bring phenol into calibration range of the instrument. Continuing calibration verifications for several analytes were outside acceptance criteria, biased low. These issues are addressed further in the appropriate sections of this data review.

Three of 69 (2-chloroethyl vinyl ether, acrolein, and acrylonitrile) 8260 VOCs are acid-reactive compounds; results may be biased low due to the presence of HCl in the preservative.

The cooler receipt form did not indicate any problems.

3.0 Holding Times

Were samples extracted/analyzed within applicable limits?

Yes

4.0 Blank Contamination

Were any analytes detected in the Method Blanks, Field Blanks or Trip Blanks?

No

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 400-508204/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	177/153	15	36-132/30
LCS/LCSD 400-508204/4-A/5-A	SVOCs	Benzenethiol	3/3	11	10-120/30
LCS/LCSD 400-508532/2-A/3-A	SVOCs	2-Chlorophenol	18/35	66	40-120/30
LCS/LCSD 400-508532/2-A/3-A	SVOCs	3,3'-Dichlorobenzidine	124/160	25	36-132/30
LCS/LCSD 400-508532/2-A/3-A	SVOCs	2,4-Dichlorophenol	47/53	12	49-120/30
LCS/LCSD 400-508532/2-A/3-A	SVOCs	2,4-Dinitrophenol	71/98	31	10-150/30
LCS/LCSD 400-508532/2-A/3-A	SVOCs	2-Nitrophenol	33/43	27	40-124/30
LCS/LCSD 400-508532/2-A/3-A	SVOCs	Phenol	36/61	52	11-120/30
LCS/LCSD 400-508532/4-A/5-A	SVOCs	Benzenethiol	3/4	23	10-120/30
LCS/LCSD 400-507961/2-A/3-A	VOCs by 8011	1,2-Dibromo-3-chloropropane	190/195	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; benzenethiol has been identified as a poor performing analyte under Method 8270. Analytical data associated with RPD alone outside evaluation criteria did not require qualification.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-102220	SVOCs	Benzenethiol	UJ
P93B-ROX-102220	SVOCs	Benzenethiol	UJ
P93A-ROX-102220	SVOCs	Benzenethiol	UJ
P93A-ROX-102220-Dup	SVOCs	Benzenethiol	UJ
P93A-ROX-102220-Dup	SVOCs	2-Chlorophenol	UJ
P93A-ROX-102220-Dup	SVOCs	2,4-Dichlorophenol	UJ
P93A-ROX-102220-Dup	SVOCs	2-Nitrophenol	UJ

6.0 Surrogate Recoveries

Were surrogate recoveries within evaluation criteria?

No

Sample ID	Parameter	Surrogate	Recovery (%)	Criteria (%)
P93A-ROX-102220-Dup	PAHs	Terphenyl-d ₁₄	174	33-138
LCSD 400-508204/5-A	SVOCs	2,4,6-Tribromophenol	14	26-150
MB 400-508532/1-A	SVOCs	2-Fluorophenol	3	13-113
LCS 400-508532/2-A	SVOCs	2-Fluorophenol	3	13-113

Qualifications due to surrogate recoveries were not required if only one of three base/neutral SVOC surrogate recoveries were outside evaluation criteria in the associated samples. Method blanks and LCS/LCSDs are quality control samples and do not require qualification. No qualification of data was required.

7.0 Matrix Spike and Matrix Spike Duplicate Recoveries

Were MS/MSD samples analyzed as part of this SDG?

Yes, although not requested, sample P93D-ROX-102220 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
P93D-ROX-102220	VOCs	Bromobenzene	53/64	19	59-136/30
P93D-ROX-102220	VOCs	Chlorobenzene	55/67	19	64-130/30
P93D-ROX-102220	VOCs	2-Chloroethyl vinyl ether	0/0	NC	10-150/50
P93D-ROX-102220	VOCs	1-Chlorohexane	46/61	28	56-136/30
P93D-ROX-102220	VOCs	1,3-Dichlorobenzene	48/62	25	54-135/30
P93D-ROX-102220	VOCs	1,4-Dichlorobenzene	49/63	24	53-135/30
P93D-ROX-102220	VOCs	1,1-Dichloropropene	59/66	11	65-136/30
P93D-ROX-102220	VOCs	Ethylbenzene	46/60	26	58-131/30
P93D-ROX-102220	VOCs	Isopropylbenzene	41/56	31	56-133/30
P93D-ROX-102220	VOCs	m,p-Xylene	45/61	29	57-130/30
P93D-ROX-102220	VOCs	n-Butylbenzene	37/55	40	41-142/31
P93D-ROX-102220	VOCs	n-Propylbenzene	41/55	30	51-138/30
P93D-ROX-102220	VOCs	o-Chlorotoluene	47/64	30	53-134/30
P93D-ROX-102220	VOCs	o-Xylene	47/62	27	61-130/30

MS/MSD ID	Parameter	Analyte	MS/MSD Recovery (%)	RPD	MS/MSD/ RPD Criteria
P93D-ROX-102220	VOCs	p-Chlorotoluene	47/62	28	54-133/30
P93D-ROX-102220	VOCs	p-Isopropyltoluene	37/52	34	48-139/30
P93D-ROX-102220	VOCs	sec-Butylbenzene	38/54	35	50-138/30
P93D-ROX-102220	VOCs	Styrene	51/65	25	58-131/30
P93D-ROX-102220	VOCs	tert-Butylbenzene	41/56	31	54-146/30
P93D-ROX-102220	VOCs	Tetrachloroethene	49/59	19	52-133/30
P93D-ROX-102220	VOCs	Toluene	59/71	18	65-130/30
P93D-ROX-102220	VOCs	1,2,4-Trichlorobenzene	37/48	26	39-148/30
P93D-ROX-102220	VOCs	Trichloroethene	56/65	14	64-136/30
P93D-ROX-102220	VOCs	1,2,4-Trimethylbenzene	43/57	30	50-139/30
P93D-ROX-102220	VOCs	1,3,5-Trimethylbenzene	43/57	30	52-135/30
P93D-ROX-102220	VOCs	Xylenes, total	46/61	28	59-130/30

Analytical data that required qualification based on MS/MSD data are included in the table below.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-102220	VOCs	Bromobenzene	UJ
P93D-ROX-102220	VOCs	Chlorobenzene	UJ
P93D-ROX-102220	VOCs	2-Chloroethyl vinyl ether	UJ
P93D-ROX-102220	VOCs	1-Chlorohexane	UJ
P93D-ROX-102220	VOCs	1,3-Dichlorobenzene	UJ
P93D-ROX-102220	VOCs	1,4-Dichlorobenzene	UJ
P93D-ROX-102220	VOCs	1,1-Dichloropropene	UJ
P93D-ROX-102220	VOCs	Ethylbenzene	UJ
P93D-ROX-102220	VOCs	Isopropylbenzene	UJ
P93D-ROX-102220	VOCs	m,p-Xylene	UJ
P93D-ROX-102220	VOCs	n-Butylbenzene	UJ
P93D-ROX-102220	VOCs	n-Propylbenzene	UJ
P93D-ROX-102220	VOCs	o-Chlorotoluene	UJ
P93D-ROX-102220	VOCs	o-Xylene	UJ
P93D-ROX-102220	VOCs	p-Chlorotoluene	UJ
P93D-ROX-102220	VOCs	p-Isopropyltoluene	UJ
P93D-ROX-102220	VOCs	sec-Butylbenzene	UJ
P93D-ROX-102220	VOCs	Styrene	UJ

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-102220	VOCs	tert-Butylbenzene	UJ
P93D-ROX-102220	VOCs	Tetrachloroethene	UJ
P93D-ROX-102220	VOCs	Toluene	UJ
P93D-ROX-102220	VOCs	1,2,4-Trichlorobenzene	UJ
P93D-ROX-102220	VOCs	Trichloroethene	UJ
P93D-ROX-102220	VOCs	1,2,4-Trimethylbenzene	UJ
P93D-ROX-102220	VOCs	1,3,5-Trimethylbenzene	UJ
P93D-ROX-102220	VOCs	Xylenes, total	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
CCV 400-509317/6	SVOCs	Chrysene-d ₁₂	344263	691527	345764-1383054

Continuing calibration verifications 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
P93A-ROX-102220	P93A-ROX-102220-Dup

Were field duplicates within evaluation criteria?

No

11.0 Sample Dilutions

For samples that were diluted and nondetect, were undiluted results also reported?

Not applicable; analytes were detected in samples that were diluted.

12.0 Additional Qualifications

Were additional qualifications applied?

Yes, the continuing calibration verifications for several analytes were outside acceptance criteria, biased low, and are qualified as summarized in the following table.

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-102220	PAHs	Benzo[b]fluoranthene	UJ

Sample ID	Parameter	Analyte	Qualification
P93D-ROX-102220	SVOCs	Hexachlorocyclopentadiene - RA	UJ
P93B-ROX-102220	PAHs	Benzo[b]fluoranthene	UJ
P93B-ROX-102220	SVOCs	Hexachlorocyclopentadiene - RA	UJ
P93A-ROX-102220	PAHs	Benzo[b]fluoranthene	UJ
P93A-ROX-102220	SVOCs	Hexachlorocyclopentadiene - RA	UJ



Environment Testing
America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-194896-1
Client Project/Site: ROXANA QUARTERLY GW

For:
AECOM Technical Services Inc.
100 N. Broadway
20th Floor
St. Louis, Missouri 63102

Attn: Elizabeth Kunkel

Authorized for release by:
11/13/2020 1:09:35 PM

Leah Klingensmith, Senior Project Manager
(615)301-5038
Leah.Klingensmith@Eurofinset.com

LINKS

Review your project
results through

Total Access

Have a Question?

Ask
The
Expert

Visit us at:

www.eurofinsus.com/Env

Reviewed 11/23/2020
LR

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.

Table of Contents

Cover Page	1
Table of Contents	2
Case Narrative	3
Sample Summary	5
Detection Summary	6
Client Sample Results	7
Definitions	26
Surrogate Summary	27
Method Summary	29
Chronicle	30
QC Association	35
QC Sample Results	38
Chain of Custody	59
Receipt Checklists	60
Certification Summary	61

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Job ID: 400-194896-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-194896-1

Comments

No additional comments.

Receipt

The samples were received on 10/23/2020 9:27 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.2° C.

GC/MS VOA

Method 8260B: The initial calibration verification (ICV) analyzed in batch 400-497771 was outside method criteria for the following analyte: Bromomethane. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte is considered estimated.

Method 8260B: The following samples were diluted to bring the concentration of target analytes within the calibration range: P93B-ROX-102220 (400-194896-4), P93A-ROX-102220 (400-194896-5) and P93A-ROX-102220-DUP (400-194896-6). Elevated reporting limits (RLs) are provided,

Method 8260B: The matrix spike (MS) recoveries for analytical batch 400-509403 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 8260B: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for analytical batch 400-509403 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected.

Method 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 400-509403 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 400-509403 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-102220-8260-SS (400-194896-1), P93D-ROX-102220 (400-194896-3), P93B-ROX-102220 (400-194896-4), P93A-ROX-102220 (400-194896-5) and P93A-ROX-102220-DUP (400-194896-6). 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 (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-508204 and analytical batch 400-509317 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine. This analyte was biased high in the LCS and LCSD that were not detected in the associated samples; therefore, the data have been reported

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-508204 and analytical batch 400-509317 recovered outside control limits for the following analyte(s): Benzenethiol. Benzenethiol and Nitrobenzene-d5 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: 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: (LCSD 400-508204/5-A). These results have been reported and qualified.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-509635 recovered above the upper control limit for 1,4-Dioxane and Aniline. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been

Case Narrative

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Job ID: 400-194896-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

reported.

Method 8270D: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 400-508532 and analytical batch 400-509635 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: Six surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following samples contained an allowable number of surrogate compounds outside limits: (LCS 400-508532/2-A) and (MB 400-508532/1-A). These results have been reported and qualified.

Method 8270D: The following analyte(s) recovered outside control limits for the LCS associated with preparation batch 400-508532 and analytical batch 400-509635: 2,4-Dichlorophenol, 2-Chlorophenol and 2-Nitrophenol. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-508532 and analytical batch 400-509635 recovered outside control limits for the following analytes: 2,4-Dinitrophenol, 2-Chlorophenol and Phenol.

Method 8270D: The following analyte(s) recovered outside control limits for the LCSD associated with preparation batch 400-508532 and analytical batch 400-509635: 3,3'-Dichlorobenzidine and 2-Chlorophenol. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

Method 8270D: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 400-508532 and analytical batch 400-509635 recovered outside control limits for the following analytes: Phenol.

Method 8270D: The continuing calibration verification (CCV) associated with batch 400-509841 recovered outside acceptance criteria, low biased, for Hexachlorocyclopentadiene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D LL: The continuing calibration verification (CCV) associated with batch 400-509134 recovered outside acceptance criteria, low biased, for Benzo[b]fluoranthene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method 8270D LL: Three surrogates are used for this analysis. The laboratory's SOP allows one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: P93A-ROX-102220-DUP (400-194896-6). These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8011: The continuing calibration verification (CCV) associated with batch 400-508766 recovered above the upper control limit for 1,2-Dibromo-3-Chloropropane and Ethylene Dibromide. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method 8011: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 400-508368 and analytical batch 400-508766 recovered outside control limits for the following analytes: 1,2-Dibromo-3-Chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-194896-1	TB-ROX-102220-8260-SS ✓	Water	10/22/20 00:00	10/23/20 09:27	
400-194896-2	TB-ROX-102220-8011 ✓	Water	10/22/20 00:00	10/23/20 09:27	
400-194896-3	P93D-ROX-102220 ✓	Water	10/22/20 08:50	10/23/20 09:27	
400-194896-4	P93B-ROX-102220 ✓	Water	10/22/20 09:25	10/23/20 09:27	
400-194896-5	P93A-ROX-102220 ✓	Water	10/22/20 10:10	10/23/20 09:27	
400-194896-6	P93A-ROX-102220-DUP ✓	Water	10/22/20 10:10	10/23/20 09:27	

Detection Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: TB-ROX-102220-8260-SS

Lab Sample ID: 400-194896-1

No Detections.

Client Sample ID: TB-ROX-102220-8011

Lab Sample ID: 400-194896-2

No Detections.

Client Sample ID: P93D-ROX-102220

Lab Sample ID: 400-194896-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.95	J	1.0	0.74	ug/L	1	8260B		Total/NA
2,4-Dimethylphenol	3.3	J	9.4	3.3	ug/L	1	8270D		Total/NA
Di-n-butyl phthalate	4.6	J	9.4	2.5	ug/L	1	8270D		Total/NA
3 & 4 Methylphenol	3.5	J	19	0.37	ug/L	1	8270D		Total/NA
Phenol - DL	730		94	26	ug/L	10	8270D		Total/NA

Client Sample ID: P93B-ROX-102220

Lab Sample ID: 400-194896-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	580000		2500	950	ug/L	2500	8260B		Total/NA
2-Methylnaphthalene	0.40		0.19	0.057	ug/L	1	8270D LL		Total/NA

Client Sample ID: P93A-ROX-102220

Lab Sample ID: 400-194896-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	5800		25	9.5	ug/L	25	8260B		Total/NA
1-Methylnaphthalene	0.52		0.19	0.071	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	0.30		0.19	0.057	ug/L	1	8270D LL		Total/NA
Phenol	12		9.5	2.5	ug/L	1	8270D		Total/NA

Client Sample ID: P93A-ROX-102220-DUP

Lab Sample ID: 400-194896-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	7000		25	9.5	ug/L	25	8260B		Total/NA
1-Methylnaphthalene	0.38		0.19	0.070	ug/L	1	8270D LL		Total/NA
2-Methylnaphthalene	0.41		0.19	0.057	ug/L	1	8270D LL		Total/NA
Phenol - RA	8.3	J *1	9.5	2.5	ug/L	1	8270D		Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: TB-ROX-102220-8260-SS

Lab Sample ID: 400-194896-1

Date Collected: 10/22/20 00:00

Matrix: Water

Date Received: 10/23/20 09:27

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/05/20 11:44	1
Acrolein	ND		20	10	ug/L			11/05/20 11:44	1
Acrylonitrile	ND		10	2.8	ug/L			11/05/20 11:44	1
Benzene	ND		1.0	0.38	ug/L			11/05/20 11:44	1
Bromobenzene	ND		1.0	0.54	ug/L			11/05/20 11:44	1
Bromo(chloromethane)	ND		1.0	0.52	ug/L			11/05/20 11:44	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/05/20 11:44	1
Bromoform	ND		5.0	0.71	ug/L			11/05/20 11:44	1
Bromomethane	ND		1.0	0.98	ug/L			11/05/20 11:44	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/05/20 11:44	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/05/20 11:44	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			11/05/20 11:44	1
Chlorobenzene	ND		1.0	0.50	ug/L			11/05/20 11:44	1
Dibromochloromethane	ND		1.0	0.50	ug/L			11/05/20 11:44	1
Chloroethane	ND		1.0	0.76	ug/L			11/05/20 11:44	1
2-Chloroethyl vinyl ether	ND		5.0	2.0	ug/L			11/05/20 11:44	1
Chloroform	ND		1.0	0.60	ug/L			11/05/20 11:44	1
1-Chlorohexane	ND		1.0	0.70	ug/L			11/05/20 11:44	1
Chloromethane	ND		1.0	0.83	ug/L			11/05/20 11:44	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/05/20 11:44	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/05/20 11:44	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/05/20 11:44	1
1,3-Dichlorobenzene	ND		1.0	0.54	ug/L			11/05/20 11:44	1
1,4-Dichlorobenzene	ND		1.0	0.64	ug/L			11/05/20 11:44	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/05/20 11:44	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/05/20 11:44	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			11/05/20 11:44	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/05/20 11:44	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/05/20 11:44	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/05/20 11:44	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/05/20 11:44	1
1,1-Dichloropropene	ND		1.0	0.50	ug/L			11/05/20 11:44	1
Ethylbenzene	ND		1.0	0.50	ug/L			11/05/20 11:44	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/05/20 11:44	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/05/20 11:44	1
2-Hexanone	ND		25	3.1	ug/L			11/05/20 11:44	1
Isopropylbenzene	ND		1.0	0.53	ug/L			11/05/20 11:44	1
Methylene bromide	ND		5.0	0.59	ug/L			11/05/20 11:44	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/05/20 11:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/05/20 11:44	1
Methyl tert-butyl ether	ND		1.0	0.74	ug/L			11/05/20 11:44	1
m-Xylene & p-Xylene	ND		5.0	1.6	ug/L			11/05/20 11:44	1
Naphthalene	ND		1.0	1.0	ug/L			11/05/20 11:44	1
n-Butylbenzene	ND		1.0	0.76	ug/L			11/05/20 11:44	1
N-Propylbenzene	ND		1.0	0.69	ug/L			11/05/20 11:44	1
o-Chlorotoluene	ND		1.0	0.57	ug/L			11/05/20 11:44	1
o-Xylene	ND		5.0	0.60	ug/L			11/05/20 11:44	1
p-Chlorotoluene	ND		1.0	0.56	ug/L			11/05/20 11:44	1
p-Isopropyltoluene	ND		1.0	0.71	ug/L			11/05/20 11:44	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: TB-ROX-102220-8260-SS

Lab Sample ID: 400-194896-1

Date Collected: 10/22/20 00:00

Matrix: Water

Date Received: 10/23/20 09:27

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		1.0	0.70	ug/L			11/05/20 11:44	1
Styrene	ND		1.0	1.0	ug/L			11/05/20 11:44	1
tert-Butylbenzene	ND		1.0	0.63	ug/L			11/05/20 11:44	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.52	ug/L			11/05/20 11:44	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	ug/L			11/05/20 11:44	1
Tetrachloroethylene	ND		1.0	0.58	ug/L			11/05/20 11:44	1
Toluene	ND		1.0	0.41	ug/L			11/05/20 11:44	1
trans-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/05/20 11:44	1
trans-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/05/20 11:44	1
1,2,3-Trichlorobenzene	ND		1.0	0.70	ug/L			11/05/20 11:44	1
1,2,4-Trichlorobenzene	ND		1.0	0.82	ug/L			11/05/20 11:44	1
1,1,1-Trichloroethane	ND		1.0	0.50	ug/L			11/05/20 11:44	1
1,1,2-Trichloroethane	ND		5.0	0.50	ug/L			11/05/20 11:44	1
Trichloroethylene	ND		1.0	0.50	ug/L			11/05/20 11:44	1
Trichlorofluoromethane	ND		1.0	0.52	ug/L			11/05/20 11:44	1
1,2,3-Trichloropropane	ND		5.0	0.84	ug/L			11/05/20 11:44	1
1,2,4-Trimethylbenzene	ND		1.0	0.82	ug/L			11/05/20 11:44	1
1,3,5-Trimethylbenzene	ND		1.0	0.56	ug/L			11/05/20 11:44	1
Vinyl acetate	ND		25	2.0	ug/L			11/05/20 11:44	1
Vinyl chloride	ND		1.0	0.50	ug/L			11/05/20 11:44	1
Xylenes, Total	ND		10	1.6	ug/L			11/05/20 11:44	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
4-Bromo Fluorobenzene	103		78 - 118				11/05/20 11:44		1
Dibromo Fluoromethane	105		81 - 121				11/05/20 11:44		1
Toluene-d8 (Surf)	100		80 - 120				11/05/20 11:44		1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: TB-ROX-102220-8011

Lab Sample ID: 400-194896-2

Date Collected: 10/22/20 00:00

Matrix: Water

Date Received: 10/23/20 09:27

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*	0.031	0.0057	ug/L		10/27/20 14:53	10/31/20 03:31	1
1,2-Dibromoethane	ND		0.021	0.0051	ug/L		10/27/20 14:53	10/31/20 03:31	1
Surrogate									
4-Bromofluorobenzene	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	111		51 - 149				10/27/20 14:53	10/31/20 03:31	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93D-ROX-102220

Lab Sample ID: 400-194896-3

Date Collected: 10/22/20 08:50

Matrix: Water

Date Received: 10/23/20 09:27

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	10	ug/L			11/05/20 12:11	1
Acrolein	ND		20	10	ug/L			11/05/20 12:11	1
Acrylonitrile	ND		10	2.8	ug/L			11/05/20 12:11	1
Benzene	ND		1.0	0.38	ug/L			11/05/20 12:11	1
Bromobenzene	ND	F1 US	1.0	0.54	ug/L			11/05/20 12:11	1
Bromoform	ND		1.0	0.52	ug/L			11/05/20 12:11	1
Bromomethane	ND		1.0	0.50	ug/L			11/05/20 12:11	1
Bromodichloromethane	ND		1.0	0.50	ug/L			11/05/20 12:11	1
Bromoform	ND		5.0	0.71	ug/L			11/05/20 12:11	1
Bromomethane	ND		1.0	0.98	ug/L			11/05/20 12:11	1
2-Butanone (MEK)	ND		25	2.6	ug/L			11/05/20 12:11	1
Carbon disulfide	ND		1.0	0.50	ug/L			11/05/20 12:11	1
Carbon tetrachloride	ND		1.0	0.50	ug/L			11/05/20 12:11	1
Chlorobenzene	ND	F1 US	1.0	0.50	ug/L			11/05/20 12:11	1
Dibromochloromethane	ND		1.0	0.50	ug/L			11/05/20 12:11	1
Chloroethane	ND		1.0	0.76	ug/L			11/05/20 12:11	1
2-Chloroethyl vinyl ether	ND	F1 US	5.0	2.0	ug/L			11/05/20 12:11	1
Chloroform	ND		1.0	0.60	ug/L			11/05/20 12:11	1
1-Chlorohexane	ND	F1 US	1.0	0.70	ug/L			11/05/20 12:11	1
Chloromethane	ND		1.0	0.83	ug/L			11/05/20 12:11	1
cis-1,2-Dichloroethene	ND		1.0	0.50	ug/L			11/05/20 12:11	1
cis-1,3-Dichloropropene	ND		5.0	0.50	ug/L			11/05/20 12:11	1
1,2-Dichlorobenzene	ND		1.0	0.50	ug/L			11/05/20 12:11	1
1,3-Dichlorobenzene	ND	F1 US	1.0	0.54	ug/L			11/05/20 12:11	1
1,4-Dichlorobenzene	ND	F1 US	1.0	0.64	ug/L			11/05/20 12:11	1
Dichlorodifluoromethane	ND		1.0	0.85	ug/L			11/05/20 12:11	1
1,1-Dichloroethane	ND		1.0	0.50	ug/L			11/05/20 12:11	1
1,2-Dichloroethane	ND		1.0	0.50	ug/L			11/05/20 12:11	1
1,1-Dichloroethene	ND		1.0	0.50	ug/L			11/05/20 12:11	1
1,2-Dichloropropane	ND		1.0	0.50	ug/L			11/05/20 12:11	1
1,3-Dichloropropane	ND		1.0	0.50	ug/L			11/05/20 12:11	1
2,2-Dichloropropane	ND		1.0	0.50	ug/L			11/05/20 12:11	1
1,1-Dichloropropene	ND	F1 WJ	1.0	0.50	ug/L			11/05/20 12:11	1
Ethylbenzene	ND	F1 WJ	1.0	0.50	ug/L			11/05/20 12:11	1
Ethyl methacrylate	ND		1.0	0.60	ug/L			11/05/20 12:11	1
Hexachlorobutadiene	ND		5.0	0.90	ug/L			11/05/20 12:11	1
2-Hexanone	ND		25	3.1	ug/L			11/05/20 12:11	1
Isopropylbenzene	ND	F2 F1 US	1.0	0.53	ug/L			11/05/20 12:11	1
Methylene bromide	ND		5.0	0.59	ug/L			11/05/20 12:11	1
Methylene Chloride	ND		5.0	3.0	ug/L			11/05/20 12:11	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.8	ug/L			11/05/20 12:11	1
Methyl tert-butyl ether	0.95	J	1.0	0.74	ug/L			11/05/20 12:11	1
m-Xylene & p-Xylene	ND	F1 WJ	5.0	1.6	ug/L			11/05/20 12:11	1
Naphthalene	ND		1.0	1.0	ug/L			11/05/20 12:11	1
n-Butylbenzene	ND	F2 F1 WJ	1.0	0.76	ug/L			11/05/20 12:11	1
N-Propylbenzene	ND	F1 WJ	1.0	0.69	ug/L			11/05/20 12:11	1
o-Chlorotoluene	ND	F1 WJ	1.0	0.57	ug/L			11/05/20 12:11	1
o-Xylene	ND	F1 WJ	5.0	0.60	ug/L			11/05/20 12:11	1
p-Chlorotoluene	ND	F1 WJ	1.0	0.56	ug/L			11/05/20 12:11	1
p-Isopropyltoluene	ND	F2 F1 WJ	1.0	0.71	ug/L			11/05/20 12:11	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93D-ROX-102220
Date Collected: 10/22/20 08:50
Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-3
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND	F2 F1	WS	1.0	0.70	ug/L		11/05/20 12:11	1
Styrene	ND	F1	WS	1.0	1.0	ug/L		11/05/20 12:11	1
tert-Butylbenzene	ND	F2 F1	WS	1.0	0.63	ug/L		11/05/20 12:11	1
1,1,1,2-Tetrachloroethane	ND			1.0	0.52	ug/L		11/05/20 12:11	1
1,1,2,2-Tetrachloroethane	ND			1.0	0.50	ug/L		11/05/20 12:11	1
Tetrachloroethylene	ND	F1	WS	1.0	0.58	ug/L		11/05/20 12:11	1
Toluene	ND	F1	WS	1.0	0.41	ug/L		11/05/20 12:11	1
trans-1,2-Dichloroethylene	ND			1.0	0.50	ug/L		11/05/20 12:11	1
trans-1,3-Dichloropropene	ND			5.0	0.50	ug/L		11/05/20 12:11	1
1,2,3-Trichlorobenzene	ND			1.0	0.70	ug/L		11/05/20 12:11	1
1,2,4-Trichlorobenzene	ND	F1	WS	1.0	0.82	ug/L		11/05/20 12:11	1
1,1,1-Trichloroethane	ND			1.0	0.50	ug/L		11/05/20 12:11	1
1,1,2-Trichloroethane	ND			5.0	0.50	ug/L		11/05/20 12:11	1
Trichloroethylene	ND	F1	WS	1.0	0.50	ug/L		11/05/20 12:11	1
Trichlorofluoromethane	ND			1.0	0.52	ug/L		11/05/20 12:11	1
1,2,3-Trichloropropane	ND			5.0	0.84	ug/L		11/05/20 12:11	1
1,2,4-Trimethylbenzene	ND	F1	WS	1.0	0.82	ug/L		11/05/20 12:11	1
1,3,5-Trimethylbenzene	ND	F1	WS	1.0	0.56	ug/L		11/05/20 12:11	1
Vinyl acetate	ND			25	2.0	ug/L		11/05/20 12:11	1
Vinyl chloride	ND			1.0	0.50	ug/L		11/05/20 12:11	1
Xylenes, Total	ND	F1	WS	10	1.6	ug/L		11/05/20 12:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		78 - 118		11/05/20 12:11	1
Dibromofluoromethane	104		81 - 121		11/05/20 12:11	1
Toluene-d8 (Sur)	102		80 - 120		11/05/20 12:11	1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/26/20 13:21	11/03/20 19:22	1
Acenaphthylene	ND		0.19	0.042	ug/L		10/26/20 13:21	11/03/20 19:22	1
Anthracene	ND		0.19	0.030	ug/L		10/26/20 13:21	11/03/20 19:22	1
Benzo[a]anthracene	ND		0.19	0.043	ug/L		10/26/20 13:21	11/03/20 19:22	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/26/20 13:21	11/03/20 19:22	1
Benzo[b]fluoranthene	ND	WS	0.19	0.032	ug/L		10/26/20 13:21	11/03/20 19:22	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/26/20 13:21	11/03/20 19:22	1
Benzo[k]fluoranthene	ND		0.19	0.094	ug/L		10/26/20 13:21	11/03/20 19:22	1
Chrysene	ND		0.19	0.070	ug/L		10/26/20 13:21	11/03/20 19:22	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/26/20 13:21	11/03/20 19:22	1
Fluoranthene	ND		0.19	0.064	ug/L		10/26/20 13:21	11/03/20 19:22	1
Fluorene	ND		0.19	0.10	ug/L		10/26/20 13:21	11/03/20 19:22	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/26/20 13:21	11/03/20 19:22	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		10/26/20 13:21	11/03/20 19:22	1
2-Methylnaphthalene	ND		0.19	0.057	ug/L		10/26/20 13:21	11/03/20 19:22	1
Phenanthrene	ND		0.19	0.034	ug/L		10/26/20 13:21	11/03/20 19:22	1
Pyrene	ND		0.19	0.038	ug/L		10/26/20 13:21	11/03/20 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	94		15 - 122		11/03/20 19:22	1
Nitrobenzene-d5	93		19 - 130		11/03/20 19:22	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93D-ROX-102220

Lab Sample ID: 400-194896-3

Date Collected: 10/22/20 08:50

Matrix: Water

Date Received: 10/23/20 09:27

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	106		33 - 138	10/26/20 13:21	11/03/20 19:22	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.4	3.6	ug/L		10/26/20 13:21	11/04/20 19:49	1
Benzenethiol	ND	* UJ	9.4	1.6	ug/L		10/26/20 13:21	11/04/20 19:49	1
Benzoic acid	ND		28	6.9	ug/L		10/26/20 13:21	11/04/20 19:49	1
Benzyl alcohol	ND		9.4	1.9	ug/L		10/26/20 13:21	11/04/20 19:49	1
Bis(2-chloroethoxy)methane	ND		9.4	0.15	ug/L		10/26/20 13:21	11/04/20 19:49	1
Bis(2-chloroethyl)ether	ND		9.4	2.5	ug/L		10/26/20 13:21	11/04/20 19:49	1
bis (2-chloroisopropyl) ether	ND		9.4	0.15	ug/L		10/26/20 13:21	11/04/20 19:49	1
Bis(2-ethylhexyl) phthalate	ND		9.4	4.7	ug/L		10/26/20 13:21	11/04/20 19:49	1
4-Bromophenyl phenyl ether	ND		9.4	0.19	ug/L		10/26/20 13:21	11/04/20 19:49	1
Butyl benzyl phthalate	ND		9.4	0.18	ug/L		10/26/20 13:21	11/04/20 19:49	1
4-Chloroaniline	ND		9.4	3.2	ug/L		10/26/20 13:21	11/04/20 19:49	1
4-Chloro-3-methylphenol	ND		9.4	3.6	ug/L		10/26/20 13:21	11/04/20 19:49	1
2-Chloronaphthalene	ND		9.4	0.13	ug/L		10/26/20 13:21	11/04/20 19:49	1
2-Chlorophenol	ND		9.4	2.1	ug/L		10/26/20 13:21	11/04/20 19:49	1
4-Chlorophenyl phenyl ether	ND		9.4	1.8	ug/L		10/26/20 13:21	11/04/20 19:49	1
Dibenz[a,h]acridine	ND		9.4	0.94	ug/L		10/26/20 13:21	11/04/20 19:49	1
Dibenzofuran	ND		9.4	0.16	ug/L		10/26/20 13:21	11/04/20 19:49	1
3,3'-Dichlorobenzidine	ND	*	9.4	2.5	ug/L		10/26/20 13:21	11/04/20 19:49	1
2,4-Dichlorophenol	ND		9.4	2.8	ug/L		10/26/20 13:21	11/04/20 19:49	1
Diethyl phthalate	ND		9.4	0.23	ug/L		10/26/20 13:21	11/04/20 19:49	1
2,4-Dimethylphenol	3.3	J	9.4	3.3	ug/L		10/26/20 13:21	11/04/20 19:49	1
Dimethyl phthalate	ND		9.4	0.16	ug/L		10/26/20 13:21	11/04/20 19:49	1
Di-n-butyl phthalate	4.6	J	9.4	2.5	ug/L		10/26/20 13:21	11/04/20 19:49	1
4,6-Dinitro-ortho-cresol	ND		9.4	1.5	ug/L		10/26/20 13:21	11/04/20 19:49	1
2,4-Dinitrotoluene	ND		9.4	1.8	ug/L		10/26/20 13:21	11/04/20 19:49	1
2,6-Dinitrotoluene	ND		9.4	1.8	ug/L		10/26/20 13:21	11/04/20 19:49	1
Di-n-octyl phthalate	ND		9.4	0.16	ug/L		10/26/20 13:21	11/04/20 19:49	1
1,4-Dioxane	ND		9.4	0.94	ug/L		10/26/20 13:21	11/04/20 19:49	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.4	0.94	ug/L		10/26/20 13:21	11/04/20 19:49	1
Hexachlorobenzene	ND		9.4	0.16	ug/L		10/26/20 13:21	11/04/20 19:49	1
Hexachloroethane	ND		9.4	4.0	ug/L		10/26/20 13:21	11/04/20 19:49	1
Indene	ND		9.4	0.94	ug/L		10/26/20 13:21	11/04/20 19:49	1
Isophorone	ND		9.4	0.13	ug/L		10/26/20 13:21	11/04/20 19:49	1
2-Methylphenol	ND		9.4	1.7	ug/L		10/26/20 13:21	11/04/20 19:49	1
3 & 4 Methylphenol	3.5	J	19	0.37	ug/L		10/26/20 13:21	11/04/20 19:49	1
2-Nitroaniline	ND		9.4	2.1	ug/L		10/26/20 13:21	11/04/20 19:49	1
3-Nitroaniline	ND		9.4	1.7	ug/L		10/26/20 13:21	11/04/20 19:49	1
4-Nitroaniline	ND		9.4	1.4	ug/L		10/26/20 13:21	11/04/20 19:49	1
Nitrobenzene	ND		9.4	0.12	ug/L		10/26/20 13:21	11/04/20 19:49	1
2-Nitrophenol	ND		9.4	4.9	ug/L		10/26/20 13:21	11/04/20 19:49	1
4-Nitrophenol	ND		9.4	2.0	ug/L		10/26/20 13:21	11/04/20 19:49	1
N-Nitrosodimethylamine	ND		9.4	3.3	ug/L		10/26/20 13:21	11/04/20 19:49	1
N-Nitrosodi-n-propylamine	ND		9.4	3.1	ug/L		10/26/20 13:21	11/04/20 19:49	1
N-Nitrosodiphenylamine	ND		9.4	0.17	ug/L		10/26/20 13:21	11/04/20 19:49	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93D-ROX-102220

Lab Sample ID: 400-194896-3

Date Collected: 10/22/20 08:50

Matrix: Water

Date Received: 10/23/20 09:27

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		19	1.3	ug/L		10/26/20 13:21	11/04/20 19:49	1
Pyridine	ND		9.4	3.0	ug/L		10/26/20 13:21	11/04/20 19:49	1
Quinoline	ND		9.4	4.2	ug/L		10/26/20 13:21	11/04/20 19:49	1
2,4,5-Trichlorophenol	ND		9.4	3.5	ug/L		10/26/20 13:21	11/04/20 19:49	1
2,4,6-Trichlorophenol	ND		9.4	3.3	ug/L		10/26/20 13:21	11/04/20 19:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	83		46 - 124				10/26/20 13:21	11/04/20 19:49	1
2-Fluorophenol	39		13 - 113				10/26/20 13:21	11/04/20 19:49	1
Nitrobenzene-d5	86		36 - 126				10/26/20 13:21	11/04/20 19:49	1
Phenol-d5	85		17 - 127				10/26/20 13:21	11/04/20 19:49	1
Terphenyl-d14	93		44 - 149				10/26/20 13:21	11/04/20 19:49	1
2,4,6-Tribromophenol	117		26 - 150				10/26/20 13:21	11/04/20 19:49	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	730		94	25	ug/L		10/26/20 13:21	11/10/20 17:11	10

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		28	3.2	ug/L		10/26/20 13:21	11/08/20 17:49	1
Hexachlorocyclopentadiene	ND	UJ	19	2.5	ug/L		10/26/20 13:21	11/08/20 17:49	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND *		0.031	0.0057	ug/L		10/27/20 14:53	10/31/20 03:52	1
1,2-Dibromoethane	ND		0.021	0.0052	ug/L		10/27/20 14:53	10/31/20 03:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104	p	51 - 149				10/27/20 14:53	10/31/20 03:52	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93B-ROX-102220
Date Collected: 10/22/20 09:25
Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-4
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		63000	25000	ug/L			11/05/20 13:30	2500
Acrolein	ND		50000	25000	ug/L			11/05/20 13:30	2500
Acrylonitrile	ND		25000	7000	ug/L			11/05/20 13:30	2500
Benzene	580000		2500	950	ug/L			11/05/20 13:30	2500
Bromobenzene	ND		2500	1400	ug/L			11/05/20 13:30	2500
Bromo(chloromethane)	ND		2500	1300	ug/L			11/05/20 13:30	2500
Bromodichloromethane	ND		2500	1300	ug/L			11/05/20 13:30	2500
Bromoform	ND		13000	1800	ug/L			11/05/20 13:30	2500
Bromomethane	ND		2500	2500	ug/L			11/05/20 13:30	2500
2-Butanone (MEK)	ND		63000	6500	ug/L			11/05/20 13:30	2500
Carbon disulfide	ND		2500	1300	ug/L			11/05/20 13:30	2500
Carbon tetrachloride	ND		2500	1300	ug/L			11/05/20 13:30	2500
Chlorobenzene	ND		2500	1300	ug/L			11/05/20 13:30	2500
Dibromochloromethane	ND		2500	1300	ug/L			11/05/20 13:30	2500
Chloroethane	ND		2500	1900	ug/L			11/05/20 13:30	2500
2-Chloroethyl vinyl ether	ND		13000	5000	ug/L			11/05/20 13:30	2500
Chloroform	ND		2500	1500	ug/L			11/05/20 13:30	2500
1-Chlorohexane	ND		2500	1800	ug/L			11/05/20 13:30	2500
Chloromethane	ND		2500	2100	ug/L			11/05/20 13:30	2500
cis-1,2-Dichloroethene	ND		2500	1300	ug/L			11/05/20 13:30	2500
cis-1,3-Dichloropropene	ND		13000	1300	ug/L			11/05/20 13:30	2500
1,2-Dichlorobenzene	ND		2500	1300	ug/L			11/05/20 13:30	2500
1,3-Dichlorobenzene	ND		2500	1400	ug/L			11/05/20 13:30	2500
1,4-Dichlorobenzene	ND		2500	1600	ug/L			11/05/20 13:30	2500
Dichlorodifluoromethane	ND		2500	2100	ug/L			11/05/20 13:30	2500
1,1-Dichloroethane	ND		2500	1300	ug/L			11/05/20 13:30	2500
1,2-Dichloroethane	ND		2500	1300	ug/L			11/05/20 13:30	2500
1,1-Dichloroethene	ND		2500	1300	ug/L			11/05/20 13:30	2500
1,2-Dichloropropane	ND		2500	1300	ug/L			11/05/20 13:30	2500
1,3-Dichloropropane	ND		2500	1300	ug/L			11/05/20 13:30	2500
2,2-Dichloropropane	ND		2500	1300	ug/L			11/05/20 13:30	2500
1,1-Dichloropropene	ND		2500	1300	ug/L			11/05/20 13:30	2500
Ethylbenzene	ND		2500	1300	ug/L			11/05/20 13:30	2500
Ethyl methacrylate	ND		2500	1500	ug/L			11/05/20 13:30	2500
Hexachlorobutadiene	ND		13000	2300	ug/L			11/05/20 13:30	2500
2-Hexanone	ND		63000	7800	ug/L			11/05/20 13:30	2500
Isopropylbenzene	ND		2500	1300	ug/L			11/05/20 13:30	2500
Methylene bromide	ND		13000	1500	ug/L			11/05/20 13:30	2500
Methylene Chloride	ND		13000	7500	ug/L			11/05/20 13:30	2500
4-Methyl-2-pentanone (MIBK)	ND		63000	4500	ug/L			11/05/20 13:30	2500
Methyl tert-butyl ether	ND		2500	1900	ug/L			11/05/20 13:30	2500
m-Xylene & p-Xylene	ND		13000	4000	ug/L			11/05/20 13:30	2500
Naphthalene	ND		2500	2500	ug/L			11/05/20 13:30	2500
n-Butylbenzene	ND		2500	1900	ug/L			11/05/20 13:30	2500
N-Propylbenzene	ND		2500	1700	ug/L			11/05/20 13:30	2500
o-Chlorotoluene	ND		2500	1400	ug/L			11/05/20 13:30	2500
o-Xylene	ND		13000	1500	ug/L			11/05/20 13:30	2500
p-Chlorotoluene	ND		2500	1400	ug/L			11/05/20 13:30	2500
p-Isopropyltoluene	ND		2500	1800	ug/L			11/05/20 13:30	2500

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93B-ROX-102220

Lab Sample ID: 400-194896-4

Date Collected: 10/22/20 09:25

Matrix: Water

Date Received: 10/23/20 09:27

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		2500	1800	ug/L			11/05/20 13:30	2500
Styrene	ND		2500	2500	ug/L			11/05/20 13:30	2500
tert-Butylbenzene	ND		2500	1600	ug/L			11/05/20 13:30	2500
1,1,1,2-Tetrachloroethane	ND		2500	1300	ug/L			11/05/20 13:30	2500
1,1,2,2-Tetrachloroethane	ND		2500	1300	ug/L			11/05/20 13:30	2500
Tetrachloroethylene	ND		2500	1500	ug/L			11/05/20 13:30	2500
Toluene	ND		2500	1000	ug/L			11/05/20 13:30	2500
trans-1,2-Dichloroethylene	ND		2500	1300	ug/L			11/05/20 13:30	2500
trans-1,3-Dichloropropene	ND		13000	1300	ug/L			11/05/20 13:30	2500
1,2,3-Trichlorobenzene	ND		2500	1800	ug/L			11/05/20 13:30	2500
1,2,4-Trichlorobenzene	ND		2500	2100	ug/L			11/05/20 13:30	2500
1,1,1-Trichloroethane	ND		2500	1300	ug/L			11/05/20 13:30	2500
1,1,2-Trichloroethane	ND		13000	1300	ug/L			11/05/20 13:30	2500
Trichloroethylene	ND		2500	1300	ug/L			11/05/20 13:30	2500
Trichlorofluoromethane	ND		2500	1300	ug/L			11/05/20 13:30	2500
1,2,3-Trichloropropane	ND		13000	2100	ug/L			11/05/20 13:30	2500
1,2,4-Trimethylbenzene	ND		2500	2100	ug/L			11/05/20 13:30	2500
1,3,5-Trimethylbenzene	ND		2500	1400	ug/L			11/05/20 13:30	2500
Vinyl acetate	ND		63000	5000	ug/L			11/05/20 13:30	2500
Vinyl chloride	ND		2500	1300	ug/L			11/05/20 13:30	2500
Xylenes, Total	ND		25000	4000	ug/L			11/05/20 13:30	2500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		78 - 118		11/05/20 13:30	2500
Dibromofluoromethane	101		81 - 121		11/05/20 13:30	2500
Toluene-d8 (Surr)	101		80 - 120		11/05/20 13:30	2500

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/26/20 13:21	11/03/20 19:40	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/26/20 13:21	11/03/20 19:40	1
Anthracene	ND		0.19	0.030	ug/L		10/26/20 13:21	11/03/20 19:40	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/26/20 13:21	11/03/20 19:40	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/26/20 13:21	11/03/20 19:40	1
Benzo[b]fluoranthene	ND	WS	0.19	0.032	ug/L		10/26/20 13:21	11/03/20 19:40	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/26/20 13:21	11/03/20 19:40	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		10/26/20 13:21	11/03/20 19:40	1
Chrysene	ND		0.19	0.070	ug/L		10/26/20 13:21	11/03/20 19:40	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/26/20 13:21	11/03/20 19:40	1
Fluoranthene	ND		0.19	0.065	ug/L		10/26/20 13:21	11/03/20 19:40	1
Fluorene	ND		0.19	0.10	ug/L		10/26/20 13:21	11/03/20 19:40	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/26/20 13:21	11/03/20 19:40	1
1-Methylnaphthalene	ND		0.19	0.070	ug/L		10/26/20 13:21	11/03/20 19:40	1
2-Methylnaphthalene	0.40		0.19	0.057	ug/L		10/26/20 13:21	11/03/20 19:40	1
Phenanthrene	ND		0.19	0.034	ug/L		10/26/20 13:21	11/03/20 19:40	1
Pyrene	ND		0.19	0.038	ug/L		10/26/20 13:21	11/03/20 19:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	88		15 - 122	10/26/20 13:21	11/03/20 19:40	1
Nitrobenzene-d5	92		19 - 130	10/26/20 13:21	11/03/20 19:40	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93B-ROX-102220

Date Collected: 10/22/20 09:25

Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-4

Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	100		33 - 138	10/26/20 13:21	11/03/20 19:40	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		10/26/20 13:21	11/04/20 20:11	1
Benzenethiol	ND * <i>us</i>		9.5	1.6	ug/L		10/26/20 13:21	11/04/20 20:11	1
Benzoic acid	ND		29	6.9	ug/L		10/26/20 13:21	11/04/20 20:11	1
Benzyl alcohol	ND		9.5	1.9	ug/L		10/26/20 13:21	11/04/20 20:11	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		10/26/20 13:21	11/04/20 20:11	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/26/20 13:21	11/04/20 20:11	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/26/20 13:21	11/04/20 20:11	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		10/26/20 13:21	11/04/20 20:11	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/26/20 13:21	11/04/20 20:11	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/26/20 13:21	11/04/20 20:11	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/26/20 13:21	11/04/20 20:11	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/26/20 13:21	11/04/20 20:11	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/26/20 13:21	11/04/20 20:11	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/26/20 13:21	11/04/20 20:11	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/26/20 13:21	11/04/20 20:11	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/26/20 13:21	11/04/20 20:11	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/26/20 13:21	11/04/20 20:11	1
3,3'-Dichlorobenzidine	ND *		9.5	2.5	ug/L		10/26/20 13:21	11/04/20 20:11	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		10/26/20 13:21	11/04/20 20:11	1
Diethyl phthalate	ND		9.5	0.23	ug/L		10/26/20 13:21	11/04/20 20:11	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/26/20 13:21	11/04/20 20:11	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/26/20 13:21	11/04/20 20:11	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/26/20 13:21	11/04/20 20:11	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		10/26/20 13:21	11/04/20 20:11	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/26/20 13:21	11/04/20 20:11	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/26/20 13:21	11/04/20 20:11	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/26/20 13:21	11/04/20 20:11	1
1,4-Dioxane	ND		9.5	0.95	ug/L		10/26/20 13:21	11/04/20 20:11	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/26/20 13:21	11/04/20 20:11	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/26/20 13:21	11/04/20 20:11	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/26/20 13:21	11/04/20 20:11	1
Indene	ND		9.5	0.95	ug/L		10/26/20 13:21	11/04/20 20:11	1
Isophorone	ND		9.5	0.13	ug/L		10/26/20 13:21	11/04/20 20:11	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/26/20 13:21	11/04/20 20:11	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/26/20 13:21	11/04/20 20:11	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/26/20 13:21	11/04/20 20:11	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/26/20 13:21	11/04/20 20:11	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/26/20 13:21	11/04/20 20:11	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/26/20 13:21	11/04/20 20:11	1
2-Nitrophenol	ND		9.5	4.9	ug/L		10/26/20 13:21	11/04/20 20:11	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/26/20 13:21	11/04/20 20:11	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/26/20 13:21	11/04/20 20:11	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/26/20 13:21	11/04/20 20:11	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/26/20 13:21	11/04/20 20:11	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93B-ROX-102220

Lab Sample ID: 400-194896-4

Date Collected: 10/22/20 09:25

Matrix: Water

Date Received: 10/23/20 09:27

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		19	1.3	ug/L		10/26/20 13:21	11/04/20 20:11	1
Phenol	ND		9.5	2.5	ug/L		10/26/20 13:21	11/04/20 20:11	1
Pyridine	ND		9.5	3.0	ug/L		10/26/20 13:21	11/04/20 20:11	1
Quinoline	ND		9.5	4.3	ug/L		10/26/20 13:21	11/04/20 20:11	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/26/20 13:21	11/04/20 20:11	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/26/20 13:21	11/04/20 20:11	1

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
			Lower	Upper			
2-Fluorobiphenyl	78		46	124	10/26/20 13:21	11/04/20 20:11	1
2-Fluorophenol	32		13	113	10/26/20 13:21	11/04/20 20:11	1
Nitrobenzene-d5	77		36	126	10/26/20 13:21	11/04/20 20:11	1
Phenol-d5	61		17	127	10/26/20 13:21	11/04/20 20:11	1
Terphenyl-d14	93		44	149	10/26/20 13:21	11/04/20 20:11	1
2,4,6-Tribromophenol	91		26	150	10/26/20 13:21	11/04/20 20:11	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		29	3.2	ug/L		10/26/20 13:21	11/08/20 18:37	1
Hexachlorocyclopentadiene	ND	uS	19	2.5	ug/L		10/26/20 13:21	11/08/20 18:37	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*	0.030	0.0055	ug/L		10/27/20 14:53	10/31/20 04:13	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/27/20 14:53	10/31/20 04:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104	p	51 - 149				10/27/20 14:53	10/31/20 04:13	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93A-ROX-102220
Date Collected: 10/22/20 10:10
Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		630	250	ug/L			11/05/20 16:10	25
Acrolein	ND		500	250	ug/L			11/05/20 16:10	25
Acrylonitrile	ND		250	70	ug/L			11/05/20 16:10	25
Benzene	5800		25	9.5	ug/L			11/05/20 16:10	25
Bromobenzene	ND		25	14	ug/L			11/05/20 16:10	25
Bromoform	ND		25	13	ug/L			11/05/20 16:10	25
Bromochloromethane	ND		25	13	ug/L			11/05/20 16:10	25
Bromodichloromethane	ND		25	13	ug/L			11/05/20 16:10	25
Bromomethane	ND		130	18	ug/L			11/05/20 16:10	25
2-Butanone (MEK)	ND		630	65	ug/L			11/05/20 16:10	25
Carbon disulfide	ND		25	13	ug/L			11/05/20 18:10	25
Carbon tetrachloride	ND		25	13	ug/L			11/05/20 16:10	25
Chlorobenzene	ND		25	13	ug/L			11/05/20 16:10	25
Dibromochloromethane	ND		25	13	ug/L			11/05/20 16:10	25
Chloroethane	ND		25	19	ug/L			11/05/20 16:10	25
2-Chloroethyl vinyl ether	ND		130	50	ug/L			11/05/20 16:10	25
Chloroform	ND		25	15	ug/L			11/05/20 16:10	25
1-Chlorohexane	ND		25	18	ug/L			11/05/20 16:10	25
Chloromethane	ND		25	21	ug/L			11/05/20 18:10	25
cis-1,2-Dichloroethene	ND		25	13	ug/L			11/05/20 16:10	25
cis-1,3-Dichloropropene	ND		130	13	ug/L			11/05/20 16:10	25
1,2-Dichlorobenzene	ND		25	13	ug/L			11/05/20 16:10	25
1,3-Dichlorobenzene	ND		25	14	ug/L			11/05/20 16:10	25
1,4-Dichlorobenzene	ND		25	16	ug/L			11/05/20 16:10	25
Dichlorodifluoromethane	ND		25	21	ug/L			11/05/20 16:10	25
1,1-Dichloroethane	ND		25	13	ug/L			11/05/20 16:10	25
1,2-Dichloroethane	ND		25	13	ug/L			11/05/20 16:10	25
1,1-Dichloroethene	ND		25	13	ug/L			11/05/20 16:10	25
1,2-Dichloropropane	ND		25	13	ug/L			11/05/20 16:10	25
1,3-Dichloropropane	ND		25	13	ug/L			11/05/20 16:10	25
2,2-Dichloropropane	ND		25	13	ug/L			11/05/20 16:10	25
1,1-Dichloropropene	ND		25	13	ug/L			11/05/20 16:10	25
Ethylbenzene	ND		25	13	ug/L			11/05/20 16:10	25
Ethyl methacrylate	ND		25	15	ug/L			11/05/20 16:10	25
Hexachlorobutadiene	ND		130	23	ug/L			11/05/20 16:10	25
2-Hexanone	ND		630	78	ug/L			11/05/20 16:10	25
Isopropylbenzene	ND		25	13	ug/L			11/05/20 16:10	25
Methylene bromide	ND		130	15	ug/L			11/05/20 16:10	25
Methylene Chloride	ND		130	75	ug/L			11/05/20 16:10	25
4-Methyl-2-pentanone (MIBK)	ND		630	45	ug/L			11/05/20 16:10	25
Methyl tert-butyl ether	ND		25	19	ug/L			11/05/20 16:10	25
m-Xylene & p-Xylene	ND		130	40	ug/L			11/05/20 16:10	25
Naphthalene	ND		25	25	ug/L			11/05/20 16:10	25
n-Butylbenzene	ND		25	19	ug/L			11/05/20 16:10	25
N-Propylbenzene	ND		25	17	ug/L			11/05/20 16:10	25
o-Chlorotoluene	ND		25	14	ug/L			11/05/20 16:10	25
o-Xylene	ND		130	15	ug/L			11/05/20 16:10	25
p-Chlorotoluene	ND		25	14	ug/L			11/05/20 16:10	25
p-Isopropyltoluene	ND		25	18	ug/L			11/05/20 16:10	25

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93A-ROX-102220
Date Collected: 10/22/20 10:10
Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-5
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		25	18	ug/L			11/05/20 16:10	25
Styrene	ND		25	25	ug/L			11/05/20 16:10	25
tert-Butylbenzene	ND		25	16	ug/L			11/05/20 16:10	25
1,1,2-Tetrachloroethane	ND		25	13	ug/L			11/05/20 16:10	25
1,1,2,2-Tetrachloroethane	ND		25	13	ug/L			11/05/20 16:10	25
Tetrachloroethene	ND		25	15	ug/L			11/05/20 16:10	25
Toluene	ND		25	10	ug/L			11/05/20 16:10	25
trans-1,2-Dichloroethene	ND		25	13	ug/L			11/05/20 16:10	25
trans-1,3-Dichloropropene	ND		130	13	ug/L			11/05/20 16:10	25
1,2,3-Trichlorobenzene	ND		25	18	ug/L			11/05/20 16:10	25
1,2,4-Trichlorobenzene	ND		25	21	ug/L			11/05/20 16:10	25
1,1,1-Trichloroethane	ND		25	13	ug/L			11/05/20 16:10	25
1,1,2-Trichloroethane	ND		130	13	ug/L			11/05/20 16:10	25
Trichloroelphene	ND		25	13	ug/L			11/05/20 16:10	25
Trichlorofluoromethane	ND		25	13	ug/L			11/05/20 16:10	25
1,2,3-Trichloropropene	ND		130	21	ug/L			11/05/20 16:10	25
1,2,4-Trimethylbenzene	ND		25	21	ug/L			11/05/20 16:10	25
1,3,5-Trimethylbenzene	ND		25	14	ug/L			11/05/20 16:10	25
Vinyl acetate	ND		630	50	ug/L			11/05/20 16:10	25
Vinyl chloride	ND		25	13	ug/L			11/05/20 16:10	25
Xylenes, Total	ND		250	40	ug/L			11/05/20 16:10	25

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		78 - 118		11/05/20 16:10	25
Dibromofluoromethane	99		81 - 121		11/05/20 16:10	25
Toluene-d8 (Surr)	104		80 - 120		11/05/20 16:10	25

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.031	ug/L		10/26/20 13:21	11/03/20 19:57	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/26/20 13:21	11/03/20 19:57	1
Anthracene	ND		0.19	0.031	ug/L		10/26/20 13:21	11/03/20 19:57	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/26/20 13:21	11/03/20 19:57	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/26/20 13:21	11/03/20 19:57	1
Benzo[b]fluoranthene	ND	WS	0.19	0.032	ug/L		10/26/20 13:21	11/03/20 19:57	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/26/20 13:21	11/03/20 19:57	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		10/26/20 13:21	11/03/20 19:57	1
Chrysene	ND		0.19	0.071	ug/L		10/26/20 13:21	11/03/20 19:57	1
Dibenz(a,h)anthracene	ND		0.19	0.048	ug/L		10/26/20 13:21	11/03/20 19:57	1
Fluoranthene	ND		0.19	0.065	ug/L		10/26/20 13:21	11/03/20 19:57	1
Fluorene	ND		0.19	0.10	ug/L		10/26/20 13:21	11/03/20 19:57	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/26/20 13:21	11/03/20 19:57	1
1-Methylnaphthalene	0.52		0.19	0.071	ug/L		10/26/20 13:21	11/03/20 19:57	1
2-Methylnaphthalene	0.30		0.19	0.057	ug/L		10/26/20 13:21	11/03/20 19:57	1
Phenanthrene	ND		0.19	0.034	ug/L		10/26/20 13:21	11/03/20 19:57	1
Pyrene	ND		0.19	0.038	ug/L		10/26/20 13:21	11/03/20 19:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	84		15 - 122		11/03/20 19:57	1
Nitrobenzene-d5	80		19 - 130		11/03/20 19:57	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93A-ROX-102220

Lab Sample ID: 400-194896-5

Date Collected: 10/22/20 10:10

Matrix: Water

Date Received: 10/23/20 09:27

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	97		33 - 138	10/26/20 13:21	11/03/20 19:57	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		10/26/20 13:21	11/04/20 20:32	1
Benzenethiol	ND *	VIS	9.5	1.6	ug/L		10/26/20 13:21	11/04/20 20:32	1
Benzoic acid	ND		29	7.0	ug/L		10/26/20 13:21	11/04/20 20:32	1
Benzyl alcohol	ND		9.5	1.9	ug/L		10/26/20 13:21	11/04/20 20:32	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		10/26/20 13:21	11/04/20 20:32	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/26/20 13:21	11/04/20 20:32	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/26/20 13:21	11/04/20 20:32	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.8	ug/L		10/26/20 13:21	11/04/20 20:32	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/26/20 13:21	11/04/20 20:32	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/26/20 13:21	11/04/20 20:32	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/26/20 13:21	11/04/20 20:32	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/26/20 13:21	11/04/20 20:32	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/26/20 13:21	11/04/20 20:32	1
2-Chlorophenol	ND		9.5	2.1	ug/L		10/26/20 13:21	11/04/20 20:32	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/26/20 13:21	11/04/20 20:32	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/26/20 13:21	11/04/20 20:32	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/26/20 13:21	11/04/20 20:32	1
3,3'-Dichlorobenzidine	ND *		9.5	2.5	ug/L		10/26/20 13:21	11/04/20 20:32	1
2,4-Dichlorophenol	ND		9.5	2.9	ug/L		10/26/20 13:21	11/04/20 20:32	1
Diethyl phthalate	ND		9.5	0.23	ug/L		10/26/20 13:21	11/04/20 20:32	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/26/20 13:21	11/04/20 20:32	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/26/20 13:21	11/04/20 20:32	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/26/20 13:21	11/04/20 20:32	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		10/26/20 13:21	11/04/20 20:32	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/26/20 13:21	11/04/20 20:32	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/26/20 13:21	11/04/20 20:32	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/26/20 13:21	11/04/20 20:32	1
1,4-Dioxane	ND		9.5	0.95	ug/L		10/26/20 13:21	11/04/20 20:32	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/26/20 13:21	11/04/20 20:32	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/26/20 13:21	11/04/20 20:32	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/26/20 13:21	11/04/20 20:32	1
Indene	ND		9.5	0.95	ug/L		10/26/20 13:21	11/04/20 20:32	1
Isophorone	ND		9.5	0.13	ug/L		10/26/20 13:21	11/04/20 20:32	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/26/20 13:21	11/04/20 20:32	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/26/20 13:21	11/04/20 20:32	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/26/20 13:21	11/04/20 20:32	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/26/20 13:21	11/04/20 20:32	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/26/20 13:21	11/04/20 20:32	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/26/20 13:21	11/04/20 20:32	1
2-Nitrophenol	ND		9.5	5.0	ug/L		10/26/20 13:21	11/04/20 20:32	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/26/20 13:21	11/04/20 20:32	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/26/20 13:21	11/04/20 20:32	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/26/20 13:21	11/04/20 20:32	1
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/26/20 13:21	11/04/20 20:32	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93A-ROX-102220
Date Collected: 10/22/20 10:10
Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-5
Matrix: Water

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	ND		19	1.3	ug/L		10/26/20 13:21	11/04/20 20:32	1
Phenol	12		9.5	2.5	ug/L		10/26/20 13:21	11/04/20 20:32	1
Pyridine	ND		9.5	3.1	ug/L		10/26/20 13:21	11/04/20 20:32	1
Quinoline	ND		9.5	4.3	ug/L		10/26/20 13:21	11/04/20 20:32	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/26/20 13:21	11/04/20 20:32	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/26/20 13:21	11/04/20 20:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73		46 - 124				10/26/20 13:21	11/04/20 20:32	1
2-Fluorophenol	34		13 - 113				10/26/20 13:21	11/04/20 20:32	1
Nitrobenzene-d5	69		36 - 126				10/26/20 13:21	11/04/20 20:32	1
Phenol-d5	55		17 - 127				10/26/20 13:21	11/04/20 20:32	1
Terphenyl-d14	88		44 - 149				10/26/20 13:21	11/04/20 20:32	1
2,4,6-Tribromophenol	80		26 - 150				10/26/20 13:21	11/04/20 20:32	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND		29	3.2	ug/L		10/26/20 13:21	11/08/20 19:01	1
Hexachlorocyclopentadiene	ND	WS	19	2.5	ug/L		10/26/20 13:21	11/08/20 19:01	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*	0.030	0.0056	ug/L		10/27/20 14:53	10/31/20 04:35	1
1,2-Dibromoethane	ND		0.020	0.0051	ug/L		10/27/20 14:53	10/31/20 04:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	110		51 - 149				10/27/20 14:53	10/31/20 04:35	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93A-ROX-102220-DUP
Date Collected: 10/22/20 10:10
Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		630	250	ug/L			11/05/20 16:36	25
Acrolein	ND		500	250	ug/L			11/05/20 16:36	25
Acrylonitrile	ND		250	70	ug/L			11/05/20 16:36	25
Benzene	7000		25	9.5	ug/L			11/05/20 16:36	25
Bromobenzene	ND		25	14	ug/L			11/05/20 16:36	25
Bromoform	ND		25	13	ug/L			11/05/20 16:36	25
Bromochloromethane	ND		25	13	ug/L			11/05/20 16:36	25
Bromodichloromethane	ND		25	13	ug/L			11/05/20 16:36	25
Bromoform	ND		130	18	ug/L			11/05/20 16:36	25
Bromomethane	ND		25	25	ug/L			11/05/20 16:36	25
2-Butanone (MEK)	ND		630	65	ug/L			11/05/20 16:36	25
Carbon disulfide	ND		25	13	ug/L			11/05/20 16:36	25
Carbon tetrachloride	ND		25	13	ug/L			11/05/20 16:36	25
Chlorobenzene	ND		25	13	ug/L			11/05/20 16:36	25
Dibromochloromethane	ND		25	13	ug/L			11/05/20 16:36	25
Chloroethane	ND		25	19	ug/L			11/05/20 16:36	25
2-Chloroethyl vinyl ether	ND		130	50	ug/L			11/05/20 16:36	25
Chloroform	ND		25	15	ug/L			11/05/20 16:36	25
1-Chlorohexane	ND		25	18	ug/L			11/05/20 16:36	25
Chloromethane	ND		25	21	ug/L			11/05/20 16:36	25
cis-1,2-Dichloroethene	ND		25	13	ug/L			11/05/20 16:36	25
cis-1,3-Dichloropropene	ND		130	13	ug/L			11/05/20 16:36	25
1,2-Dichlorobenzene	ND		25	13	ug/L			11/05/20 16:36	25
1,3-Dichlorobenzene	ND		25	14	ug/L			11/05/20 16:36	25
1,4-Dichlorobenzene	ND		25	16	ug/L			11/05/20 16:36	25
Dichlorodifluoromethane	ND		25	21	ug/L			11/05/20 16:36	25
1,1-Dichloroethane	ND		25	13	ug/L			11/05/20 16:36	25
1,2-Dichloroethane	ND		25	13	ug/L			11/05/20 16:36	25
1,1-Dichloroethene	ND		25	13	ug/L			11/05/20 16:36	25
1,2-Dichloropropane	ND		25	13	ug/L			11/05/20 16:36	25
1,3-Dichloropropane	ND		25	13	ug/L			11/05/20 16:36	25
2,2-Dichloropropane	ND		25	13	ug/L			11/05/20 16:36	25
1,1-Dichloropropene	ND		25	13	ug/L			11/05/20 16:36	25
Ethylbenzene	ND		25	13	ug/L			11/05/20 16:36	25
Ethyl methacrylate	ND		25	15	ug/L			11/05/20 16:36	25
Hexachlorobutadiene	ND		130	23	ug/L			11/05/20 16:36	25
2-Hexanone	ND		630	78	ug/L			11/05/20 16:36	25
Isopropylbenzene	ND		25	13	ug/L			11/05/20 16:36	25
Methylene bromide	ND		130	15	ug/L			11/05/20 16:36	25
Methylene Chloride	ND		130	75	ug/L			11/05/20 16:36	25
4-Methyl-2-penlanone (MIBK)	ND		630	45	ug/L			11/05/20 16:36	25
Methyl tert-butyl ether	ND		25	19	ug/L			11/05/20 16:36	25
m-Xylene & p-Xylene	ND		130	40	ug/L			11/05/20 16:36	25
Naphthalene	ND		25	25	ug/L			11/05/20 16:36	25
n-Butylbenzene	ND		25	19	ug/L			11/05/20 16:36	25
N-Propylbenzene	ND		25	17	ug/L			11/05/20 16:36	25
o-Chlorotoluene	ND		25	14	ug/L			11/05/20 16:36	25
o-Xylene	ND		130	15	ug/L			11/05/20 16:36	25
p-Chlorotoluene	ND		25	14	ug/L			11/05/20 16:36	25
p-Isopropyltoluene	ND		25	18	ug/L			11/05/20 16:36	25

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93A-ROX-102220-DUP
Date Collected: 10/22/20 10:10
Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-6
Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		25	18	ug/L			11/05/20 16:36	25
Styrene	ND		25	25	ug/L			11/05/20 16:36	25
tert-Butylbenzene	ND		25	16	ug/L			11/05/20 16:36	25
1,1,1,2-Tetrachloroethane	ND		25	13	ug/L			11/05/20 16:36	25
1,1,2,2-Tetrachloroethane	ND		25	13	ug/L			11/05/20 16:36	25
Tetrachloroethylene	ND		25	15	ug/L			11/05/20 16:36	25
Toluene	ND		25	10	ug/L			11/05/20 16:36	25
trans-1,2-Dichloroethylene	ND		25	13	ug/L			11/05/20 16:36	25
trans-1,3-Dichloropropene	ND		130	13	ug/L			11/05/20 16:36	25
1,2,3-Trichlorobenzene	ND		25	18	ug/L			11/05/20 16:36	25
1,2,4-Trichlorobenzene	ND		25	21	ug/L			11/05/20 16:36	25
1,1,1-Trichloroethane	ND		25	13	ug/L			11/05/20 16:36	25
1,1,2-Trichloroethane	ND		130	13	ug/L			11/05/20 16:36	25
Trichloroethylene	ND		25	13	ug/L			11/05/20 16:36	25
Trichlorofluoromethane	ND		25	13	ug/L			11/05/20 16:36	25
1,2,3-Trichloropropane	ND		130	21	ug/L			11/05/20 16:36	25
1,2,4-Trimethylbenzene	ND		25	21	ug/L			11/05/20 16:36	25
1,3,5-Trimethylbenzene	ND		25	14	ug/L			11/05/20 16:36	25
Vinyl acetate	ND		630	50	ug/L			11/05/20 16:36	25
Vinyl chloride	ND		25	13	ug/L			11/05/20 16:36	25
Xylenes, Total	ND		250	40	ug/L			11/05/20 16:36	25
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		78 - 118					11/05/20 16:36	25
Dibromofluoromethane	100		81 - 121					11/05/20 16:36	25
Toluene-d8 (Surr)	102		80 - 120					11/05/20 16:36	25

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.19	0.030	ug/L		10/28/20 12:42	11/05/20 17:49	1
Acenaphthylene	ND		0.19	0.043	ug/L		10/28/20 12:42	11/05/20 17:49	1
Anthracene	ND		0.19	0.030	ug/L		10/28/20 12:42	11/05/20 17:49	1
Benzo[a]anthracene	ND		0.19	0.044	ug/L		10/28/20 12:42	11/05/20 17:49	1
Benzo[a]pyrene	ND		0.19	0.040	ug/L		10/28/20 12:42	11/05/20 17:49	1
Benzo[b]fluoranthene	ND		0.19	0.032	ug/L		10/28/20 12:42	11/05/20 17:49	1
Benzo[g,h,i]perylene	ND		0.19	0.12	ug/L		10/28/20 12:42	11/05/20 17:49	1
Benzo[k]fluoranthene	ND		0.19	0.095	ug/L		10/28/20 12:42	11/05/20 17:49	1
Chrysene	ND		0.19	0.070	ug/L		10/28/20 12:42	11/05/20 17:49	1
Dibenz(a,h)anthracene	ND		0.19	0.047	ug/L		10/28/20 12:42	11/05/20 17:49	1
Fluoranthene	ND		0.19	0.064	ug/L		10/28/20 12:42	11/05/20 17:49	1
Fluorene	ND		0.19	0.10	ug/L		10/28/20 12:42	11/05/20 17:49	1
Indeno[1,2,3-cd]pyrene	ND		0.19	0.041	ug/L		10/28/20 12:42	11/05/20 17:49	1
1-Methylnaphthalene	0.38		0.19	0.070	ug/L		10/28/20 12:42	11/05/20 17:49	1
2-Methylnaphthalene	0.41		0.19	0.057	ug/L		10/28/20 12:42	11/05/20 17:49	1
Phenanthrene	ND		0.19	0.034	ug/L		10/28/20 12:42	11/05/20 17:49	1
Pyrene	ND		0.19	0.038	ug/L		10/28/20 12:42	11/05/20 17:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	97		15 - 122				10/28/20 12:42	11/05/20 17:49	1
Nitrobenzene-d5	110		19 - 130				10/28/20 12:42	11/05/20 17:49	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93A-ROX-102220-DUP
Date Collected: 10/22/20 10:10
Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-6
Matrix: Water

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
	174		X	33 - 138			

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		9.5	3.6	ug/L		10/28/20 12:42	11/07/20 01:33	1
Benzenethiol	ND * US		9.5	1.6	ug/L		10/28/20 12:42	11/07/20 01:33	1
Benzoic acid	ND		28	6.9	ug/L		10/28/20 12:42	11/07/20 01:33	1
Benzyl alcohol	ND		9.5	1.9	ug/L		10/28/20 12:42	11/07/20 01:33	1
Bis(2-chloroethoxy)methane	ND		9.5	0.15	ug/L		10/28/20 12:42	11/07/20 01:33	1
Bis(2-chloroethyl)ether	ND		9.5	2.6	ug/L		10/28/20 12:42	11/07/20 01:33	1
bis (2-chloroisopropyl) ether	ND		9.5	0.15	ug/L		10/28/20 12:42	11/07/20 01:33	1
Bis(2-ethylhexyl) phthalate	ND		9.5	4.7	ug/L		10/28/20 12:42	11/07/20 01:33	1
4-Bromophenyl phenyl ether	ND		9.5	0.19	ug/L		10/28/20 12:42	11/07/20 01:33	1
Butyl benzyl phthalate	ND		9.5	0.18	ug/L		10/28/20 12:42	11/07/20 01:33	1
4-Chloroaniline	ND		9.5	3.2	ug/L		10/28/20 12:42	11/07/20 01:33	1
4-Chloro-3-methylphenol	ND		9.5	3.6	ug/L		10/28/20 12:42	11/07/20 01:33	1
2-Chloronaphthalene	ND		9.5	0.13	ug/L		10/28/20 12:42	11/07/20 01:33	1
2-Chlorophenol	ND *** US		9.5	2.1	ug/L		10/28/20 12:42	11/07/20 01:33	1
4-Chlorophenyl phenyl ether	ND		9.5	1.9	ug/L		10/28/20 12:42	11/07/20 01:33	1
Dibenz[a,h]acridine	ND		9.5	0.95	ug/L		10/28/20 12:42	11/07/20 01:33	1
Dibenzofuran	ND		9.5	0.16	ug/L		10/28/20 12:42	11/07/20 01:33	1
3,3'-Dichlorobenzidine	ND *		9.5	2.5	ug/L		10/28/20 12:42	11/07/20 01:33	1
2,4-Dichlorophenol	ND * US		9.5	2.8	ug/L		10/28/20 12:42	11/07/20 01:33	1
Diethyl phthalate	ND		9.5	0.23	ug/L		10/28/20 12:42	11/07/20 01:33	1
2,4-Dimethylphenol	ND		9.5	3.3	ug/L		10/28/20 12:42	11/07/20 01:33	1
Dimethyl phthalate	ND		9.5	0.16	ug/L		10/28/20 12:42	11/07/20 01:33	1
Di-n-butyl phthalate	ND		9.5	2.6	ug/L		10/28/20 12:42	11/07/20 01:33	1
4,6-Dinitro-ortho-cresol	ND		9.5	1.5	ug/L		10/28/20 12:42	11/07/20 01:33	1
2,4-Dinitrotoluene	ND		9.5	1.8	ug/L		10/28/20 12:42	11/07/20 01:33	1
2,6-Dinitrotoluene	ND		9.5	1.8	ug/L		10/28/20 12:42	11/07/20 01:33	1
Di-n-octyl phthalate	ND		9.5	0.16	ug/L		10/28/20 12:42	11/07/20 01:33	1
1,4-Dioxane	ND		9.5	0.95	ug/L		10/28/20 12:42	11/07/20 01:33	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		9.5	0.95	ug/L		10/28/20 12:42	11/07/20 01:33	1
Hexachlorobenzene	ND		9.5	0.16	ug/L		10/28/20 12:42	11/07/20 01:33	1
Hexachlorocyclopentadiene	ND		19	2.5	ug/L		10/28/20 12:42	11/07/20 01:33	1
Hexachloroethane	ND		9.5	4.0	ug/L		10/28/20 12:42	11/07/20 01:33	1
Indene	ND		9.5	0.95	ug/L		10/28/20 12:42	11/07/20 01:33	1
Isophorone	ND		9.5	0.13	ug/L		10/28/20 12:42	11/07/20 01:33	1
2-Methylphenol	ND		9.5	1.7	ug/L		10/28/20 12:42	11/07/20 01:33	1
3 & 4 Methylphenol	ND		19	0.37	ug/L		10/28/20 12:42	11/07/20 01:33	1
2-Nitroaniline	ND		9.5	2.1	ug/L		10/28/20 12:42	11/07/20 01:33	1
3-Nitroaniline	ND		9.5	1.7	ug/L		10/28/20 12:42	11/07/20 01:33	1
4-Nitroaniline	ND		9.5	1.4	ug/L		10/28/20 12:42	11/07/20 01:33	1
Nitrobenzene	ND		9.5	0.12	ug/L		10/28/20 12:42	11/07/20 01:33	1
2-Nitrophenol	ND * US		9.5	4.9	ug/L		10/28/20 12:42	11/07/20 01:33	1
4-Nitrophenol	ND		9.5	2.0	ug/L		10/28/20 12:42	11/07/20 01:33	1
N-Nitrosodimethylamine	ND		9.5	3.3	ug/L		10/28/20 12:42	11/07/20 01:33	1
N-Nitrosodi-n-propylamine	ND		9.5	3.1	ug/L		10/28/20 12:42	11/07/20 01:33	1

Eurofins TestAmerica, Pensacola

Client Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93A-ROX-102220-DUP

Lab Sample ID: 400-194896-6

Date Collected: 10/22/20 10:10

Matrix: Water

Date Received: 10/23/20 09:27

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		9.5	0.17	ug/L		10/28/20 12:42	11/07/20 01:33	1
Pentachlorophenol	ND		19	1.3	ug/L		10/28/20 12:42	11/07/20 01:33	1
Pyridine	ND		9.5	3.0	ug/L		10/28/20 12:42	11/07/20 01:33	1
Quinoline	ND		9.5	4.3	ug/L		10/28/20 12:42	11/07/20 01:33	1
2,4,5-Trichlorophenol	ND		9.5	3.5	ug/L		10/28/20 12:42	11/07/20 01:33	1
2,4,6-Trichlorophenol	ND		9.5	3.3	ug/L		10/28/20 12:42	11/07/20 01:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	64		46 - 124	10/28/20 12:42	11/07/20 01:33	1
2-Fluorophenol	79		13 - 113	10/28/20 12:42	11/07/20 01:33	1
Nitrobenzene-d5	68		36 - 126	10/28/20 12:42	11/07/20 01:33	1
Phenol-d5	72		17 - 127	10/28/20 12:42	11/07/20 01:33	1
Terphenyl-d14	107		44 - 149	10/28/20 12:42	11/07/20 01:33	1
2,4,6-Tribromophenol	74		26 - 150	10/28/20 12:42	11/07/20 01:33	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrophenol	ND	*1	28	3.2	ug/L		10/28/20 12:42	11/10/20 16:45	1
Phenol	8.3	J *1	9.5	2.5	ug/L		10/28/20 12:42	11/10/20 16:45	1

Method: 8011 - EDB and DBCP in Water by Microextraction

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND	*	0.031	0.0056	ug/L		10/27/20 14:53	10/31/20 04:56	1
1,2-Dibromoethane	ND		0.021	0.0051	ug/L		10/27/20 14:53	10/31/20 04:56	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac			
4-Bromo Fluorobenzene	113		51 - 149	10/27/20 14:53	10/31/20 04:56	1			

Eurofins TestAmerica, Pensacola

Definitions/Glossary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate recovery exceeds control limits

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance 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.
D	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: 400-194896-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (78-118)	DBFM (81-121)	TOL (80-120)
400-194896-1	TB-ROX-102220-8260-SS	103	105	100
400-194896-3	P93D-ROX-102220	102	104	102
400-194896-3 MS	P93D-ROX-102220	98	98	102
400-194896-3 MSD	P93D-ROX-102220	98	97	102
400-194896-4	P93B-ROX-102220	100	101	101
400-194896-5	P93A-ROX-102220	102	99	104
400-194896-6	P93A-ROX-102220-DUP	101	100	102
LCS 400-509403/1002	Lab Control Sample	95	101	98
MB 400-509403/5	Method Blank	100	103	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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		FBP (46-124)	2FP (13-113)	NBZ (36-126)	PHL (17-127)	TPHL (44-149)	TBP (26-150)
400-194896-3	P93D-ROX-102220	83	39	86	85	93	117
400-194896-4	P93B-ROX-102220	78	32	77	61	93	91
400-194896-5	P93A-ROX-102220	73	34	69	55	88	80
400-194896-6	P93A-ROX-102220-DUP	64	79	68	72	107	74
LCS 400-508204/2-A	Lab Control Sample	94	39	73	69	87	96
LCS 400-508204/4-A	Lab Control Sample	79	40	76	61	97	36
LCS 400-508532/2-A	Lab Control Sample	86	3 X	63	31	90	84
LCS 400-508532/4-A	Lab Control Sample	78		73		105	
LCSD 400-508204/3-A	Lab Control Sample Dup	82	32	64	61	77	88
LCSD 400-508204/5-A	Lab Control Sample Dup	77	22	72	51	94	14 X
LCSD 400-508532/3-A	Lab Control Sample Dup	84	13	61	49	83	85
LCSD 400-508532/5-A	Lab Control Sample Dup	79		76		111	
MB 400-508204/1-A	Method Blank	76	39	73	58	95	70
MB 400-508532/1-A	Method Blank	69	3 X	64	20	97	42

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194896-3	P93D-ROX-102220	94	93	106

Eurofins TestAmerica, Pensacola

Surrogate Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (15-122)	NBZ (19-130)	TPHL (33-138)
400-194896-4	P93B-ROX-102220	88	92	100
400-194896-5	P93A-ROX-102220	84	80	97
400-194896-6	P93A-ROX-102220-DUP	97	110	174 X
LCS 400-508204/2-A	Lab Control Sample	96	117	105
LCS 400-508532/2-A	Lab Control Sample	69	72	103
LCSD 400-508204/3-A	Lab Control Sample Dup	86	109	100
LCSD 400-508532/3-A	Lab Control Sample Dup	73	80	100
MB 400-508204/1-A	Method Blank	95	99	108
MB 400-508532/1-A	Method Blank	83	97	133

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		BFB2 (51-149)	
400-194896-2	TB-ROX-102220-8011	111	
400-194896-3	P93D-ROX-102220	104 p	
400-194896-4	P93B-ROX-102220	104 p	
400-194896-5	P93A-ROX-102220	110	
400-194896-6	P93A-ROX-102220-DUP	113	
LCS 400-508368/2-A	Lab Control Sample	102	
LCSD 400-508368/3-A	Lab Control Sample Dup	103	
MB 400-508368/1-A	Method Blank	102	

Surrogate Legend

BFB = 4-Bromoanisole

Eurofins TestAmerica, Pensacola

Method Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL PEN
8270D LL	Semivolatile Organic Compounds by GC/MS - Low Level	SW846	TAL PEN
8011	EDB and DBCP In Water by Microextraction	EPA	TAL PEN
3520C	Liquid-Liquid Extraction (Continuous)	SW846	TAL PEN
5030B	Purge and Trap	SW846	TAL PEN
8011	Microextraction	SW846	TAL PEN

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PEN = Eurofins TestAmerica, 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: 400-194896-1

Client Sample ID: TB-ROX-102220-8260-SS

Date Collected: 10/22/20 00:00

Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-1

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	509403	11/05/20 11:44	AMB	TAL PEN

Client Sample ID: TB-ROX-102220-8011

Date Collected: 10/22/20 00:00

Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-2

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 mL	35 mL	508368	10/27/20 14:53	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508766	10/31/20 03:31	DHJ	TAL PEN

Client Sample ID: P93D-ROX-102220

Date Collected: 10/22/20 08:50

Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-3

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	509403	11/05/20 12:11	AMB	TAL PEN
Total/NA	Prep	3520C	RA		265 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	RA	1			509841	11/08/20 17:49	S1B	TAL PEN
Total/NA	Prep	3520C			265 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 19:49	S1B	TAL PEN
Total/NA	Prep	3520C	DL		265 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	DL	10			510105	11/10/20 17:11	S1B	TAL PEN
Total/NA	Prep	3520C			265 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 19:22	DS	TAL PEN
Total/NA	Prep	8011			33.8 mL	35 mL	508368	10/27/20 14:53	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508766	10/31/20 03:52	DHJ	TAL PEN

Client Sample ID: P93B-ROX-102220

Date Collected: 10/22/20 09:25

Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-4

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		2500	5 mL	5 mL	509403	11/05/20 13:30	AMB	TAL PEN
Total/NA	Prep	3520C	RA		263 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	RA	1			509841	11/08/20 18:37	S1B	TAL PEN
Total/NA	Prep	3520C			263 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 20:11	S1B	TAL PEN
Total/NA	Prep	3520C			263 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 19:40	DS	TAL PEN
Total/NA	Prep	8011			35.2 mL	35 mL	508368	10/27/20 14:53	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508766	10/31/20 04:13	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: P93A-ROX-102220

Date Collected: 10/22/20 10:10

Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-5

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		25	5 mL	5 mL	509403	11/05/20 16:10	AMB	TAL PEN
Total/NA	Prep	3520C	RA		262 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	RA	1			509841	11/08/20 19:01	S1B	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 20:32	S1B	TAL PEN
Total/NA	Prep	3520C			262 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 19:57	DS	TAL PEN
Total/NA	Prep	8011			34.5 mL	35 mL	508368	10/27/20 14:53	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508766	10/31/20 04:35	DHJ	TAL PEN

Client Sample ID: P93A-ROX-102220-DUP

Date Collected: 10/22/20 10:10

Date Received: 10/23/20 09:27

Lab Sample ID: 400-194896-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		25	5 mL	5 mL	509403	11/05/20 16:36	AMB	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D		1			509635	11/07/20 01:33	S1B	TAL PEN
Total/NA	Prep	3520C	RA		264 mL	1 mL	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D	RA	1			510105	11/10/20 16:45	S1B	TAL PEN
Total/NA	Prep	3520C			264 mL	1 mL	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			509454	11/05/20 17:49	PP1	TAL PEN
Total/NA	Prep	8011			34.1 mL	35 mL	508368	10/27/20 14:53	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508766	10/31/20 04:56	DHJ	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-508204/1-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	RA		250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D	RA	1			509841	11/08/20 15:23	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 16:18	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		1			509134	11/03/20 15:51	DS	TAL PEN

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 400-508368/1-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	508368	10/27/20 14:53	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508766	10/30/20 21:02	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-508532/1-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	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D		1			509635	11/06/20 23:47	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D LL		1			509454	11/05/20 17:03	PP1	TAL PEN

Client Sample ID: Method Blank
Date Collected: N/A
Date Received: N/A

Lab Sample ID: MB 400-509403/5
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	509403	11/05/20 11:18	AMB	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-508204/2-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 16:39	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		5			509134	11/03/20 16:08	DS	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-508204/4-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:21	S1B	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-508368/2-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	508368	10/27/20 14:53	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508766	10/30/20 21:24	DHJ	TAL PEN

Client Sample ID: Lab Control Sample
Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-508532/2-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	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D		1			509635	11/07/20 00:08	S1B	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-508532/2-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	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			509454	11/05/20 17:18	PP1	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-508532/4-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	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D		1			509635	11/07/20 00:50	S1B	TAL PEN

Client Sample ID: Lab Control Sample

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCS 400-509403/1002

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	509403	11/05/20 09:45	AMB	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-508204/3-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:00	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D LL		5			509134	11/03/20 16:26	DS	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-508204/5-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	508204	10/26/20 13:21	NTH	TAL PEN
Total/NA	Analysis	8270D		1			509317	11/04/20 17:43	S1B	TAL PEN

Client Sample ID: Lab Control Sample Dup

Date Collected: N/A
Date Received: N/A

Lab Sample ID: LCSD 400-508368/3-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	508368	10/27/20 14:53	DHJ	TAL PEN
Total/NA	Analysis	8011		1			508766	10/30/20 21:45	DHJ	TAL PEN

Eurofins TestAmerica, Pensacola

Lab Chronicle

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-508532/3-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	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D		1			509635	11/07/20 00:29	S1B	TAL PEN
Total/NA	Prep	3520C			250 mL	1 mL	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D LL		5			509454	11/05/20 17:34	PP1	TAL PEN

Client Sample ID: Lab Control Sample Dup

Lab Sample ID: LCSD 400-508532/5-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	508532	10/28/20 12:42	BAW	TAL PEN
Total/NA	Analysis	8270D		1			509635	11/07/20 01:11	S1B	TAL PEN

Client Sample ID: P93D-ROX-102220

Lab Sample ID: 400-194896-3 MS

Date Collected: 10/22/20 08:50

Matrix: Water

Date Received: 10/23/20 09:27

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	509403	11/05/20 14:50	AMB	TAL PEN

Client Sample ID: P93D-ROX-102220

Lab Sample ID: 400-194896-3 MSD

Date Collected: 10/22/20 08:50

Matrix: Water

Date Received: 10/23/20 09:27

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	509403	11/05/20 15:17	AMB	TAL PEN

Laboratory References:

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

GC/MS VOA

Analysis Batch: 509403

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-1	TB-ROX-102220-8260-SS	Total/NA	Water	8260B	
400-194896-3	P93D-ROX-102220	Total/NA	Water	8260B	
400-194896-4	P93B-ROX-102220	Total/NA	Water	8260B	
400-194896-5	P93A-ROX-102220	Total/NA	Water	8260B	
400-194896-6	P93A-ROX-102220-DUP	Total/NA	Water	8260B	
MB 400-509403/5	Method Blank	Total/NA	Water	8260B	
LCS 400-509403/1002	Lab Control Sample	Total/NA	Water	8260B	
400-194896-3 MS	P93D-ROX-102220	Total/NA	Water	8260B	
400-194896-3 MSD	P93D-ROX-102220	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 508204

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-3	P93D-ROX-102220	Total/NA	Water	3520C	
400-194896-3 - RA	P93D-ROX-102220	Total/NA	Water	3520C	
400-194896-3 - DL	P93D-ROX-102220	Total/NA	Water	3520C	
400-194896-4	P93B-ROX-102220	Total/NA	Water	3520C	
400-194896-4 - RA	P93B-ROX-102220	Total/NA	Water	3520C	
400-194896-5	P93A-ROX-102220	Total/NA	Water	3520C	
400-194896-5 - RA	P93A-ROX-102220	Total/NA	Water	3520C	
MB 400-508204/1-A	Method Blank	Total/NA	Water	3520C	
MB 400-508204/1-A - RA	Method Blank	Total/NA	Water	3520C	
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-508204/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-508204/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Prep Batch: 508532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-6	P93A-ROX-102220-DUP	Total/NA	Water	3520C	
400-194896-6 - RA	P93A-ROX-102220-DUP	Total/NA	Water	3520C	
MB 400-508532/1-A	Method Blank	Total/NA	Water	3520C	
LCS 400-508532/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 400-508532/4-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 400-508532/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	
LCSD 400-508532/5-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 509134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-3	P93D-ROX-102220	Total/NA	Water	8270D LL	508204
400-194896-4	P93B-ROX-102220	Total/NA	Water	8270D LL	508204
400-194896-5	P93A-ROX-102220	Total/NA	Water	8270D LL	508204
MB 400-508204/1-A	Method Blank	Total/NA	Water	8270D LL	508204
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	8270D LL	508204
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	508204

Analysis Batch: 509317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-3	P93D-ROX-102220	Total/NA	Water	8270D	508204
400-194896-4	P93B-ROX-102220	Total/NA	Water	8270D	508204

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

GC/MS Semi VOA (Continued)

Analysis Batch: 509317 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-5	P93A-ROX-102220	Total/NA	Water	8270D	508204
MB 400-508204/1-A	Method Blank	Total/NA	Water	8270D	508204
LCS 400-508204/2-A	Lab Control Sample	Total/NA	Water	8270D	508204
LCS 400-508204/4-A	Lab Control Sample	Total/NA	Water	8270D	508204
LCSD 400-508204/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	508204
LCSD 400-508204/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	508204

Analysis Batch: 509454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-6	P93A-ROX-102220-DUP	Total/NA	Water	8270D LL	508532
MB 400-508532/1-A	Method Blank	Total/NA	Water	8270D LL	508532
LCS 400-508532/2-A	Lab Control Sample	Total/NA	Water	8270D LL	508532
LCSD 400-508532/3-A	Lab Control Sample Dup	Total/NA	Water	8270D LL	508532

Analysis Batch: 509635

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-6	P93A-ROX-102220-DUP	Total/NA	Water	8270D	508532
MB 400-508532/1-A	Method Blank	Total/NA	Water	8270D	508532
LCS 400-508532/2-A	Lab Control Sample	Total/NA	Water	8270D	508532
LCS 400-508532/4-A	Lab Control Sample	Total/NA	Water	8270D	508532
LCSD 400-508532/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	508532
LCSD 400-508532/5-A	Lab Control Sample Dup	Total/NA	Water	8270D	508532

Analysis Batch: 509841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-3 - RA	P93D-ROX-102220	Total/NA	Water	8270D	508204
400-194896-4 - RA	P93B-ROX-102220	Total/NA	Water	8270D	508204
400-194896-5 - RA	P93A-ROX-102220	Total/NA	Water	8270D	508204
MB 400-508204/1-A - RA	Method Blank	Total/NA	Water	8270D	508204

Analysis Batch: 510105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-3 - DL	P93D-ROX-102220	Total/NA	Water	8270D	508204
400-194896-6 - RA	P93A-ROX-102220-DUP	Total/NA	Water	8270D	508532

GC Semi VOA

Prep Batch: 508368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-2	TB-ROX-102220-8011	Total/NA	Water	8011	
400-194896-3	P93D-ROX-102220	Total/NA	Water	8011	
400-194896-4	P93B-ROX-102220	Total/NA	Water	8011	
400-194896-5	P93A-ROX-102220	Total/NA	Water	8011	
400-194896-6	P93A-ROX-102220-DUP	Total/NA	Water	8011	
MB 400-508368/1-A	Method Blank	Total/NA	Water	8011	
LCS 400-508368/2-A	Lab Control Sample	Total/NA	Water	8011	
LCSD 400-508368/3-A	Lab Control Sample Dup	Total/NA	Water	8011	

Analysis Batch: 508766

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-2	TB-ROX-102220-8011	Total/NA	Water	8011	508368

Eurofins TestAmerica, Pensacola

QC Association Summary

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

GC Semi VOA (Continued)

Analysis Batch: 508766 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-194896-3	P93D-ROX-102220	Total/NA	Water	8011	508368
400-194896-4	P93B-ROX-102220	Total/NA	Water	8011	508368
400-194896-5	P93A-ROX-102220	Total/NA	Water	8011	508368
400-194896-6	P93A-ROX-102220-DUP	Total/NA	Water	8011	508368
MB 400-508368/1-A	Method Blank	Total/NA	Water	8011	508368
LCS 400-508368/2-A	Lab Control Sample	Total/NA	Water	8011	508368
LCSD 400-508368/3-A	Lab Control Sample Dup	Total/NA	Water	8011	508368

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-509403/5

Matrix: Water

Analysis Batch: 509403

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone			ND		25	10	ug/L			11/05/20 11:18	1
Acrolein			ND		20	10	ug/L			11/05/20 11:18	1
Acrylonitrile			ND		10	2.8	ug/L			11/05/20 11:18	1
Benzene			ND		1.0	0.38	ug/L			11/05/20 11:18	1
Bromobenzene			ND		1.0	0.54	ug/L			11/05/20 11:18	1
Bromoform			ND		1.0	0.52	ug/L			11/05/20 11:18	1
Bromochloromethane			ND		1.0	0.50	ug/L			11/05/20 11:18	1
Bromodichloromethane			ND		1.0	0.71	ug/L			11/05/20 11:18	1
Bromoform			ND		5.0	0.98	ug/L			11/05/20 11:18	1
Bromomethane			ND		1.0	0.50	ug/L			11/05/20 11:18	1
2-Butanone (MEK)			ND		25	2.6	ug/L			11/05/20 11:18	1
Carbon disulfide			ND		1.0	0.50	ug/L			11/05/20 11:18	1
Carbon tetrachloride			ND		1.0	0.50	ug/L			11/05/20 11:18	1
Chlorobenzene			ND		1.0	0.50	ug/L			11/05/20 11:18	1
Dibromochloromethane			ND		1.0	0.50	ug/L			11/05/20 11:18	1
Chloroethane			ND		1.0	0.76	ug/L			11/05/20 11:18	1
2-Chloroethyl vinyl ether			ND		5.0	2.0	ug/L			11/05/20 11:18	1
Chloroform			ND		1.0	0.60	ug/L			11/05/20 11:18	1
1-Chlorohexane			ND		1.0	0.70	ug/L			11/05/20 11:18	1
Chloromethane			ND		1.0	0.83	ug/L			11/05/20 11:18	1
cis-1,2-Dichloroethene			ND		1.0	0.50	ug/L			11/05/20 11:18	1
cis-1,3-Dichloropropene			ND		5.0	0.50	ug/L			11/05/20 11:18	1
1,2-Dichlorobenzene			ND		1.0	0.50	ug/L			11/05/20 11:18	1
1,3-Dichlorobenzene			ND		1.0	0.54	ug/L			11/05/20 11:18	1
1,4-Dichlorobenzene			ND		1.0	0.64	ug/L			11/05/20 11:18	1
Dichlorodifluoromethane			ND		1.0	0.85	ug/L			11/05/20 11:18	1
1,1-Dichloroethane			ND		1.0	0.50	ug/L			11/05/20 11:18	1
1,2-Dichloroethane			ND		1.0	0.50	ug/L			11/05/20 11:18	1
1,1-Dichloroethene			ND		1.0	0.50	ug/L			11/05/20 11:18	1
1,2-Dichloropropane			ND		1.0	0.50	ug/L			11/05/20 11:18	1
1,3-Dichloropropane			ND		1.0	0.50	ug/L			11/05/20 11:18	1
2,2-Dichloropropane			ND		1.0	0.50	ug/L			11/05/20 11:18	1
1,1-Dichloropropene			ND		1.0	0.50	ug/L			11/05/20 11:18	1
Ethylbenzene			ND		1.0	0.50	ug/L			11/05/20 11:18	1
Ethyl methacrylate			ND		1.0	0.60	ug/L			11/05/20 11:18	1
Hexachlorobutadiene			ND		5.0	0.90	ug/L			11/05/20 11:18	1
2-Hexanone			ND		25	3.1	ug/L			11/05/20 11:18	1
Isopropylbenzene			ND		1.0	0.53	ug/L			11/05/20 11:18	1
Methylene bromide			ND		5.0	0.59	ug/L			11/05/20 11:18	1
Methylene Chloride			ND		5.0	3.0	ug/L			11/05/20 11:18	1
4-Methyl-2-pentanone (MIBK)			ND		25	1.8	ug/L			11/05/20 11:18	1
Methyl tert-butyl ether			ND		1.0	0.74	ug/L			11/05/20 11:18	1
m-Xylene & p-Xylene			ND		5.0	1.6	ug/L			11/05/20 11:18	1
Naphthalene			ND		1.0	1.0	ug/L			11/05/20 11:18	1
n-Butylbenzene			ND		1.0	0.76	ug/L			11/05/20 11:18	1
N-Propylbenzene			ND		1.0	0.69	ug/L			11/05/20 11:18	1
o-Chlorotoluene			ND		1.0	0.57	ug/L			11/05/20 11:18	1
o-Xylene			ND		5.0	0.60	ug/L			11/05/20 11:18	1
p-Chlorotoluene			ND		1.0	0.56	ug/L			11/05/20 11:18	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-509403/5

Matrix: Water

Analysis Batch: 509403

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
p-Isopropyltoluene	ND		ND		1.0	0.71	ug/L			11/05/20 11:18	1
sec-Butylbenzene	ND		ND		1.0	0.70	ug/L			11/05/20 11:18	1
Styrene	ND		ND		1.0	1.0	ug/L			11/05/20 11:18	1
tert-Butylbenzene	ND		ND		1.0	0.63	ug/L			11/05/20 11:18	1
1,1,1,2-Tetrachloroethane	ND		ND		1.0	0.52	ug/L			11/05/20 11:18	1
1,1,2,2-Tetrachloroethane	ND		ND		1.0	0.50	ug/L			11/05/20 11:18	1
Tetrachloroethylene	ND		ND		1.0	0.58	ug/L			11/05/20 11:18	1
Toluene	ND		ND		1.0	0.41	ug/L			11/05/20 11:18	1
trans-1,2-Dichloroethylene	ND		ND		1.0	0.50	ug/L			11/05/20 11:18	1
trans-1,3-Dichloropropene	ND		ND		5.0	0.50	ug/L			11/05/20 11:18	1
1,2,3-Trichlorobenzene	ND		ND		1.0	0.70	ug/L			11/05/20 11:18	1
1,2,4-Trichlorobenzene	ND		ND		1.0	0.82	ug/L			11/05/20 11:18	1
1,1,1-Trichloroethane	ND		ND		1.0	0.50	ug/L			11/05/20 11:18	1
1,1,2-Trichloroethane	ND		ND		5.0	0.50	ug/L			11/05/20 11:18	1
Trichloroethylene	ND		ND		1.0	0.50	ug/L			11/05/20 11:18	1
Trichlorofluoromethane	ND		ND		1.0	0.52	ug/L			11/05/20 11:18	1
1,2,3-Trichloropropane	ND		ND		5.0	0.84	ug/L			11/05/20 11:18	1
1,2,4-Trimethylbenzene	ND		ND		1.0	0.82	ug/L			11/05/20 11:18	1
1,3,5-Trimethylbenzene	ND		ND		1.0	0.56	ug/L			11/05/20 11:18	1
Vinyl acetate	ND		ND		25	2.0	ug/L			11/05/20 11:18	1
Vinyl chloride	ND		ND		1.0	0.50	ug/L			11/05/20 11:18	1
Xylenes, Total	ND		ND		10	1.6	ug/L			11/05/20 11:18	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		100		78 - 118			1
Dibromofluoromethane	103		103		81 - 121			1
Toluene-d8 (Surf)	102		102		80 - 120			1

Lab Sample ID: LCS 400-509403/1002

Matrix: Water

Analysis Batch: 509403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added									
Acetone	200	226				ug/L		113	43 - 160	
Acrolein	500	496				ug/L		99	38 - 160	
Acrylonitrile	500	562				ug/L		112	64 - 142	
Benzene	50.0	46.6				ug/L		93	70 - 130	
Bromobenzene	50.0	44.7				ug/L		89	70 - 132	
Bromochloromethane	50.0	46.0				ug/L		92	70 - 130	
Bromodichloromethane	50.0	45.2				ug/L		90	67 - 133	
Bromoform	50.0	56.1				ug/L		112	57 - 140	
Bromomethane	50.0	52.5				ug/L		105	10 - 160	
2-Butanone (MEK)	200	208				ug/L		104	61 - 145	
Carbon disulfide	50.0	42.0				ug/L		84	61 - 137	
Carbon tetrachloride	50.0	46.0				ug/L		92	61 - 137	
Chlorobenzene	50.0	46.7				ug/L		93	70 - 130	
Dibromochloromethane	50.0	50.6				ug/L		101	67 - 135	
Chloroethane	50.0	46.0				ug/L		92	55 - 141	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-509403/1002
Matrix: Water
Analysis Batch: 509403

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2-Chloroethyl vinyl ether	50.0	17.7		ug/L	35	10 - 160	
Chloroform	50.0	44.4		ug/L	89	69 - 130	
1-Chlorohexane	50.0	47.5		ug/L	95	69 - 130	
Chloromethane	50.0	45.1		ug/L	90	58 - 137	
cis-1,2-Dichloroethene	50.0	46.6		ug/L	93	68 - 130	
cis-1,3-Dichloropropene	50.0	44.1		ug/L	88	69 - 132	
1,2-Dichlorobenzene	50.0	49.6		ug/L	99	67 - 130	
1,3-Dichlorobenzene	50.0	48.3		ug/L	97	70 - 130	
1,4-Dichlorobenzene	50.0	49.9		ug/L	100	70 - 130	
Dichlorodifluoromethane	50.0	34.4		ug/L	69	41 - 146	
1,1-Dichloroethane	50.0	45.1		ug/L	90	70 - 130	
1,2-Dichloroethane	50.0	45.1		ug/L	90	69 - 130	
1,1-Dichloroethene	50.0	42.3		ug/L	85	63 - 134	
1,2-Dichloropropane	50.0	45.0		ug/L	90	70 - 130	
1,3-Dichloropropane	50.0	47.5		ug/L	95	70 - 130	
2,2-Dichloropropane	50.0	43.4		ug/L	87	52 - 135	
1,1-Dichloropropene	50.0	42.1		ug/L	84	70 - 130	
Ethylbenzene	50.0	44.9		ug/L	90	70 - 130	
Ethyl methacrylate	50.0	48.1		ug/L	96	68 - 130	
Hexachlorobuladiene	50.0	51.1		ug/L	102	53 - 140	
2-Hexanone	200	212		ug/L	106	65 - 137	
Isopropylbenzene	50.0	44.5		ug/L	89	70 - 130	
Methylene bromide	50.0	45.3		ug/L	91	70 - 130	
Methylene Chloride	50.0	47.1		ug/L	94	66 - 135	
4-Methyl-2-pentanone (MIBK)	200	203		ug/L	102	69 - 138	
Methyl tert-butyl ether	50.0	46.9		ug/L	94	66 - 130	
m-Xylene & p-Xylene	50.0	45.3		ug/L	91	70 - 130	
Naphthalene	50.0	43.2		ug/L	86	47 - 149	
n-Butylbenzene	50.0	53.4		ug/L	107	67 - 130	
N-Propylbenzene	50.0	46.4		ug/L	93	70 - 130	
o-Chlorotoluene	50.0	48.9		ug/L	98	70 - 130	
o-Xylene	50.0	44.9		ug/L	90	70 - 130	
p-Chlorotoluene	50.0	49.3		ug/L	99	70 - 130	
p-Isopropyltoluene	50.0	46.9		ug/L	94	65 - 130	
sec-Butylbenzene	50.0	46.7		ug/L	93	66 - 130	
Styrene	50.0	48.2		ug/L	96	70 - 130	
tert-Butylbenzene	50.0	45.1		ug/L	90	64 - 139	
1,1,1,2-Tetrachloroethane	50.0	49.7		ug/L	99	67 - 131	
1,1,2,2-Tetrachloroethane	50.0	50.4		ug/L	101	70 - 131	
Tetrachloroethene	50.0	42.6		ug/L	85	65 - 130	
Toluene	50.0	46.7		ug/L	93	70 - 130	
trans-1,2-Dichloroethene	50.0	44.6		ug/L	89	70 - 130	
trans-1,3-Dichloropropene	50.0	46.3		ug/L	93	63 - 130	
1,2,3-Trichlorobenzene	50.0	44.3		ug/L	89	60 - 138	
1,2,4-Trichlorobenzene	50.0	45.6		ug/L	91	60 - 140	
1,1,1-Trichloroethane	50.0	45.0		ug/L	90	68 - 130	
1,1,2-Trichloroethane	50.0	47.0		ug/L	94	70 - 130	
Trichloroethene	50.0	43.1		ug/L	86	70 - 130	
Trichlorofluoromethane	50.0	41.4		ug/L	83	65 - 138	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-509403/1002

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 509403

Analyte	Spike Added	LCS			D	%Rec	%Rec.
		Result	Qualifier	Unit			
1,2,3-Trichloropropane	50.0	50.4		ug/L	101	70 - 130	
1,2,4-Trimethylbenzene	50.0	48.3		ug/L	97	70 - 130	
1,3,5-Trimethylbenzene	50.0	47.2		ug/L	94	69 - 130	
Vinyl acetate	100	103		ug/L	103	26 - 160	
Vinyl chloride	50.0	45.8		ug/L	92	59 - 136	
Xylenes, Total	100	90.2		ug/L	90	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	95		78 - 118				
Dibromofluoromethane	101		81 - 121				
Toluene-d8 (Surf)	98		80 - 120				

Lab Sample ID: 400-194896-3 MS

Client Sample ID: P93D-ROX-102220
Prep Type: Total/NA

Matrix: Water

Analysis Batch: 509403

Analyte	Sample	Sample	Spike	MS			D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier	Unit			
Acetone	ND		200	160		ug/L	80	43 - 150	
Acrolein	ND		500	452		ug/L	90	38 - 150	
Acrylonitrile	ND		500	483		ug/L	97	62 - 149	
Benzene	ND		50.0	32.9		ug/L	66	56 - 142	
Bromobenzene	ND	F1	50.0	26.6	F1	ug/L	53	59 - 136	
Bromoform	ND		50.0	36.5		ug/L	73	64 - 140	
Bromochloromethane	ND		50.0	32.0		ug/L	64	59 - 143	
Bromodichloromethane	ND		50.0	41.9		ug/L	84	50 - 140	
Bromoform	ND		50.0	41.5		ug/L	83	10 - 150	
Bromomethane	ND		200	166		ug/L	83	55 - 150	
2-Butanone (MEK)	ND		50.0	32.8		ug/L	66	48 - 150	
Carbon disulfide	ND		50.0	31.9		ug/L	64	55 - 145	
Carbon tetrachloride	ND		50.0	27.5	F1	ug/L	55	64 - 130	
Chlorobenzene	ND	F1	50.0	36.9		ug/L	74	56 - 143	
Dibromochloromethane	ND		50.0	35.9		ug/L	72	50 - 150	
Chloroethane	ND		50.0	ND	F1	ug/L	0	10 - 150	
2-Chloroethyl vinyl ether	ND	F1	50.0	33.6		ug/L	67	60 - 141	
Chloroform	ND		50.0	22.9	F1	ug/L	46	56 - 136	
1-Chlorohexane	ND	F1	50.0	31.0		ug/L	62	49 - 148	
Chloromethane	ND		50.0	35.3		ug/L	71	59 - 143	
cis-1,2-Dichloroethene	ND		50.0	30.4		ug/L	61	57 - 140	
cis-1,3-Dichloropropene	ND		50.0	27.2		ug/L	54	52 - 137	
1,2-Dichlorobenzene	ND		50.0	24.1	F1	ug/L	48	54 - 135	
1,3-Dichlorobenzene	ND	F1	50.0	24.5	F1	ug/L	49	53 - 135	
Dichlorodifluoromethane	ND		50.0	16.6		ug/L	33	16 - 150	
1,1-Dichloroethane	ND		50.0	35.1		ug/L	70	61 - 144	
1,2-Dichloroethane	ND		50.0	33.6		ug/L	67	60 - 141	
1,1-Dichloroethene	ND		50.0	34.0		ug/L	68	54 - 147	
1,2-Dichloropropane	ND		50.0	34.3		ug/L	69	66 - 137	
1,3-Dichloropropane	ND		50.0	35.8		ug/L	72	66 - 133	
2,2-Dichloropropane	ND		50.0	31.2		ug/L	62	42 - 144	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194896-3 MS

Client Sample ID: P93D-ROX-102220

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509403

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				
1,1-Dichloropropene	ND	F1	50.0	29.4	F1	ug/L	59	65 - 136	
Ethylbenzene	ND	F1	50.0	23.1	F1	ug/L	46	58 - 131	
Ethyl methacrylate	ND		50.0	37.4		ug/L	75	64 - 130	
Hexachlorobutadiene	ND		50.0	19.6		ug/L	39	31 - 149	
2-Hexanone	ND		200	169		ug/L	84	65 - 140	
Isopropylbenzene	ND	F2 F1	50.0	20.7	F1	ug/L	41	56 - 133	
Methylene bromide	ND		50.0	34.5		ug/L	69	63 - 138	
Methylene Chloride	ND		50.0	37.6		ug/L	75	60 - 146	
4-Methyl-2-pentanone (MIBK)	ND		200	162		ug/L	81	63 - 146	
Methyl tert-butyl ether	0.95	J	50.0	39.9		ug/L	78	59 - 137	
m-Xylene & p-Xylene	ND	F1	50.0	22.7	F1	ug/L	45	57 - 130	
Naphthalene	ND		50.0	21.9		ug/L	44	25 - 150	
n-Butylbenzene	ND	F2 F1	50.0	18.4	F1	ug/L	37	41 - 142	
N-Propylbenzene	ND	F1	50.0	20.4	F1	ug/L	41	51 - 138	
o-Chlorotoluene	ND	F1	50.0	23.5	F1	ug/L	47	53 - 134	
o-Xylene	ND	F1	50.0	23.7	F1	ug/L	47	61 - 130	
p-Chlorotoluene	ND	F1	50.0	23.4	F1	ug/L	47	54 - 133	
p-Isopropyltoluene	ND	F2 F1	50.0	18.4	F1	ug/L	37	48 - 139	
sec-Butylbenzene	ND	F2 F1	50.0	18.9	F1	ug/L	38	50 - 138	
Styrene	ND	F1	50.0	25.3	F1	ug/L	51	58 - 131	
tert-Butylbenzene	ND	F2 F1	50.0	20.6	F1	ug/L	41	54 - 146	
1,1,1,2-Tetrachloroethane	ND		50.0	32.2		ug/L	64	59 - 137	
1,1,2,2-Tetrachloroethane	ND		50.0	40.2		ug/L	80	66 - 135	
Tetrachloroethene	ND	F1	50.0	24.5	F1	ug/L	49	52 - 133	
Toluene	ND	F1	50.0	29.7	F1	ug/L	59	65 - 130	
trans-1,2-Dichloroethene	ND		50.0	33.0		ug/L	66	61 - 143	
trans-1,3-Dichloropropene	ND		50.0	32.6		ug/L	65	53 - 133	
1,2,3-Trichlorobenzene	ND		50.0	21.6		ug/L	43	43 - 145	
1,2,4-Trichlorobenzene	ND	F1	50.0	18.6	F1	ug/L	37	39 - 148	
1,1,1-Trichloroethane	ND		50.0	32.3		ug/L	65	57 - 142	
1,1,2-Trichloroethane	ND		50.0	36.4		ug/L	73	66 - 131	
Trichloroethene	ND	F1	50.0	28.2	F1	ug/L	56	64 - 136	
Trichlorofluoromethane	ND		50.0	33.0		ug/L	66	54 - 150	
1,2,3-Trichloropropane	ND		50.0	39.4		ug/L	79	65 - 133	
1,2,4-Trimethylbenzene	ND	F1	50.0	21.3	F1	ug/L	43	50 - 139	
1,3,5-Trimethylbenzene	ND	F1	50.0	21.3	F1	ug/L	43	52 - 135	
Vinyl acetate	ND		100	88.3		ug/L	88	26 - 150	
Vinyl chloride	ND		50.0	33.2		ug/L	66	46 - 150	
Xylenes, Total	ND	F1	100	46.4	F1	ug/L	46	59 - 130	

Surrogate	MS	MS	Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	98		78 - 118
Dibromofluoromethane	98		81 - 121
Toluene-d8 (Surf)	102		80 - 120

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194896-3 MSD

Client Sample ID: P93D-ROX-102220

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509403

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits		
Acetone	ND		200	156		ug/L	78	43 - 150	3	30	
Acrolein	ND		500	409		ug/L	82	38 - 150	10	31	
Acrylonitrile	ND		500	475		ug/L	95	62 - 149	2	30	
Benzene	ND		50.0	36.3		ug/L	73	56 - 142	10	30	
Bromobenzene	ND	F1	50.0	32.2		ug/L	64	59 - 136	19	30	
Bromoform	ND		50.0	38.5		ug/L	77	64 - 140	5	30	
Bromochloromethane	ND		50.0	35.1		ug/L	70	59 - 143	9	30	
Bromodichloromethane	ND		50.0	46.5		ug/L	93	50 - 140	10	30	
Bromoform	ND		50.0	44.6		ug/L	89	10 - 150	7	50	
Bromomethane	ND		200	157		ug/L	79	55 - 150	5	30	
2-Butanone (MEK)	ND		50.0	34.4		ug/L	69	48 - 150	5	30	
Carbon disulfide	ND		50.0	35.6		ug/L	71	55 - 145	11	30	
Carbon tetrachloride	ND		50.0	33.4		ug/L	67	64 - 130	19	30	
Chlorobenzene	ND	F1	50.0	40.4		ug/L	81	56 - 143	9	30	
Dibromochloromethane	ND		50.0	34.3		ug/L	64	50 - 150	5	30	
Chloroethane	ND		50.0	ND	F1	ug/L	0	10 - 150	NC	50	
2-Chloroethyl vinyl ether	ND	F1	50.0	35.9		ug/L	72	60 - 141	6	30	
Chloroform	ND		50.0	30.3		ug/L	61	56 - 136	28	30	
1-Chlorohexane	ND	F1	50.0	31.3		ug/L	63	49 - 148	1	31	
Chloromethane	ND		50.0	37.0		ug/L	74	59 - 143	5	30	
cis-1,2-Dichloroethene	ND		50.0	33.8		ug/L	68	57 - 140	11	30	
cis-1,3-Dichloropropene	ND		50.0	34.3		ug/L	69	52 - 137	23	30	
1,2-Dichlorobenzene	ND		50.0	30.9		ug/L	62	54 - 135	25	30	
1,3-Dichlorobenzene	ND	F1	50.0	31.4		ug/L	63	53 - 135	24	30	
1,4-Dichlorobenzene	ND	F1	50.0	15.9		ug/L	32	16 - 150	4	31	
Dichlorodifluoromethane	ND		50.0	37.9		ug/L	76	61 - 144	8	30	
1,1-Dichloroethane	ND		50.0	35.7		ug/L	71	60 - 141	6	30	
1,1-Dichloroethene	ND		50.0	34.7		ug/L	69	54 - 147	2	30	
1,2-Dichloropropane	ND		50.0	37.4		ug/L	75	66 - 137	9	30	
1,3-Dichloropropane	ND		50.0	39.7		ug/L	79	66 - 133	10	30	
2,2-Dichloropropane	ND		50.0	33.5		ug/L	67	42 - 144	7	31	
1,1-Dichloropropene	ND	F1	50.0	32.8		ug/L	66	65 - 136	11	30	
Ethylbenzene	ND	F1	50.0	30.1		ug/L	60	58 - 131	26	30	
Ethyl methacrylate	ND		50.0	40.4		ug/L	81	64 - 130	8	30	
Hexachlorobutadiene	ND		50.0	26.4		ug/L	53	31 - 149	30	36	
2-Hexanone	ND		200	172		ug/L	86	65 - 140	2	30	
Isopropylbenzene	ND	F2 F1	50.0	28.2	F2	ug/L	56	56 - 133	31	30	
Methylene bromide	ND		50.0	35.8		ug/L	72	63 - 138	4	30	
Methylene Chloride	ND		50.0	39.0		ug/L	78	60 - 146	4	32	
4-Methyl-2-pentanone (MIBK)	ND		200	163		ug/L	81	63 - 146	0	30	
Methyl tert-butyl ether	0.95	J	50.0	40.7		ug/L	80	59 - 137	2	30	
m-Xylene & p-Xylene	ND	F1	50.0	30.3		ug/L	61	57 - 130	29	30	
Naphthalene	ND		50.0	26.5		ug/L	53	25 - 150	19	30	
n-Butylbenzene	ND	F2 F1	50.0	27.7	F2	ug/L	55	41 - 142	40	31	
N-Propylbenzene	ND	F1	50.0	27.6		ug/L	55	51 - 138	30	30	
o-Chlorotoluene	ND	F1	50.0	32.0		ug/L	64	53 - 134	30	30	
o-Xylene	ND	F1	50.0	31.0		ug/L	62	61 - 130	27	30	
p-Chlorotoluene	ND	F1	50.0	30.8		ug/L	62	54 - 133	28	30	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 400-194896-3 MSD

Client Sample ID: P93D-ROX-102220

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509403

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec.	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier				Limits		
p-Isopropyltoluene	ND	F2 F1	50.0	26.1	F2	ug/L	52	48 - 139	34	30	
sec-Butylbenzene	ND	F2 F1	50.0	26.8	F2	ug/L	54	50 - 138	35	30	
Styrene	ND	F1	50.0	32.6		ug/L	65	58 - 131	25	30	
tert-Butylbenzene	ND	F2 F1	50.0	28.2	F2	ug/L	56	54 - 146	31	30	
1,1,1,2-Tetrachloroethane	ND		50.0	38.0		ug/L	76	59 - 137	17	30	
1,1,2,2-Tetrachloroethane	ND		50.0	43.1		ug/L	86	66 - 135	7	30	
Tetrachloroethylene	ND	F1	50.0	29.7		ug/L	59	52 - 133	19	30	
Toluene	ND	F1	50.0	35.7		ug/L	71	65 - 130	18	30	
trans-1,2-Dichloroethylene	ND		50.0	36.2		ug/L	72	61 - 143	9	30	
trans-1,3-Dichloropropene	ND		50.0	36.1		ug/L	72	53 - 133	10	30	
1,2,3-Trichlorobenzene	ND		50.0	27.4		ug/L	55	43 - 145	24	30	
1,2,4-Trichlorobenzene	ND	F1	50.0	24.2		ug/L	48	39 - 148	26	30	
1,1,1-Trichloroethane	ND		50.0	35.5		ug/L	71	57 - 142	9	30	
1,1,2-Trichloroethane	ND		50.0	40.2		ug/L	80	66 - 131	10	30	
Trichloroethylene	ND	F1	50.0	32.4		ug/L	65	64 - 136	14	30	
Trichlorofluoromethane	ND		50.0	32.4		ug/L	65	54 - 150	2	30	
1,2,3-Trichloropropane	ND		50.0	42.2		ug/L	84	65 - 133	7	30	
1,2,4-Trimethylbenzene	ND	F1	50.0	28.7		ug/L	57	50 - 139	30	30	
1,3,5-Trimethylbenzene	ND	F1	50.0	28.7		ug/L	57	52 - 135	30	30	
Vinyl acetate	ND		100	82.9		ug/L	83	26 - 150	6	33	
Vinyl chloride	ND		50.0	31.4		ug/L	63	46 - 150	5	30	
Xylenes, Total	ND	F1	100	61.3		ug/L	61	59 - 130	28	30	
<i>Surrogate</i>		<i>MSD</i>	<i>MSD</i>								
		<i>%Recovery</i>		<i>Qualifier</i>		<i>Limits</i>					
4-Bromofluorobenzene		98		78 - 118							
Dibromofluoromethane		97		81 - 121							
Toluene-d8 (Surr)		102		80 - 120							

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 400-508204/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509317

Prep Batch: 508204

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aniline	ND		10	3.8	ug/L		10/26/20 13:21	11/04/20 16:18	1
Benzenethiol	ND		10	1.7	ug/L		10/26/20 13:21	11/04/20 16:18	1
Benzoic acid	ND		30	7.3	ug/L		10/26/20 13:21	11/04/20 16:18	1
Benzyl alcohol	ND		10	2.0	ug/L		10/26/20 13:21	11/04/20 16:18	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L		10/26/20 13:21	11/04/20 16:18	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L		10/26/20 13:21	11/04/20 16:18	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L		10/26/20 13:21	11/04/20 16:18	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L		10/26/20 13:21	11/04/20 16:18	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L		10/26/20 13:21	11/04/20 16:18	1
Butyl benzyl phthalate	ND		10	0.19	ug/L		10/26/20 13:21	11/04/20 16:18	1
4-Chloroaniline	ND		10	3.4	ug/L		10/26/20 13:21	11/04/20 16:18	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Chloronaphthalene	ND		10	0.14	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Chloropheno!	ND		10	2.2	ug/L		10/26/20 13:21	11/04/20 16:18	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 508204

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorophenyl phenyl ether	ND				10	2.0	ug/L		10/26/20 13:21	11/04/20 16:18	1
Dibenz[a,h]acridine	ND				10	1.0	ug/L		10/26/20 13:21	11/04/20 16:18	1
Dibenzofuran	ND				10	0.17	ug/L		10/26/20 13:21	11/04/20 16:18	1
3,3'-Dichlorobenzidine	ND				10	2.6	ug/L		10/26/20 13:21	11/04/20 16:18	1
2,4-Dichlorophenol	ND				10	3.0	ug/L		10/26/20 13:21	11/04/20 16:18	1
Diethyl phthalate	ND				10	0.24	ug/L		10/26/20 13:21	11/04/20 16:18	1
2,4-Dimethylphenol	ND				10	3.5	ug/L		10/26/20 13:21	11/04/20 16:18	1
Dimethyl phthalate	ND				10	0.17	ug/L		10/26/20 13:21	11/04/20 16:18	1
Di-n-butyl phthalate	ND				10	2.7	ug/L		10/26/20 13:21	11/04/20 16:18	1
4,6-Dinitro-ortho-cresol	ND				10	1.6	ug/L		10/26/20 13:21	11/04/20 16:18	1
2,4-Dinitrotoluene	ND				10	1.9	ug/L		10/26/20 13:21	11/04/20 16:18	1
2,6-Dinitrotoluene	ND				10	1.9	ug/L		10/26/20 13:21	11/04/20 16:18	1
Di-n-octyl phthalate	ND				10	0.17	ug/L		10/26/20 13:21	11/04/20 16:18	1
1,4-Dioxane	ND				10	1.0	ug/L		10/26/20 13:21	11/04/20 16:18	1
1,2-Diphenylhydrazine (as Azobenzene)	ND				10	1.0	ug/L		10/26/20 13:21	11/04/20 16:18	1
Hexachlorobenzene	ND				10	0.17	ug/L		10/26/20 13:21	11/04/20 16:18	1
Hexachloroethane	ND				10	4.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
Indene	ND				10	1.0	ug/L		10/26/20 13:21	11/04/20 16:18	1
Isophorone	ND				10	0.14	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Methylphenol	ND				10	1.8	ug/L		10/26/20 13:21	11/04/20 16:18	1
3 & 4 Methylphenol	ND				20	0.39	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Nitroaniline	ND				10	2.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
3-Nitroaniline	ND				10	1.8	ug/L		10/26/20 13:21	11/04/20 16:18	1
4-Nitroaniline	ND				10	1.5	ug/L		10/26/20 13:21	11/04/20 16:18	1
Nitrobenzene	ND				10	0.13	ug/L		10/26/20 13:21	11/04/20 16:18	1
2-Nitrophenol	ND				10	5.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
4-Nitrophenol	ND				10	2.1	ug/L		10/26/20 13:21	11/04/20 16:18	1
N-Nitrosodimethylamine	ND				10	3.5	ug/L		10/26/20 13:21	11/04/20 16:18	1
N-Nitrosodi-n-propylamine	ND				10	3.3	ug/L		10/26/20 13:21	11/04/20 16:18	1
N-Nitrosodiphenylamine	ND				10	0.18	ug/L		10/26/20 13:21	11/04/20 16:18	1
Pentachlorophenol	ND				20	1.4	ug/L		10/26/20 13:21	11/04/20 16:18	1
Phenol	ND				10	2.6	ug/L		10/26/20 13:21	11/04/20 16:18	1
Pyridine	ND				10	3.2	ug/L		10/26/20 13:21	11/04/20 16:18	1
Quinoline	ND				10	4.5	ug/L		10/26/20 13:21	11/04/20 16:18	1
2,4,5-Trichlorophenol	ND				10	3.7	ug/L		10/26/20 13:21	11/04/20 16:18	1
2,4,6-Trichlorophenol	ND				10	3.5	ug/L		10/26/20 13:21	11/04/20 16:18	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac	
2-Fluorobiphenyl	ND		76		46 - 124		10/26/20 13:21	11/04/20 16:18	1
2-Fluorophenol	ND		39		13 - 113		10/26/20 13:21	11/04/20 16:18	1
Nitrobenzene-d5	ND		73		36 - 126		10/26/20 13:21	11/04/20 16:18	1
Phenol-d5	ND		58		17 - 127		10/26/20 13:21	11/04/20 16:18	1
Terphenyl-d14	ND		95		44 - 149		10/26/20 13:21	11/04/20 16:18	1
2,4,6-Tribromophenol	ND		70		26 - 150		10/26/20 13:21	11/04/20 16:18	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike	LCS		Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Aniline	120	110		ug/L	92	21 - 120	
Benzoic acid	466	219		ug/L	47	10 - 144	
Benzyl alcohol	120	108		ug/L	90	28 - 120	
Bis(2-chloroethoxy)methane	120	99.6		ug/L	83	47 - 120	
Bis(2-chloroethyl)ether	120	99.8		ug/L	83	44 - 120	
bis (2-chloroisopropyl) ether	120	108		ug/L	90	33 - 121	
Bis(2-ethylhexyl) phthalate	120	115		ug/L	96	52 - 147	
4-Bromophenyl phenyl ether	120	120		ug/L	100	54 - 122	
Butyl benzyl phthalate	120	118		ug/L	99	54 - 133	
4-Chloroaniline	120	80.1		ug/L	67	26 - 120	
4-Chloro-3-methylphenol	120	97.3		ug/L	81	48 - 131	
2-Choronaphthalene	120	113		ug/L	95	52 - 121	
2-Chlorophenol	120	81.2		ug/L	68	40 - 120	
4-Chlorophenyl phenyl ether	120	117		ug/L	97	56 - 125	
Dibenz[a,h]acridine	120	117		ug/L	98	31 - 150	
Dibenzofuran	120	117		ug/L	97	56 - 122	
3,3'-Dichlorobenzidine	160	283	*	ug/L	177	36 - 132	
2,4-Dichlorophenol	120	96.0		ug/L	80	49 - 120	
Diethyl phthalate	120	131		ug/L	110	50 - 137	
2,4-Dimethylphenol	120	95.0		ug/L	79	48 - 120	
Dimethyl phthalate	120	121		ug/L	101	57 - 124	
Di-n-butyl phthalate	120	122		ug/L	102	58 - 126	
4,6-Dinitro-ortho-cresol	240	257		ug/L	107	23 - 148	
2,4-Dinitrophenol	240	246		ug/L	102	10 - 150	
2,4-Dinitrotoluene	120	121		ug/L	101	54 - 142	
2,6-Dinitrotoluene	120	117		ug/L	97	55 - 130	
Di-n-octyl phthalate	120	121		ug/L	101	57 - 138	
1,4-Dioxane	120	77.5		ug/L	65	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	120	115		ug/L	96	45 - 124	
Hexachlorobenzene	120	136		ug/L	114	52 - 129	
Hexachlorocyclopentadiene	120	62.8		ug/L	52	10 - 134	
Hexachloroethane	120	101		ug/L	85	20 - 120	
Indene	120	102		ug/L	85	49 - 120	
Isophorone	120	99.4		ug/L	83	48 - 120	
2-Methylphenol	120	110		ug/L	92	46 - 124	
3 & 4 Methylphenol	120	114		ug/L	95	45 - 120	
2-Nitroaniline	120	122		ug/L	102	51 - 145	
3-Nitroaniline	120	112		ug/L	93	37 - 127	
4-Nitroaniline	120	161		ug/L	134	36 - 137	
Nitrobenzene	120	91.2		ug/L	76	45 - 120	
2-Nitrophenol	120	90.2		ug/L	75	40 - 124	
4-Nitrophenol	240	225		ug/L	94	23 - 146	
N-Nitrosodimethylamine	120	107		ug/L	89	29 - 137	
N-Nitrosodi-n-propylamine	120	115		ug/L	96	45 - 120	
N-Nitrosodiphenylamine	119	117		ug/L	98	54 - 120	
Pentachlorophenol	240	269		ug/L	112	31 - 130	
Phenol	120	107		ug/L	89	11 - 120	
Pyridine	240	158		ug/L	66	16 - 120	

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

%Rec.

Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Quinoline	120	95.4		ug/L		80	49 - 130
2,4,5-Trichlorophenol	120	109		ug/L		91	51 - 136
2,4,6-Trichlorophenol	120	113		ug/L		94	50 - 127

Surrogate LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	94		46 - 124
2-Fluorophenol	39		13 - 113
Nitrobenzene-d5	73		36 - 126
Phenol-d5	69		17 - 127
Terphenyl-d14	87		44 - 149
2,4,6-Tribromophenol	96		26 - 150

Lab Sample ID: LCS 400-508204/4-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

%Rec.

Limits

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Benzene-thiol	120	3.75	J*	ug/L		3	10 - 120

Surrogate LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	79		46 - 124
2-Fluorophenol	40		13 - 113
Nitrobenzene-d5	76		36 - 126
Phenol-d5	61		17 - 127
Terphenyl-d14	97		44 - 149
2,4,6-Tribromophenol	36		26 - 150

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aniline	120	108		ug/L		90	21 - 120	2	30
Benzoic acid	466	246		ug/L		53	10 - 144	12	30
Benzyl alcohol	120	99.4		ug/L		83	28 - 120	9	30
Bis(2-chloroethoxy)methane	120	89.2		ug/L		74	47 - 120	11	30
Bis(2-chloroethyl)ether	120	88.0		ug/L		73	44 - 120	13	30
bis (2-chloroisopropyl) ether	120	94.2		ug/L		78	33 - 121	13	30
Bis(2-ethylhexyl) phthalate	120	103		ug/L		86	52 - 147	11	30
4-Bromophenyl phenyl ether	120	106		ug/L		88	54 - 122	13	30
Butyl benzyl phthalate	120	103		ug/L		86	54 - 133	14	30
4-Chloroaniline	120	109		ug/L		91	26 - 120	30	30
4-Chloro-3-methylphenol	120	85.2		ug/L		71	48 - 131	13	30
2-Chloronaphthalene	120	101		ug/L		84	52 - 121	11	30
2-Chlorophenol	120	67.6		ug/L		56	40 - 120	18	30
4-Chlorophenyl phenyl ether	120	105		ug/L		88	56 - 125	10	30
Dibenz[a,h]acridine	120	106		ug/L		89	31 - 150	10	30
Dibenzofuran	120	106		ug/L		88	56 - 122	10	30

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509317

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
3,3'-Dichlorobenzidine	160	244	*	ug/L		153	36 - 132	15	30
2,4-Dichlorophenol	120	83.8		ug/L		70	49 - 120	13	30
Diethyl phthalate	120	119		ug/L		99	50 - 137	10	30
2,4-Dimethylphenol	120	85.9		ug/L		72	48 - 120	10	30
Dimethyl phthalate	120	110		ug/L		91	57 - 124	10	30
Di-n-butyl phthalate	120	109		ug/L		91	58 - 126	11	30
4,6-Dinitro-ortho-cresol	240	244		ug/L		102	23 - 148	5	30
2,4-Dinitrophenol	240	240		ug/L		100	10 - 150	2	30
2,4-Dinitrotoluene	120	108		ug/L		90	54 - 142	11	30
2,6-Dinitrotoluene	120	104		ug/L		87	55 - 130	11	30
Di-n-octyl phthalate	120	106		ug/L		89	57 - 138	13	30
1,4-Dioxane	120	70.5		ug/L		59	31 - 120	9	30
1,2-Diphenylhydrazine (as Azobenzene)	120	103		ug/L		86	45 - 124	11	30
Hexachlorobenzene	120	118		ug/L		99	52 - 129	14	30
Hexachlorocyclopentadiene	120	80.0		ug/L		67	10 - 134	24	30
Hexachloroethane	120	89.4		ug/L		75	20 - 120	13	30
Indene	120	91.8		ug/L		77	49 - 120	10	30
Isophorone	120	87.9		ug/L		73	48 - 120	12	30
2-Methylphenol	120	95.9		ug/L		80	46 - 124	14	30
3 & 4 Methylphenol	120	101		ug/L		84	45 - 120	12	30
2-Nitroaniline	120	110		ug/L		92	51 - 145	10	30
3-Nitroaniline	120	105		ug/L		87	37 - 127	6	30
4-Nitroaniline	120	152		ug/L		127	36 - 137	6	30
Nitrobenzene	120	80.3		ug/L		67	45 - 120	13	30
2-Nitrophenol	120	83.4		ug/L		70	40 - 124	8	30
4-Nitrophenol	240	205		ug/L		86	23 - 146	9	30
N-Nitrosodimethylamine	120	99.9		ug/L		83	29 - 137	7	30
N-Nitrosodi-n-propylamine	120	103		ug/L		86	45 - 120	11	30
N-Nitrosodiphenylamine	119	105		ug/L		88	54 - 120	11	30
Pentachlorophenol	240	246		ug/L		102	31 - 130	9	30
Phenol	120	94.5		ug/L		79	11 - 120	13	30
Pyridine	240	135		ug/L		56	16 - 120	16	30
Quinoline	120	84.4		ug/L		70	49 - 130	12	30
2,4,5-Trichlorophenol	120	103		ug/L		86	51 - 136	6	30
2,4,6-Trichlorophenol	120	101		ug/L		84	50 - 127	11	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	82		46 - 124
2-Fluorophenol	32		13 - 113
Nitrobenzene-d5	64		36 - 126
Phenol-d5	61		17 - 127
Terphenyl-d14	77		44 - 149
2,4,6-Tribromophenol	88		26 - 150

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-508204/5-A

Client Sample ID: Lab Control Sample Dup

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509317

Prep Batch: 508204

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	RPD
	120	4.19	J *	ug/L	3	10 - 120	11

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	77		46 - 124
2-Fluorophenol	22		13 - 113
Nitrobenzene-d5	72		36 - 126
Phenol-d5	51		17 - 127
Terphenyl-d14	94		44 - 149
2,4,6-Tribromophenol	14	X	26 - 150

Lab Sample ID: MB 400-508532/1-A

Client Sample ID: Method Blank

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509635

Prep Batch: 508532

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	ND		10	3.8	ug/L	10/28/20	12:42	11/06/20 23:47	1
Benzenethiol	ND		10	1.7	ug/L	10/28/20	12:42	11/06/20 23:47	1
Benzoic acid	ND		30	7.3	ug/L	10/28/20	12:42	11/06/20 23:47	1
Benzyl alcohol	ND		10	2.0	ug/L	10/28/20	12:42	11/06/20 23:47	1
Bis(2-chloroethoxy)methane	ND		10	0.16	ug/L	10/28/20	12:42	11/06/20 23:47	1
Bis(2-chloroethyl)ether	ND		10	2.7	ug/L	10/28/20	12:42	11/06/20 23:47	1
bis (2-chloroisopropyl) ether	ND		10	0.16	ug/L	10/28/20	12:42	11/06/20 23:47	1
Bis(2-ethylhexyl) phthalate	ND		10	5.0	ug/L	10/28/20	12:42	11/06/20 23:47	1
4-Bromophenyl phenyl ether	ND		10	0.20	ug/L	10/28/20	12:42	11/06/20 23:47	1
Butyl benzyl phthalate	ND		10	0.19	ug/L	10/28/20	12:42	11/06/20 23:47	1
4-Chloroaniline	ND		10	3.4	ug/L	10/28/20	12:42	11/06/20 23:47	1
4-Chloro-3-methylphenol	ND		10	3.8	ug/L	10/28/20	12:42	11/06/20 23:47	1
2-Chloronaphthalene	ND		10	0.14	ug/L	10/28/20	12:42	11/06/20 23:47	1
2-Chlorophenol	ND		10	2.2	ug/L	10/28/20	12:42	11/06/20 23:47	1
4-Chlorophenyl phenyl ether	ND		10	2.0	ug/L	10/28/20	12:42	11/06/20 23:47	1
Dibenz[a,h]acridine	ND		10	1.0	ug/L	10/28/20	12:42	11/06/20 23:47	1
Dibenzofuran	ND		10	0.17	ug/L	10/28/20	12:42	11/06/20 23:47	1
3,3'-Dichlorobenzidine	ND		10	2.6	ug/L	10/28/20	12:42	11/06/20 23:47	1
2,4-Dichlorophenol	ND		10	3.0	ug/L	10/28/20	12:42	11/06/20 23:47	1
Diethyl phthalate	ND		10	0.24	ug/L	10/28/20	12:42	11/06/20 23:47	1
2,4-Dimethylphenol	ND		10	3.5	ug/L	10/28/20	12:42	11/06/20 23:47	1
Dimethyl phthalate	ND		10	0.17	ug/L	10/28/20	12:42	11/06/20 23:47	1
Di-n-butyl phthalate	ND		10	2.7	ug/L	10/28/20	12:42	11/06/20 23:47	1
4,6-Dinitro-ortho-cresol	ND		10	1.6	ug/L	10/28/20	12:42	11/06/20 23:47	1
2,4-Dinitrophenol	ND		30	3.4	ug/L	10/28/20	12:42	11/06/20 23:47	1
2,4-Dinitrotoluene	ND		10	1.9	ug/L	10/28/20	12:42	11/06/20 23:47	1
2,6-Dinitrotoluene	ND		10	1.9	ug/L	10/28/20	12:42	11/06/20 23:47	1
Di-n-octyl phthalate	ND		10	0.17	ug/L	10/28/20	12:42	11/06/20 23:47	1
1,4-Dioxane	ND		10	1.0	ug/L	10/28/20	12:42	11/06/20 23:47	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		10	1.0	ug/L	10/28/20	12:42	11/06/20 23:47	1
Hexachlorobenzene	ND		10	0.17	ug/L	10/28/20	12:42	11/06/20 23:47	1
Hexachlorocyclopentadiene	ND		20	2.6	ug/L	10/28/20	12:42	11/06/20 23:47	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 400-508532/1-A

Matrix: Water

Analysis Batch: 509635

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508532

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachloroethane	ND				10	4.2	ug/L		10/28/20 12:42	11/06/20 23:47	1
Indene	ND				10	1.0	ug/L		10/28/20 12:42	11/06/20 23:47	1
Isophorone	ND				10	0.14	ug/L		10/28/20 12:42	11/06/20 23:47	1
2-Methylphenol	ND				10	1.8	ug/L		10/28/20 12:42	11/06/20 23:47	1
3 & 4 Methylphenol	ND				20	0.39	ug/L		10/28/20 12:42	11/06/20 23:47	1
2-Nitroaniline	ND				10	2.2	ug/L		10/28/20 12:42	11/06/20 23:47	1
3-Nitroaniline	ND				10	1.8	ug/L		10/28/20 12:42	11/06/20 23:47	1
4-Nitroaniline	ND				10	1.5	ug/L		10/28/20 12:42	11/06/20 23:47	1
Nitrobenzene	ND				10	0.13	ug/L		10/28/20 12:42	11/06/20 23:47	1
2-Nitrophenol	ND				10	5.2	ug/L		10/28/20 12:42	11/06/20 23:47	1
4-Nitrophenol	ND				10	2.1	ug/L		10/28/20 12:42	11/06/20 23:47	1
N-Nitrosodimethylamine	ND				10	3.5	ug/L		10/28/20 12:42	11/06/20 23:47	1
N-Nitrosodi-n-propylamine	ND				10	3.3	ug/L		10/28/20 12:42	11/06/20 23:47	1
N-Nitrosodiphenylamine	ND				10	0.18	ug/L		10/28/20 12:42	11/06/20 23:47	1
Pentachlorophenol	ND				20	1.4	ug/L		10/28/20 12:42	11/06/20 23:47	1
Phenol	ND				10	2.6	ug/L		10/28/20 12:42	11/06/20 23:47	1
Pyridine	ND				10	3.2	ug/L		10/28/20 12:42	11/06/20 23:47	1
Quinoline	ND				10	4.5	ug/L		10/28/20 12:42	11/06/20 23:47	1
2,4,5-Trichlorophenol	ND				10	3.7	ug/L		10/28/20 12:42	11/06/20 23:47	1
2,4,6-Trichlorophenol	ND				10	3.5	ug/L		10/28/20 12:42	11/06/20 23:47	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	69		69		46 - 124	10/28/20 12:42	11/06/20 23:47	1
2-Fluorophenol	3	X	3		13 - 113	10/28/20 12:42	11/06/20 23:47	1
Nitrobenzene-d5	64		64		36 - 126	10/28/20 12:42	11/06/20 23:47	1
Phenol-d5	20		20		17 - 127	10/28/20 12:42	11/06/20 23:47	1
Terphenyl-d14	97		97		44 - 149	10/28/20 12:42	11/06/20 23:47	1
2,4,6-Tribromophenol	42		42		26 - 150	10/28/20 12:42	11/06/20 23:47	1

Lab Sample ID: LCS 400-508532/2-A

Matrix: Water

Analysis Batch: 509635

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508532

Analyte	Spike Added	MB	LCS	LCS	Result	Qualifier	Unit	D	%Rec	Limits
Aniline	120		98.0				ug/L		82	21 - 120
Benzoic acid	466		155				ug/L		33	10 - 144
Benzyl alcohol	120		79.8				ug/L		66	28 - 120
Bis(2-chloroethoxy)methane	120		79.3				ug/L		66	47 - 120
Bis(2-chloroethyl)ether	120		77.2				ug/L		64	44 - 120
bis (2-chloroisopropyl) ether	120		85.6				ug/L		71	33 - 121
Bis(2-ethylhexyl) phthalate	120		105				ug/L		87	52 - 147
4-Bromophenyl phenyl ether	120		108				ug/L		90	54 - 122
Butyl benzyl phthalate	120		105				ug/L		88	54 - 133
4-Chloroaniline	120		93.6				ug/L		78	26 - 120
4-Chloro-3-methylphenol	120		70.2				ug/L		59	48 - 131
2-Chloronaphthalene	120		98.1				ug/L		82	52 - 121
2-Chlorophenol	120		21.4 *				ug/L		18	40 - 120
4-Chlorophenyl phenyl ether	120		105				ug/L		88	56 - 125

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508532/2-A

Client Sample ID: Lab Control Sample

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 509635

Prep Batch: 508532

%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Dibenz[a,h]acridine	120	104		ug/L	87	31 - 150	
Dibenzofuran	120	104		ug/L	87	56 - 122	
3,3'-Dichlorobenzidine	160	199		ug/L	124	36 - 132	
2,4-Dichlorophenol	120	56.5 *		ug/L	47	49 - 120	
Diethyl phthalate	120	123		ug/L	103	50 - 137	
2,4-Dimethylphenol	120	79.2		ug/L	66	48 - 120	
Dimethyl phthalate	120	106		ug/L	88	57 - 124	
Di-n-butyl phthalate	120	112		ug/L	93	58 - 126	
4,6-Dinitro-ortho-cresol	240	181		ug/L	75	23 - 148	
2,4-Dinitrophenol	240	172		ug/L	71	10 - 150	
2,4-Dinitrotoluene	120	107		ug/L	89	54 - 142	
2,6-Dinitrotoluene	120	101		ug/L	84	55 - 130	
Di-n-octyl phthalate	120	106		ug/L	88	57 - 138	
1,4-Dioxane	120	61.4		ug/L	51	31 - 120	
1,2-Diphenylhydrazine (as Azobenzene)	120	100		ug/L	83	45 - 124	
Hexachlorobenzene	120	128		ug/L	107	52 - 129	
Hexachlorocyclopentadiene	120	90.2		ug/L	75	10 - 134	
Hexachloroethane	120	84.2		ug/L	70	20 - 120	
Indene	120	90.0		ug/L	75	49 - 120	
Isophorone	120	81.0		ug/L	67	48 - 120	
2-Methylphenol	120	84.6		ug/L	71	46 - 124	
3 & 4 Methylphenol	120	85.9		ug/L	72	45 - 120	
2-Nitroaniline	120	99.6		ug/L	83	51 - 145	
3-Nitroaniline	120	81.3		ug/L	68	37 - 127	
4-Nitroaniline	120	136		ug/L	113	36 - 137	
Nitrobenzene	120	72.5		ug/L	60	45 - 120	
2-Nitrophenol	120	39.7 *		ug/L	33	40 - 124	
4-Nitrophenol	240	145		ug/L	61	23 - 146	
N-Nitrosodimethylamine	120	91.8		ug/L	77	29 - 137	
N-Nitrosodi-n-propylamine	120	102		ug/L	85	45 - 120	
N-Nitrosodiphenylamine	119	102		ug/L	85	54 - 120	
Pentachlorophenol	240	228		ug/L	95	31 - 130	
Phenol	120	43.1		ug/L	36	11 - 120	
Pyridine	240	130		ug/L	54	16 - 120	
Quinoline	120	86.6		ug/L	72	49 - 130	
2,4,5-Trichlorophenol	120	84.7		ug/L	71	51 - 136	
2,4,6-Trichlorophenol	120	75.3		ug/L	63	50 - 127	

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	86		46 - 124
2-Fluorophenol	3	X	13 - 113
Nitrobenzene-d5	63		36 - 126
Phenol-d5	31		17 - 127
Terphenyl-d14	90		44 - 149
2,4,6-Tribromophenol	84		26 - 150

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 400-508532/4-A

Matrix: Water

Analysis Batch: 509635

Analyte	Spike Added	LCS	LCS	Unit	D	Client Sample ID: Lab Control Sample	
		Result	Qualifier			%Rec.	Limits
Benzenethiol	120	4.00	J *	ug/L		3	10 - 120
Surrogate							
2-Fluorobiphenyl	78	46 - 124					
Nitrobenzene-d5	73	36 - 126					
Terphenyl-d14	105	44 - 149					

Lab Sample ID: LCSD 400-508532/3-A

Matrix: Water

Analysis Batch: 509635

Analyte	Spike Added	LCSD	LCSD	Unit	D	Client Sample ID: Lab Control Sample Dup	
		Result	Qualifier			%Rec.	RPD
Aniline	120	111		ug/L	93	21 - 120	13
Benzoic acid	466	170		ug/L	36	10 - 144	9
Benzyl alcohol	120	92.7		ug/L	77	28 - 120	15
Bis(2-chloroethoxy)methane	120	83.0		ug/L	69	47 - 120	5
Bis(2-chloroethyl)ether	120	87.0		ug/L	72	44 - 120	12
bis (2-chloroisopropyl) ether	120	95.5		ug/L	80	33 - 121	11
Bis(2-ethylhexyl) phthalate	120	106		ug/L	88	52 - 147	1
4-Bromophenyl phenyl ether	120	113		ug/L	94	54 - 122	5
Butyl benzyl phthalate	120	105		ug/L	87	54 - 133	0
4-Chloroaniline	120	79.8		ug/L	67	26 - 120	16
4-Chloro-3-methylphenol	120	83.3		ug/L	69	48 - 131	17
2-Chloronaphthalene	120	106		ug/L	88	52 - 121	8
2-Chlorophenol	120	42.4 **1		ug/L	35	40 - 120	66
4-Chlorophenyl phenyl ether	120	112		ug/L	93	56 - 125	7
Dibenz[a,h]acridine	120	112		ug/L	94	31 - 150	7
Dibenzofuran	120	113		ug/L	94	56 - 122	8
3,3'-Dichlorobenzidine	160	256 *		ug/L	160	36 - 132	25
2,4-Dichlorophenol	120	63.7		ug/L	53	49 - 120	12
Diethyl phthalate	120	138		ug/L	115	50 - 137	11
2,4-Dimethylphenol	120	86.1		ug/L	72	48 - 120	8
Dimethyl phthalate	120	115		ug/L	96	57 - 124	8
Di-n-butyl phthalate	120	119		ug/L	99	58 - 126	6
4,6-Dinitro-ortho-cresol	240	225		ug/L	94	23 - 148	22
2,4-Dinitrophenol	240	234 *1		ug/L	98	10 - 150	31
2,4-Dinitrotoluene	120	115		ug/L	96	54 - 142	7
2,6-Dinitrotoluene	120	109		ug/L	91	55 - 130	8
Di-n-octyl phthalate	120	108		ug/L	90	57 - 138	2
1,4-Dioxane	120	74.0		ug/L	62	31 - 120	19
1,2-Diphenylhydrazine (as Azobenzene)	120	106		ug/L	89	45 - 124	6
Hexachlorobenzene	120	139		ug/L	116	52 - 129	8
Hexachlorocyclopentadiene	120	95.9		ug/L	80	10 - 134	6
Hexachloroethane	120	77.3		ug/L	64	20 - 120	9
Indene	120	94.9		ug/L	79	49 - 120	5
Isophorone	120	85.0		ug/L	71	48 - 120	5
2-Methylphenol	120	109		ug/L	91	46 - 124	25

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 400-508532/3-A

Matrix: Water

Analysis Batch: 509635

Analyte	Spike Added	LCSD			D	%Rec	Limits	RPD	Limit
		Result	Qualifier	Unit					
3 & 4 Methylphenol	120	116		ug/L	97	45 - 120	30	30	
2-Nitroaniline	120	109		ug/L	91	51 - 145	9	30	
3-Nitroaniline	120	103		ug/L	86	37 - 127	24	30	
4-Nitroaniline	120	163		ug/L	136	36 - 137	18	30	
Nitrobenzene	120	74.4		ug/L	62	45 - 120	3	30	
2-Nitrophenol	120	52.0		ug/L	43	40 - 124	27	30	
4-Nitrophenol	240	162		ug/L	68	23 - 146	11	30	
N-Nitrosodimethylamine	120	108		ug/L	90	29 - 137	16	30	
N-Nitrosodi-n-propylamine	120	114		ug/L	95	45 - 120	11	30	
N-Nitrosodiphenylamine	119	109		ug/L	91	54 - 120	7	30	
Pentachlorophenol	240	247		ug/L	103	31 - 130	8	30	
Phenol	120	73.6 *1		ug/L	61	11 - 120	52	30	
Pyridine	240	136		ug/L	57	16 - 120	5	30	
Quinoline	120	91.2		ug/L	76	49 - 130	5	30	
2,4,5-Trichlorophenol	120	91.5		ug/L	76	51 - 136	8	30	
2,4,6-Trichlorophenol	120	79.5		ug/L	66	50 - 127	5	30	

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	84				46 - 124
2-Fluorophenol	13				13 - 113
Nitrobenzene-d5	61				36 - 126
Phenol-d5	49				17 - 127
Terphenyl-d14	83				44 - 149
2,4,6-Tribromophenol	85				26 - 150

Lab Sample ID: LCSD 400-508532/5-A

Matrix: Water

Analysis Batch: 509635

Analyte	Spike Added	LCSD			D	%Rec	Limits	RPD	Limit
		Result	Qualifier	Unit					
Benzethiol	120	5.05	J *	ug/L	4	10 - 120	23	30	

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	79				46 - 124
Nitrobenzene-d5	76				36 - 126
Terphenyl-d14	111				44 - 149

Method: 8270D - Semivolatile Organic Compounds (GC/MS) - RA

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509841

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-Dinitrophenol - RA	ND		30	3.4	ug/L		10/26/20 13:21	11/08/20 15:23	1
Hexachlorocyclopentadiene - RA	ND		20	2.6	ug/L		10/26/20 13:21	11/08/20 15:23	1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level

Lab Sample ID: MB 400-508204/1-A

Matrix: Water

Analysis Batch: 509134

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508204

Analyte	MB	MB	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		ND		0.20	0.032	ug/L		10/26/20 13:21	11/03/20 15:51	1
Acenaphthylene	ND		ND		0.20	0.045	ug/L		10/26/20 13:21	11/03/20 15:51	1
Anthracene	ND		ND		0.20	0.032	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[a]anthracene	ND		ND		0.20	0.046	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[a]pyrene	ND		ND		0.20	0.042	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[b]fluoranthene	ND		ND		0.20	0.034	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[g,h,i]perylene	ND		ND		0.20	0.13	ug/L		10/26/20 13:21	11/03/20 15:51	1
Benzo[k]fluoranthene	ND		ND		0.20	0.10	ug/L		10/26/20 13:21	11/03/20 15:51	1
Chrysene	ND		ND		0.20	0.074	ug/L		10/26/20 13:21	11/03/20 15:51	1
Dibenz(a,h)anthracene	ND		ND		0.20	0.050	ug/L		10/26/20 13:21	11/03/20 15:51	1
Fluoranthene	ND		ND		0.20	0.068	ug/L		10/26/20 13:21	11/03/20 15:51	1
Fluorene	ND		ND		0.20	0.11	ug/L		10/26/20 13:21	11/03/20 15:51	1
Indeno[1,2,3-cd]pyrene	ND		ND		0.20	0.043	ug/L		10/26/20 13:21	11/03/20 15:51	1
1-Methylnaphthalene	ND		ND		0.20	0.074	ug/L		10/26/20 13:21	11/03/20 15:51	1
2-Methylnaphthalene	ND		ND		0.20	0.060	ug/L		10/26/20 13:21	11/03/20 15:51	1
Phenanthrene	ND		ND		0.20	0.036	ug/L		10/26/20 13:21	11/03/20 15:51	1
Pyrene	ND		ND		0.20	0.040	ug/L		10/26/20 13:21	11/03/20 15:51	1

Surrogate	MB	MB	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	95		95		15 - 122	10/26/20 13:21	11/03/20 15:51	1
Nitrobenzene-d5	99		99		19 - 130	10/26/20 13:21	11/03/20 15:51	1
Terphenyl-d14	108		108		33 - 138	10/26/20 13:21	11/03/20 15:51	1

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509134

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Analyte	Spike	LCS	LCS	Added	Result	Qualifier	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier								
Acenaphthene		120	124				ug/L		103	41 - 120	
Acenaphthylene		120	114				ug/L		95	44 - 120	
Anthracene		120	125				ug/L		104	49 - 120	
Benzo[a]anthracene		120	119				ug/L		99	61 - 135	
Benzo[a]pyrene		120	126				ug/L		105	52 - 120	
Benzo[b]fluoranthene		120	110				ug/L		92	53 - 134	
Benzo[g,h,i]perylene		120	142				ug/L		118	47 - 133	
Benzo[k]fluoranthene		120	119				ug/L		99	57 - 134	
Chrysene		120	126				ug/L		105	55 - 122	
Dibenz(a,h)anthracene		120	140				ug/L		116	48 - 146	
Fluoranthene		120	131				ug/L		109	54 - 128	
Fluorene		120	132				ug/L		110	45 - 125	
Indeno[1,2,3-cd]pyrene		120	149				ug/L		124	43 - 142	
1-Methylnaphthalene		120	106				ug/L		88	41 - 120	
2-Methylnaphthalene		120	107				ug/L		89	32 - 124	
Phenanthrene		120	119				ug/L		100	48 - 120	
Pyrene		120	109				ug/L		91	48 - 132	

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
	Added	Result			
2-Fluorobiphenyl	96		96		15 - 122

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCS 400-508204/2-A

Matrix: Water

Analysis Batch: 509134

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508204

Surrogate	LCS	LCS	%Recovery	Qualifier	Limits
Nitrobenzene-d5			117		19 - 130
Terphenyl-d14			105		33 - 138

Lab Sample ID: LCSD 400-508204/3-A

Matrix: Water

Analysis Batch: 509134

Analyte	Spike Added	LCSD		Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
Acenaphthene	120	107		ug/L	89	41 - 120	15	56	
Acenaphthylene	120	101		ug/L	84	44 - 120	13	56	
Anthracene	120	123		ug/L	103	49 - 120	2	51	
Benz[a]anthracene	120	122		ug/L	101	61 - 135	2	49	
Benz[a]pyrene	120	120		ug/L	100	52 - 120	5	50	
Benz[b]fluoranthene	120	101		ug/L	84	53 - 134	9	54	
Benz[g,h,i]perylene	120	129		ug/L	107	47 - 133	10	50	
Benz[k]fluoranthene	120	112		ug/L	93	57 - 134	6	52	
Chrysene	120	124		ug/L	103	55 - 122	2	50	
Dibenz(a,h)anthracene	120	127		ug/L	106	48 - 146	10	50	
Fluoranthene	120	124		ug/L	103	54 - 128	5	52	
Fluorene	120	114		ug/L	95	45 - 125	15	56	
Indeno[1,2,3-cd]pyrene	120	139		ug/L	115	43 - 142	7	51	
1-Methylnaphthalene	120	101		ug/L	84	41 - 120	5	55	
2-Methylnaphthalene	120	99.0		ug/L	83	32 - 124	8	57	
Phenanthrene	120	110		ug/L	92	48 - 120	8	56	
Pyrene	120	107		ug/L	89	48 - 132	2	52	

Surrogate	LCSD	LCSD	%Recovery	Qualifier	Limits
2-Fluorobiphenyl	86				15 - 122
Nitrobenzene-d5	109				19 - 130
Terphenyl-d14	100				33 - 138

Lab Sample ID: MB 400-508532/1-A

Matrix: Water

Analysis Batch: 509454

Analyte	MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	ND		0.20	0.032	ug/L	10/28/20 12:42	11/05/20 17:03		1
Acenaphthylene	ND		0.20	0.045	ug/L	10/28/20 12:42	11/05/20 17:03		1
Anthracene	ND		0.20	0.032	ug/L	10/28/20 12:42	11/05/20 17:03		1
Benz[a]anthracene	ND		0.20	0.046	ug/L	10/28/20 12:42	11/05/20 17:03		1
Benz[a]pyrene	ND		0.20	0.042	ug/L	10/28/20 12:42	11/05/20 17:03		1
Benz[b]fluoranthene	ND		0.20	0.034	ug/L	10/28/20 12:42	11/05/20 17:03		1
Benz[g,h,i]perylene	ND		0.20	0.13	ug/L	10/28/20 12:42	11/05/20 17:03		1
Benz[k]fluoranthene	ND		0.20	0.10	ug/L	10/28/20 12:42	11/05/20 17:03		1
Chrysene	ND		0.20	0.074	ug/L	10/28/20 12:42	11/05/20 17:03		1
Dibenz(a,h)anthracene	ND		0.20	0.050	ug/L	10/28/20 12:42	11/05/20 17:03		1
Fluoranthene	ND		0.20	0.068	ug/L	10/28/20 12:42	11/05/20 17:03		1
Fluorene	ND		0.20	0.11	ug/L	10/28/20 12:42	11/05/20 17:03		1

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: MB 400-508532/1-A

Matrix: Water

Analysis Batch: 509454

Analyte	MB MB		RL	MDL	Unit	D	Prepared Analyzed		Dil Fac
	Result	Qualifier					Prepared	Analyzed	
Indeno[1,2,3-cd]pyrene	ND		0.20	0.043	ug/L		10/28/20 12:42	11/05/20 17:03	1
1-Methylnaphthalene	ND		0.20	0.074	ug/L		10/28/20 12:42	11/05/20 17:03	1
2-Methylnaphthalene	ND		0.20	0.060	ug/L		10/28/20 12:42	11/05/20 17:03	1
Phenanthrene	ND		0.20	0.036	ug/L		10/28/20 12:42	11/05/20 17:03	1
Pyrene	ND		0.20	0.040	ug/L		10/28/20 12:42	11/05/20 17:03	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2-Fluorobiphenyl	83		15 - 122	10/28/20 12:42	11/05/20 17:03	1
Nitrobenzene-d5	97		19 - 130	10/28/20 12:42	11/05/20 17:03	1
Terphenyl-d14	133		33 - 138	10/28/20 12:42	11/05/20 17:03	1

Lab Sample ID: LCS 400-508532/2-A

Matrix: Water

Analysis Batch: 509454

Analyte	Spike LCS LCS		Unit	D	%Rec	Limits
	Added	Result Qualifier				
Acenaphthene	120	106	ug/L		89	41 - 120
Acenaphthylene	120	100	ug/L		83	44 - 120
Anthracene	120	113	ug/L		94	49 - 120
Benzo[a]anthracene	120	104	ug/L		87	61 - 135
Benzo[a]pyrene	120	110	ug/L		92	52 - 120
Benzo[b]fluoranthene	120	97.6	ug/L		81	53 - 134
Benzo[g,h,i]perylene	120	110	ug/L		91	47 - 133
Benzo[k]fluoranthene	120	115	ug/L		96	57 - 134
Chrysene	120	106	ug/L		88	55 - 122
Dibenz(a,h)anthracene	120	128	ug/L		106	48 - 146
Fluoranthene	120	114	ug/L		95	54 - 128
Fluorene	120	119	ug/L		99	45 - 125
Indeno[1,2,3-cd]pyrene	120	125	ug/L		104	43 - 142
1-Methylnaphthalene	120	77.7	ug/L		65	41 - 120
2-Methylnaphthalene	120	77.6	ug/L		65	32 - 124
Phenanthrene	120	113	ug/L		94	48 - 120
Pyrene	120	106	ug/L		88	48 - 132

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2-Fluorobiphenyl	69		15 - 122
Nitrobenzene-d5	72		19 - 130
Terphenyl-d14	103		33 - 138

Lab Sample ID: LCSD 400-508532/3-A

Matrix: Water

Analysis Batch: 509454

Analyte	Spike LCSD LCSD		Unit	D	%Rec	Limits	RPD	Limit
	Added	Result Qualifier						
Acenaphthene	120	116	ug/L		97	41 - 120	9	56
Acenaphthylene	120	108	ug/L		90	44 - 120	8	56
Anthracene	120	117	ug/L		97	49 - 120	4	51
Benzo[a]anthracene	120	112	ug/L		94	61 - 135	8	49

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 508532

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8270D LL - Semivolatile Organic Compounds by GC/MS - Low Level (Continued)

Lab Sample ID: LCSD 400-508532/3-A

Matrix: Water

Analysis Batch: 509454

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508532

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Benzo[a]pyrene	120	115		ug/L	96	52 - 120	4	50	
Benzo[b]fluoranthene	120	111		ug/L	93	53 - 134	13	54	
Benzo[g,h,i]perylene	120	85.1		ug/L	71	47 - 133	25	50	
Benzo[k]fluoranthene	120	124		ug/L	104	57 - 134	8	52	
Chrysene	120	113		ug/L	94	55 - 122	6	50	
Dibenz(a,h)anthracene	120	105		ug/L	88	48 - 146	19	50	
Fluoranthene	120	120		ug/L	100	54 - 128	5	52	
Fluorene	120	128		ug/L	106	45 - 125	7	56	
Indeno[1,2,3-cd]pyrene	120	106		ug/L	88	43 - 142	17	51	
1-Methylnaphthalene	120	79.9		ug/L	67	41 - 120	3	55	
2-Methylnaphthalene	120	84.2		ug/L	70	32 - 124	8	57	
Phenanthrene	120	119		ug/L	99	48 - 120	5	56	
Pyrene	120	107		ug/L	89	48 - 132	1	52	

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	73		15 - 122
Nitrobenzene-d5	80		19 - 130
Terphenyl-d14	100		33 - 138

Method: 8011 - EDB and DBCP in Water by Microextraction

Lab Sample ID: MB 400-508368/1-A

Matrix: Water

Analysis Batch: 508766

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 508368

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromo-3-Chloropropane	ND		0.030	0.0055	ug/L		10/27/20 14:53	10/30/20 21:02	1
1,2-Dibromoethane	ND		0.020	0.0050	ug/L		10/27/20 14:53	10/30/20 21:02	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		51 - 149				10/27/20 14:53	10/30/20 21:02	1

Lab Sample ID: LCS 400-508368/2-A

Matrix: Water

Analysis Batch: 508766

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 508368

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2-Dibromo-3-Chloropropane	0.101	0.191	*	ug/L		190	60 - 140
1,2-Dibromoethane	0.101	0.140		ug/L		139	60 - 140
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene	102		51 - 149				

Eurofins TestAmerica, Pensacola

QC Sample Results

Client: AECOM Technical Services Inc.
Project/Site: ROXANA QUARTERLY GW

Job ID: 400-194896-1

Method: 8011 - EDB and DBCP in Water by Microextraction (Continued)

Lab Sample ID: LCSD 400-508368/3-A

Matrix: Water

Analysis Batch: 508766

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 508368

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec.	Limits	RPD	Limit
1,2-Dibromo-3-Chloropropane	0.101	0.196	*	ug/L		195	60 - 140	2	30
1,2-Dibromoethane	0.101	0.141		ug/L		140	60 - 140	1	30
<hr/>									
Surrogate									
4-Bromofluorobenzene	103			Limits					
				51 - 149					



Shell Oil Products US Chain Of Custody Record

AECOM

Customer serial: 1194871 1194870

Login Sample Receipt Checklist

Client: AECOM Technical Services Inc.

Job Number: 400-194896-1

Login Number: 194896

List Source: Eurofins TestAmerica, Pensacola

List Number: 1

Creator: Hinrichsen, Megan E

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	4.2°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	

1

Accreditation/Certification Summary

Client: AECOM Technical Services Inc.

Job ID: 400-194896-1

Project/Site: ROXANA QUARTERLY GW

Laboratory: Eurofins TestAmerica, 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	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	06-30-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	004586	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LA000307	12-30-20
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	12-31-20

Appendix D

Charts – Benzene Concentrations Over Time – MW-7, MW-8, MW-22, MW-25, P-57, P-59, ROST-4-PZ(C), T-12

Table D1 - Historical Benzene Analytical Data for Select Groundwater Monitoring Wells

TABLE D-1
HISTORICAL BENZENE ANALYTICAL DATA FOR SELECT GROUNDWATER MONITORING WELLS

Location	Sample Date	Result (ug/L)
MW-07	10/23/2009	684
	11/17/2010	876
	11/17/2010	928
	1/25/2011	1,150
	5/13/2011	1,030
	5/13/2011	922
	7/24/2011	1,840
	11/2/2011	774
	1/18/2012	1,330
	1/18/2012	1,110
	5/4/2012	738
	8/7/2012	591
	10/30/2012	863
	10/30/2012	833
	1/15/2013	1,320
	1/15/2013	1,230
	4/10/2013	499
	4/10/2013	475
	7/17/2013	1,000
	10/16/2013	553
	1/30/2014	1,490
	4/16/2014	1,390
	7/16/2014	1,270
	7/16/2014	1,370
	10/16/2014	1,130
	10/16/2014	984
	1/22/2015	799
	1/22/2015	821
	4/21/2015	1,110
	4/21/2015	1,160
	7/15/2015	1,370
	7/15/2015	1,300
	10/19/2015	1,000
	10/19/2015	990
	1/14/2016	740
	1/14/2016	700
	4/19/2016	1,100
	4/19/2016	1,100
	7/14/2016	670
	7/14/2016	680
	10/6/2016	910
	10/6/2016	840
	1/9/2017	950
	4/10/2017	1,000
	4/10/2017	1,100
	7/11/2017	870
	7/11/2017	810
	10/5/2017	1,400
	1/9/2018	1,500
	4/9/2018	770
	4/9/2018	780
	7/10/2018	1,900
	7/10/2018	1,700
	10/8/2018	650
	1/7/2019	650
	4/8/2019	1,000
	4/8/2019	1,000
	7/8/2019	1,300
	7/8/2019	1,400
	10/8/2019	1,700
	10/8/2019	1,600
	1/6/2020	800
	1/6/2020	750
	4/6/2020	700
	4/6/2020	700
	7/9/2020	640
	7/9/2020	650
	10/12/2020	1,400
	10/12/2020	1,400

TABLE D-1
HISTORICAL BENZENE ANALYTICAL DATA FOR SELECT GROUNDWATER MONITORING WELLS

Location	Sample Date	Result (ug/L)
MW-08	10/22/2009	1,010
	10/22/2009	1,130
	11/17/2010	965
	1/25/2011	1,030
	1/25/2011	986
	5/13/2011	1,310
	5/13/2011	952
	7/24/2011	1,650
	7/24/2011	1,860
	11/2/2011	934
	1/18/2012	386
	5/4/2012	1,070
	5/4/2012	1,040
	8/7/2012	653
	8/7/2012	397
	10/30/2012	523
	1/15/2013	1,120
	4/10/2013	969
	7/17/2013	494
	7/17/2013	532
	10/16/2013	360
	10/16/2013	351
	1/30/2014	748
	1/30/2014	721
	4/16/2014	862
	4/16/2014	1,060
	7/16/2014	276
	10/16/2014	486
	1/22/2015	764
	4/21/2015	1,100
	7/15/2015	879
	10/19/2015	580
	1/14/2016	300
	4/19/2016	480
	7/14/2016	310
	10/6/2016	630
	1/9/2017	410
	4/10/2017	830
	7/10/2017	870
	10/5/2017	970
	10/5/2017	990
	1/9/2018	720
	4/9/2018	510
	7/10/2018	840
	10/8/2018	550
	10/8/2018	560
	1/7/2019	420
	1/7/2019	450
	4/8/2019	550
	7/8/2019	280
	10/8/2019	110
	1/6/2020	42
	4/6/2020	49
	7/9/2020	33
	10/12/2020	130

TABLE D-1
HISTORICAL BENZENE ANALYTICAL DATA FOR SELECT GROUNDWATER MONITORING WELLS

Location	Sample Date	Result (ug/L)
MW-22	1/23/2013	2.12
	1/23/2013	2.09
	4/5/2013	1.5
	7/11/2013	1.11
	7/11/2013	1.19
	10/9/2013	1.33
	10/9/2013	1.39
	1/20/2014	1.47
	1/20/2014	1.58
	4/10/2014	1.56
	4/10/2014	1.7
	7/14/2014	1.74
	10/10/2014	1.62
	1/16/2015	1.51
	4/14/2015	1.62
	7/15/2015	2.92
	10/14/2015	0.8
	1/15/2016	1.1
	1/15/2016	1.2
	4/13/2016	1.2
	4/13/2016	1.2
	7/15/2016	0.062
	7/15/2016	0.061
	10/17/2016	0.31
	10/17/2016	0.31
	1/12/2017	0.036
	1/12/2017	0.039
	4/17/2017	0.14
	4/17/2017	0.13
	7/12/2017	0.0068
	7/12/2017	0.0079
	10/13/2017	0.0089
	10/13/2017	0.0086
	1/11/2018	0.32
	1/11/2018	0.32
	4/10/2018	0.43
	7/10/2018	0.79
	10/15/2018	0.056
	1/9/2019	0.1
	4/17/2019	0.22
	10/15/2019	0.0035
	10/15/2019	0.0039
	1/6/2020	ND (<0.001)
	4/15/2020	0.00092
	7/14/2020	ND (<0.001)
	10/15/2020	0.00042

TABLE D-1
HISTORICAL BENZENE ANALYTICAL DATA FOR SELECT GROUNDWATER MONITORING WELLS

Location	Sample Date	Result (ug/L)
MW-25	10/21/2014	501
	1/22/2015	62.8
	4/21/2015	78.7
	7/15/2015	71.9
	10/19/2015	11
	1/14/2016	2.2
	4/19/2016	0.99
	7/18/2016	1.2
	10/6/2016	0.37
	1/11/2017	0.28
	4/11/2017	0.19
	7/10/2017	0.056
	10/5/2017	0.065
	1/9/2018	0.028
	4/9/2018	0.02
	7/10/2018	0.005
	10/8/2018	0.0071
	1/7/2019	0.0023
	4/8/2019	0.017
	7/8/2019	0.016
	10/8/2019	0.044
	1/6/2020	0.028
	4/6/2020	0.019
	7/9/2020	0.0087
	10/12/2020	0.045

TABLE D-1
HISTORICAL BENZENE ANALYTICAL DATA FOR SELECT GROUNDWATER MONITORING WELLS

Location	Sample Date	Result (ug/L)
P-57	3/3/2006	177
	6/11/2008	257
	11/8/2011	123
	2/13/2012	126
	5/7/2012	147
	8/6/2012	106
	8/6/2012	99.4
	11/5/2012	142
	1/29/2013	114
	4/11/2013	141
	7/16/2013	254
	10/14/2013	288
	2/3/2014	261
	4/15/2014	384
	7/8/2014	371
	7/8/2014	378
	10/14/2014	220
	10/14/2014	255
	1/23/2015	107
	4/20/2015	134
	7/13/2015	138
	10/15/2015	140
	1/12/2016	160
	4/18/2016	73
	7/13/2016	70
	10/18/2016	71
	1/16/2017	39
	4/7/2017	45
	7/13/2017	43
	10/16/2017	42
	1/18/2018	15
	1/18/2018	20
	4/10/2018	8.8
	7/11/2018	5
	7/11/2018	8.8
	10/16/2018	34
	10/16/2018	34
	1/14/2019	28
	1/14/2019	23
	4/17/2019	9.8
	4/17/2019	7.4
	7/15/2019	15
	7/15/2019	16
	10/15/2019	2.3
	10/15/2019	2.3
	1/9/2020	1.3
	4/17/2020	2.5
	4/17/2020	2.8
	7/16/2020	1.5
	7/16/2020	2.5
	10/20/2020	0.48
	10/20/2020	2

TABLE D-1
HISTORICAL BENZENE ANALYTICAL DATA FOR SELECT GROUNDWATER MONITORING WELLS

Location	Sample Date	Result (ug/L)
P-59	10/1/2010	10.1
	10/21/2010	8.637
	10/21/2010	9.201
	5/11/2011	6.2
	10/27/2011	6.01
	10/27/2011	6.7
	1/19/2012	7.04
	1/19/2012	6.61
	5/9/2012	8.1
	5/9/2012	7.86
	8/2/2012	11
	11/2/2012	9.8
	11/2/2012	8.3
	11/2/2012	10.3
	11/2/2012	10.5
	1/30/2013	12.1
	4/12/2013	20
	4/12/2013	13.4
	4/12/2013	15
	7/16/2013	10.2
	10/10/2013	11
	10/10/2013	14.7
	2/3/2014	15.9
	4/15/2014	14.8
	4/18/2014	9.8
	7/8/2014	12.2
	10/14/2014	12
	10/14/2014	12
	1/19/2015	13.5
	4/16/2015	9.8
	4/16/2015	9.43
	7/13/2015	3.08
	10/15/2015	7.2
	1/12/2016	5.4
	4/18/2016	4.9
	7/13/2016	4.2
	10/18/2016	8.7
	1/16/2017	7.6
	4/7/2017	7.6
	7/13/2017	7.7
	10/13/2017	2.7
	10/13/2017	2.6
	1/11/2018	4.7
	4/12/2018	3.2
	7/11/2018	3.7
	10/16/2018	2.3
	1/14/2019	3.0
	10/15/2019	2.1
	1/9/2020	1.6
	4/21/2020	2.3
	7/16/2020	1.2
	10/20/2020	1.6

TABLE D-1
HISTORICAL BENZENE ANALYTICAL DATA FOR SELECT GROUNDWATER MONITORING WELLS

Location	Sample Date	Result (ug/L)
ROST-4-PZ(C)	5/3/2011	0.211
	5/14/2012	ND (<0.0005)
	7/25/2012	0 0849
	10/29/2012	0 0033
	1/11/2013	ND (<0.0005)
	4/10/2013	0 0153
	7/11/2013	0 0497
	10/9/2013	0.00066
	1/17/2014	0 0015
	4/10/2014	0 0019
	7/10/2014	0 0751
	10/9/2014	0.039
	1/15/2015	0 0013
	4/13/2015	0 0694
	7/13/2015	0 0683
	10/12/2015	0.071
	1/15/2016	0.059
	4/13/2016	0.05
	7/15/2016	0.044
	10/13/2016	0.025
	1/12/2017	0.021
	4/17/2017	0.025
	7/12/2017	0.017
	10/12/2017	0.01
	1/15/2018	0.00054
	4/9/2018	ND (<0.001)
	7/9/2018	0 0018
	10/12/2018	0 0085
	1/9/2019	0.006
	4/16/2019	0.006
	7/12/2019	0 0077
	10/14/2019	0 0047
	1/7/2020	0 0014
	4/15/2020	0 0047
	7/15/2020	0 0046
	7/15/2020	0 0047
	10/19/2020	0 0039

TABLE D-1
HISTORICAL BENZENE ANALYTICAL DATA FOR SELECT GROUNDWATER MONITORING WELLS

Location	Sample Date	Result (ug/L)
T-12	10/1/2010	2.87
	10/22/2010	4.674
	5/11/2011	2
	10/27/2011	1.09
	10/27/2011	1.4
	1/19/2012	1.51
	5/9/2012	1.7
	5/9/2012	1.48
	8/2/2012	1.64
	11/5/2012	2
	11/5/2012	2
	11/5/2012	1.71
	1/18/2013	2.03
	4/15/2013	2.2
	4/15/2013	2.2
	4/15/2013	1.61
	7/16/2013	1.65
	10/15/2013	1.1
	10/15/2013	2.02
	1/24/2014	2.48
	4/15/2014	2.07
	4/18/2014	1.4
	7/8/2014	2.1
	10/17/2014	1.5
	10/17/2014	1.4
	10/17/2014	1.83
	1/19/2015	2.02
	4/15/2015	2
	4/15/2015	1.7
	4/15/2015	1.69
	7/10/2015	2.3
	10/15/2015	2.5
	1/12/2016	1.5
	4/15/2016	1.4
	7/12/2016	1.6
	10/17/2016	1.7
	10/17/2016	2.1
	1/12/2017	1.5
	4/6/2017	1.4
	7/13/2017	1.2
	10/13/2017	1.4
	1/10/2018	2
	4/12/2018	1.7
	7/11/2018	2.1
	10/16/2018	2.2
	1/10/2019	2
	4/17/2019	1.8
	7/15/2019	1.7
	10/15/2019	2.6
	1/9/2020	1.7
	1/9/2020	1.8
	4/17/2020	1.6
	7/16/2020	2.1
	10/21/2020	1.4
	10/21/2020	1.5

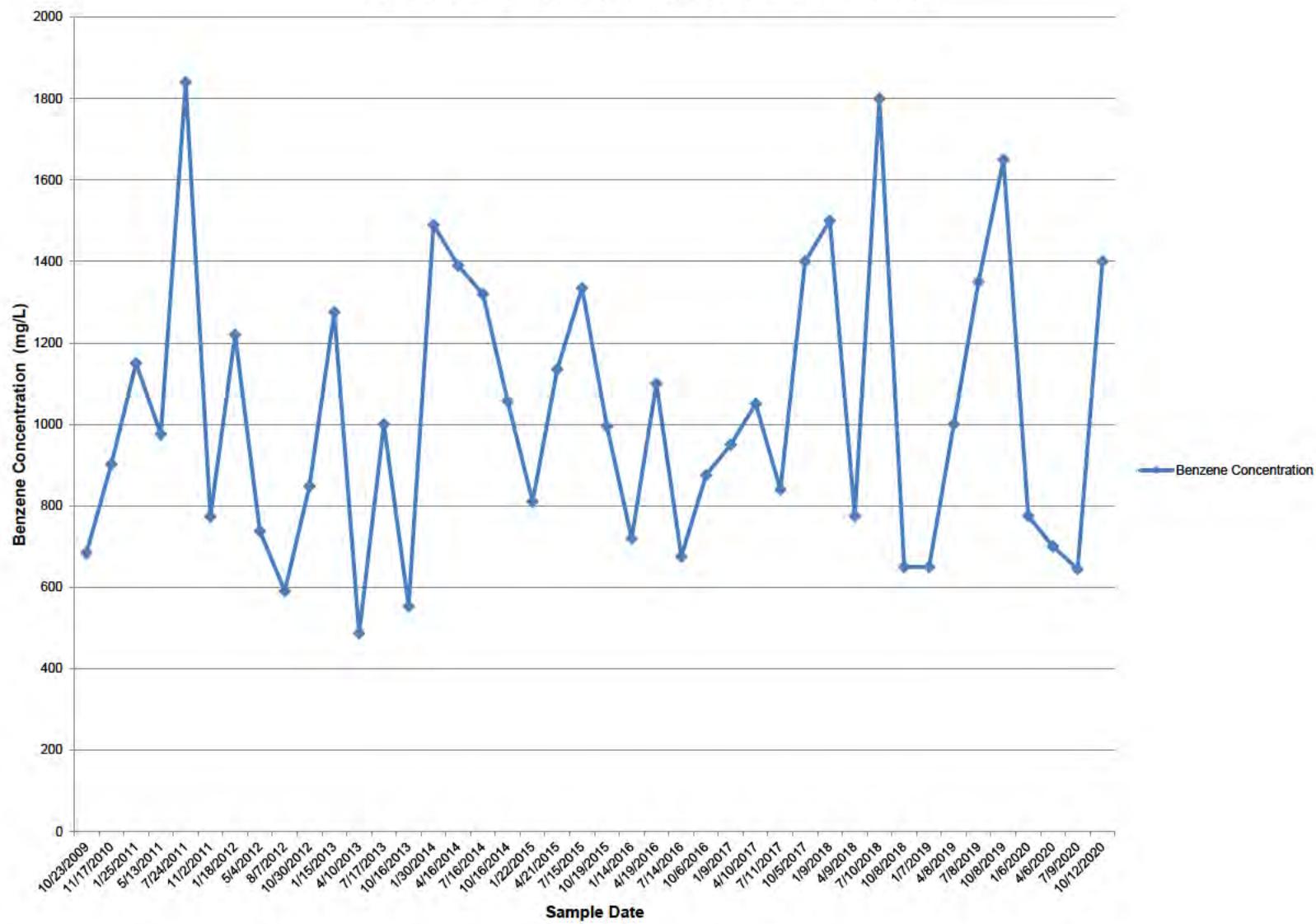
Notes:

mg/L = milligrams per liter

ND = non-detect

Dates specific to available data.

Benzene Concentrations Over Time - MW-07



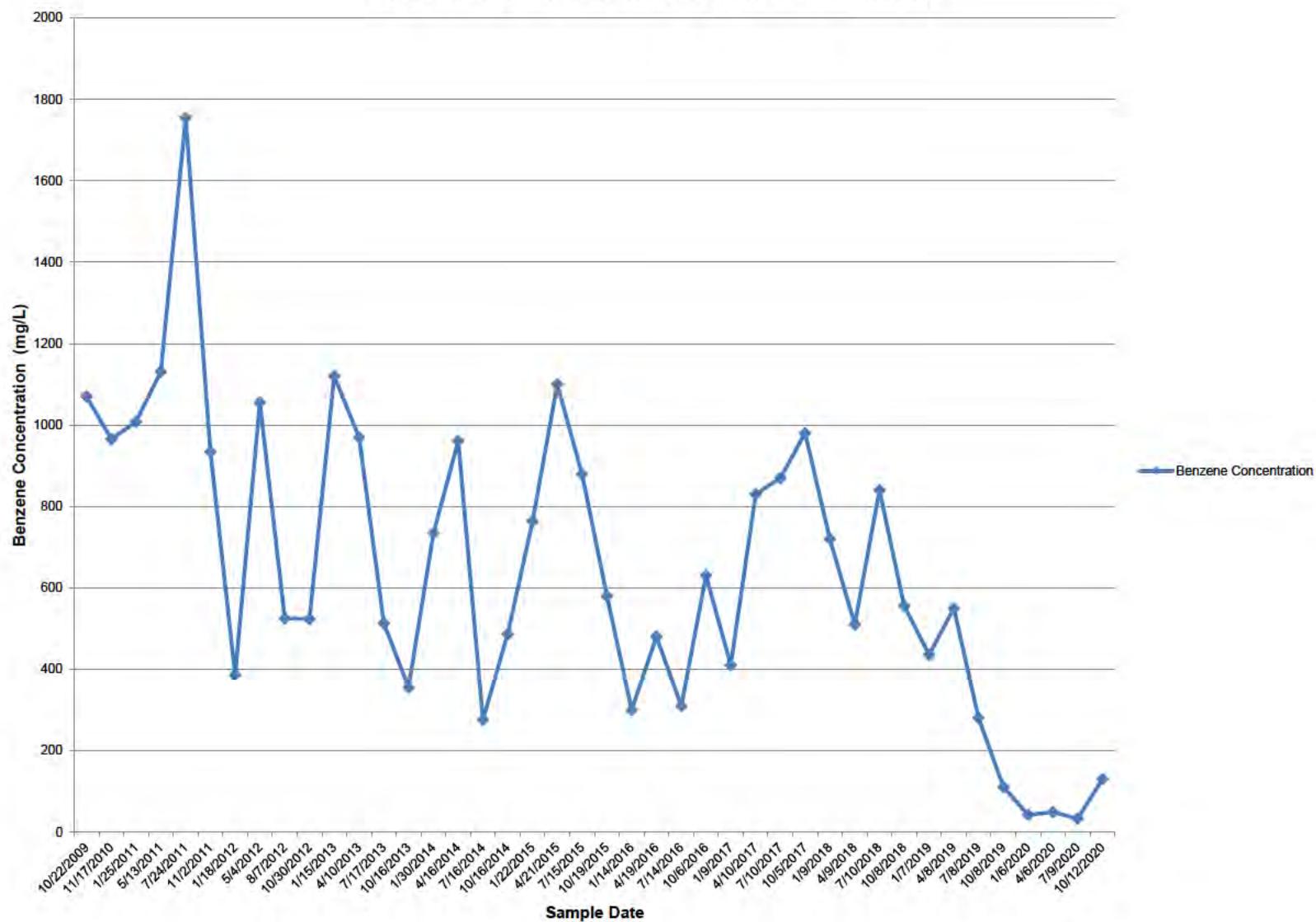
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Benzene Concentrations Over Time - MW-08



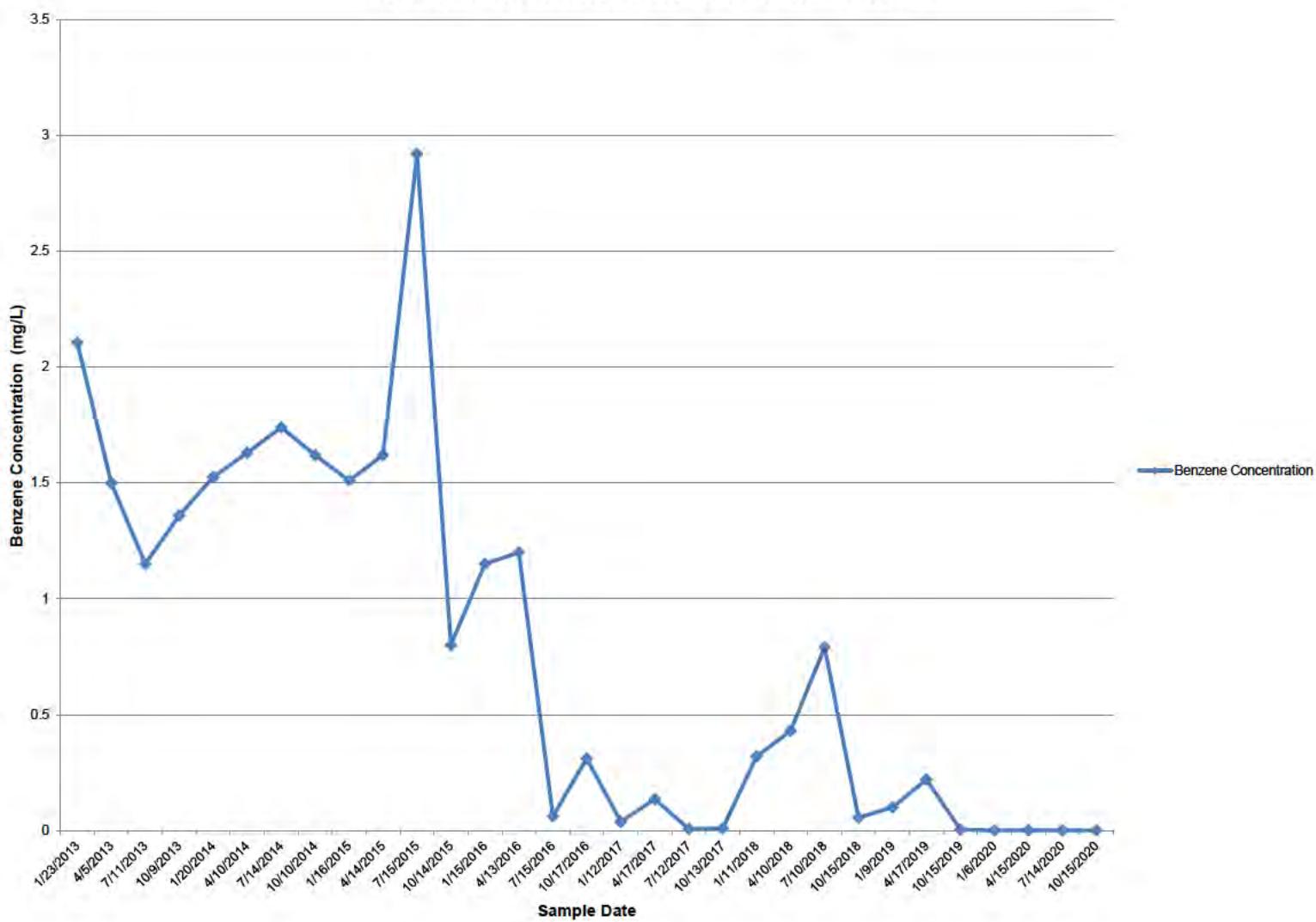
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Benzene Concentrations Over Time - MW-22



Notes:

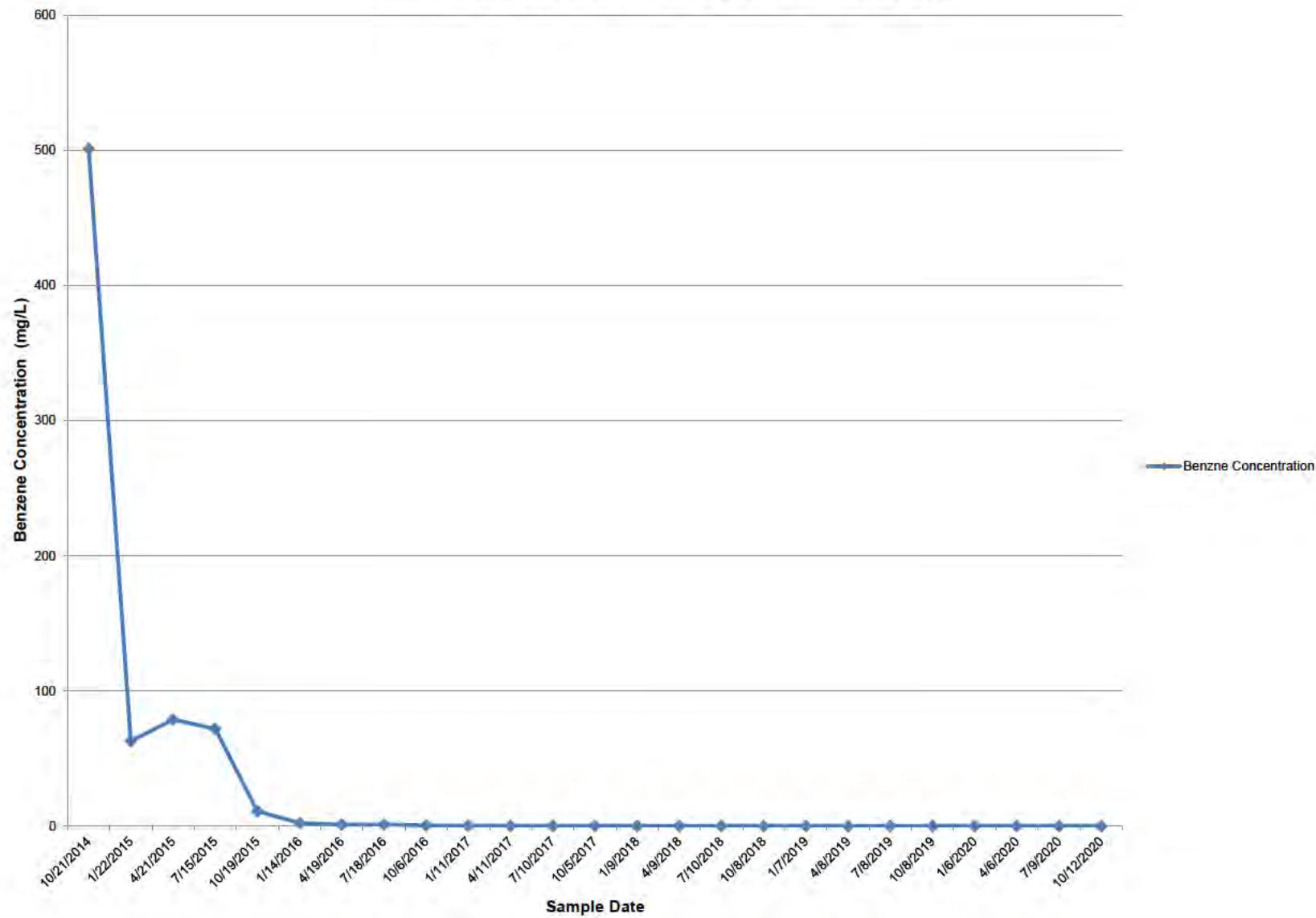
mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Non-detect values are shown at half the reporting limit.

Benzene Concentrations Over Time - MW-25

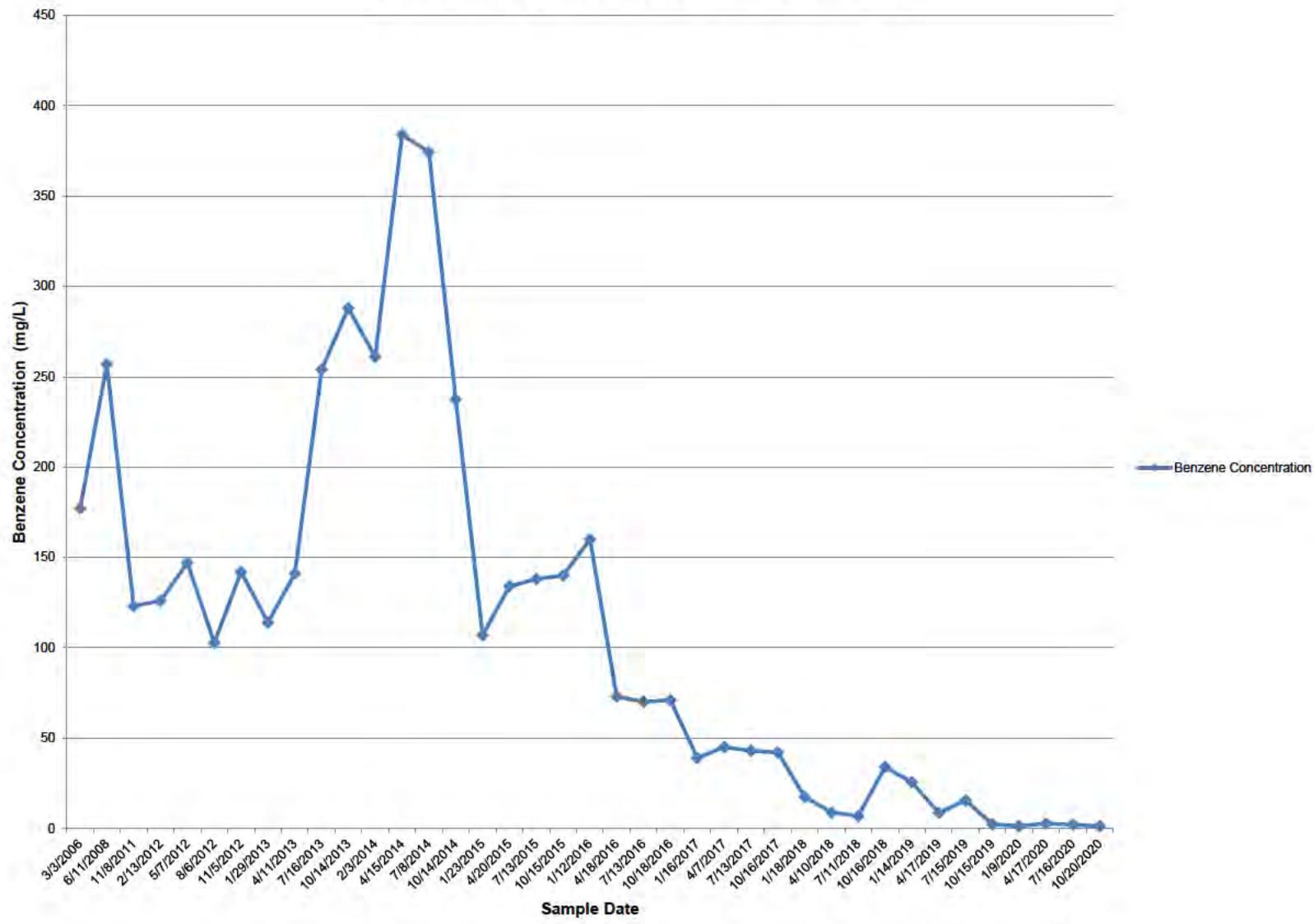


Notes:

mg/L = milligrams per liter

Timeframe specific to available data.

Benzene Concentrations Over Time - P-57



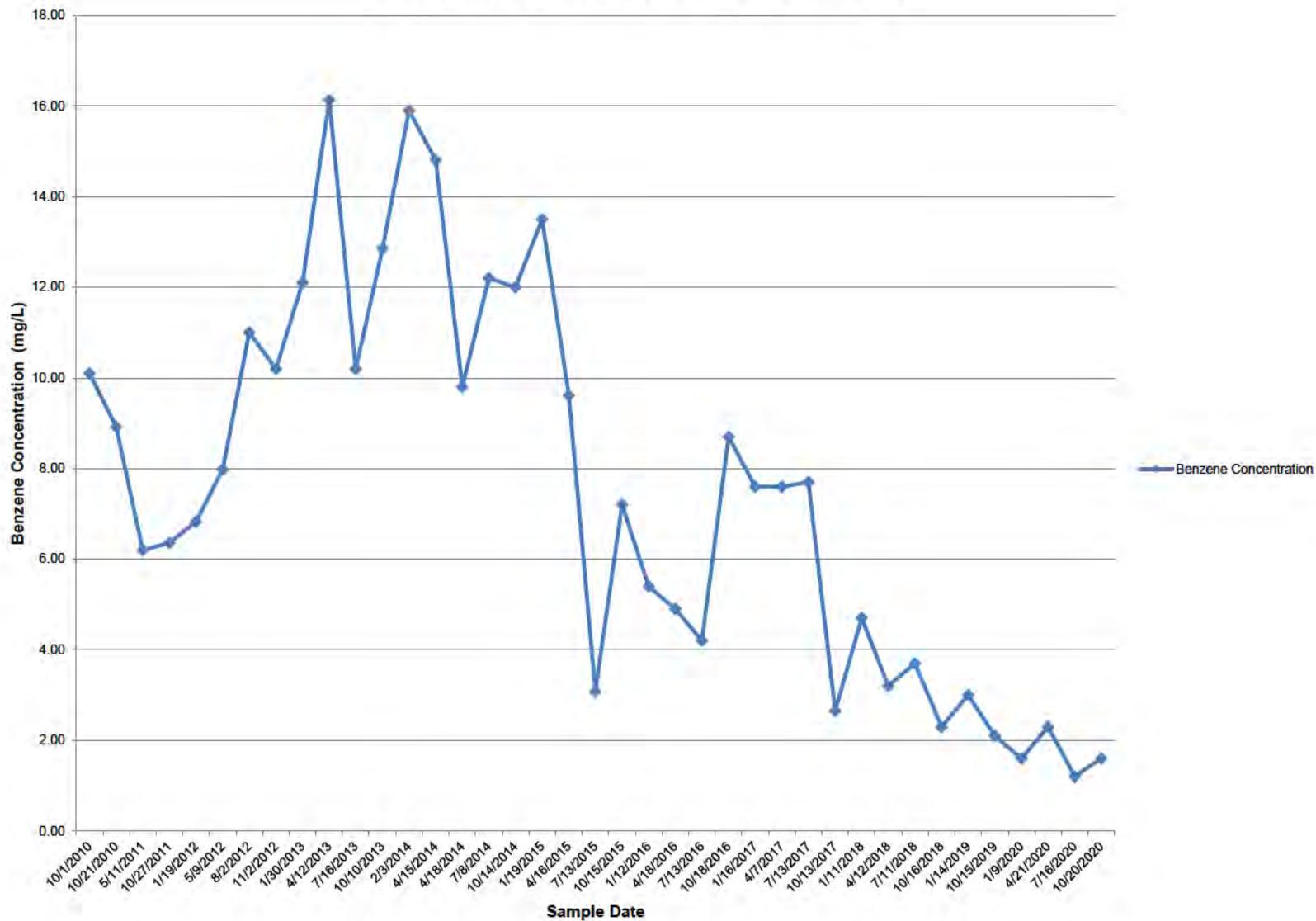
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Benzene Concentrations Over Time - P-59



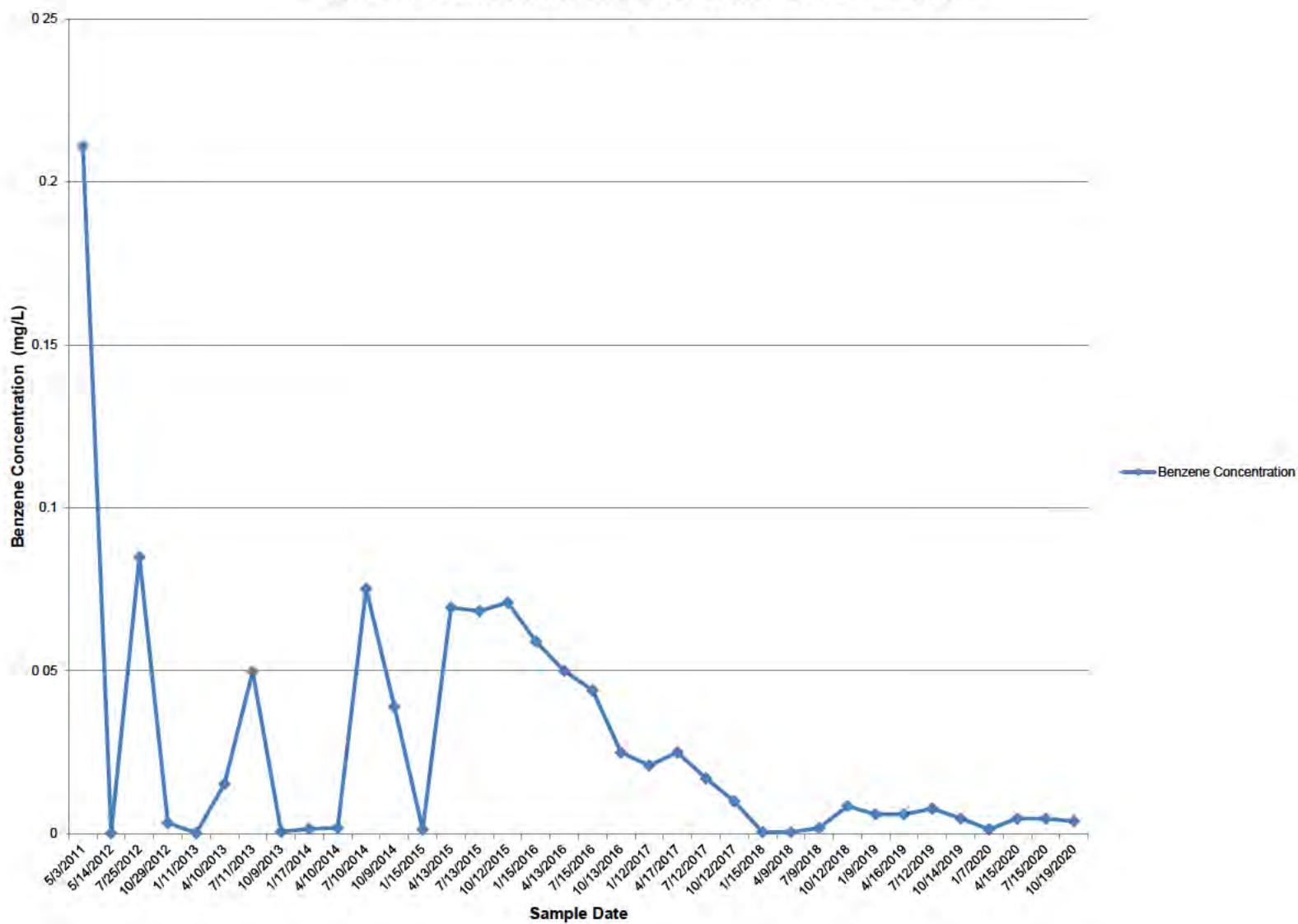
Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

Benzene Concentrations Over Time - ROST-4-PZ(C)



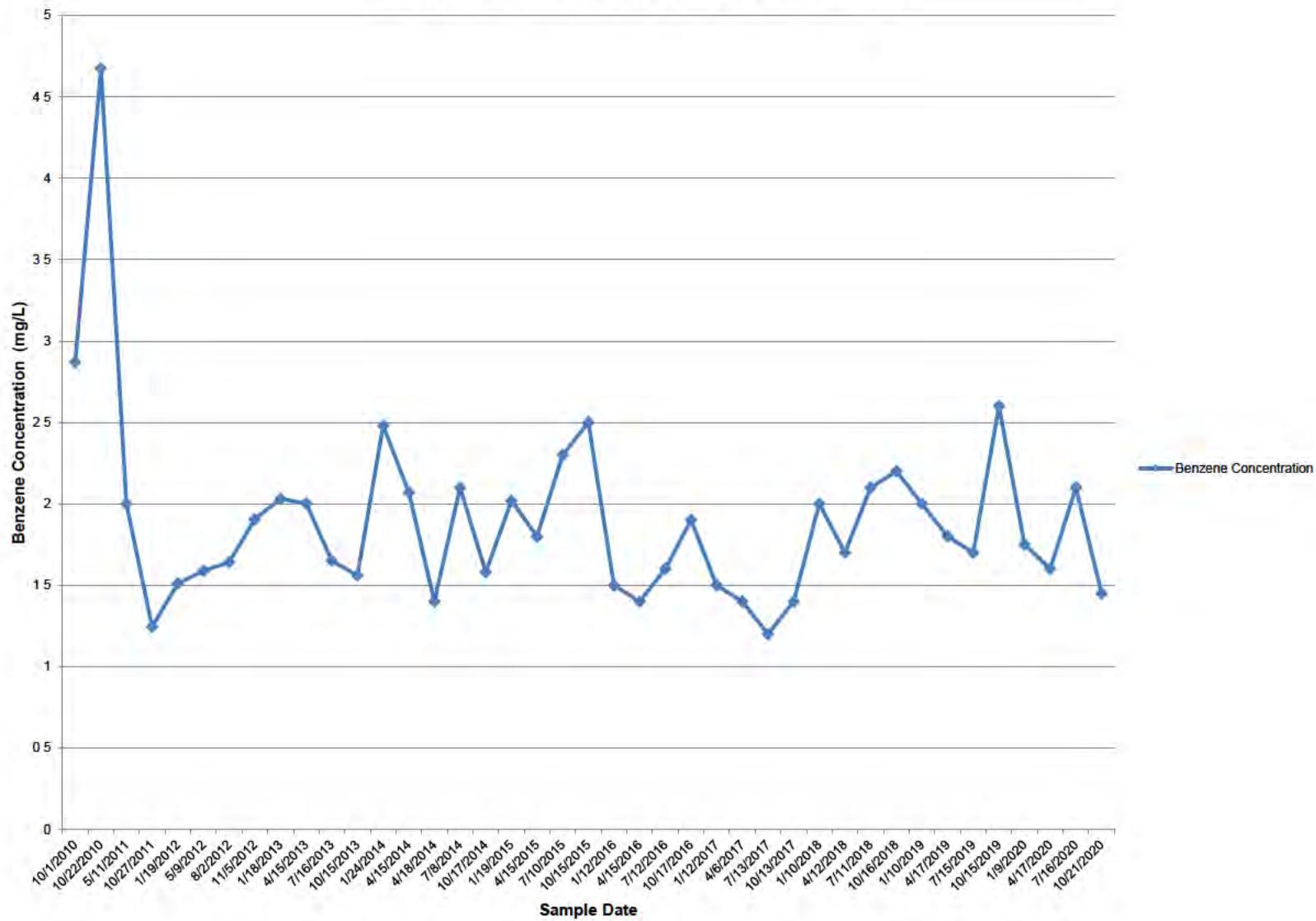
Notes:

mg/L = milligrams per liter

Timeframe specific to available data.

Non-detect values are shown at half the reporting limit.

Benzene Concentrations Over Time - T-12



Notes:

mg/L = milligrams per liter

Duplicate values were averaged.

Timeframe specific to available data.

